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PERIPHERAL VISIONS - RETHINKING PLANNING

Book of Abstracts

June 2026

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Keynote lectures & plenary sessions

Democracy, technocracy or techno-determinism? Insights into the digitalisation of planning in Finland

Mon 29.6.16:00-17:30, Plenary session, Y202a A-sali (Aalto-sali) (streaming to Y203a B-Sali and Y205 C-Sali) | Session chair(s): Hossam Hewidy

Hanna Mattila, Pilvi Nummi, Eveliina Harsia-Mikkola

Finland is a globally recognised forerunner in digitalisation. The planning and building sectors are currently being digitalised as part of this broader trend. According to the Finnish Ministry of the Environment, the goal of digitalisation in these sectors is to achieve “the living environment that is based on the world’s best knowledge, that creates well-being and fosters sustainability”. A central argument behind this digital transformation is that making information easily accessible and reliable can strengthen democracy and enable people to influence the development of their own communities. Nonetheless, digitalisation can also have negative impacts on democracy, such as excluding certain professional and citizen groups who are not up to date with new digital technologies or are otherwise excluded.

In our keynote lecture, we discuss some of our recent research results on the democratic, technocratic and techno-deterministic tendencies in the digitalisation of Finnish urban planning. We focus on the introduction of the Ryhti information system, which stores digital information on the built environment, and the Plan Information Model (PIM), which has established a nationally harmonised, machine-readable, and interoperable format for all municipal and regional plans. PIM, in particular, has set new requirements for public planning, thereby changing how planning is conducted in Finland.

As digital systems such as Ryhti are complex, their design is often expert-centred and even technocratic rather than democratic. In our lecture, we ask who the experts currently influencing the design of systems such as Ryhti and PIM in Finland are. Furthermore, we investigate whether these technical systems may also steer the development of Finnish planning even independently of human experts. We also indicate what kind of impact these systems can have on planning, public participation and the overall democratic quality of Finnish planning.

Toxic urbanism and the duplicity of planning

Tue 30.6.11:00-12:30, Plenary session, Y202a A-sali (Aalto-sali) (streaming to U 157 U2, Y203a B-Sali and Y205 C-Sali) | Session chair(s): Eva Purkarthofer

Libby Porter

Far from being peripheral, contemporary planning is integral to the sustainment of racialized hierarchies, global systems of extraction and regimes of state abandonment and violence. Showing up as they do in everyday urban life, these conditions are a kind of toxic urbanism. Our current moment starkly reveals the skeletal structure of this toxic urbanism: the enduring connection between eco-genocides, dispossession and mass displacement, housing insecurity and profound inequality. At the same time, the liberal idyll of planning as the guardian of the good city continues to be trotted out and placed on display. Inclusion, the public good, participation – each is routinely idealised in planning research, education and practice as if

they hold promise for overcoming the conditions of toxic urbanism if we can just perform them better. Yet as these tenets become increasingly weaponised by mainstream institutions and processes, it is clear how they ultimately serve the perpetuation of extraction, profiteering and exclusion.

This lecture will examine this duplicity of planning by drawing from examples of the toxic urbanism being laid bare in so-called Australia – from mass housing insecurity and displacement, climate catastrophe and the Indigenous-washing of contemporary planning procedures. Reckoning with this duplicity and the toxic urbanism it serves as a thoroughly predictable outcome of the liberal planning idyll, the lecture asks what possibilities might exist for thinking planning otherwise for more liberatory futures.

Coordinating for Consensus on High-Quality Development: The Role and Value of Spatial Planning in China

Wed 1.7. 9-10:15, Plenary session, Great Hall (streaming to Auditorium F2044, Tekla Hultin F3003, Pieni juhlasali F4050) | Session chair(s): Pia Bäcklund, Sami Moisio

Liu Jian

China, a country with now the second largest economy and population of the world and a territory of a continental size, has been undergoing a rapid urbanization in almost half a century that is unprecedented in human history and regarded as one of the two key factors impacting the 21st century. During this process, spatial planning has played a significant role in shaping the physical environment of incremental growth, in forms of new cities, new urban areas, new towns, and development zones, etc., to support sustained socio-economic development, while dealing with new issues of nature, ecology, environment, culture, and so on that arise at both local and regional levels. Since the 2010s when China faced critical changes of socio-economic development both nationally and globally, its spatial planning has been undergoing successive transformations, with the role being gradually expanded to coordinating the interrelationships between urban and rural areas, among regions across different territorial levels, and among multiple stakeholders on the issues of ecologic preservation, resource distribution, environmental protection, social equity, economic vitality, and cultural heritance, etc. that are represented in the physical environment. The orientational transition of China's spatial planning from incremental growth to high-quality development can justify the argument that spatial planning, originally created and institutionalized as a policy and technical tool to deal with problems arising in socio-economic development and represented in the physical environment, can always retain its positive role and unique value by tackling both local, regional and global issues. Yet, its perspectives must be broadened and instruments be updated along with the changes of the times.

Panel: Redefining the Future of Planning: Digital Advancement and the Sustainability Transition

Wed 1.7. 10:45-11:30, Plenary session, Great Hall (streaming to Auditorium F2044, Tekla Hultin F3003, Pieni juhlasali F4050) | Session chair(s): Aleksi Neuvonen

Aleksi Neuvonen, Enza Lissandrello, Marjan Marjanović, Johanna Palomäki

While planning has always been a practice focused on the future, this orientation is currently undergoing significant changes. The trajectories of our cities, regions, and societies are becoming increasingly

defined by various discontinuities.
Two major forces are driving this shift: The necessity of a sustainability transformation, which implies a fundamental change in the material foundations of our daily lives and the built environment. Meanwhile the continuous waves of digital advancement, which offer both the potential and the risk of completely reconfiguring how we work, consume, organize, and interact with both human and non-human entities. This panel explores a critical inquiry: How is the dynamic between planning and the future evolving, and in what ways is it being redefined by the disruptive impacts of digital technology and the sustainability transition?

The New Geopolitics of Planning: Globalisation 2.0, Emergent Peripheralities and Transformational Planning

Wed 1.7. 11:30-12:30, Plenary session, Great Hall (streaming to Auditorium F2044, Tekla Hultin F3003, Pieni juhlasali F4050) | Session chair(s): Pia Bäcklund, Sami Moisio

Mustafa Kemal Bayırbağ

The aim of this paper is to develop a conceptual framework for understanding transformational planning focusing on its geopolitical context, thus engaging with the spatio-political dynamics of current round of globalisation, i.e, Globalisation 2.0. It will argue that the neoliberal emphasis on 'efficiency and effectiveness in policy/administration' has gained further significance in this post-neoliberal age, and that while that emphasis promoted an anti-planning discourse with heavy short-termism and pragmatism, this new period will inevitably 'bring planning back in'. And it will have to be transformational, for two major reasons:

a) Globalisation 2.0 involves a series of radical shifts in the spatio-temporal (scalar and territorial) constitution of the 'governance matrix' aiming to regulate/shape dynamics of urbanisation, development and markets as global phenomena. Such structural transformation requires an even more prudent use of resources/time/energy while protecting the ontological peripheries of human civilisation.

b) Geographical/epistemological/theoretical peripheries are re-woven into the multi-scalar/territorial/discourse tapestry of the current geopolitical order(s), even to the degree of becoming new 'centres'. And even more important is the shift in the criteria telling the centre from the periphery, i.e, the logics of hierarchisation of the global space. Thus, we will have to re-visit and challenge the established theoretical/epistemological boundaries and binarisms, such as South vs North.

Having established the aforementioned points, the paper will continue with the following triad, elaborating on transformational planning as a "technical/techno-" activity; as a "cognitive" activity, and as a "policy driven" activity. And it will further address the following questions in that regard:

"What is to be tranformed by planning under new geopolitics?" (*the object/target of planning*); "What is to be transformed about 'planning' so that we could move forward with transformational planning?" (*Planning as a cognitive activity*); and "How could tranformational planning actually transform whatever it is supposed to transform under the new geopolitics?" (*Methods, instruments and politics of planning*).

The Biggest Mistake in Planning Theory and Practice? Conflating Small and Large Networks

Thu 2.7. 9:00-10:30, Plenary session, Y202a A-sali (Aalto-sali) (streaming to U 157 U2, Y203a B-Sali and Y205 C-Sali) | Session chair(s): Dominic Stead

Stefano Moroni

This talk argues that one of the most persistent failures in twentieth-century planning theory and practice – and one that continues to shape the field today – is a systematic inability to sharply distinguish between "small social networks" and "large social networks". While the difference may appear merely quantitative, it ultimately proves decisively qualitative. It has crucial implications concerning what purposes a social network can serve, what holds it together, how members interact and communicate, what rules can be effectively enforced, what forms of coordination can take shape, what kinds of mutual expectations can realistically be fulfilled, and what forms of knowledge are actually viable.

The recurrent confusion between small and large networks has distorted both theory and practice across a wide range of planning domains, and it has generated systematic errors in the design, interpretation, and evaluation of interventions. Urban planning is used as the paradigmatic case where the consequences of this conceptual mistake are particularly visible.

The talk suggests that many of the foundational categories of planning theory implicitly depend on epistemic, social, and praxeological conditions that only occur in small networks. It examines the implications if the distinction between small and large networks is instead taken seriously for "participation" (its possible and impossible roles), "cooperation" (its plausible and implausible spaces), "property" (its conditions of relevance), and "justice" (which situations meaningfully call for it and which do not).

Closing plenary: GPEAN at 25: History and Future of the Planning Schools Movement

Fri 3.7.16:00-17:30, Y202a A-sali (Aalto-sali)

Convenors: Hossam Hewidy, Bruce Stiftel

Speakers: Bruce Stiftel, Daniel Inkoom, Ahsan Habib, Andrea Frank, Juan Angel Demerutis-Arenas, Heloisa Costa, Aysin Dedekorkut-Howes, Jean-Michel Roux, Siegfried Zhiqiang Wu, Bakti Setiawan, Holi Bina Wijaya, Iwan Rudiarto, Zeynep Enlil

GPEAN-member association representatives over the last 25 years will reflect on the history of the organizations representing the world's planning schools, the founding of GPEAN at the first World Planning Schools Congress in Shanghai in 2001, GPEAN's development and impact, and the future of the Planning Schools Movement.

Roundtables

2602 | The Global-to-Local-to-Global (GLG) approach to climate mitigation planning

Tue 30.6.14:00-15:30, Roundtable A, U149 U6

Convenors: Michele Campagna, Tijana Dabovic

Speakers: Michele Campagna, Tijana Dabovic, Carl Steinitz, Tess Canfield

The accelerating climate crisis demands urgent and coordinated mitigation efforts across all sectors and scales. Rising global temperatures are driving extreme weather events, biodiversity loss, socio-economic inequalities, and escalating financial costs, while current trajectories remain insufficient to meet the Paris Agreement targets. Closing this gap requires not only stronger policies but also spatially informed and evidence-based decision-making.

Because emission sources and carbon sinks are unevenly distributed across territories, effective mitigation depends on where and how interventions occur. Traditional planning instruments often lack the capacity to integrate spatially explicit information on GHG fluxes, land-use change, and ecosystem functions. Advanced spatial planning tools—combining geospatial analysis, scenario modelling, and participatory design—are therefore essential for translating climate goals into place-based actions. Such tools enable planners and decision-makers to visualise trade-offs, evaluate multi-scale impacts, and optimise land allocation for mitigation while pursuing adaptation co-benefits. Strengthening their use is key to bridging global climate targets with local strategies and ensuring coherent, measurable, and equitable transitions toward decarbonisation.

The Global-to-Local-to-Global (GLG) Project applies a geodesign methodology as an integrative digital workflow that links global climate science, spatial modelling, AI-based optimisation, and participatory planning with emissions-reduction and cost assessment. Supported by interoperable geospatial tools and a Gantt-based design interface, GLG has been tested in more than 140 local regions across over 30 nations. The system—freely accessible—enables any jurisdiction to formulate, negotiate, and synchronise mitigation strategies aligned with 2050 global targets.

The discussion will address three guiding questions:

• What data support Global-to-Local-to-Global climate mitigation geodesign?

• What tools operationalise this workflow?

• How can the costs and benefits of GLG mitigation designs be assessed?

The roundtable will present the project's theoretical framework, digital tools, results from multi-scale case studies, and insights emerging from recent geodesign workshops worldwide.

1533 | Rebuilding Universities – Rebuilding Cities: HEIs as Drivers of Urban Transformation and Post-War Reconstruction

Tue 30.6.14:00-15:30, Roundtable B, U147 U5

Convenors: Nataliia Yehorchenkova, Oleksii Yehorchenkov, Ivan Balykin

Speakers: Nataliia Yehorchenkova, Oleksii Yehorchenkov, Ivan Balykin, Maros Finka, Oleksandr Anisimov, Inna Shevchuk, Oksana Vovk, Liudmyla Vlasiuk

This roundtable explores how higher education systems (HES) can act as catalysts for rebuilding Ukrainian cities and regions after the war, linking university education, applied research, and municipal practice. It starts from the premise that universities are not only producers of knowledge and graduates, but also long-term, place-based institutions that shape urban governance, innovation ecosystems, and collective memory.

We will focus on three intersecting dimensions:

1. Universities as laboratories of reconstruction – living labs, planning studios, capstone projects and service-learning formats that directly support the recovery of damaged infrastructure, neighbourhoods, and public services.

2. University–city partnerships for green and just transformation – co-creation of strategies and projects that embed climate resilience, energy transition, and social inclusion into post-war urban regeneration.

3. Urbanism, memory and narratives of loss and recovery – the role of universities in documenting destruction, safeguarding heritage, and co-producing inclusive narratives that support reconciliation and future-oriented planning.

The roundtable will bring together scholars, practitioners, and university leaders working on Ukraine and other conflict-affected or rapidly transforming contexts. Participants will discuss governance and funding models, the integration of digital tools (GIS, data platforms, AI-assisted planning) into teaching and practice, and mechanisms for fast-tracking skills for municipal and regional administrations.

The session aims to: (1) map emerging practices where higher education actively shapes post-war urban transformation; (2) exchange transferable models between Ukrainian and other European cases; and (3) identify agenda points for planning schools community on how planning education can more systematically contribute to reconstruction and long-term urban resilience.

2897 | Planning for the Worlds Between

Tue 30.6.14:00-15:30, Roundtable C, U142 U4

Convenors: Luisa Sotomayor, Nicholas Phelps

Speakers: Nicholas Phelps, Luisa Sotomayor, Jennifer Minner, Ali Madanipur, Maxwell Hartt, Samantha Biglieri, Antonio Raciti, Sara Tornabene

Urban planning continues to operate through classificatory systems that sort populations, spaces, and environments into legible categories. These classifications, embedded in policy instruments, regulatory regimes, and professional norms, do not simply organize information; they organize power. They determine which spaces receive investment, which claims are recognized, and which forms of life remain exposed to harm. As governments consolidate authority, democratic practice erodes, and climate pressures intensify, the stakes of these classificatory practices grow sharper.
This roundtable interrogates the gap between the complexity of contemporary urbanization and the binary distinctions that still anchor planning thought and practice. Categories such as city/country,

formal/informal, nature/economy, and safe/unsafe continue to frame planning, even as they fail to account for the relational, hybrid, and climate-vulnerable conditions of the urban present. These conceptual infrastructures also structure unequal distributions of exposure and advantage across race, gender, class, disability, sexuality, age, and citizenship, narrowing the political horizons within which planning operates.
Drawing on the forthcoming Routledge Companion "Planning for the Worlds Between", roundtable participants will examine how such binaries shape three dimensions of planning: concepts (form, knowledges, method, pedagogy), substance (democracy and governance, land and housing, mobility, needs), and principles (justice, inclusion, sustainability). Discussion will trace how these distinctions emerge, circulate, and sediment into professional practice. Collectively, the volume proposes alternative "planning grammars" that better reflect the entangled socio-ecological conditions planners must confront.
By treating classification as a terrain of political struggle, the session opens a conversation about reorienting planning toward more incisive and accountable engagements with the "worlds in between" it seeks to shape.

1630 | Socially and Culturally Driven Urban Regeneration: Rethinking Peripheral Spaces, Communities and Visions

Tue 30.6.14:00-15:30, Roundtable D, U141 U3

Convenors: Federica Scaffidi, Zeynep Enlil

Speakers: Stefania Fiorentino, Martina Massari, Ebru Kurt Ozman, Fernanda Gomez La Paz, Federica Scaffidi, Zeynep Enlil

This roundtable examines how socially and culturally driven forms of innovation can reshape urban and regional development, with particular attention to peripheral territories; both in a physical sense (post-industrial areas, underused assets, urban voids, declining neighbourhoods, inner and outer peripheries) and in a social sense (communities experiencing marginalisation, socio-economic disparities, and limited access to opportunities).

Conventional urban transformation policies often prioritise real-estate logics, infrastructure, and economic growth. Instead, this roundtable investigates approaches where community-driven actors, social innovators, cultural organisations, and civic networks play a leading role in co-producing spaces, services, identity, and long-term territorial value. The focus lies on structural and spatial impacts, not only symbolic or programmatic interventions.

We will explore empirical questions such as:

- How do socially and culturally driven initiatives activate neglected urban spaces, underutilised heritage, and empty assets in peripheral areas?

- What measurable socio-spatial effects emerge in terms of accessibility, inclusion, innovation, territorial cohesion, and local capacity-building?

- How do social entrepreneurs and cultural agents negotiate governance, policy gaps, and land-use constraints?

- To what extent can these models strengthen territorial innovation, circular local economies, and equitable spatial development?

Through comparative case studies and interdisciplinary contributions, the session will highlight practices where social equity, cultural value creation, and spatial transformation converge, generating new forms of territorial innovation, community empowerment, and spatial justice. The roundtable invites dialogue on models capable of addressing structural inequalities, preventing displacement, and fostering resilient and vibrant communities in both cities and regions.

1030 | From the mountains to the maritime realms: towards integrated planning frameworks in the Adriatic-Ionian Region

Tue 30.6.14:00-15:30, Roundtable E, U154 U1 VALMET

Convenors: Donato Casavola, Giulia Motta Zanin

Speakers: Erblin Berisha, Donato Casavola, Giulia Motta Zanin, Angela Barbanente, Harry Coccossis, Giancarlo Cotella, Ante Ivcevic, Naja Marot, Francesco Musco, Ledio Allkja

Spatial planning, coastal zone management and maritime spatial planning have evolved as distinct and often disconnected domains, despite their interdependence and overlaps. Each has been shaped by specific policy frameworks, institutional settings and governance models.

Yet the increasingly urgency of climate change, environmental degradation and resource competition exposes the limitations of fragmented approaches. The land-sea interface, where terrestrial, coastal and marine systems interact, has become a critical arena for policy innovation, calling for a more integrated and systemic perspective. Yet, a cross-thematic discussion has not emerged.

This roundtable aims to foster debate on how to design and implement a shared framework that strengthens integration between spatial, coastal and maritime planning, focusing on land-sea interactions as the connective tissue among these spheres. The Adriatic–Ionian Region offers an exemplary context: a mosaic of ecological continuities and governance heterogeneities, where coastal territories act as fragile frontlines exposed to multiple pressures.

The discussion will unfold along two complementary directions. The first will explore conceptual and institutional barriers hindering integration, seeking pathways toward more coherent and adaptive planning able to capture land-sea complexity. The second will focus on the Adriatic-Ionian Region as a testing ground for transnational cooperation and multi-level governance, discussing how existing initiatives can activate regional dialogue and coherence across scales.

The roundtable will address the following questions:

How can the diversity and interdependence of land-sea territories be addressed through more integrated and multi-scalar frameworks?

Which general framework is necessary to discuss this integration and at which level (EU, macroregional, national)?

How can the experience developed in the Adriatic-Ionian region be upscaled?

By bringing together scholars and practitioners from diverse disciplines and countries, this roundtable seeks to foster a shared dialogue on designing an integrated framework connecting spatial, coastal and maritime planning, advancing a common vision for a cohesive and resilient Adriatic–Ionian Region.

2553 | Comparative International Planning Research in a Changing World

Tue 30.6.14:00-15:30, Roundtable F, U 157 U2

Convenors: Olivier Sykes, Andrea Frank, Ela Babalık

Speakers: Olivier Sykes, Andrea Frank, Ela Babalık, Maciej J. Nowak, Tatiana Moreira de Souza, Bruce Stiftel

Four decades on from Masser and Williams' (1985) foundational edited volume on cross-national comparative research in planning 'Learning from Other Countries', international comparison remains much practiced and valued in planning research, practice, and education. In many ways most of the period since the mid-1980s has been conducive to the pursuit of comparative international planning research. The rise of a global agenda for planning under the auspices of the UN and the processes of globalisation have encouraged and facilitated exchanges on how planning works in different places. In certain global regions, processes such as EU integration have created an interest in, and abundant opportunities for, comparative work to be undertaken. The rapid development and urbanisation of other global regions has also driven international exchanges in planning across wider and ever more diverse geographies. The past decade or so, however, has seen a change in some of these international and global trends and assumptions. Commentators have pointed to a tendency towards de-globalisation which "can be defined as movement towards a less connected world, characterised by powerful nation states, local solutions, and border controls, rather than global institutions, treaties, and free movement" (European Parliament, 2022). This new conjuncture is arguably less conducive to comparative work. Yet even against this background the field has continued to develop with the emergence of new questions and examples of what might be compared and how. More plural and multidirectional knowledge flows and patterns of international comparison and learning continue to evolve in planning practice and research and perspectives such as decoloniality provide new framings for comparison. Geopolitical tensions and competition also raise important questions about the normative and ethical dimensions of comparison. This roundtable will explore these issues drawing on the findings of 'The Routledge Companion to Comparative International Planning' (2026) and contributions from selected invited speakers.

2030 | Youth participation and the city: from epistemic justice to prefigurative planning

Tue 30.6.14:00-15:30, Roundtable G, U135a U7 PWC

Convenors: Francesca Ranalli, Caterina Villani

Speakers: Francesca Ranalli, Caterina Villani, Sabina Cioboata, Jonne Silonsaari, Javier Martínez, Sun-Young Rieh, Patrick Witte

The roundtable aims to assemble a dialogue around how young people's ways of knowing can actively prefigure just urban transitions, linking the ethics of epistemic justice to the imaginative labour of everyday urban change. Across Europe, planning practice struggles with how to meaningfully include

children and young people in shaping urban futures. Despite rhetorical commitments to participation and safety, youth voices remain marginal within the technocratic cultures of planning, urban design, mobility, and regeneration. This roundtable seeks to explore how a shift from epistemic justice to prefigurative planning can reframe participation: not as consultation for future citizens, but as a situated practice of knowledge-making and spatial transformation. The discussion builds on emerging work that considers youth imaginaries as valid civic evidence, forms of situated expertise that expand what counts as legitimate knowledge in planning. Children's Rights highlights the responsibility to create opportunities for children and young people to express their views in matters that affect them. This means adapting participatory practices to their interests and ways of understanding and communicating. Drawing on experiences from research and practice – including arts-based participatory workshops, school street experiments, community-led experiments, and co-design studios – the session will interrogate how young participants make sense of risk, care, and belonging in urban dense environments and how their speculative interventions re-imagine streets, parks, and neighbourhoods as intergenerational commons. Contributors will reflect on how methodological innovation and institutional capacities can enable the right to the city for different age groups. How can speculative or performative methods move beyond tokenism? What forms of planning pedagogy, data, or governance can accommodate youth rationalities? How might prefigurative practices be recognised within planning systems driven by evidence, regulation, and accountability? How can research promote inclusive planning practices? Researchers, planners, designers, educators, and community partners will share situated examples and critical reflections.

1084 | Eurbanisms: Approaches to Learning Boundary-Crossing Competence

Tue 30.6.16:00-17:30, Roundtable A, U149 U6

Convenors: Nadia Alaily-Mattar, Remon Rooij, Christine Mady

Speakers: Nadia Alaily-Mattar, Remon Rooij, Christine Mady, Pablo Sendra, Filipa Wunderlich, Nadia Charalambous, Andrea Frank

Eurbanisms is a growing network of scholars and educators committed to advancing the teaching and learning of Urbanism at departments of the Built Environment across Europe. It was founded by Nadia Alaily-Matar (TUM), Remon Rooij (TU Delft), Matthew Carmona (UCL), and Meta Berghauser (Chalmers). The initiative aims to enrich academic practices and pedagogical development by facilitating the exchange of experiences, insights, and challenges related to Urbanism education.

Urbanism is closely related to, yet distinct from, fields such as urban design, planning, urban studies, and geography. While it draws on the tools, methods, and conceptual frameworks of these disciplines, it cannot be fully subsumed under any one of them. Within the universities already participating in this network a particular approach to teaching Urbanism has emerged, often grounded in studio-based learning and interdisciplinary inquiry. Still a relatively young academic field, Urbanism is beginning to assert itself as a field and approach.

There is now a need to reflect on and articulate what Urbanism is, how it is taught, and what sets it apart. By extending the discussion beyond the members of this network the objectives of this round table are: (1) To further deepen the dialogue around the pedagogical and institutional challenges of teaching and learning urbanism in different European contexts. We are specifically interested in discussing

educational approaches that effectively respond to the evolving and multifaceted roles of urbanists as specialists in boundary crossing: disciplinary boundaries, spatial boundaries, methodological boundaries, stakeholder position boundaries, to name but a few. (2) To lay the foundation for future collaboration in a) Research — especially educational research that systematically and scholarly evaluates, compares, and positions Urbanism pedagogies, courses, studios, and programs. b)Teaching — including student and staff exchanges, joint teaching formats, and shared curriculum development, peer review and advice in curriculum renewal processes.

1602 | Bridging Green Futures: Ukrainian Cities and EU Climate Mission Cities Learning Together

Tue 30.6.16:00-17:30, Roundtable B, U147 U5

Convenors: Lilybell Evergreen, Lesya Tymoshenko

Speakers: Lilybell Evergreen, Pavlo Bilyk, Artem Semenikhin, Yuliia Bandura, Lesya Tymoshenko, Tetiana Melnyk

Europe is accelerating its transition to climate neutrality while simultaneously increasing focus on other critical areas like resilience and crisis preparedness. In Ukraine, cities are balancing immediate existential challenges of the ongoing war of attrition with long-term climate goals, making Ukrainian cities important sources for understanding urban transformation under complex and challenging conditions. This reality surpasses traditional notions of centre and periphery in European urban innovation.

EU Mission cities bring experience from the EU Mission for Climate-Neutral and Smart Cities, offering proven approaches to sustainability transitions. Ukrainian cities bring hard-won knowledge about rapid adaptation, resource prioritisation, and maintaining long-term vision amid crisis - insights increasingly relevant to wider Europe as priorities around preparedness and resilience evolve. The goal is not to transfer models but to share and adapt different experiences.

The SUN4Ukraine project serves as a two-way bridge for this exchange: a European collaboration supporting Ukrainian cities to develop Climate Neutrality Plans and connecting them with EU Mission cities through twinning partnerships. This roundtable shares emerging lessons from those working with and in Ukrainian cities.

This roundtable provides the global planning community with insights into how transnational knowledge transfer works in practice. Participants will gain perspectives on adapting climate planning frameworks across contexts, practical lessons from international city partnerships operating under challenging conditions, and understanding of how cities balance immediate needs with long-term climate aspirations when resources are severely constrained. While Ukraine's situation is extreme, these trade-offs resonate with many cities in Europe and globally.

The discussion will share emerging findings while inviting audience perspectives on broader questions: How can recovery strategies be co-produced and just? How can local agency be supported while aligning with wider ambitions for resilience and sustainability? What role does urban climate action play in addressing interconnected societal challenges including security, reconstruction, and European integration?

938 | Governing the EU Transitions: Between Geopolitics and Territorial Governance

Tue 30.6.16:00-17:30, Roundtable C, U142 U4

Convenors: Yahya Shaker, Marjan Marjanović, Anastasiya Ansteeg

Speakers: Yahya Shaker, Marjan Marjanović, Anastasiya Ansteeg, Stefano Moroni, Giancarlo Cotella, Amanda Margaret Machin

Building on insights from four Horizon Europe projects (GreenFORCE, RECODE-MLG, BOLSTER, DUST) exploring the governance of EU transitions (just, green, digital), this roundtable brings together international scholars, critical theorists, and degrowth advocates to discuss the EU's transitions' territorial politics. Drawing on critical perspectives from EU governance, political philosophy, and socio-spatial justice, this roundtable explores the disconnect between rhetorical commitments to justice and territorial politics, particularly in relation to the claim of leaving no person or region behind. What is portrayed as a unified continental transition often masks uneven, uncoordinated, and contested ideas of greenness and justness. In response, this roundtable investigates co-creation as both a conceptual alternative and a practical strategy to challenge dominant logics of technocratic transition management, positioning it as a pathway to more legitimate, diverse, and socio-territorially grounded governance. Instead of endorsing existing governance models, the roundtable offers a platform for critical, alternative, and emancipatory exchanges of ideas concerning justice, governance, and transitions. It presents co-creation not merely as participatory rhetoric but as a potentially transformative mode of multi-level governance, capable of redistributing epistemic authority, addressing socio-territorial exclusions, and fostering more democratic, reflexive, and contextually aware approaches. The roundtable promotes a critical dialogue across disciplinary, institutional, and regional boundaries, encouraging a more reflexive and accountable understanding of Europe's twin transitions.

Guiding Questions:

- Who defines what is 'Just' in the JGT? What knowledges are given agency? and whose is excluded?

- How do class, race, gender, geography inform legitimacy?

- What are the policy implications of the JGT operationalisation in the various EU regions?

- How might co-creation redistribute authority and challenge centralisation of knowledge and power, and bring subaltern and Indigenous perspectives to MLG decision-making?

- How are geopolitical logics encoded in the JTF allocation, designation of "sacrifice zones," and prioritisation of techno-economic over democratic imperatives?

2181 | Connecting the Next Generation: Regional Networks and Global Alliances in Planning Academia

Tue 30.6.16:00-17:30, Roundtable D, U141 U3

Convenors: Malachy Buck, Qingyuan Guo

Speakers: Malachy Buck, Eren Efeoglu, Qingyuan Guo, Donato Casavola, Ivis Garcia, Dang-Dao Nguyen, Isuru Biyanwila, Birsu Kambur, Shruti Syal, Olafiyin Taiwo

Planning scholars worldwide confront shared challenges like housing crises, economic development pressures, and climate change that manifest differently across institutional and local contexts. These variations create rich opportunities for mutual learning and collective problem solving through dialogue. Yet inquiry flourishes when scholars can organize democratically to work on common problems together, developing shared methods and vocabularies through practice itself.

Young planning academics across regions have been creating innovative forms of democratic self-organization for such work. These initiatives, whether well-established or emerging, offer valuable insights about what enables meaningful participation and strengthens collective capacity. However, these regional efforts remain largely disconnected, limiting their potential to forge broader communities of inquiry.

This roundtable brings together young academics leading or participating in regional self-organization initiatives alongside senior scholars experienced in supporting such efforts. By examining organizational experiences across regions, we seek to identify successful strategies and develop cross-regional alliances. Speakers will share how democratic structures emerge in different contexts, what sustains participation, and how regional initiatives can connect productively.

The discussion serves a larger purpose: moving beyond isolated regional efforts toward building a cosmopolitan community of inquiry. Such communities can engage productively with shared challenges as they manifest in different contexts, while honoring the particular places and conditions from which all planning knowledge emerges. This advances a decades-long effort to establish planning as a discipline capable of constructive dialogue across contexts, grounded in concrete collaborative practice.

1367 | In conversation: democracy, knowledge and the role of academic journals

Tue 30.6.16:00-17:30, Roundtable E, U154 U1 VALMET

Convenors: Heather Campbell, Janice Barry, Andy Inch

Speakers: Janice Barry, Andy Inch, Theo Lim, Katie McClymont, Andre Sorensen, Heather Campbell

Across the globe democratic values are coming under concerted challenge. Political discourse is increasingly polarised, spurred on by proliferation in knowledge sources, including of dubious reliability and malevolent intent. A key premise of democratic governance practices is the capacity for citizens to engage in open, respectful and well-informed conversation and debate. This is reflected in the long-standing inter-relationship between higher education, as a provider of 'independent' knowledge and education in the public good, and the vitality of democratic practices.

This roundtable sponsored by Planning Theory & Practice, seeks to explore the role of academic planning journals in a world of information excess. Is journal publication merely part of the problem, exemplifying an elite pontificating from on high, or should and can planning journals seek to do more to support democratic values?

Democratic engagement is multifaceted and nuanced. While acknowledging this complexity, knowledge, in all its many forms, remains pivotal to effective governance practices. Universities and academics are not the only generators of knowledge, but knowledge generation of a standard endorsed through the external validation by peer review, and published in academic journals, is inherent to their purpose, along with disseminating what is known (published) through teaching. However, in a world of information abundance, the traction of academic knowledge has become ever more openly scrutinised and subject to disdain. This trend has worrying implications for democratic governance. As trust in public institutions, including universities wanes, there is evidence of growing credence being given to the postings of random individuals and software robots, made visible by hidden algorithms often for commercial purposes. Large language models make verifiability even more problematic, including for academic journals.

This roundtable focuses on the responsibilities of academic planning journals in the current knowledge context. How can (and should) academic journals nurture informed respectful societal conversations?

2372 | Preparing urban and regional planning students for a changing climate

Tue 30.6.16:00-17:30, Roundtable G, U135a U7 PWC

Convenors: Anna Hurlimann, Adrienne Keane

Speakers: Anna Hurlimann, Adrienne Keane, Bruce Stiftel, Wolfgang Scholz, Massimiliano Granceri Bradaschia

Climate change is having increasing impacts on cities, their populations and environments. The international community has agreed to limit warming to no more than 2oC through the Paris Agreement [1]. Yet, commitments are currently insufficient, and on a trajectory of close to 3oC or warming [2]. Adaptation planning is also insufficient to meet present and future climate change impacts [3]. Thus, significant action is needed in cities to address this shortfall in both actions to mitigate GHG emissions causing climate change and adapt to the impacts that cannot be avoided. Given up to 70% of GHG emissions are created by cities [4], urban and regional planners can plan a key role in mitigating climate change. Additionally, given over 50% of the world's population are located in cities, and that this proportion is growing, adaptation of our cities to climate change is critical, and urban planners will be important facilitators. Yet, research indicates urban planners and other built environment professionals can feel like they don't have the agency or capacity to address climate change in their professional work [5, 6]. Relatedly, research across various contexts, indicates that the education of urban planners does not sufficiently address climate change, including in Europe [7], Africa [8], USA [9], UK [10], and Australia [11]. This indicates a gap between what is taught, and what is needed in practice. This round table discussion involving urban planning educators across global contexts, explores the current state of play for climate change education of urban planners in the context of other global challenges. The round table aims to establish a plan of action for planning climate change planning education across global contexts, identifying key needs, and challenges to education transformation. It builds on discussions held by professional associations and planning schools in various locations (Australia, New Zealand, Canada).

2664 | Reframing the theory–practice and research-policy gaps in a time of polycrises

Tue 30.6.17:45-19:15, Roundtable A, U149 U6

Convenors: Daniel Slade, Marcus Atkinson

Speakers: Daniel Slade, Marcus Atkinson, Stefania Fiorentino, Juergen Attard, Bruce Stiftel, Beatrice Crabb, Michael R. Glass

The research-policy and theory-practice 'gaps' have been perennial concerns for those engaged in planning. Efforts to address these gaps have often focused on the 'supply' of research - incentivising or enabling researchers to supply planners (and other policy makers) with the information they see as relevant to their work.

In this framing, much critical, theoretical, or experimental scholarship is dismissed as esoteric or impractical. But to what extent should there be more emphasis on shaping research 'demand'? Could institutions do more to work with planners to help them see the value of this kind of research?

In an era of global polycrises, radically different perspectives and solutions are needed. So too are critical and reflexive practitioners and policy makers. Could a strong focus on research 'demand' enable the research community to play a bigger role in providing these ideas and shaping these perspectives?

This roundtable, jointly organised by the Royal Town Planning Institute and Regional Studies Association, will explore these questions. Participants will also discuss what steps organisations like the RTPI and RSA could take build a stronger culture of research engagement within practice.

2001 | Bridges and boundaries: urban and civic intermediaries as spaces of possibility and conflict

Tue 30.6.17:45-19:15, Roundtable B, U147 U5

Convenors: Martina Massari, Michael Howcroft

Speakers: Martina Massari, Michael Howcroft, Valentina Orioli, Andrew Mondschein, Nadia Caruso, Federica Scaffidi, Madeleine Pill

Contemporary research on urban co-creation reveals persistent tensions among three institutional spheres: research-action, civic organizations, and public administrations, each driven by distinct temporalities, accountabilities, and epistemologies. Yet, the contemporary dynamics of co-creation exceed negotiation among these levels. Emerging urban and civic intermediaries, policy labs, community hubs, and neighbourhood centres, constitute a fourth instance: hybrid, spatially embedded infrastructures that mediate, translate, and recompose relations among actors, while promising new forms of agency. Drawing on the notion of urban intermediaries as "boundary-spanning urban units" (Balducci & Mäntysalo, 2013), these spaces serve as experimental meso-territories where governance, research and community practice intersect and co-evolve - enabling spatial, ecological, and procedural translations that reshape the very language of urban governance. They may also be appropriated or commodified, functioning as extensions of state apparatuses, institutional actors, or vehicles for extractive urban development

The roundtable critically examines how civic, academic, and institutional actors develop the internal conditions, leadership, decision-making, organizational capacities, necessary for productive engagement

in these hybrid arenas and how the spatial dimension of intermediation should intersect with ecological and digital transitions, delineating new operative fields for planning and community development.

Key questions include:

• Assembling, extending, institutionalizing: how do intermediaries navigate power asymmetries and maintain radical potential while embedding within formal frameworks?

• Territorial sensitivity and spatial translation: how do place-based processes act as “trading zones” enabling reflexive, long-term governance learning?

• Governance multiplicity: what hybrid configurations sustain collaboration without co-optation? How do planners and place-leaders operate within a reconfigured territorial governance?

By gathering comparative insights and situated practices, the roundtable will develop conceptual frameworks for relational intermediation, identifying the capacities and conditions that enable intermediaries to act not as passive mediators but as agents actively producing new political, ecological, and spatial configurations of the urban.

2393 | ‘Terrain vague’ beyond the Core. The multifaceted landscape of peripheral centralities

Tue 30.6.17:45-19:15, Roundtable C, U142 U4

Convenors: Camilla Perrone, Lorenzo Iannizzotto, Krystallia Kamvasinou

Speakers: Nicholas Phelps, Camilla Perrone, Krystallia Kamvasinou, Alexandra Paio, Lorenzo Iannizzotto, Ameera Akl, Karina Pallagst

This round table brings together scholars working on contemporary transformations of urban peripheries to advance the theorisation of “the urban” from its margins. Building on recent debates on terrain vague and peripheral centralities, the session explores how spaces traditionally considered residual or in-between have become crucial analytical vantage points for understanding urban change.

Terrain vague – vacant, in-between, wild, underused or pending spaces within fragmented urbanisation – reveal the relational, temporal and multi-scalar dynamics of contemporary cities and governance. Far from empty or peripheral to urbanisation processes, these areas reveal latent forms of value, conflict, and possibility, where competing development regimes reshape the city's metabolism.

Similarly, the notion of peripheral centralities challenges the long-standing methodological primacy of historic urban cores. Peripheral areas increasingly host strategic forms of economic concentration, infrastructural centrality, political mobilisation and socio-cultural innovation. They constitute critical geographies of extended urbanisation: places where planning ideas, institutional projects and everyday forms of inhabitation converge and mutate. They are embedded in uneven processes of socio-ecological restructuring, shaped by flows of resources, materials, energy and power.

By bringing these perspectives, the round table addresses three questions:

• How do terrain vague and other interstitial spaces, together with emerging forms of peripheral centrality, reveal the relational and multi-scalar processes that shape contemporary urbanisation?

- What socio-ecological tensions emerge within these “in-between” spaces, and what do they reveal about the politics of urban transformation?

- How can urban planning evolve when grounded in the fragmented ecologies, uneven power relations, and transformative potential embedded in interstitial and peripheral territories?

As a connecting thread, the session also reflects on emerging research initiatives within the COST Action OBSERVISTA - Observatory of Innovative Strategies for Repurposing Terrain Vague, that exemplify how peripheries can become laboratories for conceptual innovation, socio-ecological transition and spatial justice.

1035 | How Can We Rethink Spatial Planning Practice in the Digital Age?

Tue 30.6.17:45-19:15, Roundtable D, U141 U3

Convenors: Pouya Sepehr, Didem Türk Grigoletto, Christin Müller

Speakers: Pouya Sepehr, Didem Türk Grigoletto, Christin Müller, Thorsten Wiechmann, Pilvi Nummi, Christopher Pettit, Michele Campagna, Julio Paulos, Anna M. Hersperger, Christian Fertner

The digital transformation of spatial planning has become a defining challenge for contemporary governance (Batty 2021; Hersperger & Fertner 2020). As data infrastructures, algorithms, and digital platforms increasingly mediate planning practices, the longstanding epistemic and normative foundations of the field—equity, transparency, deliberation, and decision-making—are being reconfigured (Hersperger et al. 2021). Yet despite the proliferation of digital tools, theoretical understanding of how digitalization reshapes spatial planning as a practice remains limited (Rydin et al. 2022).

By bringing together scholars and practitioners working across European contexts, this roundtable seeks to explores how digitalization reassembles the social and material relations of spatial planning, and how this transformation unfolds through the infrastructures, platforms, and epistemic cultures that underpin planning practice.

The discussion will focus on four interrelated dimensions through which digitalization manifests itself: Encounters – the mediated relations between planners and publics through digital portals, participatory platforms, and online consultation tools (Daniel & Pettit 2021); Discretion – the changing scope of professional judgment under algorithmic and data-driven decision support systems (Bovens & Zouridis 2002); Representation – the digital modeling of plans and urban environments, including how digital twins and spatial data infrastructures render the city visible and actionable (Kitchin 2021; Evans et al. 2022); Domain Integration – the digitally enabled linking of environmental, social, and spatial data to promote evidence-based planning within increasingly coherent yet politically contested governance frameworks (Zhand et al. 2024; Kitchin 2021).

Building on these interwoven perspectives, the roundtable will discuss how digitalization reconfigures the practice of planning, shapes the future of spatial governance, and generates new planning futures across diverse urban contexts. It will also open space for participants and audience members to share their own

insights and experiences—inviting a collective reflection on how mid-size cities, in particular, navigate the opportunities and tensions of digital transformation.

2092 | Planning under Populist Pressure: Academic and Professional Dilemmas

Tue 30.6.17:45-19:15, Roundtable E, U154 U1 VALMET

Convenors: Silke Weidner, Angela Million, Solmaz Yadollahi

Speakers: Silke Weidner, Angela Million, Solmaz Yadollahi, Daniela Zupan, Agnieszka Kwiatek-Soltys, Jovana Timotijević, Solmaz Yadollahi, Agnieszka Brzosko-Sermak

Across Europe and beyond, democratic planning systems are being tested by the resurgence of right-wing populism—fuelled by distrust in institutions and deepening spatial inequalities. Scholars have sought to understand how the interplay of spatial and social infrastructures shapes this turn to the right and how it transforms communities and governance. Research on populism in planning contexts reveals a range of phenomena—such as exclusionary localism, selective participation, preservationist rhetoric, intensified central or locally oriented development (depending on the executive power of right-wing actors), and anti-densification or populist housing policies. Yet this field continues to face persistent epistemological and methodological challenges.

We address both the research dilemmas of studying these phenomena and the professional dilemmas faced by planners working in politically polarised environments. It brings together scholars and practitioners who analyse, experience, or teach planning under political pressure. We aim to draw on the experiences of participants and speakers to reflect on how populist politics influence planning not through radical institutional ruptures, but through the slow, procedural capture of everyday governance. From council meetings where far-right representatives deploy formal instruments to obstruct inclusive housing, to the depoliticisation of planning in service of political agendas, these dynamics reveal how populism becomes embedded in the routines of planning practice:

What are conceptual traps of applying universal indicators across comparative contexts when local manifestations of populism resist generalisation?

How can comparative research across “peripheral” contexts contribute to rethinking planning instruments under conditions of polarisation?

How might mixed-method frameworks bridge political theory, spatial analysis, and planning practice in the study of populism?

How do populist and authoritarian tendencies materialise within everyday planning?

How can researchers and planning practitioners adapt to, resist, or accommodate depoliticising or reproduction of populist planning narratives?

What ethical frameworks, pedagogical approaches, and institutional supports are available to planners practising under political pressure?

2450 | Planning journals between commercial interests and academic aspirations

Tue 30.6.17:45-19:15, Roundtable F, U 157 U2

Convenors: Karl Fischer

Speakers: Karl Fischer, Manuela Maddedu, Karina Landmann, Asma Mehan, Deike Peters, Ivy Hu, Cathy Yang Liu

The sheer number of journals concerned with urban/rural/regional, spatial and environmental planning at all levels of scholarship has risen significantly in recent years. This has had consequences in various fields. The results include increased competition for readers, notably well-paying readers such as universities on one side, as well as authors and reviewers – unpaid – on the other. It has also increased the pressure for speed and efficiency to compensate for delays in the review process due to the growing workload of academics while entailing the possible risk of quality losses in the process. The work of editors and reviewers remains underrated by universities and finds no consideration in the list of official duties of academics as employees. Over time, these developments have led to continually exacerbating conflicts of interest.

Considerations regarding the balance between commercial interests and academic aspirations, but also factors such as transparency and structural inequalities including the underrepresentation of global south contexts have been a matter of debate for quite some time.

This Round Table sets out to survey the field and to explore alternative ways to deal with conflicts of interest as well as new forms of cooperation between publishers and journal editors and their boards, but also among journals.

We aim to structure this roundtable with a short introduction by the organisers (convenor and co-convenors) explaining the purpose of this discussion and introducing the speakers) an initial response from all the speakers (10 minutes each, approximately 40-50 minutes in total), followed by a Q&A with the audience. The Q&A will be moderated by the convenor and co-convenors.

916 | Pathways to Leadership: Insights from Immigrant Origin Faculty in Higher Education

Thu 2.7.11:00-12:30, Roundtable A, U149 U6

Convenors: Michael A. Burayidi, Sidhartha Sen

Speakers: Michael A. Burayidi, Sandeep Agrawal, Heather Campbell, Laxmi Ramasubramanian, Rosanna Rivero, Deden Rukmana, Sidhartha Sen, Clara E Irazábal Zurita

This roundtable discussion will provide an opportunity for urban planning faculty of immigrant origin who are in academic leadership to share their experiences and to help guide those contemplating similar paths. While most of the participants will be from North America, the discussion will resonate with faculty members who are working outside their native countries of origin and who may be contemplating leadership positions in the future in their academic institutions. The roundtable discussion will involve a structured conversation focusing on the unique opportunities, challenges, and perspectives that immigrant origin faculty bring to leadership roles in higher education worldwide.

2218 | Futures of Spatial Planning - what ist likely? what is desirable?

Thu 2.7.11:00-12:30, Roundtable B, U147 U5

Convenors: Rainer Danielzyk, Marion Klemme

Speakers: Rainer Danielzyk, Marion Klemme, Loukas Triantis, Tanja Mölders, Lukas Smas, Gernot Stöglehner, Thorsten Wiechmann

Conflicts over land use and spatial development are increasing significantly. In growing urban regions, spatial planning focuses on land for housing and commercial use, but also on green-blue infrastructure with regard to climate adaptation. Some rural regions are characterized by the exodus of young and highly qualified people and the withdrawal of public infrastructure. In other rural regions, renewable energies, tourist infrastructure, and intensive agriculture require more land. Climate protection and adaptation, biodiversity, and nature restoration are creating significant land requirements. In addition, military uses are becoming more important. Digitalization is drastically changing spatial relationships.

Many European countries have comprehensive, multi-level spatial planning systems that aim to resolve such conflicts in an integrative and cross-sectoral manner in the sense of sustainable, transformative spatial development. This planning systems are often considered inflexible, not very implementation-oriented, and technocratic. The procedures for stakeholder and civil society participation are in serious crisis. They are considered cumbersome and are often exploited by populists.

Against this backdrop, it is not surprising that there is a tendency toward sectoral top-down planning with clear parametric specifications. However, there are also proposals to link spatial planning and regional development strategies (including the funding available there) in order to improve implementation orientation.

The roundtable will discuss the futures of spatial planning in Europe. As an initial impulse four scenarios for the future of European societies and the associated planning approaches in 2050 will be presented.

1860 | The Future of Public Libraries as Urban Catalysts

Thu 2.7.11:00-12:30, Roundtable C, U142 U4

Convenors: Hossam Hewidy, Christine Mady

Speakers: Hossam Hewidy, Christine Mady, Ali Madanipour, Christopher Maidment, Ivis García, Mina Di Marino, Shamichael Hallman, Elisabete Tomaz

This roundtable examines public libraries as hybrid civic infrastructures at the intersection of architecture, urban governance, planning and community engagement. Once primarily repositories of knowledge, libraries are increasingly multi-layered spaces integrating cultural, social, and digital functions. In the United States, they operate efficiently when assessed with multi-output metrics but face governance challenges from commercial digital content services, including limited curatorial control and opaque operations, highlighting the need for co-developed curation policies (Liu et al., 2023). In Canada, libraries are evolving into flexible, collaborative hubs fostering content creation and serving diverse populations, with implications for technology, space, collaboration, and staff roles (Palmer, 2021). In the Nordic context, libraries function as socio-cultural and knowledge hubs integrating civic, digital, and spatial roles (Di Marino et al., 2025). Across these regions, hybridisation manifests spatially, through flexible, multi-functional, and transparent spaces; socially, as sites cultivating trust, belonging, and

informal networks; and institutionally, via expanded librarian roles mediating between public service, community engagement, and innovation agendas, particularly in contexts where financial support can vary significantly. The roundtable invites participants to explore how libraries serve as strategic civic anchors and raises key questions within planning and beyond,: How can library design and programming enhance urban inclusivity and civic engagement? How can libraries be further integrated into urban planning to support social cohesion, democratic participation, and resilient cities?

Di Marino, et al., (2025). The hybridisation of public libraries: a comparative study between Helsinki, Oslo and Stockholm. International Journal of Cultural Policy.

Liu, L., et al., (2023). Are public libraries efficient? Evaluating scale economies of public libraries in the U.S. with a cost function approach. Library & Information Science Research, 45(4), Article 101271

Palmer, M. (2021). Study of Future Public Library Trends & Best Practices. Public Library Quarterly, 41(1), 83–107.

2387 | Learning Across Regions: Building Successful Cross-Boundary Governance from AlpPlan to the Baltic Sea

Thu 2.7.11:00-12:30, Roundtable D, U141 U3

Convenors: Britta Bockhorn, Kerstin Ströbel

Speakers: Kerstin Ströbel, Marco Pütz, Arthur Schindelegger, Britta Bockhorn, Mārtiņš Ulāns, Egija Stapkēviča

Spatial demands are steadily increasing, making it increasingly challenging to balance sustainable land use within existing spatial planning systems. These demands often extend across boundaries and encompass areas such as energy production, water management, resource use and many more. The specific spatial development planning challenges of the Baltic Sea Region are identified in the VASAB Vision for the Territorial Development of the Baltic Sea Region in 2040 and in the VASAB Ministerial Tallinn Declaration on Spatial Resilience.

Developing long-term solutions therefore requires continuous exchange between scientific researchers and planning practitioners, both within and beyond defined geographical regions.

The European Working Group AlpPlan provides well-established opportunities for knowledge transfer between research and practice, connecting local, regional, and supra-regional actors across the Alpine Space. Experiences within the network highlight the critical importance of effective governance and communication structures. Similarly, the VASAB Land Based Planners' Forum has identified key practitioner-driven needs that must be integrated into functional governance frameworks.

Bringing together diverse geographical perspectives and common challenges enables broader discussions on governance formats and exchange mechanisms that exist—or are needed—within and across boundaries to strengthen spatial planning and landscape development and to learn from Good Practices.

The Round Table will bring together actors from the Alpine and Baltic Sea regions to exchange on shared spatial development visions, governance approaches, and network cooperation. Short impulse

presentations and moderated discussions will address themes such as the role of spatial planning, effective network formats, and improved science–practice communication. The session aims to identify key priorities, gaps in knowledge transfer, and opportunities for future collaboration across governance levels.

1745 | Rethinking City-Regional Planning: Perspectives on Land Take, Planning Cultures, and Education

Thu 2.7.11:00-12:30, Roundtable E, U154 U1 VALMET

Convenors: Anna Growe

Speakers: Anna Growe, Alois Humer, Pamela Robinson, Peter Schmitt, Daniel Galland

Policy goals of social-ecological transformation and sustainability (such as SDG 11) tend to focus strongly on cities, often overlooking their extensive and highly interconnected hinterlands. A most representative indicator of these policy goals, land take, highlights a short-fall when not addressing city-regional functional interdependencies: land take is not limited to core cities but results to much greater extent from social and economic dynamics in the functional urban region until peripheral areas. The policy and planning ambition of no-net-land-take will therefore be decided on city-regional scale. However, many urban actors encounter institutional and imaginative hurdles when perceiving and shaping city-regions as one space for action.

Against this background, we propose a roundtable to rethink spatial planning operates under increasing pressure to balance ecological limits, socio-economic demands, and democratic legitimacy. Across the world, city-regions have emerged as key arenas for negotiating these tensions — yet approaches to sustainable land use, ecological protection, and spatial justice differ significantly between planning cultures.

This roundtable explores comparative perspectives on city-regional planning and education, asking: What kinds of planning cultures and educational approaches shape how planners deal with land take and ecological concerns in city-regional contexts? How do institutional frameworks, cultural understandings of land, and pedagogical models influence the capacity to plan for sustainable transformation?

By bringing together scholars and practitioners from diverse world regions, the session will highlight how different planning traditions respond to the challenge of “no net land take”, and how education prepares future planners for this task. It particularly invites contributions reflecting on peripheral or soft spaces, where administrative and functional boundaries diverge, and where planning often operates with limited legitimacy but high transformative potential.

The roundtable aims to stimulate a global dialogue on planning education and practice, exploring how peripheral visions can inform new approaches to ecological and spatial justice.

2634 | Beyond Hegemonic Planning: Pedagogic Paradigms, AI, and Contextual Urban Imaginations

Thu 2.7.11:00-12:30, Roundtable F, U 157 U2

Convenors: Niké Wesch, Martin Schinagl

Speakers: Kang Cao, Asma Mehan, José Ricardo Vargas de Faria

The current poly crises present urgent challenges for planning pedagogy, compelling critical reflection on how planners imagine, and are trained to imagine sustainable and just futures. Dominant climate change discourses, often shaped by colonial legacies (Sultana 2022), are embedded within key planning concepts such as “sustainability” and “climate adaptation”. These risks are exacerbated by developments in AI technologies, which can reinforce ecologically and socially unsustainable practices (Rehak 2024). Such developments destabilize creative and professional practices, and risk deepening epistemic inequalities between the Global North and South.

The prevalence of particular conceptual frameworks within curricula and professional practice frequently marginalises alternative, locally grounded ways of knowing and acting, ways that may better address place-based challenges (Cilliers 2020; Yiftachel & Mammon 2022). In response, this round table assembles diverse perspectives to examine how planning schools are navigating technological change in their pedagogies, including the potential of AI-assisted tools (such as co-generated imaging) to provoke debate on the use of multiple epistemologies and their practical implications.

Drawing on an exploratory, cross-cultural survey of planning and architecture students, the session critically examines which paradigms are embedded in planning pedagogy and how these shape students’ understandings of sustainability - particularly in relation to their engagement with generative AI, including large language and image-diffusion models. Building on this foundation, the session addresses the following questions:

(1) To what extent are pedagogic practices in planning education shaped by dominant northern (Global North) concepts and frameworks (2) How do curricula and pedagogic practices shape planning processes and urban imaginaries (3) How does the integration of AI tools into planning pedagogy and practice shape discussions of spatial development across diverse contexts? (4) In what ways can these technologies be harnessed to support, rather than diminish, the multiplicity of knowledge systems involved in spatial planning.

2406 | Polyphonic metropolitan futures in turbulent times

Thu 2.7.11:00-12:30, Roundtable G, U135a U7 PWC

Convenors: Camilla Perrone, Peter Ache

Speakers: Raine Mäntysalo, Alessandro Balducci, Jean Hillier, Camilla Perrone, Peter Ache, Valeria Fedeli, Marco Cremaschi

This Round Table brings together critical voices in planning theory, urban governance, sociospatial transformation, and future studies to collectively rethink the role and relevance of strategic spatial planning in an era marked by profound ecological, political, and epistemological turbulence. While strategic planning has historically been framed as a flexible instrument to guide spatial development, its conceptual foundations and operational capacities are increasingly under pressure. Turbulent times, planetary, democratic, institutional and cognitive, call for a deeper reconsideration of what strategic planning is, whom it serves, and what futures it is capable of imagining.

Building on debates initiated in a recent symposium on strategic planning organised at the University of Florence, this Round Table aims to explore how strategic planning can be re-envisioned. The discussion invites a reframing of strategic planning as a reflexive, political, and imaginative practice, capable of engaging with complex urban futures and of navigating the tensions between institutions, societal demands, and planetary limits. The RT adopts a polyphonic perspective, drawing on insights from urban theory, post-structuralist planning thought, the degrowth approach, and decolonial epistemologies. By interweaving these perspectives, speakers will interrogate how urban change can be addressed not only through spatial management but also through sociospatial imaginaries.

Key questions include:

• Which imaginaries, epistemologies, and paradigms can equip planning to navigate planetary crises?

• How can reflexivity and situated agency reshape strategic planning practices?

• What remains of strategic planning's conceptual core, and what needs to be reinvented?

• What are the implications for planning theory, governance arrangements, and institutional design?

Participants will be invited to offer short provocations grounded in their current research and interests, fostering a collective, dialogical exploration of the limits and possibilities of strategic planning today. This Round Table will support the development of a collective book project and intends to invite further contributions.

1704 | Connecting People, Ports, and Sustainable Futures. Rethinking the energy transition in port city territories

Thu 2.7.14:00-15:30, Roundtable A, U149 U6

Convenors: Silvia Sivo, Eliane Schmid, Karolina Krośnicka

Speakers: Silvia Sivo, Eliane Schmid, Karolina Krośnicka, Ryan Holmes, Sofia Morgado, Leonardo Ramondetti, Ilmian Sujatmiko

Port City Territories (PCTs) have historically been hubs for energy transport and transformation and are increasingly recognized as pivotal actors in the transition to sustainable futures. As complex spaces of social, cultural, industrial and environmental interaction, they are uniquely positioned to drive a shift in planning approaches that goes beyond technological solutions. Therefore it is crucial to consider how PCTs were planned and how we can rethink planning to build for a sustainable future. What is more, there remains a lack of shared frameworks, standardized taxonomies, and common glossaries in this domain. While individual ports and cities have acknowledged the importance of energy transitions in their development strategies, coordinated and systematic approaches across PCTs are still emerging.

Within COST Action "Port City Territories in Action: A collaborative Laboratory for Inclusive Energy Transition" (PACT), launched in 2024, an interdisciplinary group of researchers and stakeholders address the complex spatial and socio-cultural implications of energy transition that inform planning in port city territories. Five working groups engage critically on the topic of energy transition, by focusing on how to include hitherto silenced or unseen stakeholders, and studying the dynamic interplay between global and local circumstances and geopolitical strategies.

PACT tackles the challenge of balancing economic growth with ecological and social priorities, aiming to involve diverse actors — both those who promote and those affected by energy transition interventions – in developing methodologies for knowledge co-production and updating collaborative planning for just transitions.

This roundtable's objective is twofold: to present concrete planning perspectives and visions, starting from PACT's case studies (Dubrovnik, Le Havre, Limassol, Lisbon, Livorno, and Rotterdam), and to discuss how to build our work towards a policy note for port-city stakeholders. Moreover, this roundtable makes space for discussions and conversation with a broader audience, as well as long term beyond the congress.

1597 | Planning with Ecosystem Services: Pathways for integration

Thu 2.7.14:00-15:30, Roundtable B, U147 U5

Convenors: Isabel Loupa Ramos, Lina Hoyos-Rojas

Speakers: Lina Hoyos-Rojas, Maria do Rosário Partidário, Anna M. Hesperger, Luis Inostroza, Isabel Loupa Ramos

The IPBES Global Assessment (2019) identified land use and cover change as major drivers of biodiversity loss and ecosystem degradation. More recently, the Kunming–Montreal Global Biodiversity Framework (2022) emphasized the critical role of spatial planning in fostering biodiversity-inclusive territories in the context of climate change and competing land uses. Despite growing evidence that enhancing ecosystem services (ES) benefits biodiversity and informs policy-making, their integration into spatial planning lags behind international commitments.

Recent studies highlight the significant contributions of green infrastructure, nature-based solutions, and stewardship actions to ES delivery. Furthermore, spatial planning has the potential to enhance and integrate strategies and legal frameworks that support territorial development, such as the Territorial Agenda 2030, Strategic Environmental Impact Assessment, the Nature Restoration Law, or the Common Agricultural Policy.

This roundtable aims to foster a sharing knowledge environment on pathways for integrating ecosystem services and spatial planning across all stages of the process—from agenda setting, visioning, and objective formulation to diagnosis, strategy development, proposal design, project implementation, regulation, and evaluation—and to assess their potential for advancing international biodiversity goals in cities and beyond urban contexts.

To this end, we will discuss:

(i) How can the integration of ES be strengthened within spatial planning?

(ii) How can spatial planning benefit from the land sparing / land sharing debate?

(iii) What is the role of monitoring in promoting the continuous enhancement and protection of biodiversity through spatial planning?

(iv) How can stakeholders become active promoters of ES in spatial planning governance?

The session aims to serve as a stepping stone toward consolidating a thematic group within the AESOP network. It will be supported by printed materials designed to foster interactive discussion among speakers and participants, encouraging reflection on the opportunities, challenges, and requirements for integrating Ecosystem Services into a comprehensive and forward-looking planning framework.

1147 | Decolonizing Climate Urbanism: Justice, Precarious Housing, and Community-based Resilience from the Global South

Thu 2.7.14:00-15:30, Roundtable C, U142 U4

Convenors: Maria Carolina Maziviero, Pedro Henrique Campello Torres

Speakers: Maria Carolina Maziviero, Pedro Henrique Campello Torres, Pedro Roberto Jacobi, Raimundo Nonato Júnior, Gioacchino Piras, Susanne Boerner, Saurabh Arora, Elisa Magnani

This roundtable explores how climate adaptation and urban planning intersect with inequalities in precarious housing and marginalized territories across the Global South. As cities and rural areas alike face increasing heatwaves, floods, and sea-level rise, the burden of climate impacts falls disproportionately on low-income communities and small-scale producers. Yet, these same communities are also spaces of innovation, where collective practices, ancestral knowledges, and youth-led initiatives generate alternative pathways of resilience and wellbeing.

The discussion will interrogate the neocolonial dynamics embedded in dominant narratives of “green” and “resilient” cities, which often reproduce Northern epistemologies while disregarding the situated knowledge and political agency of peripheral populations. Bringing together scholars engaged in critical urban and rural studies, the roundtable will debate how community-driven adaptation and co-produced infrastructures can reframe planning towards justice, transformation, and social wellbeing.

Contributors will reflect on experiences from Brazil, India, and other Global South regions, examining participatory governance, youth protagonism, local experimentation, and transdisciplinary collaboration as means to challenge extractive models of development. Emphasizing the relational ties between urban peripheries and rural landscapes, this session proposes a pluriversal understanding of climate planning — one that values collective care, intergenerational knowledge, and ecological sustainability as inseparable dimensions of adaptation and justice.

1379 | Training Urbanists and Planners in Latin America and the Caribbean

Thu 2.7.14:00-15:30, Roundtable D, U141 U3

Convenors: Juan Demerutis-Arenas, Beatriz Rave-Herrera, Flavio Janches

Speakers: Juan Demerutis-Arenas, Beatriz Rave-Herrera, Luciana Travassos, Kay Bergamini

In an increasingly globalized world, the teaching methods and content used to train urban planners and urbanists must also evolve, especially at the current crossroads of civilization, which calls for profound transformations in cities and territories. Hence, the academic interest in analyzing the extent to which Latin American universities are capable of preparing professionals to face new urban challenges, considering issues such as the SDGs, the climate crisis, the ethical extent of planning, the comparison of

undergraduate and graduate degrees in different contexts, and the contribution of new technologies to the planner's skills, among others.

Latin American national similarities and dissimilarities are opportunities for spatial, terminological, academic, and scientific diversity serves as a stimulus for comparison: distinctions can be made, for example, between professional focus (urban planner, urbanists), curricular structure (undergraduate, graduate), the relationship between academia and practice (university, professional associations), and teaching methodologies (classroom, city). Terms such as urbanism, urban planning, and land use planning suggest heterogeneous approaches and curricula, not only among countries, but also among disciplines, schools, and degrees.

Inter-regional education is also an issue to be addressed. Technology allows for more possibilities for shared education. There are multiple possibilities to offer trans local programs and experimental practices in different regions of the world.

The range of supply and demand for training those who "plan cities" arises from a continuum that ranges from multidisciplinary to transdisciplinary. This raises key questions for further exploration of the best approaches to teaching, learning, and researching sustainable urban and territorial development, including the design, planning, management, and evaluation of these processes. Consequently, the scales, disciplines, and stakeholders of urban planning become methodological and didactic issues that must be adapted to the city—and not the other way around—when designing curricula.

1486 | Affect in planning pedagogy: preparing practitioners for uncertain futures

Thu 2.7.14:00-15:30, Roundtable F, U 157 U2

Convenors: Joanna Kocsis, Meaghan McSorley, Keisha Maloney

Speakers: Joanna Kocsis, Meaghan McSorley, Keisha Maloney, Aditi Mehta

Considering mounting crises, instability and increasingly unpredictable futures, it is clear that planners require a dynamic and adaptable skill set that goes beyond the conventional technical skills valued in planning. Sandercock (2023, p. 267) refers to relational awareness, humility, patience, intentionality, and courage, what she calls “being skills”, as key to the effective training of planners. Her concern echoes earlier calls on interpersonal effectiveness (Argyris and Schön,1972), and critical pragmatism (Forester, 2013). Education scholarship names these “affective learning.” This panel aims to bring together planning scholars to explore the design of educational experiences that foster affective learning that supports the development of inclusive, adaptive, and ethical planners.

Affective learning encompasses values, interests, feelings, attitudes, motivations, and behaviors (Shepherd, 2008). However, it remains a tacit outcome in planning curricula; students muddle through group work and community-engaged projects without adequate preparation or support through the relational complexities that arise, leaving them vulnerable to burnout (Lyles and Swearingen White, 2019). Despite increasing agreement on the importance of affective learning in planning pedagogy, Wilson (2020, p. 2) points out that many planning instructors are “ill-equipped to facilitate constructive conversations…where our students can talk through their blind spots and develop the emotional capacity

and cultural humility (Sweet 2018) required to fully grapple with the implications of systemic inequities in their own work."

Drawing on their combined experience teaching affective capabilities in planning and publishing about their importance, panelists will discuss affect as a critical framework for instructors and students to make sense of their experiences in and beyond the classroom. We will share experiences designing and implementing pedagogical activities to engage students in affective learning and discuss student-designed activities and simulations that recreate multi-stakeholder engagements around complex problems. Many of these activities focus on the embodied experiences of conflict and negotiation with no easy answers.

1697 | Revisiting the Global Land Question: Governance, Inequality, and the Future of Land Policy

Thu 2.7.14:00-15:30, Roundtable G, U135a U7 PWC

Convenors: Sina Shahab, Deniz Ay, Thomas Hartmann

Speakers: Sina Shahab, Deniz Ay, Thomas Hartmann, Line Algoed, Małgorzata Barbara Havel, Chaitawat Boonjubun, Andreas Hengstermann, Bankolay Theodore Turay

This roundtable seeks to foster a high-level, interdisciplinary dialogue on the re-emergence of the global "land question" as a defining challenge of the 21st century. Land remains a fundamental yet increasingly contested resource, the basis of human settlement, economic activity, and environmental sustainability, and the arena through which power, inequality, and identity are negotiated. Across diverse national and regional contexts, questions of who owns, controls, and benefits from land have become ever more complex in the face of rapid urbanisation, financialisation of property markets, climate change, and growing socio-economic divides.

This roundtable will explore how these global transformations and challenges are reshaping both the meaning and governance of land. It will address how competing claims (between public, collective, and private interests, growth and equity, and development and conservation) play out within different institutional and cultural settings. By bringing together scholars from various backgrounds, the discussion will illuminate how contemporary land governance reflects broader political and moral questions: how societies value space, how they negotiate fairness in its distribution, and how they reconcile market imperatives with environmental and social responsibilities.

Participants will examine emerging patterns and shared challenges across regions, including the unequal distribution of land rights, the expansion of urban land markets, the dispossession of marginalised groups, and the implications of climate adaptation policies for spatial justice. The discussion aims to move beyond technical or region-specific perspectives, instead articulating a more integrated understanding of land as both a material and symbolic foundation of collective life.

Ultimately, the roundtable will serve as a platform for rethinking the principles and priorities that underpin land policy in an age of planetary crisis. It invites participants to consider how new forms of governance, institutional innovation, and civic participation might contribute to more just, inclusive, and sustainable relationships between people, land, and place.

1739 | From Reflection to Transformation, ACSP-AESOP

Thu 2.7.16:00-17:30, Roundtable A, U149 U6

Convenors: Hossam Hewidy, Antonio Raciti

Speakers: Hossam Hewidy, Antonio Raciti, Deden Rukmana, Justin Hollander, Lauren Fischer, Robert Pfaff, Andrea Frank, Maria Håkansson, Laura Saija, Tijana Dabovic

This roundtable explores the tension between reactive and proactive paradigms in urban planning education. The persistent gap between education and practice, alongside a professional identity crisis, underscores the need for integrative, future-oriented teaching strategies (Arefi, 2019). Central to this debate is whether planning programmes should replicate professional norms or foster transformative learning that prepares students as agents of change. A Europe-wide survey shows climate-change competencies remain unevenly embedded in curricula, highlighting the need for more comprehensive, well-resourced climate resilience education (Johnson et al., 2025). In the U.S., planning education is entering a transdisciplinary era, building on prior phases of professionalisation, disciplinary negotiation, accreditation, and internationalised studio teaching (Anacker, 2024). Scholarship emphasises urban design as a core pedagogical approach, fostering spatial, analytical, ethical, and collaborative skills for complex urban challenges (Peker, 2025). At the theoretical level, planning theory often relies on idealised or utopian models offering limited guidance for real-world uncertainties and complexities (Hewidy & Mady, forthcoming). By convening educators and researchers from ACSP and AESOP, the session examines how institutional, cultural, and policy contexts shape the evolving role of planning education in responding to—and anticipating—urban challenges.

Arefi, M., (2019). Reflection-In-Action in Land Use Planning: Can We Do Better? Planning, Practice & Research

Anacker, K. B. (2024). The Evolution of the Four Eras of Urban Planning Education in the United States. Journal of Planning Education and Research

Hewidy, H. & Mady, C. (forthcoming) From Theory to Practice: Enhancing Planning Theory Education Through Active Learning and Peer Collaboration, The Nordic Journal of Architectural Research

Johnson, C., et al., (2025). Are Spatial Planning Schools across Europe Teaching Climate Change? A Survey of Curricula in the European Context. Journal of Planning Education and Research

Peker, E. (2025). Framing the values of teaching urban design in planning education. PlaNext : Next Generation Planning

2842 | Land-care planning: innovative tools for adaptive and collaborative governance processes

Thu 2.7.16:00-17:30, Roundtable B, U147 U5

Convenors: Romina D'Ascanio, Benedetta Giudice

Speakers: Romina D'Ascanio, Benedetta Giudice, Valeria Lingua, Stefano Magaudda, Angioletta Voghera, Silvana Segapeli, Josefina López Galdeano

Across Europe and beyond, landscapes are increasingly recognised as commons, shared spaces where ecological, social, and cultural values converge. Managing and caring for these territories means recognising land not merely as a resource, but as a living system shaped by collective relationships and responsibilities. This understanding calls for collaborative forms of governance that go beyond technical solutions, embracing the diversity of voices, knowledge systems, and practices that shape each place. In this perspective, land care becomes both a practice and an ethical framework, rooted in the idea that communities can actively co-manage and regenerate their environments. Over the past years, numerous participatory initiatives have experimented with new ways of co-designing and co-governing the commons, offering valuable insights into how collective action can strengthen the relationship between people and place, and foster models of governance grounded in care, reciprocity, and resilience.
This roundtable explores how participatory governance practices can inform and inspire new models of land care that integrate social, ecological, and institutional dimensions. Drawing from diverse experiences in landscape management and territorial planning, the discussion aims to highlight innovative tools and collaborative frameworks that enable communities, local authorities, and stakeholders to co-design a sustainable vision for the futures of their territories. Participants will reflect on lessons learned from existing governance experiments, both successful and challenging, and consider how these can evolve into shared systems of responsibility and care. By connecting practice, policy, and research, the roundtable seeks to advance a collective understanding of land care as a key element in the transition toward more inclusive and resilient territorial governance.

917 | The Contemporary Challenges of Planning History Research and Pedagogy

Thu 2.7.16:00-17:30, Roundtable C, U142 U4

Convenors: Yvonne Rydin, Yasminah Beebeejaun

Speakers: Yvonne Rydin, Andy Inch, Michael Short, Michelle Thompson-Fawcett, Alison Todes

Our understandings of the past are changing, with greater recognition of the legacies of colonisation and imperialism and their specific impact on planning systems and practices through time. We are also more aware that established planning histories have often failed to give voice to segments of society, notably women, children, working class communities and ethnic minorities. This is creating a new planning historiography based on the idea that planning history is inevitably plural and contested. These insights lay behind the production of a new planning history textbook, New Planning Histories, edited by Lauren Andres, Yasminah Beebeejaun and Yvonne Rydin, and published by Palgrave in 2025. This roundtable brings together some of the editors and authors of New Planning Histories, to discuss the contemporary challenges of both researching and teaching planning history, particularly in a time when we are facing populist pressures for a return to more conservative historical narratives. While New Planning Histories presents recent research, there will be a particular focus on linking this to pedagogic practices and the role that textbook publication can play in relation to such practices.

1730 | PlaNext–Next Generation Planning Journal: Emerging Editorial Visions in Planning Research

Thu 2.7.16:00-17:30, Roundtable D, U141 U3

Convenors: Asma Mehan, Elisa Privitera, Subhashree Nath

Speakers: Asma Mehan, Elisa Privitera, Subhashree Nath, Francesca Leccis, Milan Husar, Sıla Ceren Varış Husar

In an era marked by rapid socio-spatial change, technological upheaval, and mounting global crises, scholarly publishing in planning must continually innovate to stay relevant, inclusive and critically engaged. This roundtable convenes board-members and editors of plaNext to reflect on the evolution of the journal, share emerging editorial visions, and plot agendas for the next generation of planning scholarship. The dialogue will explore questions such as: How can open access and young-academic networks strengthen global North/South research collaborations? What editorial strategies best support radical interdisciplinarity and socially-just planning research? How do we curate methodological innovation, theoretical reflexivity and policy relevance within the constraints of academic publishing? Panelists will draw on their editorial experience to debate the roles of early-career scholars, thematic diversity, decolonial imaginaries, and the changing digital publishing landscape. Attendees will be invited to engage with the panel through a moderated Q&A, generating a collaborative roadmap for future issues of plaNext and related initiatives.

2010 | Co-production in practice: From local experiments to a European Agenda

Thu 2.7.16:00-17:30, Roundtable E, U154 U1 VALMET

Convenors: Dahae Lee, Patricia Feiertag

Speakers: Dahae Lee, Patricia Feiertag, Laura Calbet, Francesca Bragaglia, Gavin Parker

Co-production, originating in the work of Ostrom and other economists, refers to the active contribution of both the public sector and citizens in providing public goods and services (Ostrom 1996). Since the 2000s, the concept has gained increasing attention, particularly in the context of austerity and new governance (Bingham et al. 2005). While it has become popular across multiple disciplines, planning is no exception. A recent study indicates that since the 2010s, there has been a significant increase in publications addressing co-production within the planning field (Lee et al. 2024). Interestingly, most of the literature on co-production in the planning field comes from Europe, showing that research on this topic is largely concentrated in European contexts. The large number of publications indicate that co-production is a significant and prioritised area of study, often linked to ongoing policy experiments and institutional reforms. This roundtable, thus, aims to bring together experiences from multiple European countries – such as Germany, the Netherlands, Italy, and Portugal – to explore how co-production can address contemporary challenges across Europe. By discussing tensions between institutionalisation and experimentation, participants will consider whether co-production should remain a flexible, innovative approach or become part of mainstream policy and planning. They will also consider sustainability, scalability, and transferability of co-productive approaches across diverse European contexts. Finally the roundtable will explore the role of research, policy, and communities in shaping a shared European agenda for co-production.

Bingham, L.B., Nabatchi, T., & O'Leary, R. (2005). The new governance: Practices and processes for stakeholder and citizen participation in the work of government. Public Administration Review, 65(5), 528-539.

Lee, D., Feiertag, L., & Unger, L. (2024). Defining co-production: A review of the planning literature. Journal of Planning Literature, 39(2), 227-240.

Ostrom, E. (1996). Crossing the great divide: Coproduction, synergy, and development. World Development, 24(6), 1073-1087.

2583 | Towards a new European spatial vision: farsighted planning among uncertain circumstance

Thu 2.7.16:00-17:30, Roundtable F, U 157 U2

Convenors: Martin Reents, Eva Purkarthofer

Speakers: Martin Reents, Beate Caesar, Giancarlo Cotella, Eva Purkarthofer, James W. Scott, Franziska Sielker, Olivier Sykes, Maciej Zathey

European Spatial Development Perspective (ESDP) was published in 1999, after a profound, 6-year-long preparation. The document not only did prepare the so-far biggest enlargement of the EU through the provision of a comprehensive analysis on spatial processes and new dynamics and a new spatial vision facilitating appropriate territorial policies, but it opened the gate for decisive initiatives resulting in the launch of the ESPON Programme, the development of the concept of territorial cohesion, and the publication of the series of Territorial Agendas.

The foreseen new enlargement of the EU with Ukraine and Moldova, and the expected further enlargement with the Western Balkans countries, make it inevitable to rethink and envisage the spatial dynamics the enlargement will create, and to pave the way for appropriate policy responses both at the national and European level. The Ministers responsible for territorial development committed the ESPON programme to launch this process through a foresight study, which will provide evidence for a new European territorial development vision.

Not only will vision-making offer new perspectives for an enlarged and more diverse European Union, but it will create the framework for visionary planning, which has been paralysed by the most recent series of crises, generating a more hectic and ad-hoc policy-making within the EU. Accordingly, the vision should react to the greatest spatial challenges the integration process is facing today, and forecast new policy interventions.

How should this vision be developed? Which factors should be taken into account? How can the academic sphere and sciences contribute to its shaping? What challenges do the experts foresee for the process? How can a comprehensive spatial vision change the principles of Cohesion Policy, and the Member States' attitude to territorial policies defined at a national level today? The invitees of the round-table discussion will discuss these topics.

1804 | Planning Urbicided Gaza: Challenging the Emerging Planning Paradigms Shaped by Hegemonic States and Economic Powers in Post-War Reconstruction

Thu 2.7.16:00-17:30, Roundtable G, U135a U7 PWC

Convenors: Yosef Jabareen, Orwa Switat

Speakers: Yosef Jabareen, Orwa Switat, Oren Yiftachel

In the aftermath of an intensive urbicidal war waged by Israel—one that devastated the vast majority of Gaza's housing, infrastructure, universities, mosques, churches, and schools—global and regional powers, including the United States, Israel, and their associated political and economic elites, think tanks, and research institutions, have begun preparing large-scale plans to reconstruct the Strip. The scale of systematic destruction and the profound loss of life have opened the door to competing visions for Gaza's future, many of which are being developed by these actors.

This roundtable argues that these reconstruction proposals signal the emergence of a new global planning paradigm—one that operates as a direct extension of military power. A distinct mode of planning is taking shape that continues the logic of violent intervention through spatial reorganization, land-use restructuring, neoliberal economic development, housing schemes, mega-urban projects, and port reconfiguration. In this sense, reconstruction becomes a continuation of the battlefield by other means.

Crucially, these actors are proposing plans outside their territorial boundaries, in extra-colonized spaces beyond their formal jurisdiction. This expanding extraterritorial planning regime embeds geopolitical and economic interests directly into Gaza's future urban and social landscape, transforming reconstruction into a mechanism of extended control rather than a pathway for rebuilding life. Planning thus assumes a violent, dispossessive, and colonizing role—one that restructures space in ways that deepen domination rather than enable recovery or self-determination, including the recovery of individual, family, and national traumas.

The roundtable will open with a critical presentation of key reconstruction plans. Building on this foundation, it examines how these initiatives encode political assumptions, priorities, and world sensibilities. Although presented as technical and apolitical, these plans are deeply entangled with geopolitical agendas that constrain and often displace local agency, positioning Gaza not as a sovereign space but as a managed asset shaped by neocolonial interests.

2979 | AESOP-CEU Roundtable: Bridging Future Demands Between Academia and Practice

Thu 2.7.17:45-19:15, Roundtable A, U149 U6

Convenors: Catherine Vilquin, Karina Pallagst

Speakers: Tomasz Majda, Karina Pallagst, Martin Reents, Maros Finka, Catherine Vilquin, Susa Eräranta

Planning as an academic discipline has a closer relationship with its practice counterpart than many other academic disciplines. Yet this relationship remains in healthy tension, with each challenging the other over issues such as the role of theory and ethics, what should be covered by planning education and which organisations have the most pressing need for professional planners. Simultaneously, we can ask similar questions about the extent to which practice and academia can be considered coherent at the European scale.

This relationship is also shaped by structural changes and challenges that are reshaping both the practice and academic fields, from the creeping digitalisation and neo-liberalisation that challenge the

fundamental role of planners, to the need to reconcile environmental breakdown with increasing population pressures.

This roundtable will take the opportunity to explore the dynamic relationship between the fields of practice and academic across Europe head-on.

Drawing together representatives of the European Council of Spatial Planners (ECTP-CEU) and of the Association of European Schools of Planning (AESOP), this roundtable will explore the contemporary relationship between the fields of practice and academia on three fronts:

1. To what extent can we talk about a shared, pan-European understanding of the form and purposes of planning?

2. What is the contemporary state of European cross-border territorial planning?

3. What is the future demand for planners and what skills do they need?

Each theme will be addressed by one speaker on behalf of ECTP-CEU and one speaker on behalf of AESOP.

1749 | Navigating Justice in Planning Practice: Integrating Distributive Rules and Diverse Perspectives

Thu 2.7.17:45-19:15, Roundtable B, U147 U5

Convenors: Helena Schuch, Céline Janssen, Maria Käpyvaara

Speakers: Helena Schuch, Maria Käpyvaara, Hanna Mattila, Stefano Moroni, Thulisile Mphambukeli, Heather Campbell

A central element of any theory of justice is the distributive rule: the principle used to determine how the benefits and burdens of a society should be allocated. In the context of spatial justice, these benefits (such as access to health and education infrastructure) and burdens (such as exposure to pollution) are critical areas of research and debate. This roundtable will explore how distributive rules can be applied in planning practice. These include:

- Prioritarian approaches (prioritizing the needs of vulnerable or historically marginalized groups)
- Egalitarian approaches (promoting equality of resources, capabilities, or opportunities)
- Desert-based approaches (rewarding specific actions or characteristics, such as supporting eco-friendly behaviours)

When tackling complex global challenges such as climate change, global health or access to education, various rules may be argued for in different contexts. Therefore, the core challenge in planning is not simply choosing one distributive rule, but finding ways to integrate or negotiate multiple perspectives effectively. This raises a critical question: How can planning navigate between, and potentially reconcile, different justice perspectives to achieve fair outcomes in practice? To address this question, the roundtable brings together both theoretical and empirical researchers studying planning across global contexts, including South Africa, South-East Asia, North America, and Europe. Discussions will focus on:

1. How to conceptualize and pursue just planning in light of vastly different governance regimes and circumstances across the globe.

2. Ways to argue for, combine, and articulate different distributive rules to foster understanding and fair decision-making in planning practice.

3. The insights and limitations justice theories offer for navigating societal diversity in planning tasks.

By engaging with these topics, the roundtable aims to advance the conversation on how to achieve justice in planning amidst complexity and diversity.

2094 | Density & Climate Change: Housing for equitable and inclusive outcomes

Thu 2.7.17:45-19:15, Roundtable C, U142 U4

Convenors: Nicola Livingstone, James White, Hannah Hickman

Speakers: Nicola Livingstone, James White, Hannah Hickman, Michael Short, Stefania Fiorentino, Ben Clifford

This roundtable will situate debates around density for housing across varied international urban contexts, examining how more equitable and inclusive outcomes could be achieved for individuals, neighbourhoods, wider communities and markets. Myriad challenges within planning, design and governance processes will be presented, considering ongoing responses to considered, sustainable construction in light of climate change and decarbonisation agendas for a more just urban future. The roundtable will consider how higher density housing could emerge through state and market behaviours, enhancing inclusive growth and lived experiences, in light of protracted and ongoing housing crises (e.g. UK, Ireland, Australia, Canada). The theme will provide reflective and exploratory perspectives on place-based initiatives in contemporary markets, moving towards the creation of a future research agenda which questions what 'successful' higher density living looks like in variegated urban contexts.

967 | Urban planning as a project of national military violence

Thu 2.7.17:45-19:15, Roundtable D, U141 U3

Convenors: Justin Hollander

Speakers: Sultan Barakat, Paul Cureton, Galen Newman, Justin Hollander, Qiong He

War across the planet has profound implications for cities and planning practice, yet little scholarship engages directly in such topics. This roundtable uses the current war in Ukraine to consider how State power is facilitated through military power. Participants will grapple with historical perspectives and the experience of planning in Ukraine.

The panel will discuss the ways State power exists and is maintained through violence and the threat of violence, through what Yiftachel calls “social control” (Yiftachel 1998; 2). Yiftachel (1998) insists that it is through this State control that elites develop and implement rules, laws, and plans that reinforce existing power structures and oppress the weak. Foucauldian planners have substantially expanded the definition of planning to incorporate these oppressive qualities of the State, exposing discriminatory and practices

that are harmful to minority groups (Flyvberg 1996 Sandercock 1995; Asibey, Poku-Boansi and Adutwum 2021).

Panelists will debate ways that planning only becomes possible because of State power, which is made possible by military power. This kind of framing of the planning function as a subset of government controlled military violence does not fully explain why there is so much variation in outcomes across capitalist countries, nor does it account for the role that grass-roots led progressive movements play in enacting change. Nevertheless, it does highlight how planners operate at the pleasure of leaders whose grasp on power is dependent on their ability to use violence.

The roundtable will consider ways that planning education globally can more directly cover the role that military violence plays in contemporary planning practice and how scholars find ways to incorporate this understanding and perspective into their scholarship.

1215 | Reflections on the Performative Character of Participatory Planning

Thu 2.7.17:45-19:15, Roundtable E, U154 U1 VALMET

Convenors: Janice Barry, Dan Milz, Pamela Robinson

Speakers: Janice Barry, Andy Inch, Samantha Biglieri, Meaghan McSorley, Dan Milz, Pamela Robinson

For over half a century, planning professionals have adopted participation as an opportunity for democratising planning and engaging with different forms of situated local knowledge. However, these purported 'virtues' of participatory planning (Barry & Legacy 2023) are rarely realised. The practices in which state actors engage members of the public have become well-established routines that are increasingly challenged as rigid bureaucratic exercises (Haughton & McManus 2019) and members of the public are increasingly disenchanted, often experiencing high emotional costs (Inch 2015). Many of these challenges became even more pronounced during the COVID-19 pandemic. Not only did participatory processes shift to an online environment (Milz et al. 2023), but the growing visibility of the #BLM and #LandBack movements meant that community engagement practitioners were also grappling with how to use their practice to challenge anti-Black and anti-Indigenous racism and colonialism (Beebeejaun 2024; Quick 2024).

This roundtable includes the editors and several authors from a forthcoming book, Rethinking Participatory Planning: Innovations in Theory and Practice in a Divided and Digital World. The roundtable participants will summarize and collectively reflect on ten draft 'provocations' that were prepared for the first half of the book and highlight some the dynamics that seem to be pulling participatory planning away from its purported 'virtues' towards a highly performative set of practices that scrub dissent, difference, and contestation from planning processes. The panelists will highlight issues related to the professionalization of participation, the impact of new technologies, the coloniality of participation, and the need for more emotional intelligence. The participants will also consider potential avenues for transforming and breathing new life into the theory and practice of participatory planning.

2728 | Transformation of public space in European large housing estates – Dealing with planning challenges

Thu 2.7.17:45-19:15, Roundtable F, U 157 U2

Convenors: Thomas Verbeek, Stefanie Rößler, Milena Tasheva-Petrova

Speakers: Thomas Verbeek, Stefanie Rößler, Milena Tasheva-Petrova, Melinda Benkö, Sandra Treija, Florian Faurisson

This roundtable explores the planning paradigms shaping large housing estates (LHEs) across Europe in the context of the ongoing sustainability transition. In particular, it addresses the role of public space in relation to the renewed emphasis on proximity, active mobility, and reduced car dependency inspired by the “15-minute city” ideal.

Across Europe, LHEs have followed diverse trajectories over recent decades and are now situated within markedly different planning frameworks. These differences shape both their potential and their challenges in contributing to sustainable urban transformation. Building on the collaborative work of the 15minESTATES European project—which seeks to adapt and operationalize the 15-minute city concept for LHEs—we bring together experts from various European contexts to discuss specific challenges and to collectively identify ways forward.

The roundtable will begin with a series of brief presentations introducing case studies from different regions. Each presentation will highlight distinct challenges linked to the transformation and sustainability transition of LHEs. These may include, among others, privatization processes, complex ownership structures, population aging, hyperdiversity, demographic shrinkage, marginalisation, social safety and questions of responsibility for public space.

Following the presentations, ample time will be dedicated to open discussion. Participants will exchange insights and jointly explore potential approaches, pathways, and strategies to foster sustainable transformation in LHEs across Europe.

2807 | Scenarios for Living with Water: Adaptive Futures Along the Dutch Land–Water Continuum

Thu 2.7.17:45-19:15, Roundtable G, U135a U7 PWC

Convenors: Hadi El Hage, Alankrita Sarkar, Tara Kanj

Speakers: Hadi El Hage, Alankrita Sarkar, Tara Kanj, Francesco Musco, Saskia Naafs, Sophia Arbara, Panu Lehtovuori, Peter Pelzer, Aleksi Neuvonen, Carola Hein

Scenario planning offers a crucial framework for imagining and preparing for uncertain futures. This roundtable convenes research spanning diverse domains yet converges on a shared focus: deploying scenario planning to meaningfully inform planning and design along the land–water continuum in Dutch cities facing accelerating climate risks. While scenarios often generate rich, situated knowledge, their translation into actionable design interventions, governance strategies, or policy recommendations remains a persistent challenge. The discussion highlights the value of scenarios as analytical and synthesising instruments that reveal vulnerabilities, expose trade-offs, and identify turning points for long-term adaptation. Through a critical comparison of methodologies, from visioning to speculative

design, from social-science-driven narratives to adaptive pathway modelling, and from co-design processes that mobilize local expertise and stakeholder participation, the session reflects on how different disciplinary approaches shape scenario outcomes and their relevance for spatial practice. Crucially, it acknowledges that not all scenarios aim for desirable futures; adverse scenarios can be equally generative, often revealing vulnerabilities invisible in more optimistic pathways. Scenarios are particularly valuable when understood as potential future developments that can build upon and succeed one another.

Building on this, speakers will examine how scenario outputs support flexible planning rather than deterministic blueprints, and how they can be operationalised to guide climate-resilient design guidelines, port-city strategies, and policy frameworks. By situating the conversation within the lived realities of delta regions and Netherlands' long tradition of water management, the roundtable asks what it means to live with water today.

The session positions scenario planning as a collective learning process, capable of integrating social, ecological, and spatial insights to support adaptive and just futures along the land–water continuum. It addresses multiple ways scenario planning can be applied, the diverse forms it can take, and the different conclusions that emerge when approached through varying disciplinary lenses and attitudes.

1874 | Political Ecology of Planning

Fri 3.7.09:00-10:30, Roundtable A, U149 U6

Convenors: Ludger Gailing, Markus Leibenath, Tanja Mölders

Speakers: Ludger Gailing, Markus Leibenath, Tanja Mölders, Jonathan Metzger, Deike Peters

Spatial planning is confronted with a polycrisis of the Earth System, i.e. a disruption of the subsystems, such as the atmosphere, oceans and biosphere. From a spatial perspective it becomes obvious that these systems are entirely social-ecological systems that cannot be traced back to natural or social entities and ecological disasters are inextricably linked to social and global inequality. Consequently, hybrid crises as the climate crisis and biodiversity loss give rise to socio-ecological transformation requirements.

These transformation requirements are advocated or supported by some actors, but opposed by many others. Transformation can therefore only be understood in social and political terms, with diverse spatial dimensions and planning necessities. Political Ecology, as a heterogeneous field of research that takes a critical stance towards issues such as inequalities, power relations, and dualisms in social relations with non-human nature, has not yet been systematically explored for planning sciences, unlike in other disciplines such as human geography or political science.

The aim of the roundtable is to bring planning into dialogue with Political Ecology. Thereby, we refer to a broad strand of theoretical reasoning and empirical research that is united by a common focus on the political implications of social constructions of nature and related policies, and by a sensitivity and critical stance towards power and domination. In particular, we are interested in four interrelated key objects of political ecologists' critique and their salience for planning research, namely: (a) dualistic

notions of nature, gender, and use versus protection; (b) capitalism and the pro-growth paradigm; (c) uneven global relations, extractivism, and (neo)colonialism; and (d) epistemic universalism. By bringing together planning scholars of different theoretical and/ or empirical orientations, we want to incite a lively debate on potential interfaces between Political Ecology and planning research, as well as options for future collaborations.

959 | Law – a Remedy or a Disease of Spatial Planning Systems?

Fri 3.7.09:00-10:30, Roundtable B, U147 U5

Convenors: Maciej Nowak, Giancarlo Cotella

Speakers: Maciej Nowak, Giancarlo Cotella, Tuna Tasan-Kok, Stefano Moroni, Peter Schmitt, Donato Casavola

Spatial planning law is expected to provide the legal framework for the application of key planning instruments (including, for instance, spatial plans), as well as to guarantee the protection of valuable spatial assets (environmental, natural, or cultural). In other words, the law should facilitate the implementation of the fundamental objectives of spatial planning, even when these are articulated in non-legal terms. Furthermore, spatial planning law should establish the principles for resolving the most complex and contentious spatial conflicts. On the other hand, the law is used by segments of civil society to oppose transformation. The essential question, therefore, is how the law should perform these functions: which factors are conducive, and which are obstructive. This issue opens up a number of related questions:

- How should the balance be struck between the optimal level of detail in legal regulations and the flexibility required for their application?
- How should the boundaries of thematic areas covered by legal regulation be delineated (and in which spheres might non-legal solutions suffice)?
- How should the relationships between law, strategic spatial planning, and prevailing routinised informal institutions be shaped?

A separate yet closely related issue concerns the way in which law (through legal regulations) frames the objectives and values of planning. Most of these originate outside the legal domain, yet they are codified in legal acts. The challenge lies in ensuring that such objectives and values are taken into account during the interpretation of detailed provisions by courts or public administration authorities, where their significance is often overlooked.

The aim of the roundtable will be to identify the key elements that constitute the role of law in spatial planning. Participants in the debate will attempt to define the essential characteristics of spatial planning law in light of universal challenges.

2034 | Planning for Whom or for What? The Uncomfortable Truth About 21st Century Motivations

Fri 3.7.09:00-10:30, Roundtable C, U142 U4

Convenors: Hannah Hickman, Katie McClymont, Jeffrey Biggar

Speakers: Hannah Hickman, Katie McClymont, Jeffrey Biggar, Paul Burton, James White, Tristan Claus

The public interest is the "pivot around which debates about the nature of planning and its purposes turn" (Campbell and Marshall 1998, 181) and remains encapsulated in professional codes around the globe.

Consequentially, much previous reporting of the motivations of professional planners has emphasised public service motivation (PSM) as the determining factor in encouraging planners into the profession (Fox-Rogers and Murphy 2016), with planners reported to be highly intrinsically motivated by achieving social improvements (Knox and Masilola 1990).

However, a recent large-scale study of home and international planning students in the UK suggests a significantly less predominant role for public service in the motivations of future planners, who instead see their motivations largely directed towards achieving environmental change (Hickman, McClymont and Melasecchi 2025). In parallel, there is a growing body of work on the increasing proportion of planners employed in private practice (See Inch, Matthew, and Malcolm 2023; Linovski 2019), with many young planners now choosing to start their careers in private practice. Notwithstanding the idea private-sector planners can perceive themselves as motivated by the public interest (Sturzaker and Hickman 2024), this shift questions the value of PSM as the framing for motivation in planning.

Understanding the motivations of current and future practitioners is critically important for planning pedagogy in nurturing motivation through curriculum design, but also for practice in relation to diminishing emphasis on public service and privatisation of practice.

This roundtable will promote debate on the motivations of 21st century planners and the need for new theorizing of motivation in planning, in the context of shifting society and practice. In particular, it will draw on ideas of "collective stewardship motivation," or "civic-ecological motivation" (Hickman, McClymont and Melasecchi 2025) as a way of embracing young planners' environmental motivations whilst reflecting planning's longstanding commitment to the public interest.

995 | Land Policies for Reducing Land Take in Europe

Fri 3.7.09:00-10:30, Roundtable D, U141 U3

Convenors: Peter Lacoere, Thomas Hartmann

Speakers: Peter Lacoere, Thomas Hartmann, Sina Shahab, Andreas Hengstermann, Arthur Schindelegger, Hans Leinfelder

The European Union’s No Net Land Take (NNLT) policy seeks to halt the loss of natural and agricultural land by requiring that new land consumption be offset through restoration or reuse, aiming for net-zero land take by 2050. Because the EU lacks direct spatial planning competence, member states must implement the policy through national and subnational tools (e.g. national legislation, planning regulation). However, the urgency of addressing housing shortages often takes precedence. In many countries, housing supply is seen as a more politically salient and urgent goal, which can conflict with restrictive land-use controls needed for NNLT. At the same time, efforts toward deregulation in spatial

planning further complicate the alignment of national NNLT aims with actionable local control, weakening the enforceability of no net land take ambitions.

For NNLT objectives to succeed, the allocation and the distribution must be aligned. This conceptual alignment echoes the framework that effective land policy in Europe hinges on integrating allocation and distribution instruments within a coherent policy package that addresses both spatial efficiency and social equity.

The local scale, especially municipal land policy, reveals the real tensions in implementation. In housing development, allocation and distribution are often well aligned (municipalities allocate buildable sites and manage distribution via land regulation or subsidies). In contrast, under NNLT, the allocation goal (to limit new land consumption) frequently lacks a complementary distribution mechanism. There is seldom a built-in transfer of property rights, compensation, or redistribution of burdens. This misalignment constitutes a core challenge for NNLT. Overcoming it will require embedding land policy mechanisms. The participants of this roundtable will address and discuss innovative land policies to reduce land take in Europe.

This roundtable draws on an international working group 'Land Take in Europe - In Pursuit of Net Zero' supported by the ARL.

2027 | Street Transformations for Urban Justice? Reflections on the challenges and opportunities of creating inclusive, sustainable and healthy public spaces.

Fri 3.7.09:00-10:30, Roundtable E, U154 U1 VALMET

Convenors: Jonne Silonsaari, Sabina Cioboata, Samuel Nello-Deakin

Speakers: Jonne Silonsaari, Sabina Cioboata, Samuel Nello-Deakin, Enrica Papa, Elisabetta Vitale Brovarone, Johannes Mesimäki, Anu Tuominen, Floridea di Commo

Transforming car-centric streets towards a more balanced mix of uses has become widely recognized as a key urban policy to achieve liveability and sustainability goals related to social cohesion, climate adaptation, public health and transportation. Particularly since the COVID-19 pandemic, concepts such as complete streets, tactical urbanism, superblocks and street experiments have become a mainstay of urban policy in cities worldwide (Bertolini, 2020).

Despite (or perhaps because of) the proliferation of street transformations, they also raise question on who benefits and who loses from them. They can create or strengthen existing socio-spatial inequalities, raise issues of inclusiveness and representation, or lead to unintended consequences such as green gentrification (Anguelovski et al 2023, Nello-Deakin 2024). Street transformation projects often create conflict and disagreement among actors, which can water down the end-results but also allow for mutual learning (Verloo & Davis, 2021). Building upon previous efforts in this direction (Smeds and Verlinghieri, 2023) and a broader critical turn towards critical transport studies (Kębłowski et al. 2019), this round table session focuses on diverse aspects of equity, inclusivity and justice in street transformations.

The discussants represent four sibling projects from the European Commission's Urban Public Space Design thematic project cluster (AMIGOS, REALLOCATE, ELABORATOR, JUST STREETS). The participants

reflect on the successes and opportunities but also failures and challenges of creating more inclusive, sustainable and healthy public spaces across dozens of European cities. By juxtaposing a variety of urban contexts, issues around different marginalized groups, and methodological approaches, the session creates an open and critical space for reflection, showing ways forward for future projects and research initiatives.

2179 | The role of recognition in the planning of pluralist cities

Fri 3.7.09:00-10:30, Roundtable F, U 157 U2

Convenors: Onni Hirvonen, Hanna Mattila

Speakers: Onni Hirvonen, Hanna Mattila, Tino Buchholz, Aleksi Heinilä, Aino Hirvola, Simon Thompson

The increasing socio-economic and cultural diversity in cities has paved way for the introduction of the concept of recognition in the field of planning studies. Drawing from contemporary critical social philosophy, the discourse on recognition has thus far pointed to the gap between procedural and distributive justice in planning. Procedural justice has guided the development of communicative theories of planning, whereas distributive justice has focused on the ways in which planning distributes different kinds of goods and bads in cities. The concept of recognition, in turn, combines intersubjectivity, self-formation, and the material environment in a critical fashion. It has proved helpful in analysing, for instance, how existing distributions of welfare marginalize certain groups, leading to their misrecognition or non-recognition in planning processes where the future distributions are at stake.

But could the concept of recognition have a more profound role than the one that refers to the lack of point of entry of certain groups in planning? Could it challenge more comprehensively distributive justice that is typically approached in economic and not in cultural terms? Or, could it change the ways in which we approach participatory processes, providing tools to look beyond the current processes and investigate the ways in which the agencies of the participants develop, or are hindered from developing? Furthermore, how should we approach “recognition” in empirical terms, and how should we conceptualize recognition beyond intersubjective relations, in the context of institutional and material environments? “The role of recognition in the planning of pluralist cities” roundtable brings together scholars from the fields of planning, philosophy, political theory and law to reflect jointly on the possibilities that the concept of recognition could have in planning theory and practice.

2020 | Moving forward with Conversations in Planning: encounters with John Forester, and more

Fri 3.7.11:00-12:30, Roundtable A, U149 U6

Convenors: Mario Paris, Giusy Pappalardo, Federico Camerin

Speakers: Mario Paris, Giusy Pappalardo, Federico Camerin, Raine Mäntysalo, Martin Westin, Qing Yuan Guo, Elisa Privitera

The Conversations-in-Planning YA-AESOP booklet series, an initiative of AESOP’s Young Academics (YA) network, active since 2014, has the aim to foster meaningful dialogues between experienced and younger

scholars on theories, concepts, ideas, and practices in spatial planning. As part of this series, the upcoming booklet featuring John Forester in conversation with Giusy Pappalardo and Martin Westin offers an opportunity to revisit Forester's influential contributions to planning theory and practice through an intergenerational and dialogical lens.

Building on the forthcoming John Forester booklet, this roundtable will explore how Forester's work continues to shape contemporary planning debates—particularly regarding deliberative practice, conflict transformation, and the ethics of professional action, under the framework of critical pragmatism The roundtable will provide a space to discuss how dialogical engagement, as captured in the booklet format, can illuminate the evolution of planning thought and inspire new research directions for young scholars.

Objectives

1. Exploring the contribution of John Forester to planning theory and practice The roundtable will reflect on the key themes emerging from the new booklet and consider Forester's legacy in shaping deliberative planning, negotiation, and the role of planners as mediators and reflective practitioners.

2. Situating the Forester booklet within the Conversations-in-Planning project We discuss how this issue exemplifies the aims of the series—intergenerational exchange, critical reflection, and accessible scholarly dialogue—and how such conversations can support intellectual development within the YA community.

3. Presenting complementary forthcoming booklets Brief insights will be offered into the other two booklets currently in preparation—Erik Swyngedouw in conversation with Elisa Privitera and Ali Madanipour's upcoming booklet—highlighting convergences and divergences in their contributions to planning debates and how they collectively enrich the series.

4. Looking ahead: future trajectories of the booklet series The roundtable will conclude by outlining upcoming calls and emerging thematic directions, encouraging participation from YAs and the broader AESOP community.

The session will be briefly introduced by the organisers and open the floor to discussion among booklet's authors, reviewers and various contributors, as well as the broader audience.

Leading questions and interventions will be structured into two distinct blocks.

• The first round of reflections will be guided by the following question: In what ways can critical pragmatism—and, more broadly, John Forester's articulated contributions to planning theory and practice—inform and shape new trajectories for planning in response to contemporary challenges?

• The second round of reflections will be framed by the question: What defines the Booklet format as a distinctive contribution within the editorial planning landscape, and in what respects might it be further enhanced?

1204 | Social equity and Land Value Capture

Fri 3.7.11:00-12:30, Roundtable B, U147 U5

Convenors: Angelique Chettiparamb, Kaio Nogueira

Speakers: Angelique Chettiparamb, Kaio Nogueira, Richard Dunning, Sejal Patel, Yesim Sungu-Eryilmaz, Kaio Noguiera, Joseph Ayitio

Cities are increasingly leveraging Land Value Capture (LVC) policies to share public investment costs with private actors. Much of the research focus has been on strategies for taxing land value increments (Jones and Stephens, 2020), the importance of institutional robustness for effective implementation (Hengstermann and Viallon, 2022), and the interplay between value creation and value capture (Kim, 2020). There has been limited exploration of the justice and equity dimensions of LVC, with some exceptions (e.g., Beatley, 1988; Fainstein, 2012; Perez-Moreno, 2024). This roundtable explores the spatial and social equity impacts of development contributions from across the world. Contributions will cover experiences from UK, India, US, Brazil and Africa.

In UK, planners act as equity arbiters in LVC, trading off who wins: small numbers of new residents through lower housing costs, all new residents through place-making enhancements, or spatially broader beneficiaries through off-site infrastructure improvements.

In India, Transferable Development Rights are enabling mechanisms for developers to redevelop housing for the urban poor living in slums and public housing. The question is whether these mechanisms are effectively and accountably utilized to enhance liveability of the urban poor.

In US, negotiated community benefits, despite their flexibility, risk side lining broader goals of equity and a community's long-term vision. How then do we balance pragmatic deal-making with the pursuit of a more equitable, future-oriented urban development?

In São Paulo for two decades, developers have been charged for the right to build, with the revenue intended to support infrastructure investment in underdeveloped areas. This contribution will argue that in practice the allocation of funds are largely shaped by political priorities.

In Ghana, recent legal reforms have enabled local governments to capture increases in land value for public investments. However, the equity ambitions of LVC remains undermined by institutional fragmentation that serves to (re)produce spatial inequality.

2856 | The AI shake. Opportunity or threat for urban systems?

Fri 3.7.11:00-12:30, Roundtable F, U 157 U2

Convenors: Oren Yiftachel, Camilla Perrone, Valeria Fedeli, Grazia Concilio

Speakers: Oren Yiftachel, Camilla Perrone, Valeria Fedeli, Anna De Liddo, Dino Borri, Maryam Karimi, Claudio Rossi

In the last decades, cities and societies have been undergoing an unprecedented process of digital transformation. This process impacts multiple dimensions of urban life: from high-level planning to service provision, from city-scale political discourses to day-to-day urban life.
More recently, artificial intelligence gained prominence as a disruptive digital technology, making the conceptual link between Artificial Intelligence and Urban Planning and Management give life to a very productive scientific as well as practical interplay. These two fields of scientific investigation converge at

the intersection of knowledge and action, a perpetual theoretical and practical "drama" that shapes agency in urban environments, as well as a focal point of AI development.
It is not imperative for everybody to become AI experts or coders. However, it remains equally true that eschewing discourse on the interplay between AI and its applications in urban planning and management may inadvertently expose action to the negative and ambiguous impacts that are already widely observed and discussed. Planners, urban managers, consultants and public administrations are entrusted with the responsibility of navigating these risky and ambiguous perspectives to harness the positive implications of AI.
The round table brings together some international experts to critically discuss the complexities and controversies of the uses of AI from the perspective of cities, their public administrators, their citizens and the planning actors.

Keywords:
• Digital transition
• AI and planning agency
• Digital mobility and bordering
• Uneven digital citizenship
• Renewal or end of democracy

912 | Deindustrialization vs. Reindustrialization: Forms, Scales, and Agendas in Contemporary Metropolises

Fri 3.7.14:00-15:30, Roundtable C, U142 U4

Convenors: Eduardo Alberto Cusce Nobre, Stefano Di Vita

Speakers: Eduardo Alberto Cusce Nobre, Stefano Di Vita, Yonn Dierwechter, Cecil Madell, Clarissa Gagliardi, Monica Carvalho

In the beginning of the 21st Century, the increasing submission of industrial production to the logic of Financial Capitalism has brought back the debate on the issues of industrialization in both Global North and South. Since the start-up of globalization in the 1980s, the governments' neoliberal approach has encouraged both the development of a production system controlled by monopolistic transnational corporations, and the growing financialization of the urban spaces, resulting in processes of deindustrialization. These processes occurred first in most upper-income countries, but recently they have become relevant in middle-income countries as well. The threats represented by the recent crises (environmental, political, social and health) have caused governments to contain their neoliberal stance by adopting public policies to support reindustrialization. The aim of this session is to assess comparatively the reindustrialization policies promoted by different supra-national, national, and local authorities, trying to understand: (1) which are the potentials and contradictions of these efforts; (2) what is the role of industry in contemporary cities nowadays; (3) which are the roles of spatial studies, planning, and design to deal with this transition from an inclusive and antifragility perspective ; (4) which are the more adequate territorial scales to understand this new phenomenon; (5) in this new trend, what is the incidence of manufacturing in comparison to that of logistics. For this, it will assess the

experiences of the metropolises of four countries in different contexts and continents: Brazil, Italy, United States of America and South Africa.

1555 | Planning Ethnographies: Reflecting on the Potentials and Challenges of Ethnographic Methods in Planning Research

Fri 3.7.14:00-15:30, Roundtable D, U141 U3

Convenors: Eva Purkarthofer

Speakers: Eva Purkarthofer, Harriet Dunn, Tiina-Riitta Lappi, Jonne Silonsaari, Jenni Kuoppa, Sofia Wiberg, Ömer Melikoğlu

Ethnographic methods are widely used in many social sciences, as they represent a unique way for researchers to immerse themselves into the lived reality of their objects of study. By studying phenomena in their real-life context, ethnographies reveal relationships, practices, and behaviours that other research methods might overlook and thus might more accurately capture the complexities encountered in the organization of society.

In the field of urban and regional planning, ethnographic methods can provide crucial insights into issues such as the interplay of agency and structure in the creation of planning policies, the daily routines of politicians, planners, and citizens, or the effects of changes in the built environment on the lives of specific groups. Despite their significant potential to provide unique insights into the complicated, emotional, cultural, social, and human dimensions of planning, ethnographic methods have to date only been sporadically used in planning research.

This roundtable invites researchers who have recently used ethnographic methods to share their experiences and reflect on the suitability of ethnographic methods to research spatial issues. Contributors are invited to reflect on the practical, ethical, and conceptual challenges faced as well as their skill development when conducting the research. The roundtable will also discuss the field-specific challenges associated with ethnographic research, for example the highly political and sometimes sensitive nature of negotiations and planning decisions, and the needed strategies for trust building between researchers and study participants. Not least, the roundtable will address the potential challenges associated with publishing ethnography-oriented research, specifically how to fit extensive, nuanced and complex research results into standardized publishing formats like journal articles.

By discussing the usefulness of ethnography-based methods in the field of planning and the challenges in applying such methods, the roundtable aims to provide a constructive forum for everyone interested in the use of ethnographic methods.

2462 | Streets as Livelihoods: Practices and Policies on Street Vending from the Global South

Fri 3.7.14:00-15:30, Roundtable F, U 157 U2

Convenors: Binita Mahato, Deden Rukmana

Speakers: Nicha Tantivess, Deden Rukmana, Binita Mahato

Streets have been the lifelines of cities both historically and in modern times. Especially in the Global South, streets serve a role beyond being mere thoroughfares – they are places where many live and earn a living. In rapidly urbanizing countries of the Global South, growth tends to take informal routes, which include informal ways of living and working in major metropolitan cities. The informal sector, a diverse set of unregulated economic activities, dominates the world economy today. 52% of the world's total employment is in the informal sector, with developing nations accounting for more than 80%. Although the informal sector includes a wide variety of informal employment, including household or construction work, the majority of it is comprised of vending (aka hawking) activities in public spaces, such as squares, streets, or sidewalks. Hawking and street vending are the primary means of livelihood for many urban poor. However, their occupation is subject to the risks of insecurities, economic instability, health hazards, territorial conflicts, and displacement. In response to such challenges, street hawkers and vendors resort to innovative ways to sustain their livelihood. Due to the lack of proper government intervention in this regard, vendors have employed various strategies, such as forming grassroots organizations, participating in government projects, and reforming laws and regulations, to maintain their livelihoods through street vending. This roundtable will bring together scholars who have expertise in the tacit and formal ways in which street vendors operate across the Global South. The speakers will draw on case studies from their respective countries to examine the various practices and policies street vendors employ for survival and sustainability. The roundtable aims to present and exchange comparative practices, policies, and ideas that can inform planners, law and policymakers, and local governments in countries of the Global South in managing street vendors.

GPEAN Special Sessions

Are We Educating the Same Planner? International Perspectives on Planning Education

Tue 30.6.17:45-19:15, Y203a B-sali

Convenors: Deden Rukmana

Speakers: Deden Rukmana, Daniel Inkoom, Ahsan Habib, Hossam Hewidy, Beatriz Elena Rave Herrera, Jose Ricardo Vargas de Faria, Aysin Dedekorkut-Howes, Jean-Michel Roux, Bobi Setiawan, Holi Bina Wijaya, Zeynep Enlil

This session presents preliminary findings from a comparative analysis of planning education frameworks across member associations of the Global Planning Education Association Network (GPEAN). It explores how planning education systems in different regions conceptualize and define the core competencies expected of professional planners. These include planning theory and history, urban and regional development, analytical and spatial analysis skills, stakeholder engagement, communication and leadership, sustainability, and interdisciplinary collaboration.

The discussion situates these competencies within the context of pressing global challenges, such as climate change, socio-spatial inequality, rapid urbanization, informality, and evolving governance arrangements. By examining both convergences and divergences in educational frameworks, the session invites reflection on whether a shared understanding of the “global planner” is emerging, and what this means for planning education and professional practice worldwide.

Dialogues in Planning for Climate Change: Enduring Challenges and Transformative Pathways

Fri 3.7.9:00-10:30, Y203a B-sali

Convenors: Aysin Dedekorkut-Howes

Speakers: Aysin Dedekorkut-Howes, Anrea Frank, Antti Roose, Luciana Travassos, Clara Elena Irazabal Zurita, Deniz Erdem Okumuş, Ivis Garcia, Anna Hürlimann

This session examines the evolving global landscape of climate change planning and highlights both the breadth and unevenness of planning scholarship and practice across world regions. While climate change poses shared and escalating risks, existing research remains heavily concentrated in developed countries, leaving significant gaps in knowledge from the Global South, smaller cities, and peri urban and rural contexts. With examples of scholarship from Brazil, Turkey, the Baltic Sea Region, the United States and Australia the session examines how planners engage with climate mitigation and adaptation across diverse governance contexts, hazard types, and planning systems. The session emphasizes the need for transformative, system wide approaches to address deep structural inequities and escalating climate impacts. It also underscores the importance of policy experimentation, community led initiatives, and interdisciplinary collaboration in scaling effective adaptation. Finally, it points to the critical need for planning education reform, arguing that climate change must become a core competency in planning curricula worldwide to prepare planners for climate responsive practice.

Track 1: Accessibility and Mobility

Track chairs: Ela Babalık, Ehab Diab, Milos Mladenovic, Enrica Papa, Tuuli Toivonen

Inclusive & Just Mobility I

Tue 30.6.14:00-15:30, Accessibility and Mobility A, U413 | Session chair(s): Ehab Diab

1026 | Emilia Mehrgans

No Car, No Access? Exploring Transport Poverty and Everyday Mobility in Rural Areas of Nordsachsen, Germany

In many rural regions, owning a private car remains crucial for accessing work, education, and essential services. Using the example of Nordsachsen (Germany), this master's thesis explores how people experience their everyday mobility. The study aims to identify the mobility patterns and needs of low-income and mobility-impaired groups in rural areas, analyse spatial and social barriers that restrict mobility and highlight structural challenges, and propose context-specific and inclusive solutions to improve accessibility and participation. Methodologically, GIS-based accessibility analysis is combined with problem-centred interviews and mental mapping to connect spatial structures with lived experiences.

The focus lies on people without a car due to financial constraints, age, illness, lacking a driving licence, or fear of driving. Based on qualitative insights, the study develops a concise typology of rural mobility profiles that highlights different mobility patterns and needs. Findings reveal gendered dynamics (care mobility, safety concerns) and barriers for migrants whose non-EU licences are only temporarily recognised. Coping strategies include volunteer driving initiatives, family support networks, informal ride-sharing, trip chaining, and the use of e-bikes and mopeds.

In parallel, demand-responsive mobility pilots: the on-demand bus FLEXA, the community bus Arzberg, and the autonomous shuttle FLASH, are evaluated as innovative solutions to improve accessibility. While they offer flexible routing and better access, challenges persist regarding user-friendliness, long-term financing, and staffing.

Overall, the results highlight a core paradox of rural car dependence: older adults feel pressured to continue driving far beyond their comfort zone, while car-free households face severely limited life opportunities. The thesis concludes with planning recommendations for a socially just "mobility without ownership" model, including safe cycling networks, reactivated rail lines, community-based and autonomous on-demand services, and socially balanced fares.

This research directly addresses the track "Accessibility and Mobility" and offers practical insights for improving mobility and inclusion in peripheral rural regions.

1025 | Anna Grochowska, Milena Żyża

Social tensions in the implementation of Clean Transport Zones: the case of Wrocław, Poland

The growing urgency to mitigate urban air pollution has led many European cities to implement Clean Transport Zones (CTZs) as tools of sustainable mobility policy. While these zones aim to reduce vehicular emissions and improve public health, their local introduction often reveals profound social tensions. This talk explores the social dimension of transport transition through the case study of Wrocław - a mid-sized Polish city currently preparing to implement its first CTZ.

Based on legal analysis, interviews with key stakeholders, and comparisons with selected European cities, the study exposes a complex interplay between environmental goals and public resistance. In Wrocław, conflicts have emerged around procedural transparency, exemption criteria, and the perceived socio-spatial impacts of the proposed zone. These tensions are amplified by limited institutional trust, underinvestment in public transport, and a political environment sensitive to populist narratives.

Far from being a neutral technical measure, the CTZ has become a site of political and social contestation - where questions of urban equity, participatory governance, and legitimacy intersect. The case highlights that successful implementation requires more than legal compliance or infrastructure - it demands public trust, inclusive communication, and adaptive policymaking.

By situating Wrocław's experience within broader European debates, this presentation contributes to an urgent discussion on how cities can transition toward low-emission futures without deepening social divides.

1450 | Yanyun MAO, Marcus ZEPF

Paradigm Shift in the Post-Pandemic Urban Planning: Adaptability and Inclusiveness of Shanghai's Urban Bus System

In the post-pandemic era, urban planning confronts mounting pressures from economic uncertainty, climate crises, and geopolitical fragmentation, which have challenged its territorial legitimacy and democratic validity. This study proposes "adaptive planning" as a transformative paradigm capable of engaging with complexity, uncertainty, and crisis. Defined by short-cycle feedback, dynamic adjustment, and multi-actor participation, "adaptive planning" integrates experimental urbanism into mainstream planning, advancing an iterative "sensing–responding–learning" framework. It replaces established planning practices with continuous monitoring, real-time feedback, and interdisciplinary collaboration, fostering planning approaches that evolve through interaction and learning. Within the context of global interdependences, this paradigm also critically examining how big data and generative AI shape spatial justice and digital inequality.

Building on this theoretical foundation, we explore how "adaptive planning" enhances the governance and resilience of community-scale bus systems in Shanghai. Current planning approaches still fail to address dynamic mobility demands arising from demographic transitions, shifting travel behaviors, and sudden disruptions. Through scenario simulations, the study examines three contexts: (1) event-driven demand surges managed through temporary loops and flexible dispatching; (2) long-term demographic

aging accommodated by responsive stops and low-floor microbuses to enhance inclusiveness; and (3) spatially constrained neighborhoods served by electric minibuses and demand-based halts to bridge metro blind zones. These adaptive interventions demonstrate how the bus network's "capillary" flexibility complements the metro's structural "skeleton," strengthening sustainable mobility and spatial equity.

From a governance perspective, embedding "adaptive planning" in bus systems constitutes a governance revolution driven by experimentation, decentralization, and digital intelligence. Soft regulations and localized decision-making empower communities as co-producers of mobility, while AI-based analytics enable real-time policy iteration and balance efficiency with democratic participation. The findings suggest that "adaptive planning" not only mitigates supply–demand mismatches but also offers a scalable pathway to advance mobility justice, digital inclusion, and green transition in global urban contexts.

1141 | Yodan Rofe, Karel Martens

Caught between a Housing and Transportation Crisis: Creating a Combined Index for Housing and Transportation Affordability and Accessibility in Israel

Urban housing affordability has become a global crisis, as housing costs outpace wages in many cities. This widening gap pushes residents to suburban and peri-urban locations, often leading to reduced accessibility and creating a "double injustice". Many households are forced to choose between paying unaffordable housing costs or enduring long, costly commutes to reach daily destinations.

Using Israel as a case study, the research explores the intertwined crises: a housing affordability crisis in central areas, and a transport crisis marked by declining public transport use, rising congestion, and unreliable commutes. Government policies have emphasized large-scale housing projects in peripheral areas, often poorly connected to jobs and services. This approach increases car dependence, intensifying congestion.

We present ongoing research to develop a Housing + Transport Justice Index. The index advances theory in three ways: (1) by integrating cost into accessibility measures, (2) by accounting for households dependent on public transport, and (3) by recognizing the economic burden of forced car ownership. Together, these components offer a more robust representation of accessibility and affordability, providing a model that can be applied across diverse urban contexts worldwide.

Building on this theoretical foundation, the study applies the index to the Israeli case study to examine spatial injustice patterns in housing and transport. The research explores how households in different locations and socio-economic groups are affected, and how the index can be translated into a practical planning tool. The Israeli application highlights the lived consequences of double injustice and serves as a testbed for refining the index into a method that can guide corrective policy interventions.

Preliminary findings indicate that accessibility problems are not limited to low-income groups: nearly half of the population lives in areas that are "affordable but inaccessible." Moreover, accessibility shortfalls affect a broader share of the population than affordability challenges alone.

1191 | Samuel Nello-Deakin

Disciplining mobile subjects: assessing the fairness of urban traffic fines

While research on traffic policing and enforcement is largely dominated by technical studies from the field of traffic safety, critical accounts from historical and social studies perspectives have shown that traffic laws are socially constructed and selectively enforced, in ways which may either minimise or enhance existing power imbalances. Based on an exploratory analysis of open data on traffic fines in Barcelona for the years 2022-24, my presentation seeks to assess and reflect on the equity of traffic policing and enforcement strategies across transport modes. In the context of increased policing campaigns specifically targeting cyclists and e-scooters, I examine whether these two transport modes are being disproportionately targeted by traffic enforcement compared to motorists relative to their trip volumes and participation in traffic accidents. My findings show that cyclists and especially e-scooters are indeed overrepresented in traffic fines if we only look at manually issued fines, but not if we also include fines issued through automated traffic enforcement. Critically, the average monetary amount for fines issued to cyclists and e-scooters is much higher than for car drivers and motorcyclists. These disparities, I suggest, raise important questions regarding the fairness in the treatment of traffic offences between transport modes, hinting at an unspoken disciplining logic which sees traffic violations from cyclists and e-scooters as deserving exemplary punishment regardless of their actual impact on traffic safety or public space.

1111 | Orit Rotem-Mindali

Gender differences in pedestrian safety perceptions: the physical and digital spheres

Public spaces play a crucial role in urban life, yet safety perceptions influence mobility, accessibility and urban liveability. Although prior studies have addressed environmental factors shaping perceived safety, the role of digital technologies in smart cities, such as surveillance systems, smartphones and safety applications, remains underexplored. As cities adopt smart safety tools, further research is needed to understand their effects on gendered gaps in perceptions of safety, particularly by examining how women's fear shapes these disparities.

This study employed a two-stage approach. First, data from 48 countries were analysed to assess fear levels among pedestrians walking alone at night and examine gender disparities in safety perceptions using Sustainable Development Goal Parameter 16.1.4. Subsequently, a comprehensive survey of 754 participants in core cities of three Israeli metropolitan areas assessed gender differences in safety perceptions and mobility. The survey examined factors shaping safety in both the physical (e.g. lighting, street activity) and digital (e.g. smartphone apps, surveillance) spheres.

Findings show that women's fear strongly influences nighttime mobility. Women draw more security from active street environments and increasingly depend on smartphones to manage fear. The study underscores the need for a hybrid approach that integrates urban design, digital safety tools and community engagement. The findings contribute to the broader discourse on mobility, urban planning and gender-sensitive safety policies, emphasising the importance of integrating environmental design with emerging smart city technologies to foster inclusive public spaces.

Transport & Urban Planning

Tue 30.6.14:00-15:30, Accessibility and Mobility B, U414 | Session chair(s): Milos Mladenovic

2248 | Imge Akcakaya Waite, Hale Erez Kulekci

Co-producing mobility transformations: Stakeholder and institutional processes in Maltepe, Istanbul

Collaborative mobility planning has become increasingly important as cities seek new ways to navigate the political, financial, and institutional challenges of transforming street space. Because mobility interventions affect a wide spectrum of actors—from everyday users to operators and regulatory bodies—approaches that actively involve multiple stakeholders provide a more grounded and socially responsive basis for experimenting with active mobility. When diverse perspectives are integrated early and consistently, planning processes benefit from richer insights, clearer identification of conflicts, and stronger collective ownership. This study examines the collaboration process and the variety of perspectives shaping the Maltepe case of the ACCTRA project, funded through JPI Urban Europe's ERANET Cofund. ACCTRA aims to promote more sustainable, livable, and accessible cities by using street experiments to strengthen alternatives to car-oriented mobility, including walking, cycling, public transport, and micromobility. Beyond community-facing engagement, the Maltepe case also analyzes the decision-making processes of formal actors, which strongly influence whether experimental interventions advance toward permanent implementation. Primary research was conducted through semi-structured interviews with informed decision-makers, including municipal departments, mobility operators, and relevant regulatory bodies. The interviews explored institutional responsibilities, interdepartmental coordination, perceptions of political risk, and the administrative viability of proposed measures. This inquiry illuminated the formal mechanisms through which mobility interventions are authorized, negotiated, and adapted, as well as how institutional learning unfolds over time. The study presents findings from both the stakeholder engagement and formal decision-making dimensions, illustrating how these processes jointly shaped the active mobility street experiment in Maltepe. Lessons and recommendations derived from the case contribute to future efforts to design urban mobility transformations that are context-sensitive, participatory, and supported by both community actors and institutional decision-makers.

1196 | Serena Mombelli, Monika Maciejewska

Mobility of care, urban proximity, and suppressed travel: Exploring how spatial context shapes caregivers' mobility horizons.

Transport research has traditionally focused on observed travel, overlooking the unrealised dimension of everyday mobility—the trips that individuals wish to undertake but are unable to. Suppressed travel captures trips that remain unrealised due to mobility barriers. Recognising suppressed travel as a form of mobility deprivation broadens discussions of transport-related social exclusion and mobility justice by highlighting the social, spatial, and infrastructural factors that constrain people's access to essential destinations.

Although research on suppressed travel is growing, the role of active travel barriers remains underexplored. In addition, while previous studies have focused on the elderly and people with disabilities, caregivers, who also face mobility constraints and risk social exclusion, have received limited

attention. These constraints often result in trips being cancelled, postponed, or not attempted at all. Consequently, caregivers' and their dependants' everyday mobility and travel horizons remain poorly understood.

This study examines suppressed travel in the context of mobility of care —the gendered, relational mobility associated with unpaid caregiving responsibilities. It investigates how proximity to everyday destinations may alleviate mobility constraints and reduce suppressed travel. To do so, it employs data from a survey examining five dimensions of mobility—realised, scheduled, tentative, aspirational, and unimagined—among caregivers living in different proximity conditions in Barcelona and its metropolitan area. The survey addresses personal and household mobility as well as the mental labour involved in planning. Structural equation modelling is employed to analyse the relationships between urban proximity, travel suppression, and care. It is expected that caregivers in low-proximity environments will report higher levels of suppressed travel, particularly for personal trips, although shared caregiving responsibilities may mitigate these effects.

By situating suppressed travel within the context of mobility of care, this research reveals how urban proximity shapes both realised and unrealised mobility, guiding the development of inclusive, resilient, and care-sensitive mobility systems.

1695 | Thu Pham, Eva Purkarthofer

To what degree can planners influence policy change? An exploration of urban planners' role in designing transport policies in Espoo, Finland

Previous studies have identified tensions between the growth and sustainability paradigms (Hrelja 2011; Newman et al. 2013) as well as conflicts in the selection and calibrations of transport policies despite consensus on sustainability goals (Hrelja 2011; Isaksson, Antonson, and Eriksson 2017). While the importance of policy actors in shaping policy design is broadly acknowledged, actors' perceptions of their capacity to influence specific aspects of policy content, as well as their actual influence on policies, remains understudied. To address this gap, this study seeks to examine how urban planners perceive and exert their influence on policy design, including policy goals, policy instruments and policy calibration. It also investigates how personal and structural factors affect their capacity to influence policy change.

Applying Capano and Howlett's (2024) revised policy composition framework to analyze actor's influence on specific policy elements, the research draws on two main data sources: a Q methodology survey of urban planners in Finland and expert interviews with urban planners involved in transport policymaking in the City of Espoo. The former uncovers planners' perceived influence and scope of action, helping to identify different actor archetypes (Purkarthofer and Stead 2023). The latter discuss in more depth individual's actions and strategies to shape transport policies, and the importance of organizational practices and administrative culture for their work. Our study aims to shed light on individuals' roles in the policy design process and uncover the importance of agency in the hierarchical structure of policy composition.

944 | ChengHe Guan

Does visual exposure to green spaces significantly influence how people use urban parks

Urban green spaces are vital components of city landscapes, yet the role of visible greenery in promoting park use remains poorly understood due to limitations of static, correlational evidence. This study provides quasi-experimental evidence linking visual green exposure (VGE) to urban park engagement using large-scale human mobility data and panoramic imagery across Tokyo's 23 special wards. Employing propensity score matching (PSM), inverse probability weighting (IPW), and overlap weighting (OW), the analysis reveals that park visits experiencing above 30% VGE result in 3.36 minutes longer stays and 116.95 meters additional walking distance. However, these effects exhibit systematic spatial and temporal heterogeneity. Spatially, urban density mediates VGE's impact, high VGE boosts engagement in dense city centers but shortens walking distance in peri-urban areas. Temporally, time of day and week moderate effects, stronger positive effects of VGE emerge on weekends and during morning/midday hours, while engagement declines in evenings. Seasonally, spring and fall amplify VGE's influence with enhanced physical activity, while winter shows minimal effects despite year-round accessibility. These findings advance the literature by demonstrating that VGE is not only influential but also context-dependent, with spatial, diurnal, and seasonal variations shaping its effect. Our study provides causal, scalable evidence to inform targeted planning interventions, such as optimized canopy placement, strategic vegetation configuration, and adaptive maintenance schedules. By establishing clear causal evidence and translating visibility into engagement, this study offers actionable guidance for planners and policymakers seeking to enhance public interaction with nature in increasingly dense urban settings.

2479 | Elias Willberg, Robert Klein

Overcoming the trade-off between accessibility and greenery: Big data analysis of neighbourhoods in European cities

Advancing sustainability is a critical goal in urban planning and policy, with walking accessibility and urban greening emerging among key strategies. Enhancing access to destinations on foot and by bicycle can promote healthy lifestyles and reduce transport-related energy use, while urban greening provides a range of ecosystem services that support residents' health and wellbeing through multiple pathways. However, because of limited urban street space, an inherent trade-off exists between accessibility provision and expanded green cover, with city-level evidence suggesting a negative correlation between the two. Yet, this relationship has received little empirical study at higher spatial resolutions and may not hold at finer scales, including the neighbourhood level.

In this presentation, we present results from our ongoing research at the intersection of urban accessibility and greenery. By mapping walking accessibility to daily services across 43 European cities and linking the walking routes with vegetation cover data derived from high-resolution Sentinel-2 satellite imagery, we identify a consistent negative association between walking accessibility and greenery, empirically capturing the city-level trade-off between the two. By zooming into the neighbourhood level within a subset of study cities, and using various accessibility and greenery indicators, we further study the persistence of the negative trade-off and look at explanatory characteristics of those neighbourhoods that have managed to avoid it.

Our research offers empirical evidence on the relationship between accessibility and greenery at multiple spatial scales. These findings serve planning and policy in advancing both accessibility and greening-oriented sustainability strategies in European cities, while mitigating their mutual trade-offs.

2265 | Ville Helminen

Spatial preconditions for sustainable urban mobility – patterns and overlaps

Contemporary urban spatial structures have emerged as a result of the urban development enabled by automobiles. Three fundamental problems of urban sustainable mobility are closely related to urban spatial structure and urban planning: 1. The distance problem associated with dispersed spatial patterns in urban regions, 2. The issue of car dependency, which is embedded within urban spatial structures and 3. The environmental impact of increasing travel volumes generating more car traffic, congestion and land use needs. Therefore, sustainable mobility policies need to be tailored to specific spatial contexts to ensure their effectiveness. If not, the expected impacts may not materialize. There is a need for concepts and models that help to frame the spatial context and define the nature of these problems.

I employ the concept of three urban fabrics (UF) as a model for identifying and analyzing spatial patterns that represent different contexts and their relationships. According to the UF-concept, urban spatial structure consists of layers of walking, transit, and automobile fabrics. Fabric layers overlap in various ways in urban areas. The growth of the automobile fabric layer has generated fragmented urban landscapes and disrupted other fabric layers. Resulting patterns represent different spatial contexts of built environments and mobility options. First, I present GIS-based approach for identifying urban fabric areas in Finnish cities and discuss how these patterns act as a container of properties that influence mobility, which informs regional strategic planning. Second, I discuss how UF-layers overlap, which creates local and sub-regional planning problems. Finally, I debate how different spatial contexts set preconditions for implementation of environmental policy options in transportation: improve, shift and avoid. The goal is not to integrate predefined categories of land use and transport but rather to apply new categories that are defined based on how mobility and built environment mutually co-evolve in cities.

Inclusive & Just Mobility II

Tue 30.6.16:00-17:30, Accessibility and Mobility A, U413 | Session chair(s): Ela Babalık

1373 | Nuri Park, Jae Teuk Chin

Urban Growth and Spatial Equity of Social Infrastructures: Public–Private Dynamics in South Korean Cities

Over the past several decades of rapid economic growth, Korean cities have undergone dynamic spatial transformations. To evaluate how these urban changes have affected equity and inclusiveness of accessibility to social infrastructures (SIs), it is necessary to examine the temporal distribution patterns of SIs.

Since SIs play a crucial role in enhancing residents' quality of urban life, the public sector's role in ensuring equitable access is particularly important. However, as both public and private sectors provide SIs, their differing locational tendencies may influence accessibility equity to SIs.

This study aims to analyze temporal and spatial changes in SIs by distinguishing between public and private providers, thereby identifying the evolving role of the public sector in promoting equitable accessibility to SIs. By assessing accessibility through the lens of spatial equity defined as the fair distribution of services that account for social and economic contexts, this study seeks to provide policy implications for achieving more balanced and inclusive urban development.

The empirical analysis was conducted in several South Korean cities which have experienced continuous growth. It compares and analyzes accessibility to SIs over specific periods, identifying major patterns and trends. Based on the categorization of SIs into several sectors, the study examined differences between public and private SIs. It also investigated improving or worsening spatial equity of each city to understand the underlying causes of accessibility inequality. Finally, the study derived policy implications for each city regarding what types of facilities are needed in specific areas and what measures can be implemented to improve accessibility equity.

1712 | Ulysses Kamps, Christina Draeger

Assessing Sustainability and Equity Impacts of Canadian Urban Mobility Hubs Across Demographic Groups

Urban mobility hubs (UMHs) play a critical role within transportation networks, connecting multiple modes to promote sustainable mobility and reduce dependence on private vehicles in favor of active, shared, and public transit options. As UMHs often require substantial public investments, it is essential that they are strategically planned and provide equitable access. However, few studies have examined their impacts on equity and sustainability. This study evaluates accessibility to UMHs across Canada by both car and public transit, disaggregated by demographic groups, including age and sex, minority status, income, and education. We assess how different hub scenarios influence equitable access and sustainability outcomes. UMHs are categorized into three functional types: (1) current mode split hubs, which reflect existing commuting patterns; (2) high-capacity transit hubs, characterized by frequent and dense service; and (3) multimodal hubs, which integrate multiple transport services such as bus, rail, cycling, and shared mobility. Analyses are conducted at multiple spatial scales: national, provincial, and regional. Using network measures such as hub score, centrality, and betweenness, we capture the structural significance of hubs within the transport system, while multimodal routing algorithms estimate travel times, distances, and mode availability for both car and transit. Accessibility metrics are disaggregated by high-resolution, census-based demographics to assess equity, and spatial analyses examine geographic variation, demographic disparities, and differences across hub typologies and investment scenarios. This study presents the first national-scale evaluation of Canadian UMHs and a theoretical framework to assess hubs across multiple spatial scales and scenarios. By linking accessibility measures with demographic data, it reveals where gaps in access are most pronounced and how they differ across population groups. The results inform strategic investment in transit and multimodal infrastructure, guiding municipalities toward hub designs that expand sustainable travel options while ensuring equitable access to jobs, services, and opportunities for all citizens.

1258 | Andrea Rosso, Giulia Melis

Just Communication Strategies: Reframing Active Mobility through Inclusive and Empowering Narratives

Achieving just urban mobility requires more than new infrastructure — it demands a transformation in how we communicate mobility. This research introduces outcomes from "Just Communication Strategies" developed under the EU JUST STREETS project, designed to make active mobility communication equitable, compelling, and community-driven. By reframing narratives around justice, shared benefits, and lived experiences, the strategy empowers residents—particularly marginalized groups—and centers their voices in decision-making.

Grounded in an intersectional approach, the research draws on 28 in-depth interviews with experts across 18 countries—activists, policymakers, researchers, and media—to identify tailored communication techniques for eight key groups: children and parents, elderly, migrants, people with disabilities, women, LGBTQI+ individuals, and low-income communities.

The resulting strategies go beyond traditional information campaigns. They emphasize participatory storytelling, positive framing, universal messaging, and emotional resonance. These methods challenge efficiency-centered, car-dominated narratives by focusing on values such as safety, dignity, and autonomy, showing how car-centric systems often fail to deliver these—and how walking and cycling can help restore them.

We offer practical guidance for municipalities, researchers, and media professionals—from language shifts (e.g., replacing "car-free" with "active mobility zone") to inclusive visual design (e.g., representing diverse bodies and mobility aids) and community co-created campaigns.

Key themes include:

• Intersectionality: addressing overlapping identities to craft messages that resonate deeply.

• The emotional architecture of mobility: framing active travel as joyful, healthy, safe, and empowering.

• Communication justice: shifting the narrative from charity to equity, from individual responsibility to collective benefit.

• Visual language and framing: empowering visuals to break stereotypes and foster shared space.

• Words to dismantle prejudices: choosing language that normalizes active mobility for all.

By repositioning communication as a tool for justice, this work offers a framework for mobility stakeholders to build not only better streets—but to answer—a vital question: better for whom?

1385 | Junyoung Choi, Sunyong Eom

Balancing Efficiency and Equity in Walkable Living Areas through Optimized Amenity Placement Amidst Demographic Change

This study introduces an Linear Program Optimization based planning support module designed to facilitate the shift toward Walkable Living Area planning, rooted in the philosophy of Chrono-Urbanism. This approach aims to ensure that residents can access essential daily services and urban amenities through physical activity (walking, cycling) within an N-minute range of their homes, addressing growing social demands like population decline and aging. To support this, the module measures multi-modal accessibility (walking, bicycle, public transportation) using a comprehensive pedestrian network database. Crucially, accessibility is precisely diagnosed using the Two-Step Floating Catchment Area (2SFCA) method, which overcomes the limitations of simple distance metrics by simultaneously incorporating facility capacity (Sj0) and population demand (pk) within a given travel time threshold.

To address the strategic dilemma of resource allocation—balancing efficiency and equity—the module features two primary optimization models:

1. The Facility Consolidation Model (Efficiency-Oriented): Developed for shrinking or mid-sized cities, this model prioritizes operational efficiency by minimizing the overall weighted sum of travel distance and facility costs. It determines optimal service center locations and aids in the strategic closure or consolidation of redundant amenities.

2. The Accessibility Maximization Model (Equity-Oriented): Applied to stable or growing metropolitan areas, this model seeks to maximize equity by prioritizing new amenity placement. Its objective is to maximize the cumulative gain in accessibility, applying weights to favor improvement in regions with historically low service access.

By providing planners with quantitative simulations, this FOSS4G-based module supports transparent, evidence-based decision-making for designing more resilient, sustainable, and equitable urban communities.

1694 | Simon Stael, Freke Caset, Hannah Hook

THE IMPACT OF GHENT'S LOW-EMISSION ZONE ON PHYSICALLY DISABLED PERSONS

Low-Emission Zones (LEZs) are increasingly implemented across European cities to combat air pollution by restricting the most polluting vehicles. They have become crucial for meeting environmental targets, with their worldwide number expected to grow from 320 in 2022 to 507 by 2025. Despite their environmental benefits, LEZs have raised concerns about social equity, particularly regarding their impact on vulnerable, car-dependent groups, such as physically disabled persons. This study investigates two main research questions: How does the implementation of LEZs impact the everyday mobility experiences and needs of people with physical disabilities? To what extent do current flanking policy measures sufficiently meet these needs and why?

Through fourteen semi-structured interviews with physically disabled residents both inside and outside Ghent undertaken between 16 May and 18 June 2024, this research reveals that while participants are

aware of the LEZ, their understanding of its specifics and effectiveness is limited. The group appeared to be heavily car-dependent, with accessibility emerging as their primary concern, particularly regarding public transport and public spaces. Additional challenges include bureaucratic obstacles and inadequate recognition of disabilities. The study highlights that current policy measures often fall short in addressing the unique mobility needs of physically disabled individuals and suggests that improvements are needed in both policy design and implementation. While LEZs are a vital tool for improving urban air quality, their implementation must be managed carefully to avoid worsening existing inequalities. Recommendations include streamlining policies across municipalities, revising requirements to better accommodate physically disabled individuals, improving communication about exemptions, simplifying supporting measures, and investing in accessible public transport solutions. This research contributes to the discourse on the social implications of environmental and mobility policies and aims to guide policymakers in creating fairer and more effective measures.

1979 | Dipanjan Nag, Wendy Tan

Conceptualising and Co-Creating Mobility Justice Spatial Tools For The City Of Riga

Streets are contested spaces where practices of accessibility, safety, and inclusion are reproduced or transformed. This paper presents an innovative approach to operationalising mobility justice through collaborative spatial analysis, developed in partnership with the City of Riga, Latvia, as part of the JUST STREETS Horizon Europe project.

We present a spatial multi-criteria analysis model designed to support decision-making in two critical areas: identifying mobility justice potentials across Riga's street network and prioritising investment in street upgrades that advance safety, inclusivity, and accessibility. Rather than imposing predetermined justice metrics, our methodology centres co-creation: through three structured workshops with local stakeholders, city officials, and experts, we collaboratively conceptualised how mobility justice should be understood and operationalised in Riga's specific context. This participatory process translated abstract justice principles into concrete spatial indicators that reflect local values, needs, and priorities.

The model integrates Space Syntax analysis with GIS-based multi-criteria evaluation, combining network integration metrics, microscale street quality assessment, and equity-based demographic analysis. Workshop outputs directly informed indicator selection, weighting schemes, and scenario development, ensuring the model responds to situated knowledge rather than relying solely on technical assumptions.

A parallel objective was to build capacity for evidence-based planning. Through hands-on training sessions, municipal planners gained skills in spatial analysis methodologies, enabling sustained internal use beyond project completion. This dual focus on tool development and knowledge transfer positions Riga to lead evidence-informed, justice-centred mobility planning among Baltic cities.

Our findings demonstrate that co-created spatial analysis tools can bridge the gap between justice theory and planning practice, offering replicable methods for cities seeking to advance equitable, people-centred street transformations through rigorous, participatory, data-driven approaches.

TOD

Tue 30.6.16:00-17:30, Accessibility and Mobility B, U414 | Session chair(s): Wendy Tan

1296 | Ming Zhang, Do Yun Lee

NextGen TOD: Rethinking and Advancing Transit-Oriented Development for a New Era

Transit-oriented development, as initially conceptualized (TOD 1.0), aims to re-engineer the built environment to promote transit and walking and curb car-oriented sprawl. While widely adopted and practiced, TOD 1.0 faces increasing challenges amid growing societal concerns over inequality and climate crisis. TOD-advocated development densification and diversification could adversely affect neighborhood affordability, residential stability, and microclimate conditions. The emergence of disruptive transportation technologies has also brought both threats and opportunities to transit. This article calls for a paradigm shift, transforming TOD 1.0 to Next-Gen TOD in three aspects. First, Next-Gen TOD shifts the spatial focus from TOD nodes to corridors or networks to harness the network effects of transit systems. Second, Next-Gen TOD shifts the planning/policy focus from prescribing the attributes of 3-Ds (Density, Diversity, and Design) to balancing the outcome of 3-Es (Efficiency, Equity, and Eco-Adaptivity). Third, by including additional 2-Es, Evaluative and Educative, Next-Gen TOD operates as an analytical and engagement platform to support participatory process and informed choice of planning/policy options. The article presents two examples, Hong Kong West Kowloon HSR-TOD and TOD-based affordable housing modeling in Austin, TX, to illustrate the application of Next-Gen TOD.

1313 | Yu-Hsin Tsai, Jung Chen

The Impact of Elevated Walking Network in TOD Areas to Encourage Sustainable Travel Behavior

The emerging elevated-walkway networks around metro transit stations in five major cities in Taiwan have the potential to enhance the sustainability of transit-oriented development (TOD) and function as central hubs for X-minute cities as a co-benefit, neither of which were among the original planning goals. Traditionally perceived as pedestrian-unfriendly due to their limited accessibility, akin to a footbridge, elevated walkways can transform into inviting environments when planned as integrated networks, connecting numerous destinations within weather-protected, comfortable, and activity-rich settings. Theoretically, they can contribute to three of TOD's '5D' principles—pedestrian-friendly environment, accessibility to transit, and destination accessibility—thereby fostering stronger TOD settings and serving as central hubs for X-minute cities. However, the functions and impacts of elevated walkways within TOD and X-minute city frameworks, specifically regarding their capacity to encourage sustainable travel behavior, contribute to climate mitigation, and provide resilient urban settings, remain less studied. Considering these underexplored aspects, this study evaluates the impact of elevated walkway attributes on the travel patterns of trips originating from or destined for these areas. The evaluation specifically distinguishes between mass rapid transit trips, analyzed from a TOD perspective, and other local trips, examined within the X-minute city framework. Additionally, for trips occurring mostly within the walkway network, the study assesses how these attributes influence travel behavior, such as trip chaining. Surveys were conducted in August-September 2025 at four Taipei Metro transit station areas featuring elevated walkways, aiming to gather data on users' travel behavior and socio-economic characteristics. A sample size of 473 was obtained through stratified sampling. Spatial analysis, descriptive statistics, and multiple

regression will be conducted using GIS and SPSS. The findings are expected to contribute to planning guidelines for elevated walkways in station areas, especially those pursuing TOD or X-minute city concepts along rail transit in major Taiwanese cities.

1200 | Eduardo A. C. Nobre, Marina Pinheiro Marques, Gustavo Balena de Lima

TOD and Sustainability: Evaluation of Densification Strategies along the Mass Transport System in Sao Paulo, Brazil

The land use policy adopted in the city of São Paulo, Brazil, over the last fifty years has produced a sprawling, sparsely populated urban model, in which employment zones are separated from and poorly connected to low-income residential areas. This has resulted in a highly segregated metropolis, with a growing mobility and housing crisis, with higher prices near areas with greater job availability, infrastructure, and urban facilities. On the other hand, overcrowded transportation systems connect these zones with peripheral regions, which are predominantly dormitory towns, often located in environmentally sensitive areas.

Based on the TOD principle, the 2014 City Master Plan (By-Law 16,050) attempted to address this problem by establishing the Transformation Structuring Axes (EETUs), which are a 600m area around transport stations where higher building densities and use diversity are encouraged, in an attempt to shorten the long distance between work and home. Afterward, the EETUs were transformed into the Urban Structuring Zones (ZEU – Zonas de Estruturação Urbana) in the 2016 Zoning Law (By-Law 16,402).

This article seeks to reflect on the various spatial and socioeconomic transformations underway in the areas designated as ZEUs along metro lines 4 (Yellow) and 5 (Lilac). Four station surroundings on each axis were chosen to assess the urban restructuring processes underway in distinct urban settings. The aim is to verify the alignment between the objectives of the Structuring Axes and what is actually being produced in the territory, in order to assess whether the instrument contributes to a less segregated, more accessible, and more sustainable urban space.

The methods were based on a field survey, mapping of urban redevelopment through Geographic Information System (GIS) tools, and analyses of real estate market data (land use, built-up areas, and sales value), comparing them to the socioeconomic data from the 2010 and 2022 Demographic Censuses.

1810 | Chiang ShaoJun, Oliver F. Shyr

Using scenario simulation to evaluate Transit-Oriented Development in Tainan

This study focuses on the area surrounding Tainan Railway Station in Taiwan and aims to develop a multilayer modeling framework for real-time prediction of urban transport demand to support smart decision-making for Transit-Oriented Development (TOD). Conventional static system models struggle to capture spatial distributions, leading to limited flexibility in resource allocation and spatial development. To address this, the study integrates System Dynamics (SD), an Agent-Based Model (ABM), and an AI-driven spatiotemporal prediction model (Graph Neural Network plus LSTM) to simulate urban functions, behavioral heterogeneity, and real-time demand fluctuations. The approach links urban land use with

transport demand and is used to assess changes in population, industry, and accessibility around Tainan Railway Station, thereby estimating zone-level activity generation. Leveraging machine learning and historical data, the framework predicts per-minute origin and destination demand for each zone. These results provide a demand baseline for TOD area planning and, when combined with intelligent transportation systems, enhance the precision of operations and policy decisions, offering a theoretical reference for future planning of shared autonomous transport systems.

1861 | Christian Larisch

Beyond Extraction - Transit-Oriented Development Prospects in the Rhenish Mining Area

The Rhenish mining area, one of the largest brown coal mining regions in Germany, is facing extensive structural change as a result of the planned phase-out of coal mining by 2030. Spatial development, in particular the development of residential areas and rail infrastructure, plays a key role in the sustainable development of this transition region. Given the existing growth forecasts and a high development momentum, Transit Oriented Development (TOD) offers a proven strategic approach to regional growth management.

Against this background, this contribution examines the potential for TOD in the Rhenish mining district. The aim is to derive recommendations for planning authorities to promote TOD in the Rhenish mining area through three analytical approaches. At the regional level, a cluster analysis based on land-use data was conducted to identify different archetypes of station areas. At the local level, three different stations were analysed with a focus on urban design, and additionally, three TOD good practice examples were investigated to identify planning approaches that could be adapted within the study area.

This mixed-methods approach reveals a nuanced profile of the region. The seven derived station environment archetypes and their spatial distribution provide a deeper insight into the status quo and help to identify development priorities. In addition, the interviews and small-scale analysis show that the barriers to TOD, especially in rural areas and smaller municipalities, are manifold and that consistent implementation of TOD is a complex task with numerous constraints.

2796 | Dominic Stead, Carey Curtis

Advances in Spatial Designs and Policies for Accessibility

Improving the accessibility of homes, jobs, services, and facilities is crucial for achieving more sustainable, inclusive, and efficient urban development. The land use system provides a crucial means to enhance urban accessibility (Levine et al, 2012; Lyons & Davidson, 2016). For this reason, various planning policies have been proposed to improve urban accessibility by regulating or controlling various characteristics of the built environment, most notably through land use density, diversity, and design (Cervero & Kockelman, 1997).

Over time, various spatial designs and policies have been promoted to make places not only more accessible but also more efficient, sustainable and liveable. In other words, as well as fostering better urban accessibility, these concepts and designs also help to make more efficient use of urban space, promote environmental sustainability, reclaim public space for citizens, foster social equity and public

health, and increase economic efficiency. Examples of these spatial designs include Transit-Oriented Development (TOD), superblocks, and the 15-minute city. Various other examples can also be identified which also aim to improve accessibility, such as land use intensification, parking control policies, co-working spaces, and intermodal and logistic hubs. Some of these concepts and policies have a long history while others have emerged more recently. Reviewing the evolution of a range of examples, this contribution reflects on current advances in research and policymaking related to spatial concepts for improved accessibility. More specifically, the contribution considers when these spatial designs started to gain political attention, the pace of change, the main locations of change as well as the critical junctures influencing their uptake. This contribution is based on an edited volume entitled 'Advances in Spatial Designs and Policies for Accessibility', to be published by Elsevier in the summer of 2026.

Transport Policy

Tue 30.6.17:45-19:15, Accessibility and Mobility A, U413 | Session chair(s): Elias Willberg

2950 | Tuomas Väisänen, Milad Malekzadeh

Structural changes in regional Erasmus+ student mobility network in Europe during an era of disruptions

Student mobility is a distinct form of human movement, describing the mobility of highly skilled and future highly-skilled individuals. It can indicate the characteristics and attractiveness of regions from a novel perspective, which is relevant for governance, policy, and planning. In Europe, the Erasmus+ programme has facilitated the mobility of over 16 million students since its inception, and is a key instrument in supporting academic exchange of ideas in Europe and also in building a shared European identity for its participants. While Covid-19 and Brexit have impacted Erasmus+ mobility, drastically reducing the number of mobile students, how the regional structure of the Erasmus+ student mobility network and regional drivers of student mobility have changed remain underexplored. In this presentation, we present our analysis of how Covid-19 affected regional student mobility within Europe using the spatially enriched Erasmus+ student mobility data, containing the regional mobility of over 2.5 million individuals between 2014 and 2023. We analyse the differences between the years using network analysis and statistical methods and found interesting changing patterns in the regional characteristics driving Erasmus+ student mobility after Covid-19. Our preliminary results show how mobility is recovering to pre-pandemic levels, changes have occurred in the hierarchy of influential regions for student mobility. Furthermore, our findings suggest changing regional preferences for mobile students as higher life expectancy, gender balance, and share of young adults have become more important for students, while economic performance, warmer climate, and university rankings have become less important. Our findings have implications for regional planning for regions that want to benefit from brain gain and reduce brain drain

2630 | Fangzhou Zhou, Xinglei Wang

Unravelling Socio-Spatial Mobility Across Regions in England: A Multilevel Analysis

Residential relocation is not merely movements across space, but also across socio-economic contexts. Individuals relocating from disadvantaged areas to more advantageous ones often gain access to more

opportunities and better resources, thereby enjoying improved living conditions (Chetty et al., 2016). This process links to the concept of socio-spatial mobility, which refers to the movement of individuals or households between residential areas of differing socioeconomic status. Clark et al. (2014) emphasized upward socio-spatial mobility as movement to neighbourhoods with lower levels of deprivation, and downward socio-spatial mobility as the shift to less advantaged neighbourhoods. Examining this process helps reveal the socio-economic outcomes generated by people's movements within space. Understanding socio-spatial mobility is also crucial for policymakers to develop more effective strategies to facilitate equitable access to opportunities and promote inclusive urban development.

Existing studies on socio-spatial mobility are often limited to single scales and dimensions, obscuring inequality mechanisms. This study aims to comprehensively explore socio-spatial mobility pattern to address present research gaps. It poses two research questions: (1) To what extent does residential migration contribute to upward socio-spatial mobility? (2) How do these dynamics vary across different spatial scales? We construct a three-level analytical framework encompassing macro (national), meso (city/district), and micro (individual) scales and conduct an empirical study in England, where the disparities between regions are enormous (Prabhakar & Lally, 2025).

The findings show the patterns vary across scales and dimensions: at the macro level, mobility is primarily between socioeconomically similar areas, often favoring poorer LADs; meso-case studies show selective migration reinforces inequality; and micro-data confirms limited upward mobility. Overall, due to structural barriers, residential migration in England primarily reproduces rather than alleviates the socio-economic gap. Policy must dually focus on improving local opportunities and enabling equitable mobility.

927 | KHALED ALAWADI

The New Suburban Era: Rethinking Cities After the Pandemic

The COVID-19 pandemic has unsettled urban systems, transforming practices of planning, design, and mobility. It has accelerated the turn toward active travel, walking and cycling (Rice, 2020), and reopened debates about the future form of cities. For planners, the pandemic has been framed both as an opportunity to rethink neighborhood design and as a challenge that raises difficult questions about density, mobility, and resilience (de Rosa & Mannarini, 2021). The task is to design cities that can uphold public health measures while also meeting everyday needs, including access to outdoor spaces that sustain physical, social, and mental well-being.

These demands have cast suburbs in a new light, positioning them as seemingly more adaptable than dense urban cores. Yet the prevailing suburban model (e.g. low-density, automobile-dependent, and fragmented by disconnected street networks) undermines accessibility and livability. This study proposes an alternative, evidence-based framework for suburban design in the post-pandemic era. Drawing on case studies from Dubai and Abu Dhabi, it demonstrates how reconfigured suburban layouts can support pedestrian mobility and neighborhood accessibility.

Using morphological mapping and network analysis, accessibility is measured across a range of suburban samples through the Gravity/centrality metric at walkable scales. High-performing examples

provide design lessons that inform optimized layouts for weaker areas. Central to the inquiry is the question: How can Gravity/centrality value analysis be embedded within suburban planning frameworks to guide design interventions?

By addressing this question, the study contributes to urban planning and design scholarship, reframing suburbs not as the antithesis of urban innovation but as fertile ground for reimagining city futures after the pandemic.

2214 | Jinhee Park, Hee-chung Lee

Mobility-Based Life Territories and the Crisis of Territorial Legitimacy in Metropolitan Planning

Across global metropolitan regions, planning is becoming increasingly peripheral as administrative boundaries fail to capture the lived geographies of everyday life. This misalignment is especially severe in hyper-dense Asian megacities like Seoul, where policies for proximity, sustainability, and equitable service access remain anchored to outdated territorial units. As the climate crisis and social inequality intensify, this territorial mismatch raises critical questions for the democratic legitimacy of planning itself.

This study offers a data-driven alternative by constructing mobility-defined life territories using one year of high-resolution (250m) movement data (2024.06–2025.05). Louvain community detection identifies functional life zones that encompass 4% more population flows and 4% broader activity ranges than administrative life zones, despite similar average travel times (~41 minutes). When combined with spatial indicators of seven Living SOC facility categories, mobility-based territories reveal systematically different accessibility conditions. They show higher facility diversity (Shannon entropy) and a higher composite satisfaction index (0.624 vs. 0.617), indicating that administrative boundaries conceal disparities and distort assessments of service adequacy.

The findings surface three structural challenges for metropolitan governance. First, administrative territoriality—long treated as a neutral unit of policy—fails to represent real activity spaces, weakening planning's epistemic and democratic foundations. Second, mobility-based analyses reveal service deserts even in dense districts, complicating proximity-based planning strategies and exposing residents to uneven resilience. Third, reliance solely on administrative units produces a false sense of equity, whereas mobility-derived indicators offer a more accurate basis for allocating services and investments.

Rather than allowing Big Data and algorithmic tools to marginalize planning, this study demonstrates how mobility-based territorial analytics can re-ground planning in the lived spatial practices of urban residents. The approach provides a pathway for more just, adaptive, and citizen-centered metropolitan planning in an era of rapid spatial and environmental transformation.

2263 | Peter Brokking, Berit Balfors

A broader perspective in transport planning

The close connection between urban and regional land use and transport is widely recognized among planners and the public, and is a prominent topic for research for deepening the understanding of the 'land-use transport feedback cycle'. The interdependence gives rise to integrated planning approaches aiming to create positive feedback loops between urban and regional development and investments in transport networks. However, while land use and transport integration is widely recognised as essential for dealing with cross-cutting issues and nurturing the reciprocity of land use and transport systems, international experiences reveal shortcomings in achieving the integration. A key reason for the lack of integration is specialised actor networks within policy sectors that often follow their own distinct logic of policy-making. Other reasons that are highlighted in research are the pragmatic, project-based nature of infrastructure planning, the inherently political balancing of competing interests and the need for systematic regular inter-sectoral dialogues and strategic policy frameworks.

Within this complex context, the Swedish Transport Administration has emphasized the importance of fostering multi-actor collaboration in early stages, prioritizing joint responsibility for transformative change over traditional negotiation-based approaches. The research project SAMPLAN is launched to identify effective pathways for transformation through proactive policy collaboration within existing government frameworks. While examples of integrative approaches exist at different project levels, collaborative efforts to develop joint inter-sectorial strategies are less common. The presentation will address key findings from the research project, including governance challenges and opportunities, as well as prospective pathways for advancing policy collaboration.

2331 | Oxana Ivanova, Muhammad Haris, Shaya Vosough

Incentive-Based Strategies for Advancing Multimodal Urban Mobility: A case study of Jätkäsaari, Helsinki

Ensuring equitable access to everyday opportunities is the basis of sustainable and inclusive mobility. Achieving this requires a multimodal transport system capable of supporting diverse travel needs and distributing accessibility more evenly across the network. Incentive-based strategies, ranging from public transport fare subsidies to tradable mobility credits, have proven to be a transferable policy instrument and capable of influencing travellers' behaviours and promoting a shift towards sustainable mobility. Yet, modelling tools that capture travellers' multimodal choices and policy responses remain limited. In particular, the potential of incentive-based strategies to support multimodal shifts under realistic budget constraints has not been sufficiently explored.

This work aims to address the gap by modelling incentive-driven modal shift towards sustainable mobility choices in a multimodal setting under a constrained budget. We develop an optimisation framework that models travellers' responses to incentives, seeking to maximise social benefits and network efficiency while ensuring cost-effective and scalable solutions for sustainable urban mobility.

Using the Nguyen-Dupuis network as a testbed, numerical results show significant improvements in network performance: a decrease of 18.3% in the total travel time and of 16.7% in the private vehicle use coupled with an increase of public transport modal share from 15% to 38% under a budget limit

equivalent to 10% of total travel time. Applying the model to the Jätkäsaari area, a peninsula in Helsinki that holds one of the busiest passenger ports in the city with ferries arriving from Tallinn, confirms framework's practical application.

The findings indicate that even a small investment in the incentive policies can meaningfully improve the network efficiency. The proposed framework offers a scalable and cost-efficient tool for urban planners seeking to advance sustainable mobility, reduce congestion, and promote equitable access. Future work will extend the model by incorporating active modes, multimodal trip chains along with their transfer costs.

Public Transport Impact Resarch

Tue 30.6.17:45-19:15, Accessibility and Mobility B, U414 | Session chair(s): Wendy Tan

1246 | Valtteri Nurminen, Tiina Rinne

How has the Tampere Tram affected the local business operations and accessibility?

Public transport investments, such as new light rail systems (LRT), are often intended to promote accessibility, sustainability, and local vitality. Planning research has, however, mainly focused on their effects on transport flows and land use. When economic impacts are assessed, analyses typically emphasize property value changes and system-level financial outcomes, such as ticket revenues. Meanwhile, an essential stakeholder group, local businesses, has received relatively little attention. This study examines how the new LRT has affected the operations and accessibility of street-level businesses in Tampere, Finland.

The study draws on 51 structured interviews with local business owners and employees in the light rail corridor. Rather than measuring direct economic outcomes, the analysis focuses on business representatives' perceptions of changes in accessibility, customer flows, and the general operating environment following the opening of the LRT in 2021.

Preliminary results suggest that customer numbers increased slightly, while the amount of money spent per visit remained unaffected. Most business representatives felt that accessibility had improved and that the LRT attracts visitors from a wider geographical area, including younger customers. At the same time, many considered that the LRT had increased the rent levels. Most businesses also reported having major difficulties during the construction phase. Yet, most business representatives viewed the overall and long-term impacts of the LRT as positive, emphasizing improved visibility, liveliness, and the area's growing status.

These findings challenge the assumption that reducing car space inevitably harms local businesses. In Tampere, the shift toward a more sustainable street environment appears to have strengthened rather than weakened local vitality. By examining how the business representatives perceive changes in accessibility and liveliness, the study offers valuable insights into the everyday impacts of such transport investments. Furthermore, the study contributes by providing perception-based knowledge to support more responsive and inclusive planning.

1698 | Guibo Sun

The Road Divides: When Funding Shapes Form – Assessing the Connectivity Impacts of China-Financed Light Rail in Addis Ababa

African cities like Addis Ababa face a major transport infrastructure deficit that hinders socioeconomic development. A good public transit system could help close the infrastructure gap, albeit not entirely, for a sustainable urban transition, following the "good city" models. While China has responded with extensive investment, the outcomes of these projects remain contested. This paper examines the Addis Ababa Light Rail Transit (AALRT)—the first of its kind in Sub-Saharan Africa—to evaluate the long-term impacts of infrastructure planning on urban mobility. We analyse how financial decisions have affected road connectivity and traffic conditions. Using network analysis and open data, we introduce a replicable evaluation protocol that quantifies changes in connectivity before and after the light rail's implementation, employing statistical models to assess its impact on network-wide traffic congestion. Our findings reveal that political ambitions and financial constraints led to the decision to construct a long, segregated track and eliminate multiple level crossings, resulting in extensive road closures, narrowing of arterial roads, and reduction of intersections in the city's development corridors from 154 to 66. The increased network circuity and heavier traffic highlight that the rail service did not offset the detours created for non-rail users, decreasing overall travel efficiency. This study underscores how funding arrangements, particularly China's loans, have shaped the physical form and connectivity of Addis Ababa's light rail, offering important lessons for other African cities. We recommend measures such as improving elevated crossings, integrating bus networks, and prioritising long-term maintenance to address current challenges. The road divides created by China-financed infrastructure expose a crucial tension between ambitious development goals and sustainable urban mobility in developing countries.

1525 | Li Dongxue, Yang Zijiang

Spatiotemporal Dynamics and Driving Mechanisms of Urban Space around High-Speed Rail Stations along the Laos Section of the China–Laos Railway

High-speed rail (HSR) development has increasingly become a vital instrument for late-developing countries to stimulate economic growth, accelerate industrialization, and promote urbanization. Focusing on the Laos section of the China–Laos Railway, this study examines the spatiotemporal characteristics and driving mechanisms of urban spatial change in areas surrounding HSR stations. Using multi-source spatial data, we employ land-use intensity analysis, random forest modeling, and partial trend analysis to identify both the extent and drivers of spatial transformation. The findings reveal that the construction and operation of the Laos HSR have generated positive impacts on urban spatial development around station areas, following a clear distance-decay pattern. The HSR effect is primarily manifested in two-dimensional indicators—such as increased building density and night-time light intensity—whereas changes in three-dimensional features, reflected by average building height, remain less pronounced. Distance-related variables (e.g., proximity to the HSR station and city center) and urban functional attributes (e.g., dominant industries, land-use types) are key determinants of spatial development. Among them, station areas in industry-oriented cities exhibit the most significant spatial transformation under HSR influence. Industrial and residential land show strong responses to HSR development in terms of expansion and efficiency improvement, indicating that the demand for land-use change is driven by both industrialization and population urbanization. By analyzing the spatial impacts of

HSR in Laos, this study provides empirical insights for formulating spatial planning policies related to high-speed rail development in late-developing countries.

1671 | Meiyu Zhang, , Xueli Liu

Evaluating the Performance of Multi-level Rail Transit Stations in Urban Agglomerations Based on the Node-Multi Centrality-Place Model: A Case Study of the Yangtze River Delta

As accelerating urbanization in urban agglomerations and metropolitan areas, the multilevel rail transit network, including both inter-city and intra-city ones, as an approach to improve accessibility and connectivity in cities and regions steadily expands worldwide. In China, the government is actively promoting “Four-Network Integration”, the construction of comprehensive system of mainline rail, inter-city rail, suburban rail and urban rail transit, aiming to promote regional integration. Local governments tend to develop the rail transit stations to vibrate urban nodes to promote land development and facilitate economic growth. In this context, evaluating the performance of stations of this multilevel and integrated rail transit system is important to support the planning and design for station areas and the sustainable transit-oriented development.

The “Node-Place” model is the key theory guiding the station area development of rail transit. Previously studies have mostly focused on analyzing the “node-place” relationship either at the regional level for HSR stations or at the city level for metro stations, while neglecting their relationship under a multi-level rail transit network comprising both inter- and intra-city rail networks.

This paper introduces a “multi-centrality” index including multi-degree centrality, multi-strength centrality and multi-hub centrality to comprehensively assess both inter- and intra-city accessibility of all rail transit stations within a multi-level network. Based on the index, we extend the traditional single-level “Node-Place” model to a new multi-level “Node-Place” framework and apply it to evaluate 284 inter-city rail stations and 1741 intra-city rail transit stations in the Yangtze River Delta region. Moreover, using K-means clustering algorithm, all rail transit stations in the YRD are clustered into ten different groups to capture the relationship between multi-level rail transit network integration and the development of station areas. Our findings provide planning and design suggestion to support the sustainable development of these different types of stations.

1534 | Haoran Li, Mi Diao

Redrawing the Map of Regional Mortality? Assessing the Health Effects of High-Speed Railway in China

Uneven healthcare resource distribution is a persistent structural issue in China, driving increasing inter-city travel among patients seeking better medical services. The shortage and spatial concentration of high-quality healthcare services not only strain the public health system but also raise serious equity concerns.

Over the past two decades, the rapid expansion of high-speed railway (HSR) network in China has created new opportunities to improve access to high-quality healthcare services concentrated in major cities. However, enhanced connectivity may also concentrate patient demand in core medical centers,

increasing service pressure and potentially compromising care quality. Despite its growing relevance to public health, most existing studies on HSR focus on its impacts on mobility and economic growth, while overlooking its broader health implications

This study addresses this research gap by evaluating the causal effects of HSR network expansion on regional mortality in China. Using a staggered difference-in-differences (DID) model and a unique dataset from the National Mortality Surveillance System during 2006-2021, the study seeks to answer the following questions:

(1) What is the impact of HSR on overall urban mortality?

(2) Does this effect vary across different causes of death and regions?

(3) What are the relative contributions of distinct HSR service attributes—such as line presence, service frequency, and travel time reduction—to this effect?

The results show that the HSR network expansion significantly reduces overall urban mortality. This effect is especially pronounced in medically underserved regions and for diseases requiring advanced treatment, underscoring the role of HSR in narrowing regional health disparities. Analysis identifies service frequency and travel time reduction as the key HSR attributes driving these positive health outcomes. As the first study to systematically quantify this relationship, it provides robust causal evidence of transport infrastructure's public health benefits, providing insights for the coordinated planning of healthcare and transportation systems.

1993 | Fabio Hernández Palacio, Andrés Moreno Vásquez

Accessibility and Public Transport Equity in Medellín, Colombia

This study examines socioeconomic disparities in public transport accessibility in Medellín, Colombia, within the framework of chrono-urbanism and the 15-minute city concept. Using a network-based cumulative accessibility approach, we applied Dijkstra's algorithm to estimate the number of public transport stations within 5-, 10-, and 15-minute walking distances from each census block. Accessibility analyses were cross-referenced with socioeconomic strata data using Pearson’s correlation, analysis of variance, and Tukey's honestly significant difference tests to assess equity in the distribution of urban services. The results reveal relatively balanced accessibility across strata, despite pronounced income inequalities, suggesting that Medellín's compact urban form mitigates some spatial disadvantages. However, peripheral areas still exhibit lower connectivity, highlighting persistent challenges to equitable access. The findings underscore the importance of integrating accessibility metrics into urban planning to promote social equity and sustainability. Policy implications include prioritising investments in pedestrian infrastructure and multimodal transport systems to improve proximity-based access for vulnerable populations.

Transport Policy II

Thu 2.7.11:00-12:30, Accessibility and Mobility A, U413 | Session chair(s): Enrica Papa

2768 | Seunggwan Park, Ming Zhang

Time-Use and Travel Distance Implications of Teleworking Modalities in the Post-COVID Era

Using nationally representative data from the 2017 and 2022 National Household Travel Survey (NHTS) and American Time Use Survey (ATUS), this study examines how the widespread adoption of telework after COVID-19 reshaped daily travel distance and time-use patterns across four work modalities—working from home (WFH), working from not home (WFNH), hybrid, and did-not-work (DNW). A two-period, multi-group difference-in-differences approach is used to analyze purpose-specific vehicle miles traveled (VMT) and activity minutes. This allows for a consistent comparison of behavioral changes while accounting for compositional differences across groups.

The findings reveal that telework does not uniformly reduce overall mobility but instead reorganizes the purposes for which people travel and allocate time. Relative to WFNH, the WFH group experienced a pronounced contraction in essential-life and other non-work VMT, along with reductions in non-work activity minutes. At the same time, WFH workers substantially increased their working minutes, indicating a substitution effect in which time and distance previously devoted to discretionary or routine activities were reallocated toward paid work. Evidence of complementarity appears only in the specific category, where the WFH group showed a slight increase in distance despite declining time spent on these activities. For WFNH and hybrid workers, work-related VMT increased while non-work travel decreased, leaving total daily distance largely unchanged. DNW respondents showed modest reductions in discretionary VMT consistent with broader post-pandemic behavioral adjustments.

These results demonstrate that the primary effect of telework is a structural shift in daily behavior rather than a simple reduction in travel volume. Purpose-level indicators reveal that telework compresses non-work mobility, reorganizes daily schedules, and reduces travel time even when total distance remains stable. The study underscores the importance of jointly evaluating travel distance and activity time to understand how remote work reshapes daily mobility in the post-pandemic era.

2316 | Ela Babalik

SUMPs and the Challenges of International Policy Diffusion: The Experience from Turkish Cities

Sustainable Urban Mobility Plans (SUMPs) are being adopted by many cities in the world, pointing to a clear policy diffusion, which comes with various challenges inherent in such international policy transfer.

These challenges are also evident in Turkish cities, which have been receiving funding through EU's Instrument for Pre-Accession Assistance to prepare SUMPs. Since 2020, six cities have completed their plans with many more in the process of planning.

This research comprises an analysis of the SUMP process in Turkish cities, making use of in-depth interviews with those in charge of the SUMP plans as well as those that carry out other urban and transport planning in the city authorities.

The analysis highlights various challenges in preparing SUMPs in Turkish cities, that may apply to most developing country cities: lack of a legal framework to define the status and scope of SUMPs; conflicts between the SUMPs and other transport and urban plans that are legally-defined and obligatory; the "ownership" of SUMPs at the local government; the "acceptance" of SUMPs by other local government departments, the upper-management and the public; local urban dynamics, such as a high reliance on public transport that often make plans concentrate on this mode at the expense of others.

Nevertheless, the analysis also reveals significant achievements for the local planning practice in Turkish cities: collaborative planning experiences; increased public participation in planning; experimenting with awareness raising campaigns; an increased focus on non-motorised modes of travel and inclusive accessibility; an awareness for successful implementation, putting such projects as low emission zones on the local urban agenda.

Highlighting the experience of Turkish cities in sustainable urban mobility planmaking, the research aims at developing a framework for the successful adoption of SUMP approach with particular attention on the value and limitations of policy diffusion and transfer of best-practice approaches.

2026 | Aida Shaneh, Elisabetta Vitale Brovarone

Cities on the move: Active mobility and justice in European SUMPs

Cities are reimagining everyday accessibility to advance inclusion and resilience, yet the justice implications of "how" we plan for walking and cycling remain unevenly addressed across plans and places. This paper examines how Sustainable Urban Mobility Plans (SUMPs) operationalise active mobility to deliver fair access to cities. Using a qualitative comparative design, we analyse SUMPs and related strategies from eight European cities (Amsterdam, Braga, Cugir, Kozani, London–Westminster, Metropolitan City of Milan, Riga, Vilnius) from the JUST STREETS project. We apply a justice-informed coding frame focused on distributive (space and resource allocation) and procedural (participation and governance) dimensions, and triangulate objectives, measures, and monitoring tools to assess the degree to which plans prioritise walking and cycling, protect vulnerable populations, and institutionalise inclusive decision-making. Evidence shows: (i) strong variation in how cities balance investments between cycling and pedestrian environments; (ii) equity-oriented plans more often specify measurable, place-based targets (e.g., safe routes to schools, universal design, peripheral coverage); (iii) participatory approaches linked to long-term scenarios tend to translate into clearer spatial priorities; and (iv) common gaps persist, e.g. walking remains under-measured in multimodal trips, peripheral areas are frequently underserved, and justice indicators are rarely embedded in monitoring. The study shows both the promise and the limitations of SUMPs for mobility justice, pinpointing gaps in how walking and cycling address justice dimensions, and offering actionable guidance to strengthen active mobility strategies, in so doing helping cities steer their SUMPs towards climate neutrality and fairness.

2219 | Yunmi Park, Seul Lee, Jiho Shin

Redefining Functional Boundaries of Seoul's Neighborhoods through Mobility Networks

Since the COVID-19 pandemic, the importance of neighborhood-based daily life has reignited global interest in the 15-minute city. However, the persistent mismatch between administrative boundaries and actual mobility patterns continues to challenge effective neighborhood-scale planning. While accessibility to essential services is emphasized as a key condition for self-sufficiency, proximity alone does not explain how diverse urban functions interact to sustain everyday life. Understanding the relational dynamics among these functions is therefore crucial for assessing how contemporary cities actually operate beyond static administrative definitions. This study conceptualizes functional neighborhoods as spatial clusters formed through interconnections among heterogeneous yet interdependent urban functions. Using mobile phone–based origin–destination (OD) data and point-of-interest (POI) data for the Seoul Metropolitan Area, a weighted mobility network is constructed to capture both movement intensity and relationships among urban functions. The community detection algorithm is employed to identify clusters where different urban functions are strongly connected, thereby quantifying the degree of functional complementarity within each neighborhood. In doing so, the research introduces an analytical approach that combines mobility data with functional attributes to delineate neighborhoods that more accurately reflect the integrated nature of urban life. The findings provide empirical support for advancing the N-minute city framework, emphasizing that sustainable neighborhood planning depends not only on spatial proximity but also on the inter-functional linkages that underpin urban self-sufficiency. By linking human mobility, facility distribution, and functional interaction, this study contributes to a broader understanding of how cities can balance compactness with diversity—offering policy insights for redefining neighborhood boundaries and designing more adaptive, context-sensitive urban systems.

1674 | Camila Ceballos, Martin Traunmüller, Refiz Duro

DIFFERENT TYPES OF CLOSENESS: A HYBRID APPROACH TO URBAN GREEN SPACE ACCESSIBILITY ANALYSIS

With its direct benefits to public health and well-being of urban population in cities, urban green space and its accessibility is an important feature for municipalities, urban planners and real estate developers to evaluate and monitor. In the context of urban sustainability resulting from Positive Energy Districts (PEDs) development, measuring and keeping records of accessibility to green spaces in a city becomes crucial, as it allows to identify problems and opportunities for energy optimization, that could positively impact the region analyzed.

Accessibility models opt for only one methodological approach, considering only direct physical proximity as the mode of access to green space, measuring accessibility distances either in a Euclidean distance model or a network distance model. However, accessibility should encompass multiple dimensions that include not only physical distances but also leverages other factors such as visibility or perceived closeness.

This paper presents a novel approach by integrating buffer (Euclidean) and network distance calculation methods within a decision tree framework to classify accessibility to green space polygons according to

the concepts stated on the 3-30-300 rule for urban forestry and greener cities[2]. The algorithm starts from a buffer-based calculation to assign A-B classifications depending on their Euclidean distances from centroid to green space polygons, later moving to a network path analysis, to assign classifications B-D according to different thresholds of walking distances.

The new model aims to optimize classification efforts, reducing calculation times by running less point-to-point shortest distance calculations, also reducing the possibility to encounter network analysis errors (e.g. no centroid-to-edge snaping for the calculation or snaping centroids to distant edges). With this new approach we expect to contribute a new perspective on accessibility measurement, providing a deeper understanding of green space accessibility and settle ground for future accessibility calculations that aim to integrate additional socio-economic factors to the analysis.

Micromobility I

Thu 2.7.11:00-12:30, Accessibility and Mobility B, U414 | Session chair(s): Tuuli Toivonen

2235 | Robert Klein, Elias Willberg

Cycling exposure to greenery – a pan-European assessment

A growing body of evidence shows that greenery can enhance urban cycling experiences and increase the likelihood of choosing cycling as a mode of transport. Research on the interconnections of cycling and greenery depends largely on available data, especially for urban or inter-urban scale analyses. While data on the spatial distribution of greenery has become accessible through multiple channels, modelling spatial cycling patterns at urban scale remains challenging and often costly. Hence, large scale assessments on the collective exposure of urban cyclists to greenery have been few.

In this light, we present a study, which draws on a novel method to derive urban cycling patterns at urban scale. We used Strava heatmap and Points of Interest data from OpenStreetMap to estimate the spatial distribution of cycling volumes in 86 European cities and validated the estimates against cycling counter data. We categorized cyclable street segments into deciles based on cycling volumes and overlaid the segments with NDVI data retrieved from Sentinel-2 satellite imagery.

The results show a clear overall tendency with declining NDVI for the most cycled parts of the street networks across European cities. While this trend persists in most cities, some exceptions occur with an equal distribution of greenery throughout the cycling network, notably in the cities of the Iberian Peninsula and in the United Kingdom.

On the bigger picture, this study reveals a mismatch between cycling volumes and availability of greenery throughout most European cities. Current urban transportation systems are not channeling cyclists so that the used routes provide green travel environments. We conclude with a call for cities to prioritize adding greenery to the most cycled streets and paths, since these parts of the network are currently the least green.

1388 | Zeynep Ceren Correia

Insights for Bike-Train-Bike Mobility in Turkey from Women Cyclists` Narratives

Turkey Bicycle Route Network Master Plan (2021) underscores the potential of integrating cycling and rail networks to advance multimodal and sustainable mobility, while noting that women remain underrepresented among cyclists nationwide. Yet, despite national policy ambitions articulated in frameworks such as the country` s Climate Change Action Plan (2011-2023), which seek to expand rail's share in passenger transport, progress toward these goals has remained critically limited. Against such a backdrop, this paper focuses on how women cyclists' narratives including blogs, podcasts, memoirs, can inform more inclusive approaches to multimodal transport planning in Turkey(Kurtz et al. 2017). Drawing on Cresswell's multirepresentational approach and critical realism, the study engages with diverse representations of cycling and multimodal mobility, treating textual, auditory, and visual accounts of women cyclists, alongside the spatial imaginaries embedded in transport policy and planning documents, as registers of distinct layers of reality(Næss 2015; Price 2014; Zunino Singh and Thelle 2017). Thinking with heritage, these narratives are treated as living heritage, linking past mobilities to present practices and future possibilities, while offering planners a "view from somewhere" that grounds transport planning in the lived realities, values, and priorities of communities(Sandford 2019). By foregrounding embodied, habitual, and place-rooted memory(Bourdieu and Wacquant 1992; Nora 1989), the study seeks to demonstrate, through a humanities-informed planning perspective, how women's bike-train-bike mobilities are situated within intricate social, spatial, and regulatory contexts that enable and/or constrain movement. Narrative evidence places lived experience at the center, revealing both the contingent and the intended or unintended consequences of planning decisions. Like shifting one's view through a magnifying glass, a microscope, or a telescope, this approach moves across layers of reality, in its effort to inform more reflexive, inclusive, and equitable transport planning attentive to what is not easily measurable.

1414 | Manqi Yang

Linking the Elements: A Social Practice Theory Approach to The Maintenance of Cycling in New Cycling Environments --- A Comparative Case Study in Amsterdam and Milan

Cycling is increasingly promoted as an ideal and sustainable mobility choice in response to global challenges, such as climate change, congestion and public health. Governments around the world have invested in expanding cycling infrastructure and policies to normalize cycling behavior. However, current urban planning and research tend to recruit more cyclists either through improving infrastructure or encouraging modal shifts, while overlooking the maintenance of cycling practice in people's everyday lives. By shifting attention from modal shifts to infrastructure-based explanations, to the practice-centered understanding of the adaptation, this research emphasizes how cycling is maintained when individuals reorganize their cycling practices in response to new urban cycling system contexts. To conceptualize this process, the research applies Social Practice Theory and bike-along interview method, focusing on how elements of material, competence and meaning are reconfigured in new context, and how cycling becomes embedded within bundles of everyday practices. Using international students as lens, the research explores how individuals adapt their existing cycling habits in unfamiliar urban environments. Their high travel flexibility and access to multiple transport options also make the decision

to maintain cycling a competitive and adaptive process. Finally, the aim of this research is not to promote cycling through comparison or to replicate Amsterdam's cycling model in Milan, but rather to reveal how urban planning can, through its institutional and spatial structures, create environments in which action can take place, and also to highlight the need for urban planning to recognize the social and practical dynamics that shape sustainable mobility.

2483 | Lukas Junghanns, Milos N. Mladenovic

The impact of cycling activism on transport planning: The case of Critical Mass Helsinki

Transformations in mobility systems occur through both formal and informal means. While research frequently focuses on technological advancements, planning policies, and individual behavior change, collective efforts through grassroots initiatives are seldom explored. Thus, the current literature has a gap in understanding the impacts that grassroots initiatives have on civil society and planning practice.

To address this gap, the study investigates the "Critical Mass" movement, a decentralized gathering of cyclists who take to the streets in large numbers to advocate for cyclists' rights and challenge the status quo of urban mobility planning. Focusing on the movement in Helsinki, Finland, this study provides lessons from a city that has been experiencing growth in cycling modal share over the recent years.

The methodology uses document analysis and interviews with both key figures from the movement and Helsinki transport planners. The analysis focuses on the movement's evolution, categorization of activists' motivations, as well as planners' perceptions and responses to the movement.

The findings reveal both intrinsic and extrinsic motivations of key movement figures, ranging from creating spaces for alternative mobility visions to specific infrastructural demands and broader societal changes. In addition, the findings show direct and indirect impacts of Critical Mass actions on Helsinki planning practices, such as adjusted planning capacities and modified procedures.

The findings have implications for practice in terms of a goal matrix for Critical Mass, encompassing both mobility-related and broader societal objectives. Finally, the research opens up new pathways in understanding the effect of grassroots actions on urban transport planning, including their potential to shift societal attitudes and reshape planning structures.

1198 | Noriko Otsuka, Janina Welsch

Neighbourhood Mobility Hubs for encouraging the use of shared mobility services and regenerating urban public spaces: the case of Düsseldorf, Germany

Mobility Hubs (MHs) have increasingly been established in public spaces within many urban neighbourhoods, commonly located in close proximity to public transport stops and points of interest (POI). Their primary aim is to better facilitate multimodal interchanges between public transport, shared mobility and active modes, thereby encouraging people to move around in more sustainable ways. Some MH projects go beyond their role of providing seamless accessibility, contributing to the regeneration of public spaces by incorporating additional urban amenities such as a café, a playground, greenery, and seating areas. Urban spaces formerly occupied by motorized vehicles (designated parking areas and on-

street parking spaces) have been transformed into MHs, and this can be considered as a new instrument of area-based regeneration in urban neighbourhoods. This paper presents the process of creating Neighbourhood Mobility Hubs (NMH) in the city of Düsseldorf, Germany. To date, 23 NMH have been implemented with a target of 100 by 2035. One of the keys to their successful implementation is the active participation of local communities in the process, including early stakeholder consultation from the planning stage, open and transparent dialogues during the construction phase as well as opening events that foster a shared sense of community within the local area. We develop an assessment framework to evaluate the completed NMHs from transport and area-based regeneration perspectives, for the purpose of identifying future opportunities and challenges for completing the rest of the NMHs planned for the next decade. We use a mixed-methods approach, combining qualitative interviews and field observation with quantitative methods: GIS-based analysis on neighbourhood characteristics such as land use pattern, POI density, proximity to urban amenities, design of the pedestrian network or the access to green spaces, in order to examine public spaces both before and after the implementation of NMHs.

2751 | Maciej Skulimowski, Agnieszka Szumilas

Comperative study of cycling policy in Wrocław and Kyiv

As mobility policies across the European Union evolve toward greater sustainability, cities increasingly adapt their transport strategies to align with emerging guidelines and societal expectations. Although Kyiv and Wrocław operate in distinct political contexts. Poland being an EU member state for two decades and Ukraine holding candidate status - both cities share comparable climatic and cultural conditions, as well as similar aspirations in advancing sustainable mobility. Building on research and workshop activities conducted within the U_CAN project, this study examines and compares the bicycle policies of the two cities to understand how local, national, and European factors shape their strategic choices.

The analysis combines five methodological components: a review of EU mobility guidelines and their level of integration into local planning documents; a comparison of national bicycle policies in Poland and Ukraine; an examination of municipal strategies and infrastructure development plans; an assessment of initiatives led by civil society organisations; and a comparison of resident experiences and perceptions related to everyday cycling. Together, these elements provide a multidimensional perspective on how bicycle policy is formed, implemented, and received across different governance levels.

Preliminary findings indicate that, despite diverse political circumstances and access to EU funding mechanisms, both Kyiv and Wrocław exhibit a strong and growing commitment to expanding bicycle infrastructure. This commitment is visible not only in municipal planning efforts, but also in the active engagement of NGOs and the increasing interest of residents in cycling as a viable, sustainable mode of transport. The comparison highlights both shared challenges and context-specific opportunities, offering insights relevant for planners working in cities undergoing political transition as well as those operating within consolidated EU frameworks.

Advanced Techniques & Modelling

Thu 2.7.11:00-12:30, Accessibility and Mobility C, U261 OP POHJOLA | Session chair(s): Wendy Tan

2135 | Subhro Guhathakurta, Seung Jae Lieu

How complete are your streets? Using AI and ubiquitous data to assess the completeness of streets

Complete streets, a transportation policy aimed at making streets safe and convenient for all persons regardless of ability or travel mode, have attracted significant attention from scholars and practitioners. 39 states in the U.S. adopted complete street policies. Understanding the current condition of complete street networks is an imperative first step in planning and policy interventions. The presence and conditions of complete street segments will provide critical information on which areas of the street network should be prioritized for complete street upgrades and which upgrades would be most beneficial. While state and local planning agencies identify the need for consistent inventory data and network-level facility rating systems, the lack of a cost-effective data-collection method has been a significant challenge.

In this study we: 1) develop and implement a method for automatically collecting data on the presence and attributes of eight (8) complete streets elements, including sidewalks, buffers, bike lanes, street parking, transit stops, medians, vehicular roads, and points-of-interests accessed, 2) create a numeric rating index and/or a typological classification that summarize the data, and 3) demonstrate how the rating/classification system can be used to prioritize complete street network investments. The objective is to develop scalable approaches for scoring complete streets using publicly available data, as well as data extracted from Street View and aerial images, utilizing deep learning. The inventory will be validated against a few existing but limited databases on complete street elements that stakeholders maintain. Additionally, in the presentation, we will showcase an interactive map dashboard of urban streets in the Atlanta metropolitan region to visualize and communicate the data with the stakeholders. The proposed system will provide insights into how complete streets influence travel behavior, expecting more complete streets to induce street vitality by positively increasing foot and bike traffic.

1078 | Wei-Hsiang Wang, Hsueh-Sheng Chang

Modeling Dynamic Land-Use and Transportation Interactions Surrounding High-Tech Science Parks Using a Cellular Automata Framework: Evidence from Taiwan

Science parks are critical components of national development strategies, generating technological and economic benefits while reshaping surrounding land use and transportation systems due to intensive commuting and logistics demands. However, existing research and planning practices often focus only on localized or short-term environmental impacts, treating science parks as isolated development projects rather than as elements embedded within a broader spatial system. This narrow perspective overlooks the temporal dynamics of spatial evolution and fails to recognize the long-term interaction between land-use change and transportation demand. Without understanding this interaction, development planning is prone to mismatches between land-use intensity and transportation infrastructure provision, leading to issues such as excessive urban expansion, congestion, and inefficient

land utilization. Therefore, a comprehensive and time-sensitive analytical framework is necessary to evaluate the long-term spatial and social impacts of science park development.

This study proposes an integrated land-use and transportation interaction model based on Cellular Automata (CA). By combining a Markov Chain–CA land-use transition model with the four-step transportation modeling framework, the CA output of land-use patterns serves as attractiveness and input data for the trip generation and distribution processes. In turn, the resulting traffic volume from the four-step model is converted into accessibility indicators and recursively fed back into the CA model, allowing the system to estimate subsequent land-use transitions. Through this iterative structure, the model captures dynamic interactions between land development and transportation systems over multiple time stages.

The model is applied to a science park in Taiwan to trace changes in land use and traffic conditions before and after its establishment. The results reveal spatial and temporal variations in development intensity and transportation impacts, demonstrating the long-term effects of science park development on surrounding urban conditions. This research contributes to forecasting future urban dynamics and offers decision support for land-use and transportation planning.

2289 | Shiyu Yin, Shaya Vosough

Mitigating Stochastic Variation in Microsimulation Travel Demand Simulations

Compared to traditional aggregate models, micro level travel demand models, including activity-based and agent-based models, provide a more detailed representation of individual travel behavior. However, their probabilistic nature introduces stochastic variation, reducing reproducibility and obscuring scenario-specific impacts. Although increasing sample size can stabilize results, random noise remains substantial in small to medium-sized areas. Yet, methods to reduce randomness in discrete choice simulation are limited.

This study evaluates three alternatives to standard Monte Carlo sampling, i.e., frozen randomness, quantal response equilibrium (QRE), and low-discrepancy Halton sequence. Initial tests on a small-scale Swedish travel survey show that frozen randomness and Halton reduce root mean squared error (RMSE) by 1–3% and standard deviation by 3–7%, improving accuracy and stability over standard Monte Carlo. However, QRE deviated substantially from the observed data and was therefore not considered for further analysis.

Building on these findings, we apply the three methods to a travel demand simulation for Turku, Finland, using the BRUTUS model by Ramboll, which is a data-driven, multi-modal agent-based simulation model. We evaluate three scenarios: a base case with the existing transport network, an all-network cycling improvement, and a city-center cycling enhancement scenario. Across all three scenarios, while aggregate mode shares remained stable for the three techniques, small to medium-scale areas exhibited substantial variation. Monte Carlo and Halton sampling require 20 runs to achieve stable averages, yet individual runs remain highly unstable, producing large fluctuations and unrealistic shifts from cycling to other modes despite improved cycling infrastructure.

In contrast, frozen randomness produces stable, interpretable results in a single run, eliminating spurious shifts and consistently reflecting scenario logic. By reducing variability and enhancing reproducibility, this approach improves methodological robustness, offering clearer interpretation of outcomes while maintaining computational efficiency. These findings support more reliable and interpretable transport planning.

1085 | Tianren Yang, Lina Zhou

Modelling urban telework behaviour and emission impacts in post-pandemic China

The rapid normalization of remote work is reshaping how urban systems function, challenging planners to rethink commuting, carbon, and spatial organization. This study integrates nationwide behavioural data and computational modelling to reveal how telework adoption transforms commuting and emissions across Chinese cities of varying scales. Drawing on 3,751 valid survey responses from 78 cities and combining eXtreme Gradient Boosting (XGBoost), SHAP interpretability analysis, and mixed-logit modelling, we uncover the mechanisms behind individuals' decisions to work from home and their systemic implications for sustainable urban mobility.

Results indicate that while only 12% of urban employees currently telework, roughly one-third show latent willingness to increase participation given stronger organisational and policy support. Flexible scheduling, career-neutral promotion, and managerial permission emerge as the most decisive incentives. Scenario projections suggest national telework adoption could reach 36% within 5–10 years, displacing 11% of commuting trips and cutting commuting-related carbon emissions by 9%.

Urban-scale disparities are pronounced: megacities lead in absolute reductions, while small- and medium-sized cities display the highest relative gains. Emission-reduction effects follow a quadratic relation with urban size—amplifying once built-up area exceeds 547 km^2 or urban-district population surpasses 5.3 million. These results reveal that telework's sustainability potential depends on differentiated governance capacities, digital infrastructure, and industrial structure.

By coupling machine-learning interpretability with urban emission accounting, this research demonstrates how data-driven behavioural models can guide evidence-based planning for digital-physical integration. The findings offer methodological and policy insights for embedding telework into national carbon governance, mobility strategies, and spatial planning, providing a transferable analytical framework for other rapidly urbanising and digitally transforming economies.

2304 | Judd Rosenman Schechtman

Play for All: Designing and Governing Intergenerational, Neurodiversity-Inclusive Public Spaces

Cities are embracing play as a core element of 21st-century public space. From Copenhagen's Superkilen and Madrid Río to Singapore's intergenerational outdoor mega-playgrounds, global cities are building environments that treat play not as just for kids but as a civic resource for recreation, creativity, and public life. In New York, projects such as the Battery Playscape and Domino Park incorporate landscape-scale, adult-sized play features. These developments echo Jacobs (1961) and Whyte (1980) on

the intergenerational vitality of public space and align with Winnicott (1971) and Montagu (1970), who see play as central to human development and civic imagination.

Yet many municipalities undermine these designs through exclusionary governance. In New York, laws prohibit unaccompanied adults from entering playgrounds, producing a paradox in which inclusive design coexists with regulatory exclusion. In smaller or less-resourced cities, exclusion occurs through child-scaled equipment and fenced tot-lots that limit adults' ability to engage in play, exercise, or sensory exploration. These conditions disproportionately affect neurodivergent adults, whose sensory and proprioceptive needs often align closely with play, but they also narrow intergenerational uses of public space more broadly.

This paper proposes a comparative framework for assessing urban "Play for All" capacity across three dimensions: design inclusion (intergenerational playscapes and all-ages compatible equipment), governance and regulation (adult bans, signage, discretionary policing), and public-space culture and surveillance (social acceptance and risk framing). The framework is offered as a conceptual tool for examining variation across global cities.

Finally, the paper highlights emerging disability-rights implications: adult-exclusion rules and child-scaled infrastructure may conflict with principles embedded in U.S. ADA doctrine and the UN Convention on the Rights of Persons with Disabilities. Integrating planning theory, design practice, and disability justice, the paper advances a vision of intergenerational, inclusive public spaces that affirm play as a universal public good.

1459 | Muhammad Ahsanual Habib, Olivia Fox

StreetSense Network: Real-Time Monitoring and Data Collection for Active Mobility in Halifax

This study develops a real-time monitoring system for newly built bike lanes and presents multi-year observations of bicycle usage in the Halifax Regional Municipality (HRM). The system combines multi-modal monitoring technologies to create the StreetSense Network in partnership with public, private, and non-profit organizations that ensures transparency in data collection and evaluation. Developed through stakeholder consultations and technology training sessions, the network includes both pneumatic tube counters and inductive loop systems. Tube sensors identify pressure fluctuations as bicycles pass, while inductive loops record the electromagnetic signatures that distinguish bicycles from motor vehicles. The real-time data transmitted wirelessly to our laboratory is made publicly accessible through an online portal and analyzed periodically for use in decision-making by the partner agencies.

As the municipality advances its Active Transportation Priorities Plan, this study provides continuous cycling data from five major bike lanes collected between 2021 and 2024. Results suggest an uptake of cycling, with a 25% and 14% increase in 2023 and 2024 respectively. Protected bike lanes attracted the highest number of cyclists compared to other types of bike lanes in HRM. Most bike lanes facilitated commuter trips, reflected by higher ridership during morning and evening peak periods. Moreover, average weekday volumes were 32% to 134% higher than weekends over the years. The results confirm the need to invest in bike infrastructure targeting commuters, specifically by connecting high-density

residential areas to major destinations in the HRM. This four years of continuous stream of data also exhibits higher cycling activity during mid-week (12% to 19%), capturing changes in post-pandemic working-from-home patterns observed in the 2023 Halifax Travel Activity (HaliTRAC) Survey. The outcome of this study helped the municipality to develop business cases for expanding cycling infrastructure in Halifax, leading to the construction of over 15 new bike lanes in the last five years.

Planning for Children's Accessibility

Thu 2.7.14:00-15:30, Accessibility and Mobility B, U414 | Session chair(s): Elias Willberg

2923 | Sabina Cioboata, Jonne Silonsaari

'Care-full Planning' for Child-Friendly Cities: The Framing, Governance and Implementation of School Streets in the European Context

Across Europe, the rise of school streets (permanent or temporary road closures around schools) has gained traction as a response to growing concerns about child safety, wellbeing, and air pollution. By reclaiming space immediately outside school gates, these initiatives are aimed at enhancing safety and air quality, promoting active travel, and fostering stronger community interaction through the creation of new public spaces. Yet, despite the growing interest and implementation, school streets initiatives have been primarily framed in technical terms as safety or air quality interventions (Thomas, Furlong & Aldred, 2022).

This paper reframes school streets as infrastructures of care and examines how care and justice are invoked and operationalised in their governance and delivery. Drawing from Davoudi and Ormerod's (2025) conception of "care-full planning", we deploy an integrated framework that brings together an ethos of care in planning (attentiveness, responsibility) with the practices and institutions that make it actionable, in order to address the following questions:

1. How do municipal actors and school street delivery partners mobilise "care" and justice in the framing, design, delivery and evaluation of school street programmes?

2. Which organisational arrangements and governance frameworks enable (or undermine) the institutionalisation of "care-full" practices across planning, implementation, and enforcement?

3. To what extent, and under what conditions, can school-street initiatives function as "care-full", justice-oriented interventions that disrupt existing planning norms and shape new directions for the "good city"?

To answer these questions, the study draws on policy review and empirical data collected through interviews with diverse actors from over 20 European cities implementing school street programmes. Findings reveal considerable variation in how school streets are framed, governed, and institutionalised in Europe. Finally, we argue that integrating care with justice provides a robust evaluative lens for school streets, and reflect on implications for scaling care-full programmes with transformative potential.

2068 | Megha Tyagi, Marketta Kyttä

Towards inclusive walking in Delhi: Integrating children's mobility behaviour data in developing statutory "Walk Plans" using SoftGIS

Despite walking constituting 34% of all daily trips, Delhi exhibits a severe mobility infrastructural deficit: only 56% of streets possess footpaths, and merely 26% meet national safety standards. Such 'walking dissonance', has lethal consequences, as pedestrians represents the highest proportion of road casualties in the city. This risk is acutely amplified for children, for whom road traffic crashes are reported to be the leading cause of morbidity and mortality in the country. The issue has recently gained significant traction: in 2025, the Supreme Court of India elevated the 'right to safe walking' to a fundamental constitutional right, a move complemented by the draft Delhi Master Plan 2041's proposal for statutory 'Walk Plans' in high-activity nodes. Notably, the process of preparing these Walk Plans remains expert-driven, leaving stakeholder participation highly discretionary and exclusive.

In this context, our research seeks to propose a novel methodological approach by investigating the potential of digital participatory tool in co-producing knowledge for preparing these Walk Plans. The mixed-methods study engages children (aged 11–17 years) across six public schools, representing three distinct neighbourhood typologies in Delhi. The primary empirical data collection (March -May 2026) will employ SoftGIS methodology, for the first time in Indian context, along with traditional methods to map children's local mobility patterns and perceived barriers. This oral presentation will report three preliminary results from phase I: (1) granular analysis of children's mobility behaviour to school and local meaningful places; (2) delineating pedestrian catchment area based on children's actual walking paths and (3) initial categorisation of children's identified route-specific barriers.

These findings will inform subsequent co-creation workshops with children for Walk Plans in Phase II. Overall, our presentation will showcase a possible pathway for low- and middle-income countries to leverage digital technologies in advancing active mobility as a critical pillar of mobility justice.

1378 | Johanna Reinhardt

Commercialising Children's Independent Mobility: the case of (autonomous) ride-hailing services

In 2023, Uber, the world's largest ride-hailing platform, launched a new service allowing teenagers aged 13-17 to travel unaccompanied. Waymo, Google's autonomous driving technology unit, is currently piloting the first autonomous ride-hailing service for teenagers. The introduction of (autonomous) ride-hailing services for children marks a shift in which children move to the centre of mobility innovation.

Historically, policymakers and planners have overlooked the mobility needs of children. Today, private sector mobility providers are identifying children as a new user group, responding to the unmet travel needs of children in car-centric societies. This attention on children has the potential to shape how they move around in cities, supporting a form of independent mobility that is not based on active travel (i.e., walking, scooting, cycling). The impact of these shifts on Children's Independent Mobility (CIM) - the freedom of children to travel and/or play around their neighbourhood or city without adult supervision - remains under-researched.

This paper will seek to address this gap by exploring how (autonomous) ride-hailing companies are currently planning services for children. Drawing on seven semi-structured interviews conducted between March 2023 - April 2025 with representatives from mobility providers in the United States, Germany, and Australia, the research reveals how these actors envision future services, anticipate market developments, and navigate key challenges in developing mobility services for children.

Findings suggest that teenagers are a key new market segment for mobility providers. While both parents and teens value the convenience of these services, concerns about intrusive behaviour by human drivers outweigh fears about the capabilities of driverless vehicles, suggesting the potential of autonomous ride-hailing services for children over services with human drivers. These research findings build knowledge of the transition to shared and automated mobility, how it may benefit and/or hinder children's well-being, and advances the understanding of CIM.

1901 | Hulya Gilbert

Navigating everyday life: A Multilevel Perspective on children's school and extracurricular activity journeys

Given the well-documented environmental, social and public health challenges associated with car-dependent mobility and the disproportionate effects these challenges have on children, understanding the mobility practices of families with children has emerged as a critical area of inquiry in contemporary transport and urban studies. Drawing on the qualitative responses within surveys from 296 children aged 9 to 18 and 84 parents living in Melbourne and Adelaide, Australia, this paper investigates children's everyday mobilities for accessing their daily activities (both school and extra-curricular) through Multi-Level Perspective (MLP).

By applying MLP, this paper seeks to illuminate how familial, social and spatial factors intersect to influence children's everyday freedoms. It critically examines the multifaceted factors that influence the predominance of private car use and the challenges impeding the transition toward sustainable mobility. The analysis highlights how these factors operate differently across individual, social and structural dimensions, shaping travel behaviours in complex and interrelated ways. Drawing on these insights, the paper concludes by offering a set of evidence-based recommendations designed to address the identified barriers and to support the development of more sustainable, child-friendly mobility practices.

1969 | Manon Eskenazi, Dipanjan Nag

Who Benefits from Child-Friendly Urban Interventions? A Socio-Spatial Assessment of School Streets in Paris

In the aftermath of the COVID-19 crisis, school and play street initiatives have become a prominent public space intervention in Europe (te Brömmelstroet & Brandsma, 2025; Thomas et al., 2022). They aim at closing streets from traffic, either temporarily or permanently, to dedicate space for children in the vicinity of schools. While the impacts of these interventions on children's wellbeing and mobility are increasingly being documented, who benefits from these schemes and the contribution of school streets to social policies have been less emphasized in public discourses. Similarly, while there is a growing body

of literature examining issues related to slow streets and equity (Robinson Jr, 2024), especially in Northern America and the UK, there is still a literature gap regarding the case of school streets in Europe.

We aim to address these gaps by analyzing the spatial implementation of the School Streets ("rues aux écoles") program in Paris. 318 School Streets were deployed to tackle air pollution, enhance the safety of children's mobility to school and expand the number of city spaces dedicated to them. However, it is still unclear whether these school streets are spatially distributed in an equitable manner, and especially if they benefit less privileged children who have less access to domestic and specialised spaces for learning, playing and other activities (Lahire, 2019). We thus aim to answer the following question: Does Paris' School Street program benefit the less privileged population, where children and families arguably have a greater need for open public space?

We use the French census to create a "Needs Score" combining socioeconomic, housing, and household-related data. We use this in correlation with GIS analysis and environmental indicators (accessibility to green spaces and active and sustainable mobility) in order to assess which kinds of neighbourhoods in Paris are currently benefiting from school streets.

2628 | Uģis Bratuškins, Alisa Korolova

Exploring Children's Active Mobility in Europe and East Asia: Towards a Shared Conceptual Basis

In line with a worldwide trend, Europe has witnessed a decline in active transport and independent mobility among children and adolescents (Fyhri et al., 2011). This decline can be linked to several influencing factors, such as increased urbanization, motorization, and increased parental safety concerns (Badland et al., 2016). Safe mobility options are critical to fostering children's independent mobility and rely on built environment features like shorter distances, street connectivity, pedestrian and bicycle infrastructure, along with traffic reduction measures (e.g., Lin et al., 2017; Riazi et al., 2022; Schicketanz et al., 2023). Besides the physical qualities of the built environment, children's independent mobility is also conditional on the social environment (Riazi et al., 2022; Schicketanz et al., 2023).

The research project SafePathways (2026-2028) explores the mobility of children (aged 7-18) and seeks to propose solutions to stimulate active mobility. Through the case studies in four selected neighbourhoods in Riga (Latvia), Rotterdam (the Netherlands), Barcelona (Spain) and Taipei (Taiwan), the aim is to jointly understand the building of interpersonal and intergenerational societal links to ensure safety in a democratic society, in combination with built environment elements, and to develop innovative socio-physical models of safe active mobility based on this learning. A combination of qualitative and quantitative methods will be adopted for the case studies, with a specific focus on directly working with children and their parents throughout the project. In this paper we will present the initial results of the state-of-the-art on local and (inter)national strategic frameworks, models, solutions, and prototypes on the topic of safe school-age children's mobility. These will be collated and evaluated to create a sharable collection of good practices and outstanding challenges.

Inclusive & Just Mobility III

Thu 2.7.16:00-17:30, Accessibility and Mobility A, U413 | Session chair(s): Enrica Papa

2453 | Sabina Cioboata, Enrica Papa

Street Justice in Action: Insights from London Case Studies

Urban street transformations are increasingly recognised as crucial for addressing the intertwined challenges of mobility, equity, and sustainability. Streets are dynamic public spaces and movement corridors where diverse mobilities, identities and claims intersect (Bertolini, 2020), and where different dimensions of justice and equity are negotiated in practice (Sheller, 2018). Yet, gaps remain in how mobility justice is operationalised on the ground (Vecchio et al., 2025).

Aiming to address this gap, this paper investigates the application of justice principles in street transformations, and highlights how different dimensions of justice (distributive, procedural, epistemic) offer a lens to better understand streets as not only technical infrastructures but inherently political spaces where aspects of identity, access and power and negotiated (Pereira, Schwanen & Banister, 2017). Specifically, the study draws insights from five London boroughs implementing street transformations, reflecting on lessons from interventions such as street experiments, traffic calming schemes, and child-friendly mobility schemes.

The research addresses three central questions:

1. How do municipal decision-makers and delivery partners understand and define “justice” in the context of street transformations, and how do these framings shape priorities, trade-offs, and criteria for success?

2. How are justice principles embedded in the design and implementation of street transformations in London?

3. How do different interventions illustrate tensions and synergies between ambitious justice goals and the practicalities of governance and implementation mechanisms?

To answer these questions, the study adopts a multifaceted framework of mobility justice and draws on policy analysis and interviews with municipal actors in London. Findings demonstrate that streets provide a unique opportunity to address systemic inequalities through context-specific interventions, while also highlighting a number of challenges with operationalising mobility justice in practice.

2383 | Sagar Verma, Sandip Chakrabarti

Perceived (In)Accessibility of Persons with Visual Impairment in Indian Cities: Implications for Inclusive City and Transportation Planning

India has one of the largest populations of persons with visual impairment (PVIs) globally. This loss of vision can limit their ability to experience visual aspects of travel and may pose mobility and accessibility challenges, especially when traveling through unfamiliar environments. Since loss of vision can make PVIs dependent on others for meeting their travel needs, public and shared transport becomes crucial in influencing their accessibility. Thus, rethinking and understanding perceived accessibility (PA) of PVIs through these travel modes would be crucial to designing and implementing policies aimed at increasing

their accessibility. Given this context, this study explores (1) what those perceived constraints and factors are and how they shape perception of accessibility through public and shared transport among PVIs in India, and (2) how analysis of these perceived constraints and factors can inform planning and policy actions. This study, using grounded theory approach, explores how and what factors shape the perception of accessibility for PVIs through these travel modes, based on semi-structured interviews with PVIs working across different cities in India, recruited through snowball sampling. We find that three factors, system features of land use and transport, embodied abilities, and mobility contexts, enable or restrict the mobility of PVIs. The PA for PVIs is shaped by the affordances of land use and transportation systems that provide actionable cues for using desired transport modes to access desired destinations, which may or may not be utilized depending on their ability. This study advances understanding of PA in the context of vision loss among PVIs, a group often peripheral in the planning process of the Global South. Conceptualizing PA by utilizing affordance theory helps understand how land use and transport features suggest their uses to PVIs and provides insights to planners to increase accessibility, support independent travel, and promote social inclusion.

2199 | Julia Cristina Abrami Rangel, Agnes Silva de Araújo

An intersectional approach to Urban Mobility in contexts of vulnerability in the Global South

Urban mobility is essential for accessing opportunities and realizing the right to the city, but it remains permeated by structural inequalities related to gender, race and class. These asymmetries become even more evident in Global South cities, especially for women who face insecurity, precarious transport, and limitations derived from imposed social roles. Integrated into Mobility Justice debates, this study adopts intersectionality as an analytical axis to understand how the overlaps between these social markers shape commuting patterns and influence the daily accessibility of women in contexts of vulnerability.

The empirical focus is on the Comunidade Favorita, in Araucária (Paraná, Brazil), a territory marked by precariousness and infrastructure limitations. The methodology combines quantitative and qualitative methods in a mixed approach, integrating digital monitoring of trajectories, socioeconomic indicators, and semi-structured interviews.

Over a 30-days period, the “MotionTag” application automatically recorded the commutes of 103 women, identifying origin, destination, mode, frequency, and spatio-temporal patterns, complemented by socioeconomic questionnaires. Georeferenced data are being processed in a GIS environment (SIG) to generate intersectional mobility indicators. Following the analysis of the routes, qualitative interviews with some of the participants deepened perceptions of insecurity and everyday strategies adopted to deal with mobility barriers.

The combination of digital tracking technologies and data disaggregated by social markers offers the potential to reveal nuances of daily mobility. Simultaneously, it enables the construction of a detailed empirical database, disaggregated by gender, race, and class. This approach expands the evidence on gender mobility and helps reduce an existing data gap. By bringing evidence produced in the context of the Global South, the research strengthens the international debate and offers methodological subsidies for mobility policies that are more inclusive and sensitive to gender inequalities.

2711 | Thomas Verbeek, Wilbert den Hoed

Towards a Just Mobility Transition? Active Travel, Inequality, and Social Cohesion in Europe's Large-Scale Housing Estates

As cities move toward more sustainable mobility systems, in combination with the 15-minute city concept of proximity, social and spatial inequalities regarding availability of and access to active travel options become apparent. Large-scale housing estates (LHEs) represent areas where this transition often falls behind. Typically built in the urban periphery, these estates tend to be car-dependent and are characterized by public spaces that do little to encourage active travel. Yet, their original planning often emphasized neighbourhood-level amenities and integration with public transport. While LHEs across Europe share similar design principles, their development paths have diverged, resulting in varied transport infrastructures, accessibility levels, and social dynamics. In addition, many of these neighbourhoods face social challenges, such as population ageing, marginalisation, and safety concerns—all of which complicate efforts toward a just mobility transition.

To better understand these challenges, this paper explores active mobility in five LHEs in Western, Central, and Eastern Europe. It focuses on social and spatial inequalities in everyday active travel behaviour, and how these patterns relate to liveability and social cohesion. The analysis draws on a resident survey of over 1,800 respondents, conducted within a broader mixed-method European research project adapting the 15-minute city concept to LHEs across Europe.

Building on preliminary findings that reveal cross-case differences in active mobility behaviour and perceptions of safety, this study deepens the analysis by exploring associations between active travel, socio-demographic characteristics, perceived safety, and (subjective) spatial proximity to amenities. It also investigates the two-way relationship between active travel and social cohesion. Both cross-case trends and context-specific variations are considered. The findings contribute to a more nuanced understanding of the challenges and opportunities for achieving a just and inclusive sustainable mobility transition in Europe's LHEs and underscore the importance of culturally and contextually sensitive approaches in developing future mobility strategies.

1649 | Aida Shaneh, Elisabetta Vitale Brovarone

Justice-oriented Active Mobility: A Review of Teenagers' Autonomy and Mobility Needs

Adolescence represents a critical period for forming lifelong mobility behaviours and autonomy (Haidt, 2024). Despite growing interest in active travel, the specific needs and experiences of teenagers (aged 12–18) in walking and cycling remain largely overlooked in planning, often overshadowed by studies on children or young adults. This limited recognition prevents the development of equitable, inclusive, and socially just mobility systems. In this context, this paper proposes a structured narrative review, guided by the conceptual framework of mobility justice—distributive, procedural, recognitional, restorative justice (Sheller, 2018). The paper aims to achieve two objectives: 1) to systematically synthesise key factors influencing adolescents' independent active mobility through a justice perspective; 2) to assess the extent to which justice-oriented perspectives are explicitly addressed in existing research. Literature was identified through database searches (Scopus and Web of Science, 2000–2025) and subsequent snowballing. Findings from approximately 130 studies indicate that teenagers' active mobility behaviours

are shaped by multiple, interrelated factors, including demographic characteristics (age, gender, income), social norms (parental perceptions), and built-environment factors (infrastructure quality, distance, safety, and climate). These elements reveal how social and spatial inequalities intersection influences teenagers' autonomy, simultaneously identifying persistent gaps in justice-oriented and teen-participatory perspectives. To address the latter, the paper proposes a conceptual framework grounded in mobility justice. In so doing, it argues that future research and policies should investigate teenagers' mobility needs and identify effective ways to empower them as active co-creators of more equitable and sustainable urban mobility systems.

References

- Haidt, J. (2024). The anxious generation: How the great rewiring of childhood is causing an epidemic of mental illness. Penguin.

- Sheller, M. (2018). Mobility justice: The politics of movement in an age of extremes. Verso Books.

Extended reference

- Martens, K. (2016). Transport justice: Designing fair transportation systems. Routledge.

Micromobility II

Thu 2.7.16:00-17:30, Accessibility and Mobility B, U414 | Session chair(s): Janne Olin

2381 | Xiao Cai, Elias Willberg

Cycling for all? Rethinking urban route choices through the lens of gender and age

In recent years, a growing number of empirical studies have examined how gender and age influence urban cyclists' route choices. However, to our understanding, few studies have synthesized this evidence to develop a comprehensive understanding of cycling route preferences across both gender groups (i.e., men and women) and all age groups (i.e., children, adolescents, young adults, middle-aged adults, and seniors) for their everyday travel in the city. To fill this knowledge gap, this study conducted a systematic literature review of urban cyclists' route selection behavior following the PRISMA guidelines. Based on 31 eligible articles, this review synthesized 1) the factors influencing route choices among urban cyclists of different gender and age groups, and 2) the policy implications proposed in the selected literature. Building on this synthesis, a conceptual framework was developed to explain urban cycling route choices through the lens of gender and age. The framework shows that cyclists select a specific route from many alternatives by making trade-offs among three key dimensions (i.e., route directness, route safety, and route comfort), and that many route characteristics relate to more than one dimension. It also highlights that cyclists of different genders and ages respond to these dimensions and the corresponding route characteristics differently, resulting in distinct route selection behaviors. Drawing on these insights, this study further proposed a set of policy recommendations to support the development of inclusive and equitable urban cycling environments for all. To conclude, the findings of this review can not only advance the understanding of gender- and age-specific cycling behavior, but also offer valuable guidance on what planning interventions could achieve the greatest impact in promoting fairer urban cycling.

1408 | Kamyar Hasanzadeh, Silviya Korpilo

Predicting the Feel of Active Urban Mobility

Understanding how people experience their daily urban environments is essential for promoting active, healthy, and sustainable mobility. While Public Participation GIS (PPGIS) surveys have advanced knowledge of people's spatial perceptions, such data remain sparse and unevenly distributed. This study investigates whether subjective experiences of walking and cycling environments can be predicted using objective environmental indicators, offering a scalable complementary knowledge layer where participatory data are unavailable.

Using participatory data on pleasant and unpleasant walking and cycling experiences from the Helsinki region, we built a Bayesian predictive model linking environmental indicators, such as greenery, distance to major roads, and access to urban amenities, to people's reported experiences. The model revealed clear and interpretable patterns: greener areas, farther from major roads, and richer in nearby destinations were consistently perceived as more pleasant.

Beyond its local application, the model was tested in several European cities to assess transferability, highlighting both shared regularities and contextual differences in how environmental qualities shape perception. While predictive performance varied across locations, the framework proved promising for identifying areas where urban environments are likely to feel pleasant to move through.

By combining participatory mapping with probabilistic modeling, the study introduces a way to bridge the gap between subjective perception and objective environmental measurements. The results point toward new possibilities for integrating human experience into planning tools, enabling cities to be evaluated not only by how they function but by how they feel to their inhabitants. At the same time, this emerging frontier provokes new discussions about the ethics and limits of prediction in human-centered urban research, how far we can and should model emotional experience, and how such models might influence inclusivity and design priorities. In this study, we show how such prediction can be achieved successfully and raise a discussion in this new and largely uncharted territory.

2732 | Isabel Scherer, Miloš N. Mladenović

Cycling culture builders: Exploring the role of planners within the context of the cycling city Oulu.

While other cities often experience a 70-90% drop in cycling share during winter, Oulu, a city in northern Finland, maintains a relatively high winter cycling share of 10% (which is comparable to Helsinki's summer modal share). One reason for Oulu's success is a well-designed and continuous cycling network that is easily accessible for high quality winter maintenance. This is in line with previous research that highlights the importance of infrastructural and cultural factors in achieving high cycling shares. However, literature lacks the focus on understanding the planners behind these cycling cultures, although this could enrich both planning practice and education.

This research aims to understand the individuals responsible for shaping Oulu's cycling culture. For this, historical timeline data has been collected and combined with interviews from key actors involved in Oulu's cycling planning efforts.

The findings identified a key actor, Mauri Myllylä, a transport engineer who worked for the city during the 1960-90s and strongly advocated for high-quality cycling infrastructure. His approach to planning recognized that cycling is more than just a transport mode, instead it affects people's everyday life and contributes to making a place more liveable. The analysis identified a set of character traits and skills that defined him as a planner. Additionally, interviews with Myllylä's mentees offered insights into the multi-generational impact of one influential planner on the next generations of planners.

Overall, the findings highlight how planners play a crucial role in shaping mobility and institutional planning cultures, leading to important implications for planning practice. They demonstrate how the right set of skills and a certain 'head and heart' (meaning values and beliefs) of a planner can impact sustainable urban developments. Understanding these skills and character traits that define successful planners open new pathways for research on planning practices at both the individual and institutional scale.

2694 | Caroline Huth, Franziska X. Meinherz

(E-)Bikes as Enablers of Proximity? A Framework for Adapting the 15-Minute City Concept and Assessing Bicycle-Based Accessibility in Low-Density Areas of Germany

In recent years, proximity-based accessibility (PCA) has emerged as an alternative to car-oriented planning, emphasising short distances and active travel. The most influential PCA framework is the 15-minute city (FMC), which has inspired planning strategies and empirical studies worldwide. However, it is currently mostly being applied in dense urban areas, despite accessibility gaps persisting in suburban and rural regions. Existing research highlights structural challenges including lower densities, limited service diversity, car dependency, and weak public transport. Although Moreno himself introduced the concept of '30-minute territories', systematic approaches to adapting PCA principles for such regions remain rare. At the same time, the increased popularity of bicycles and e-bikes has expanded the potential of cycling to improve accessibility to low-density areas. Nevertheless, the role of cycling as a mobility option within FMC frameworks remains underexplored.

This study aims to address this gap by developing a conceptual and methodological framework for applying FMC principles to regions beyond the urban core, with a particular focus on cycling. The research pursues three objectives: (1) conceptualising how the FMC can be adapted as a PCA planning approach for different spatial contexts; (2) proposing and applying a methodological approach for measuring bicycle-based accessibility within this adapted framework; and (3) assessing the resulting potential for PCA by bike across different spatial contexts, especially in rural areas of Germany.

To measure the accessibility of everyday destinations by bicycle, travel times were calculated from various starting points (100x100 m grids) and linked with the number of accessible destinations (POIs). This presentation will outline the theoretical adaptation of the FMC for cycling in low-density areas, introduce the methodology for measuring accessibility, present initial empirical results for different German regions and discuss the broader implications of bikes and e-bikes as a viable mobility option in proximity-centred planning.

2067 | Merja Kajava, Miloš Mladenović

Technological diversity of micromobility is increasing globally: Comparison of shared micromobility systems from 50 countries

Recent years have seen the emergence of shared micromobility systems worldwide. This emergence includes new vehicle types, business models, and accompanying regulations. Despite these global trends, there are limited studies that focus on understanding spatio-temporal dynamics of micromobility systems on the global scale. This study aims to fill this gap by comparing shared micromobility systems from over 1,000 locations in Europe, the Americas, and Asia.

To this end, the analytical framework focuses on technological diversity, as a key aspect of technological diffusion on this scale. The methodology combines statistical analysis, cluster analysis, network analysis, and unsupervised machine learning. The dataset is based on open standard data from 50 countries, including vehicle, propulsion, parking types, and pricing plan data.

The results include a taxonomy of elements for the shared micromobility to account for the recent technological diversification. This model can be applied to compare shared micromobility systems for their characteristics. The findings showed an increased variety of vehicle, propulsion, and parking types. In this dataset, bicycles and scooters were offered in most countries, and most systems were multimodal offering several vehicle types. Furthermore, parking has diversified as virtual stations with geofencing are being implemented in Europe to handle issues with free-floating vehicles. The classification of pricing plans shows that the pricing was either usage-based or subscription-based, while pay-per-minute pricing is the dominant strategy. In contrast, the subscription-based plans with flat rates were more frequently associated with publicly sponsored bike-sharing schemes.

The findings provide insights for public and private stakeholders during the planning and tendering processes, such as station deployment and pricing scheme requirements, as well as the use of open data standards. In addition, the study opens new pathways for multidisciplinary research between technology and transport studies, while advancing the open data agenda within the field.

2530 | Miloš N. Mladenović, Isabel Scherer

Development of diagnostics-interventions toolkit for enabling active mobility: A Baltics-Nordics perspective

During winter in the Nordic-Baltic region, active mobilities see a marked decline. Previous research informs us that at the centre of this multi-layered problem are institutional barriers for change in planning practice. For example, barriers include lacking organizational capacity, steps in the planning processes, stakeholder collaboration forums, and political support. In line with that challenge, the aim of this research is to develop a useful toolkit that enables civil servants to improve their diagnostics and interventions decision-making within their institutional work. The overarching methodological framework is action research, a systematic and reflective inquiry process conducted in collaboration with the research participants from seven case municipalities: Gdynia (Poland), Hamburg (Germany), Kalundborg (Denmark), Kiili (Estonia), Klaipeda (Lithuania), Porvoo (Finland), and Umeå (Sweden). Within this methodological framework, we have conducted a series of semi-structured expert interviews and

workshops using soft systems and iterative design methods. The results of this research include both the developed diagnostics-interventions toolkit and the in-depth analysis of built environment and institutional challenge and intervention factors. Moreover, the results also include the evaluation of usefulness of the developed toolkit. This research also opens new pathways for future research, both in terms of action research methodology and planning practice evaluation.

Electric Vehicles

Thu 2.7.16:00-17:30, Accessibility and Mobility C, U261 OP POHJOLA | Session chair(s): Mario Paris

2014 | Mario Paris

Fuel Networks in Transition: Mapping Accessibility and Energy Infrastructures for Sustainable Mobility in Lombardy (Italy)

The ongoing ecological transition of transport systems requires a rethinking of accessibility in relation to energy infrastructures and mobility behaviors. The research project Raccolta ed elaborazione di dati e informazioni sulla consistenza della rete distributiva dei carburanti e altri combustibili per autotrazione, developed by the Centro Studi sul Territorio “Lelio Pagani” (University of Bergamo) in collaboration with PoliS-Lombardia, offers an analytical framework to interpret how fuel distribution networks adapt to technological, regulatory, and behavioral shifts in mobility.

The study monitors the evolution of fuel distribution systems in the Lombardy Region between 2019 and 2025, including traditional fossil fuels and alternative low-impact sources such as LPG, methane, hydrogen, and electricity. Combining spatial and statistical analyses, the research maps the geography of supply infrastructures and compares it with the regional vehicle fleet, identifying trends of rationalization, innovation, and territorial imbalance. The findings reveal a dynamic but uneven process: while traditional fuel stations consolidate and decline, electric charging points and alternative fuel facilities expand unevenly across urban and peripheral contexts.

This uneven geography raises questions of accessibility and justice: where and for whom is sustainable mobility becoming a real option? The study argues that accessibility cannot be separated from the territorial organization of energy infrastructures, which condition both individual mobility choices and collective policy outcomes. By introducing structural indicators, the monitoring system offers a methodological basis for assessing spatial equity and planning for integrated, multi-energy accessibility.

The contribution discusses how regional-scale monitoring tools can support adaptive planning, providing knowledge frameworks to guide the decarbonization of mobility while ensuring balanced accessibility and territorial cohesion.

2269 | Mushu Zhao, Dawei Wang, Weifeng Li

Extreme Weather, Charging Rate and Moderating Effect of Station Shelters

As green and efficient means of transportation, new-energy vehicles are increasingly favored. This rapid growth necessitates greater focus on the development and operation of charging infrastructure. However,

the expansion of charging infrastructure faces multiple challenges. There is a mismatch between high-cost construction, low utilization rate, expanding market size, and increasing charging demand. Therefore, it is significant to understand the factors influencing the utilization of public charging stations.

Furthermore, recent record-breaking heatwaves and extreme precipitation in many cities have strained water and power supplies, impacted food security, livelihoods, travel behavior, and public health. These extreme weather events also pose challenges for urban infrastructure operation. However, existing charging station studies and planning seldom consider this aspect. Thus, there is an urgent need to consider the impact of extreme weather and adopt moderating strategies when promoting the construction and management of public charging stations.

This study evaluates the utilization of public charging stations under extreme weather conditions using weather data and charging record big data, focusing on Shenzhen, a pioneering city in promoting vehicle electrification and renowned for its high density of public charging stations. Extreme precipitation has a more significant negative impact on fast charging station utilization. Additionally, we explore the moderating effect of station design, with a particular emphasis on the role of shelter. We find a correlation between built environment, socio-economic context, and the installation of station shelters. The moderating effect of shelters is found to be more significant for fast charging stations, and the impact differs between weekdays and weekends. Our research provides systematic and empirical exploration from a station perspective, offering evidence for the planning, operation, and management of charging infrastructure in the context of climate change. It further promotes the development of the new-energy market.

1639 | Zirui Chen, Qixuan Wang

Effects of Electric Vehicle Charging Stations on Residential Housing Prices: A Case Study of Shanghai

Electric Vehicle Charging Stations (EVCSs) play an essential role in promoting electric vehicle (EV) adoption and reducing transport emissions. Existing studies on EVCSs mostly focus on their impacts on EV ownership and optimal siting strategies, while their potential roles in reshaping urban development and residential location preferences remain underexplored.

To address this research gap, this study empirically examines the impact of EVCS installation on nearby housing prices in Shanghai from 2016 to 2023, using a multi-period difference-in-differences (DID) approach based on EVCS installation records and housing transaction data. The baseline DID estimates show that EVCS installations lead to an average 3% increase in housing prices. The results are robust to parallel trends validation and various sensitivity tests, including alternative sample restrictions and treatment zone definitions.

The impact of EVCS installation on housing values varies by distance to stations, housing price level, time, and neighborhood type. Distance-based heterogeneity analysis shows that the price premium peaks within 200–300 meters and disappears beyond 600 meters. Unit-price-based analysis reveals that the appreciation effect is concentrated in lower-priced properties, with little impact on high-end housing, suggesting that EVCS deployment may contribute to more equitable neighborhood vitality. The treatment

effect is also stronger in the post-COVID period when EV adoption accelerated, and in older residential communities, where limited private parking and charging spaces increase dependence on public charging facilities.

The findings indicate that EVCSs, as a form of green infrastructure, not only support sustainable mobility but also generate positive spillover effects in housing markets and surrounding neighborhoods, offering valuable insights for coordinated planning and governance strategies to promote sustainable and inclusive urban futures.

1618 | Mengjia Chen, Ke Song

Spatial Disparities and Determinants of Public Electric Vehicle Charging Station Utilization: Evidence from Shanghai

Public electric vehicle (EV) charging infrastructure plays a pivotal role in accelerating the transition toward low-carbon urban mobility. However, many megacities face a paradox of simultaneous undersupply and underutilization of public chargers, reflecting significant spatial mismatches between charging demand and supply. Using Shanghai as a case study, where both EV ownership and charging infrastructure rank among the world's largest, yet public charger utilization averages a mere 5.3%, this study investigates the spatial disparity and determinants of charging station usage through an integrated framework that combine big data analytics and machine learning.

Using real-world data from 35,684 public chargers, this study first applies the HDBSCAN clustering algorithm to construct a two-dimensional typology of charging station usage patterns based on charging intensity and turnover frequency. We then integrate multi-source datasets, including charger attributes, built environment indicators, and socioeconomic variables, into a logit model to identify key determinants underlying these usage patterns. Finally, an XGBoost model combined with SHAP analysis is employed to quantify nonlinear effects and interaction mechanisms, revealing critical thresholds that shape charging efficiency.

The results reveal a concentric spatial pattern of utilization disparities, characterized by moderate-to-high utilization rates in inner suburban areas and lower efficiency in both central business districts and peripheral zones. Supply-side factors emerge as the primary determinants, with charger configurations, pricing structures, and first-hour parking fees exerting the strongest influences. Spatial accessibility indicators, including distance to the central business district and road network betweenness centrality, also show significant effects, though their impacts vary across different usage patterns. Moreover, built environment attributes display nonlinear relationships with utilization, demonstrating effectiveness only within specific threshold ranges.

The findings highlight the need for context-sensitive and differentiated strategies in charging network planning and management, providing both methodological and policy implications for enhancing accessibility, operational efficiency, and spatial equity in urban e-mobility systems.

Mobility & Climate-Resilience

Thu 2.7.17:45-19:15, Accessibility and Mobility A, U413 | Session chair(s): Shaya Vosough

1460 | Anja Pejović, Riccardo Pollo

Adapting Thermal Walks Method Through Citizen Participation: Capturing Dynamic Thermal Experience of Cyclists and Pedestrians

Efforts to promote active mobility over motorised transportation have increased in recent years, due to the numerous benefits of walking and cycling for health and the environment. However, these efforts often face various challenges, including thermal discomfort in open spaces, exacerbated by climate change, and resistance from citizens, whose needs and views are often overlooked.

The conventional static measurements fail to capture the experience of pedestrians and cyclists while traversing urban spaces with diverse microclimates. Therefore, studies have recently focused on assessing dynamic thermal conditions, mainly through thermal walks, an experimental approach that collects both subjective – perceptions and sensations, and objective, measured data, while walking in urban areas to assess real-time thermal comfort.

This study adopts a modified thermal walks method to address two primary challenges: enhancing citizen involvement and thermal comfort evaluation. Utilising a citizen science framework, both pedestrians and cyclists collected real-time thermal data using portable devices during their usual activities, following their everyday routes. Simultaneously, participants completed questionnaires documenting their thermal perceptions. Additionally, a weather station was installed in the area to compare the dynamic measurements to the stationary ones, distinguishing the impact of the built environment on thermal experience.

The study highlighted the differences between mobile and stationary data, emphasising the importance of integrating dynamic thermal considerations in urban planning. The data, enhanced with the thermal perceptions, were further used to inform the co-design of possible adaptation scenarios in the studied areas.

The limitation of this approach lies in the dispersed spatiotemporal nature of the data, resulting in higher uncertainty compared with the commonly used method. However, this trade-off reflects the balance between the methodological strength and practical requirements of participative processes.

This citizen science-oriented thermal walks method represents a step towards integrating community involvement and thermal comfort considerations into decision-making when addressing active mobility.

2619 | Oskar Paßlick

crisis proof medical care? - Assessing hospital and emergency medical service accessibility under extreme rainfall events to support resilience building strategies.

Hospitals and emergency medical service (EMS) stations constitute central critical infrastructures (CI) essential for safeguarding public health, especially during disaster scenarios (Degenhardt & Hähn, 2023). Their functionality and accessibility can be threatened by heavy rainfall events, whose likelihood is increasing due to climate change (IPCC, 2021; Schneider et al., 2025). Flood-induced road blockades

pose an imminent threat to the provision of first aid and accessibility of hospitals as they lead to longer travel times or the complete isolation of EMS stations, hospitals or entire settlements (Fekete, 2021).

This study examines potential road blockades and flood exposure of EMS stations and hospitals caused by heavy rainfall events in the Ennepe-Ruhr district and the city of Hagen in Germany and their impact on the provision of first aid and the accessibility of hospitals. Using a GIS-based analytical framework the accessibility of hospitals by private vehicles and the response time of EMS vehicles were modeled for a basic and several flood-disruption scenarios. Exposure and vulnerability classifications were derived from hydrological hazard data and thresholds based on interviews with local authorities.

Results show that 12 of 26 EMS stations and 7 of 8 hospitals are highly exposed to extreme rainfall, implying probable operational failure. Within the study area 2.400 potential flood-induced blockades for EMS vehicles and 3.800 for private vehicles were identified. Considering all potential road blockades, one hospital and five EMS stations are potentially isolated. 14% of all inhabitants in the study area live in areas that are potentially not reachable by EMS Vehicles, while 25% live in areas potentially isolated from hospitals.

The findings offer insights for local authorities and hospital operators to enhance resilience through redundancy creation, structural reinforcement and exposure reduction. The developed GIS-based methodology is reproducible and transferable to different regions and disaster scenarios supporting future infrastructure investments.

2562 | Roufei Duan, Song Ke

Socioeconomic Inequalities in Multi-Modal Adaptation to Extreme Heat: Evidence from Shanghai

With the intensification of global climate change, extreme heat events are becoming increasingly frequent in urban areas, imposing significant challenges on residents' travel behavior and the performance of transportation systems. While existing studies have examined how weather conditions affect specific travel modes, far less attention has been paid to the heterogeneity in transport-related exposure to extreme heat across social groups or their adaptive modal-shift behavior. This gap is critical, as differential exposure and adaptation can exacerbate existing mobility inequalities.

Using Shanghai as a case study, this study examines how extreme heat interacts with socioeconomic status to shape multi-modal travel. We integrate multi-source big data, including shared bicycle trips, taxi orders, and metro card transactions, to characterize travel behavior of residents by mode, and aggregate daily ridership into 500×500 m grid cells. We apply a panel regression model with grid fixed effects, controlling for precipitation, air quality, and weekday effects to explore the relationship between temperature and mode-specific ridership at the grid level.

The results indicate that each 1℃ increase in temperature reduces shared bicycle trips significantly, while metro ridership increases modestly and taxi orders rise sharply, revealing differentiated thermal sensitivity across transport modes. To capture heterogeneous responses across income groups, we define days above 35℃ as extreme heat events and use housing prices as an income proxy. High-income areas exhibit stronger adaptive modal shifts, with notable substitutions from bike-sharing to metro and

taxi services as temperatures rise. In contrast, middle- and low-income areas show constrained modal adjustment capacity, exhibiting a pronounced rise in shared bicycle use near metro stations. This highlights a stronger reliance on “bike-to-metro” feeder trips to shorten exposure time while preserving essential mobility.

These findings provide empirical evidence to support climate-resilient transport planning and targeted mobility assistance for heat-vulnerable communities.

2280 | Newsha Modjrian, Henrikki Tenkanen

Equity, heat exposure, and access to coastal cooling spaces: A risk assessment framework for Italian coastal cities

Extreme heat has become one of the most consequential climate-related hazards in Europe, with the WMO reporting more than 60,000 heat-related deaths during the summer of 2022. Italian coastal cities face particular challenges owing to the coastline representing both a key natural cooling resource and a spatially contested environment where public accessibility is increasingly influenced by private concessions, raising important questions of equity and mobility during periods of elevated thermal stress.

The research develops an integrated spatial risk-assessment framework based on the IPCC's hazard–exposure–vulnerability–adaptivecap acity model. The framework combines open-source land surface temperature extracted from Landsat images, high-resolution WorldPop demographic, and multimodal network analysis to examine how thermal exposure and shoreline accessibility interact with population sensitivity. Using multivariate analytical techniques, our study identifies coastal districts where elevated heat exposure aligns with restricted access to natural cooling spaces, producing zones of compounded disadvantage, as well as areas where lower surface temperatures and higher coastal accessibility coincide. It also classifies municipalities based on the balance between public and private shoreline availability to capture structural disparities in adaptive capacity.

A preliminary illustration emphasising the metropolitan area of Rome shows a clear predominance of publicly accessible shoreline. However, while mean driving times to public beaches are approximately 14 minutes, walking access from inland districts is often severely limited, frequently exceeding 100 minutes. The analysis indicates that accessibility indicators form a coherent spatial structure, distinct from the varying patterns of exposure and demographic sensitivity.

Our comprehensive framework successfully demonstrates how fine-scale open data and network-derived metrics can be integrated to characterise cumulative environmental risk. This provides a transferable foundation for coastal-planning strategies focused on strengthening equitable access to cooling environments in a warming climate.

Planning for Pedestrians and Walkability

Thu 2.7.17:45-19:15, Accessibility and Mobility B, U414 | Session chair(s): Tuuli Toivonen

1987 | Jianfei Chen

Assessing the Impact of Pedestrian Systems on Public Transport Share and Car Use: A System Dynamics Approach in Qianhai, Shenzhen

Urban districts planned with high density and transit-oriented development (TOD) depend heavily on efficient multimodal integration to achieve sustainable mobility outcomes. This study examines how a Grade-Separated Pedestrian System (GSPS)—comprising skywalks, underground links, and vertical connectors—affects public transport (PT) share and private car use in Qianhai, Shenzhen, a newly developed 26 km^2 business district projected to host 500,000 jobs.

Using the system dynamics framework and adapting the MARS land-use and transport interaction model, the research evaluates interactions among pedestrian accessibility, PT supply, parking provision, road capacity, and travel behaviour under different development stages. The model simulates trip generation, modal split, and feedback loops between transport systems from 2019 to 2059. Scenarios include base development, early-stage growth, mid-stage expansion, and variations in pedestrian accessibility and transport supply rates. Sensitivity tests further explore PT occupancy, station service levels, and parking supply factors.

Results demonstrate that GSPS significantly improves accessibility to metro and bus stations by reducing egress time from 12 to 6–8 minutes. This improvement increases PT attractiveness through reduced friction factors and raises PT mode share by 4–12% across scenarios. In early stages, PT share remains sensitive to service capacity; however, GSPS alleviates pressure on supply timing by enabling higher station occupancies without deterring users. During mid-development, coordinated enhancement of PT service and road capacity remains essential, but GSPS consistently moderates modal shift toward car use.

The findings highlight the role of grade-separated pedestrian networks as a crucial structural element for TOD implementation in compact urban districts. Recommendations include parallel development of GSPS with transit infrastructure, adaptive PT capacity planning, and calibrated parking policies to sustain public transport dominance.

1777 | Chun Yin CHUNG, Yi SUN

Beyond the built environment: A multidimensional framework for perceived walkability of older adults

Walking is essential for older adults as it is one of the most fundamental physical activities for this population. Yet, current walkability indices, whether measured objectively or subjectively, tend to focus on the design features of the built environment in relation to walking while neglecting the actual walking experiences of older adults. Drawing on qualitative data from focus groups with 145 older adults and GIS analysis on urban forms in Hong Kong, this study reveals a mismatch between objectively measured walkability and the actual perceptions of walkability in older adults. Findings also suggested that the perceived built environment alone is insufficient to capture the actual walking experience for older

adults. Perceived walkability should encompass both the perceived built environment and walking experience. In response, we propose a multidimensional framework for measuring perceived walkability in older adults. This framework consists of five key dimensions, including place-dependency, sensation, ease of walking, social-spatial familiarity, and health capacity. By emphasizing the subjective experience of walking in older adults, this framework prioritizes the actual experience of walking in older adults and challenges existing assumptions. The results provide evidence-based implications for researchers, planners, and policymakers to create age-friendly communities that account for older adults' walking needs.

2437 | Haeryung Lee, Jae Seung Lee

Temporal Rhythms of Street-Level Pedestrian Activity across Spatial Contexts in Commercial Areas

In the context of global urbanization, urban space is defined less by fixed physical arrangements than by dense and shifting social, spatial, and temporal relations, marked by volatility, uncertainty, and exceptional conditions. This perspective foregrounds the need for analytical approaches that can capture how urban life unfolds through recurrent yet variable patterns over time, rather than through static snapshots of land use or morphology.

Despite the influence of these ideas, empirical analyses that systematically connect rhythmic patterns to specific spatial settings remain comparatively limited, particularly in terms of depth and resolution. This gap is especially salient at the scale of streets, where everyday mobilities, local land uses, and built form converge to generate distinctive temporal profiles. Street-level environments are central arenas in which metropolitan-scale flows and local socio-spatial arrangements intersect, yet the fine-grained ways in which temporal patterns of activity differentiate one street from another—and how these differences relate to local spatial contexts—have not been examined as systematically as the broader metropolitan rhythms they compose.

This study engages with these debates by focusing on the temporal rhythms of pedestrian activity on commercial streets in Seoul and on the spatial contexts that shape these rhythms. Using mobile phone signal-based big data for 110,574 street segments, the analysis constructs temporal profiles of pedestrian activity for a wide range of commercial streets and identifies groups of streets that share similar rhythmic patterns. The study then examines how these temporal street types are associated with variations in spatial and environmental characteristics, thus linking distinctive rhythms of pedestrian activity to the specific spatial settings in which they arise. By empirically demonstrating that street rhythms emerge from specific spatial assemblages rather than abstract temporal structures, this study offers planners a diagnostic framework for understanding when and where particular forms of street activity occur.

1036 | Pouya Sepehr

Mundane Urban Governance and AI Oversight: The Case of Vienna's Intelligent Pedestrian Traffic Lights

This paper examines the everyday politics of Artificial Intelligence (AI) in urban governance through the case of Vienna's Intelligent Pedestrian Traffic Light (IPTL) system. Positioned within Science and Technology Studies (STS) debates on mundane governance (Woolgar and Neyland 2013; Marres 2020) and the emerging field of Urban AI (Cugurullo 2020; Cugurullo et al. 2022, Mattern 2021), the study explores how automation and algorithmic sensing reconfigure the temporal, spatial, and ethical dimensions of urban mobility. Based on document analysis, expert interviews, and field observation, the paper traces the IPTL's design and implementation as an attempt to automate pedestrian signaling through camera-based intention detection.

While the system promises efficiency and safety, it simultaneously renders certain publics—particularly the visually impaired—invisible, revealing how algorithmic infrastructures embed normative assumptions about the "ideal" urban subject. By revisiting the historical and political trajectories of the traffic light as a socio-technical artifact (McShane 1999; Norton 2011), the analysis situates the IPTL within a longer genealogy of urban ordering and temporal control. The paper argues that AI integration in "mundane" infrastructures like traffic lights produces new forms of oversight and accountability that often escape public scrutiny.

Drawing on this case, the paper calls for a reconstructivist (Sepehr 2024) approach to Urban AI—one attentive to (in)visibilities, human rhythms, and the democratic potential for revisiting established urban technologies of control and order. Furthermore, the paper concludes by reimagining algorithmic urbanism not as a logic of optimization but as a terrain for rethinking urban governance towards a creative and engaging forms of streets constellation.

928 | KHALED ALAWADI

The Hidden Grid: Mapping Global Alleyways for Walkable Cities

Urban morphology has shaped cities through distinct configurations, with historic street networks in cities like London and Rome contrasting sharply with the grid systems of cities such as Buenos Aires and New York (Boeing, 2020). Streets have always been central to discussions of urban form, yet within these varied urban landscapes, alleys represent an overlooked but essential component, offering the potential to enhance connectivity, walkability, and social engagement. Despite these contributions, alleys remain underrepresented in urban design and planning discourses, which tend to focus predominantly on main streets and vehicular pathways (Wolch et al., 2010). However, recent urban revitalization trends highlight the multifunctionality of alleys, promoting their roles as community hubs that meet evolving social and environmental needs (Askarizad et al., 2024; Machado-León et al., 2020).

This study, the first global morphometric assessment of alley networks, analyzes 295 samples from 50 cities across 41 countries to map alley patterns and assess their morphological traits. Through comprehensive mapping and analysis, the study delineates distinct regional alley typologies and systematically quantifies their spatial distribution and proportional presence relative to main streets,

thereby advancing understanding of alleys' role in shaping urban form worldwide. By integrating GIS mapping, and comparative morphological methods, this study aims to answer three critical research questions: (1) How do alley patterns differ across the world (2) What distinct morphological attributes do alleys display across different regions, and how prevalent are they in terms of presence and proportional ratio in comparison to main streets? (3) Which regions or cities exhibit the most prominent integration of alleys within their urban fabric for better walkability? The study underscores the need to recognize alleys as vital components of urban form and calls for their better integration into planning frameworks, especially with regard to active travel and walking.

Urban Logistics

Thu 2.7.17:45-19:15, Accessibility and Mobility C, U261 OP POHJOLA | Session chair(s): Lukas Junghanns

2110 | Sigrid E. Glomdal, Daniel Piatkowski

Does fun matter? Exploring enjoyment and the cargo bike experience

Mobility research into identities, attitudes, and motivations indicates that the travel experience informs both the decision to use active modes (i.e., cycling and walking) as well as trip route and distance. Anecdotal evidence suggests the cargo bicycle experience (particularly among riders with children) may be a powerful factor in cargo bike usage and promotion. We use a qualitative approach to explore these topics. A survey of North American cargo bike users (own, rent, leasing) with open-ended questions were analyzed using thematic analyses (N=660). We found that 91% of users showed high satisfaction with using cargo bikes. 4 themes are prominent: The user, the experience, the human-built environment and the natural environment. The participants show a negative attitude towards cars, both as a driver themselves and when on the cargo bike. The experiential components are of being outside, getting exercise, having quality time with the kids, connecting to the community through slower mobility. This has implications for how cargo bikes are perceived, and how to move from early adopters to early majority regarding social norms of cycling behavior. This covers an important gap in the research regarding how it is to ride a cargo bike in an autocentric place, like North America, and what we can further learn on how to facilitate this behavior.

2447 | Isabel Bruns

Reframing Rural Logistics: Cargo Bikes as Game Changers

The transfer of planning concepts developed for urban areas to rural regions is not always a trivial process. In an environment of increasing interconnectedness, logistics and especially the mobility of freight transport, is an important element of society and economy. It ensures the continuous flow of goods, services and the exchange of information between regions and stakeholders. There are clear differences between urban and rural freight transport in terms of infrastructure, opportunities and challenges. Consequently, it is not feasible to adopt a standardised urban approach to rural areas when examining freight transport. Additionally, widespread stereotypes about cargo bikes exist, namely that they are solutions primarily for urban areas and of limited use in rural regions. This bias leads to the assumption that they are unsuitable beyond cities and rarely considered in rural logistics planning. Rural

areas face special challenges in ensuring supply, public services and economic participation. In contrast, cities face challenges in terms of high demand and density. This discrepancy requires context-sensitive solutions. The research project RADLÄR (cycle logistics in rural areas) builds on the already researched areas of application for cargo bikes in cities by evaluating the extent to which use cases can be applied in rural areas as well as identifying the differences in planning. A mixed-methods approach was employed, consisting of literature reviews and stakeholder interviews, as well as simulation-based studies in three rural regions of Germany. The results show that the advantages of cargo bikes extend beyond the traditional realm of parcel logistics. It is obvious that cargo bikes are flexibility in terms of size or capacity, which facilitates their use in service-oriented logistics contexts. Above all, RADLÄR shows that cargo bikes are not only useful solutions in urban contexts, but also in rural areas, and that they are efficient additions to the current system.

2108 | Sigrid E. Glomdal, Daniel Piatkowski

Shared and owned cargo bikes for a car-free lifestyle: a review and research agenda

The cargo bicycle is uniquely qualified to become a viable car replacement in ways that other modes cannot. Cargo bicycles provide many benefits of the car without the negative externalities of auto-dependence and may serve a crucial role in reducing car reliance among populations whose transport needs are difficult to meet with transit or standard bicycles (e.g., parents of young children). This reserach investigates the potential of the cargo bicycle, both as part of shared schemes and owned, through a systematic literature review. This review includes 32 articles about the private use of cargo bikes. An ecological model dividing the focus into individual, socio-cultural, and environmental factors, was used to systematize the findings and gain an understanding of where the current focus is on research. Cargo bikes do to a large degree replace car usage, and to small extent affect other modes of transportation. Shared and owned cargo bikes complement each other rather than competing, and have some overlap in use. Our findings inform a proposed research agenda around topics that include infrastructure and the physical environment, and individual factors and socio-cultural factors. Such a research agenda can best facilitate planning and policy agendas aimed at increasing sustainable transport among populations that are poorly served by existing non-auto options, and is a crucial part of the 15- minutes city.

933 | Magdalena Bürbaumer, Jonathan Fetka

A framework to assess the suitability of automated delivery robots for cities

Urban open space is under high pressure due to multiple, often mutually exclusive utilisation demands. The emerging mobility technology of automated delivery vehicles, particularly sidewalk automated delivery robots (SADRs), puts additional pressure on the urban mobility infrastructure, especially sidewalks. This development raises questions regarding the accessibility, spatial rights and the need to balance competing claims for utilisation.

To address these challenges, a GIS-based framework is developed to assess the suitability of urban sidewalks for SADRs. This Suitability Framework (SF) combines two components: 1) the Drivability, e.g. where a robot can technically operate, and 2) the Compatibility, e.g. where a robot can drive considering

pedestrian flow and density. The weighting of input factors allows further customisation of the suitability framework towards local necessities, infrastructural context and technological advancement.

The SF acts as a fact- and place-based support tool for permit or preparation processes of SADRs. It helps to identify, specify, and reject SADR application cases. Different stakeholders gain different informative value from the SF: municipalities can explore the opportunities and limits of a potential SADR introduction in their current infrastructure; vehicle manufacturers can explore potential markets or needs for vehicle adaptation; logistic companies can explore high or low-fit neighbourhoods for potential fleet changes.

In recent years, discussions on regulations of new mobility technologies have emerged mainly after their introduction, once negative consequences were already apparent: parked free-floating bikes and scooters congesting sidewalks. The SF can be a tool to reverse this succession. It estimates the potential impact of introducing new mobility technologies and enables decision makers to act accordingly.

The SF's explanatory power depends on the accessibility and quality of the input data. Being GIS-based, the SF can be further developed and refined. Potential further enhancements include social infrastructure or the sojourn qualities of sidewalks.

2032 | Huangyi Deng, Haoran Li

When Place Matters Less? Built Environment, Online Consumption, and Spatial Inequality in the Era of On-Demand Delivery

Traditional urban studies posit the built environment as a key determinant of consumption, with certain locations facing depressed consumption due to limited accessibility. However, the increasing popularity of on-demand delivery in Chinese cities has disrupted this logic. Fueled by deep discounts and expanding services offered by platforms competing for market share, delivery has evolved into a necessity, accelerating the shift from in-store to online consumption. This raises a debate: do these services act as a “spatial equalizer” that compensates for location disadvantages, or do they prioritize areas with higher consumption potential, thereby reinforcing spatial inequalities?

Using Yangpu District in Shanghai, this research examines the relationship between on-demand delivery behavior, built environment and sociodemographic characteristics. Delivery behavior is measured from two perspectives: per-capita spending on the consumer side and order intensity on the business side, combining order frequency and basket size.

We divide the study area into 500-metre grids as the analytical unit. We derive delivery consumption, built environment and sociodemographic indicators for two points in time: August 2021 and August 2025, covering a period of rapid service expansion. On the consumer side, we calibrate spatial econometric models on changes in per-capita spending against built-environment and socioeconomic characteristics to identify neighborhoods experiencing growth in delivery consumption. On the business side, we apply cluster analysis on order frequency and basket size to identify delivery patterns and use multinomial logit to analyze how built-environment and sociodemographic characteristics shape these patterns.

Results indicate spatial disparities in consumption may intensify with on-demand delivery. High spending clusters along mixed-use corridors linking campuses and residential areas, while older neighborhoods and industrial waterfronts show stagnant growth, widening the accessibility gap. These findings suggest that on-demand delivery does not inherently compensate for location disadvantages but may exacerbate polarization, highlighting the need for planning interventions to mitigate the digital divide.

Accessibility for Elderly

Fri 3.7.09:00-10:30, Accessibility and Mobility A, U413 | Session chair(s): Tiina Rinne

1647 | Annika Wismer, Martina Hekler

Drive my car - an exploration of an alternative mobility solution to enhance accessibility for the elderly in everyday mobility

Demographic shifts are driving increased demand for inclusive and sustainable mobility solutions that reduce reliance on private transport among the elderly. Growing age related barriers mean that the need for alternatives to private car use is growing as well. One such alternative could be demand-responsive transport (DRT) integrated into traditional public transport, as it offers an affordable and flexible solution that bridges the gaps between traditional public transport (PT) and private car use. This contribution examines DRT services alongside PT in Hamburg, Germany, through thirty semi-structured interviews with users and non-users, focusing on how DRT supports access to key destinations, enhances social interaction, and overcomes individual mobility constraints. It also addresses public transport accessibility from a disability perspective, acknowledging the additional challenges faced by older adults.

By categorizing trips by purpose (leisure, shopping, health) and location (urban vs. suburban), the study contextualizes accessibility challenges across urban zones and transport modes, including walking, public transport, and private cars. The analysis explores usage patterns, booking behavior, shared ride experiences, and implications for social inclusion and user independence. Particular attention is given to perceptions of the built environment and infrastructural barriers related to users' health and fitness.

Additionally, user attitudes toward the integrating of autonomous driving technology into DRT reveal a balance between openness to innovation and a desire for personal interaction. The findings underscore DRT's potential to foster inclusive, resilient mobility ecosystems that address accessibility gaps and promote mobility justice. These insights provide valuable guidance for transport planners and policymakers to develop sustainable, user-centered mobility solutions.

2050 | Keyu Lin, Hengyi Lin

Age-Based Inequalities in Metro Accessibility: Identifying Nonlinear Thresholds Using Mobile Phone Data and Machine Learning

Population aging has become a pressing global challenge. Due to mobility differences between older and younger adults, older residents often face greater constraints in accessing metro systems. As a result, the effective service area of metro stations may vary across population groups, potentially leading to mobility inequities.

Traditional linear regression models rely on linearity assumptions, thus unable to identify the discontinuity in metro service coverage and associated threshold distances that define impact zone of metro stations. Leveraging a large-scale mobile phone signaling dataset and machine learning approach, this study reveals the non-linear patterns in metro access across age groups and explore its implications for mobility inequality.

We identify metro trips using mobile phone signaling data, based on whether users' devices connect to metro-exclusive base stations during travel. Monthly metro usage rates for each individual in 2024 are computed. We then employ an XGBoost regression combined with partial dependence plots to examine the nonlinear relationship between residents' metro usage, their distance to the nearest station, and the mediating role of built-environment factors across age groups. Results indicate that older adults exhibit substantially lower metro usage than younger adults, with the disparity particularly evident outside the urban core. Metro usage declines with increasing distance to stations but stabilizes once distance exceeds a certain threshold. While both age groups display similar nonlinear patterns, their inflection points differ: 1.6 km for older adults and 2.2 km for younger adults. This suggests that metro stations effectively serve a smaller catchment area for older residents. Built-environment analysis further shows that high bus-stop density significantly extends older adults' effective service radius, whereas bike-sharing density mainly influences that of younger adults.

By uncovering age-based inequalities in metro accessibility stemming from mobility differences, this study provides empirical evidence to inform policies toward more age-friendly and equitable urban transport systems.

1158 | Luisa Merlo, David Chapman

Is There a Mobility Crisis Among Older Adults? Rethinking Their Walking Barriers and Needs

Europe's ageing population presents growing challenges, particularly in rural areas where 20% of older adults live. This study explores how older individuals perceive their mobility and participation in activities across urban and rural contexts, and how these perceptions are shaped by environmental, health, and social factors. Specifically, it examines how older adults engage with their outdoor surroundings, whether they walk, and perceived barriers to greater outdoor use.

A questionnaire was mailed in April 2024 to 800 residents aged 70 and older in Norrbotten and Västerbotten. It collected data on demographics and self-rated health and assessed perceptions of mobility across three spatial scales: directly outside the home, within the neighbourhood, and across the town. For each scale, participants reported their usual mode of transport, desire to visit more often, and barriers to doing so.

Findings revealed diverse perspectives on mobility. Walking was the dominant mode of transport across all scales, often combined with other modes. Few respondents wished to visit these environments more frequently, with health and mobility impairments cited as the main barriers. While 65% rated their health as Very Good or Good, those expressing a desire to go out more often typically rated their health as Average. Gender differences emerged: women were more likely than men to express a desire for

increased mobility, and women living alone were more than twice as likely to do so compared to those living with someone.

In conclusion, walking plays a central role in older adults' daily mobility, and most report satisfaction with their current mobility. The primary barriers are individual and health-related rather than environmental. These findings suggest that promoting health is key to supporting ageing in place, while older adults do not perceive structural or urban planning factors as major obstacles to maintaining mobility and independence.

1910 | Shiming Xue

Exploring Accessibility and Inclusive Mobility for an Aging Society: A 3D Visualization–Based Choice Experiment on Street Walkability among Vulnerable Pedestrians

As global societies continue to age, ensuring accessible and inclusive mobility for older adults has become a central challenge for contemporary planning. Walking remains one of the most common and essential modes of mobility among older individuals, yet their street-level experiences are shaped by complex interactions between built environmental characteristics and perceptual responses. While previous research has highlighted the importance of street walkability for older adults, traditional questionnaire-based or field-survey approaches have struggled to capture the dynamic and multidimensional nature of real urban environments. This study addresses this gap by integrating three-dimensional visualization technology into a stated choice experiment to examine the walkability preferences of vulnerable pedestrians, with a particular focus on the aging population. A 3D built-environment design was developed to simulate realistic street scenarios, enabling respondents to evaluate multiple street attributes under controlled conditions. A latent class choice model was applied to identify heterogeneity within the older adult population. The findings indicate that age and income are major determinants of preference variations. Younger, lower-income seniors demonstrate greater sensitivity to street vitality, sidewalk width, and accessibility. In contrast, older, higher-income seniors place stronger emphasis on the presence of open space, while showing negative preferences for attributes such as street furniture, building height, land-use mix, and walking time. These results highlight the differentiated mobility needs that exist within aging societies and underscore the importance of designing street environments that accommodate diverse subgroups of older adults. The study provides practical insights for policymakers, urban planners, and landscape designers seeking to promote equitable, walkable, and age-friendly cities. By demonstrating the value of immersive visualization and choice-based methods, the research contributes to ongoing discussions in planning about how inclusive mobility and accessibility can be advanced through evidence-based design and decision-making.

1848 | Yi Sun

Multiple Deprivation, Changing Lived Experiences, and Varying Health Outcomes among Older Adults: Implications for Planning Age-friendly Cities

Multiple deprivation encompasses not only economic disadvantage but also inequalities in physical and social environments that pose critical barriers to healthy aging. However, how older adults perceive

deprivation and how it manifests differently across places remain underexplored. In light of this, the study aims to examine how distinct domains of deprivation shape the lived experiences and health outcomes of older adults, and the geographic variation in these associations in Hong Kong—an ultra-dense Asian metropolis. Three questions are proposed: 1) How is neighborhood deprivation associated with older adults' lived experiences? 2) How are these lived experiences associated with health? 3) How do these associations vary spatially? Structural equation modeling and geographically weighted regression were used to analyze survey data from 541 older adults in Hong Kong. Neighborhood deprivation was measured using the Hong Kong Index of Multiple Deprivation. Highly deprived neighborhoods are likely to be located in areas with ultra-high residential density, where living conditions are substandard (e.g., subdivided units). Urban areas that used to have a large proportion of resettlement and industrial lands are likely to become deprived owing to the uneven distribution of urban amenities and the fragmentation of residential areas by industrial land. The analysis also shows the spatial stratification of deprivation: older adults in fragmented, employment-deprived neighborhoods are more likely to experience weak social cohesion and loneliness, whereas in dense urban neighborhoods, strong social ties and mixed use buffer loneliness more effectively despite living environmental deprivation near the former industrial site. These findings highlight the need for neighborhood-specific planning to mitigate deprivation and support healthy aging.

15-minute City I

Fri 3.7.09:00-10:30, Accessibility and Mobility B, U414 | Session chair(s): Ehab Diab

1765 | Mohammad Hamed Abdi

Inclusive 15-Minute Neighborhoods: Integrating Public Perception into Proximity-Based Urban Planning

The concept of the 15-minute city has gained significant traction in urban planning worldwide due to its proclaimed benefits for local communities. Although rooted in earlier planning movements, its timely rebranding has attracted renewed attention as cities confront resource constraints, climate change, vulnerable settlements, pandemics, and social exclusion. This model advocates a proximity-based approach to neighborhood planning, ensuring that residents can access daily needs within a 15-minute walk or bicycle ride from home. While its principles are promising, the prescriptive nature of the concept—similar to previous planning paradigms—limits understanding of its popularity among residents and the extent to which different socioeconomic groups respond similarly. In fact, little is known about the inclusive applicability of this approach across diverse societal profiles. This study thus examines for whom proximity to services translates into increased use of nearby amenities and higher levels of active travel. Using 19 municipalities in the Brussels-Capital Region as a case study, it employs an in-depth quantitative analysis of public perception. Primary data were collected through an online survey targeting diverse neighborhoods and socioeconomic groups across the study area. The results reveal associations between perceived proximity and behavior while controlling for residents' socio-economic characteristics, and they indicate the factors underlying actual consumption and travel behavior based on diverse individual perceptions. These findings contribute to understanding the inclusiveness of the 15-minute city model beyond prescriptive planning and design dimensions and provide a foundation for

future applications in other urban settings, with multiple scientific and social impacts on global communities in the long term.

1781 | Enric Martells Cortés, Oriol Marquet Sardà

Who benefits from urban proximity? Insights from five Spanish 15-minute cities

Recent urban planning trends advocate shifting from car-oriented development toward people-centered cities, where daily needs can be met within a short walk or bicycle ride. The 15-minute city framework embodies this idea, aiming to integrate housing, services and leisure into compact, mixed-use neighborhoods. However, research warns that improved accessibility may also reinforce socio-spatial inequalities or trigger gentrification processes, especially when broader structural drivers of disadvantage remain unaddressed. Previous studies show that access to nearby services varies across social groups: while some low-income and elderly populations may live closer to essential facilities, wealthier residents often enjoy a wider range of amenities. Accessibility is thus a key equity concern, influencing daily mobility, environmental exposure and opportunities for participation in urban life.

This study analyzes how accessibility to essential services is distributed across sociodemographic groups in five Spanish cities: Barcelona, Palma de Mallorca, Granada, València and Madrid. Accessibility indicators—derived from the Atlas de Ciudades para la Movilidad Activa—measure the 90th-percentile travel time by active modes to 26 facilities grouped into care, education, provisions, entertainment and public transport. Sociodemographic data come from the 2021 Census and include variables such as income, unemployment, rental housing, foreign population, education levels, touristic accommodation intensity and inequality. Census tracts are classified into accessibility and sociodemographic clusters, and ordinal regression is used to estimate the probability of belonging to each accessibility category.

Preliminary findings identify nine accessibility profiles, ranging from fully accessible areas to tracts with limited overall access but specific service hubs, as well as zones lacking coverage in all categories. Several sociodemographic factors—particularly higher education levels, income and foreign population share—significantly relate to accessibility outcomes. Among the five cities, València shows the best performance. Overall, the results suggest that proximity-based accessibility functions primarily as an urban structural feature rather than a social privilege.

1396 | Taiyo Ishikawa, Marketta Kyttä

From proximity to connection: The role of 15-minute neighborhoods in shaping social interaction through travel behavior

The 15-minute neighborhood concept has gained prominence as an urban planning model for promoting sustainable and livable cities. While its environmental benefits are well documented, its social implications remain underexplored. As social isolation and loneliness have emerged as critical public health concerns linked to declining well-being in many countries, it is increasingly important to investigate how urban planning interventions might foster regular social interaction. This study examines whether the objectively measured accessibility of 15-minute neighborhoods is associated with residents' regular social interaction through its influence on daily travel behavior. Using Public Participation GIS

(PPGIS) survey data from Turku, Finland, and Uppsala, Sweden (combined N = 785), we quantified three travel behavior indicators—average trip distance, trip frequency, and active mode share—along with individuals' participation in social activities. A continuous 15-minute city score, calculated using an open-source tool and OpenStreetMap data, was used to capture neighborhood-level objective accessibility to daily amenities. Linear regression and structural equation modeling revealed that higher 15-minute city scores were associated with shorter trip distances. Shorter distances, in turn, predicted more frequent trips, which were associated with a higher likelihood of regular participation in social interactions—both with neighbors and in broader interactions aimed at forming and maintaining social ties. However, active mode share showed no direct effect. City-specific SEM analyses further indicated that the direct association between the 15-minute city score and average trip distance varied by context, being more evident in Turku than in Uppsala. These findings provide empirical evidence that proximity-based urban design, which enhances accessibility to daily destinations, can facilitate regular social engagement by enabling shorter travel distances and more frequent local mobility. However, the strength of these accessibility-related effects may vary across different urban contexts.

1582 | Zhaowen Deng, Tae-Hyoung Tommy Gim

15-minute city for all? Rethinking the 15-minute city for urban older populations

The "15-minute city" (15-MC) has gained attention as a strategy to enhance urban liveability and sustainability by ensuring essential services are within a short walking or cycling distance. However, its application seems to ignore the needs of older populations. As cities worldwide experience rapid demographic ageing, this oversight raises critical questions about social equity and inclusivity in the implementation of proximity-based urban models.

Building on our previously published paper of the same title in Applied Geography, this study refines the analytical framework and extends the discussion toward policy adaptability and age-friendly urban planning in Shanghai evaluating the accessibility and diversity of urban amenities for both older populations and younger populations within the 15-MC framework. Using spatial accessibility analysis, diversity metrics, and Gini coefficients, the research quantifies differences in access to essential amenities such as healthcare, food, and leisure services across age groups.

Results show that older populations experience 20–30% lower accessibility and 0.15–0.2 lower amenity diversity than younger populations, with disparities exceeding 40% in suburban and peripheral areas. High-accessibility clusters are concentrated within the inner ring, while suburban zones exhibit pronounced inequalities. The Gini coefficients for older populations (0.41–0.43) also indicate greater internal inequity compared to younger groups (0.33–0.35). These findings highlight a critical limitation of current 15-MC framework, which fails to balance the centralisation of amenities with equitable accessibility. This imbalance reflects that the current 15-MC form may unintentionally reproduce inequalities rather than mitigate them.

To address these disparities, we propose a tiered and adaptive 15-MC framework that promotes differentiated amenity provision across urban zones. This approach emphasises the development of local community centres and embedded facilities in suburban areas, supported by zone-based and type-

specific strategies and continuous policy monitoring. This framework enables the creation of a multi-centre, age-friendly urban system that ensures equitable accessibility for all population groups.

1003 | Yanjun Fang, Felix Hallikainen

15-minute city as a personal travel lifestyle- Utilizing PPGIS data to personalize the assessment of people's travel behavior and study the gap between possibilities provided by urban structures and actual travel

As a response to compact cities, localized communities, and sustainable development, the 15-minute city concept has attracted widespread attention among policymakers worldwide. However, the idea that "the facilities required for residents' daily lives should be accessible within a 15-minute walking distance" has been criticized by many researchers. The reason is that a single time threshold and an exclusive focus on facility accessibility, in other words, on the potential 15-minute lifestyle provided by urban structure, cannot capture the diversity of sustainable travel modes and residents' varied needs for different types of facilities, thereby limiting its ability to provide contextualized planning recommendations.

As a method that allows non-experts to identify the spatial dimensions of social and cultural landscapes, Public Participation GIS (PPGIS) offers a way for residents to share feedback on their everyday lifestyles. This enables policymakers to better understand residents' travel preferences and actual travel patterns they carry out.

Using over 4,000 PPGIS responses collected from three Finnish cities(Espoo, Lahti, and Oulu), this study defines the concept of a "15-minute lifestyle" to examine whether people are living 15-minute lifestyle under different socioeconomic backgrounds, personal travel and residential preferences, and built environment characteristics. It also explores the mismatch of actual lifestyle and the potential provided by urban environment.

The findings show that in the three cities, 26.5%, 27.9%, and 34.0% of residents, respectively, live a 15-minute lifestyle. This lifestyle is associated with residents' residential and travel preferences, the proximity of their daily services, and their socioeconomic attributes. Based on this, this study conducted several case studies to understand the relationship of potential of cities and actual travel behavior.

The results of this research provide practical insights for urban planners in the Finnish context, offering guidance for the implementation and contextual adaptation of the 15-minute city concept.

1400 | Dakota McCarty, Halim Cha

Beyond Proximity: Dynamic Accessibility Modeling for Equitable N-Minute Cities

In an era of demographic transition and digital transformation, cities require adaptive planning frameworks that move beyond static representations of space. This research challenges the conventional proximity-based paradigm by demonstrating how dynamic, temporally-aware models better capture the fluid nature of urban accessibility. We argue that N-minute city approaches must account for changing populations, services, behaviors, and infrastructures if they are to achieve genuine urban equity.

This paper presents an agent-based modeling (ABM) framework developed through two ongoing initiatives: the Horizon Europe DUT project Beyond 15-Minutes (B15M) and a complementary study modeling how residents' travel patterns respond to urban structure, mobility options, and service distribution. Unlike traditional accessibility models that rely on fixed isochrones, our ABM simulates residents as adaptive agents whose behaviors evolve with life-cycle changes, mobility constraints, digital access, and urban form. The model integrates behavioral rules with GIS-informed service networks to produce temporally sensitive accessibility outputs that shift across time of day, seasons, and demographic profiles.

Case studies in South Korea show that accessibility outcomes extend far beyond simple proximity to destinations. Simulations reveal that neighborhoods appearing equitable under static measures can exhibit strong disparities when temporal variation, service availability, and population heterogeneity are included. Findings from the B15M project demonstrate how feedback loops between individual behaviors, digital connectivity, and spatial structure continuously reshape urban accessibility landscapes.

This comparative framework advances urban modeling by grounding abstract concepts of accessibility in behavioral representation rather than spatial assumption. The results provide planners with a dynamic tool to anticipate demographic transitions and infrastructure evolution, enabling proactive rather than reactive interventions. By revealing how everyday mobility evolves across residents' lifecycles, this research offers strategies for designing adaptive, equity-focused N-minute cities that respond to communities' changing needs over time.

Accessibility Research I

Fri 3.7.11:00-12:30, Accessibility and Mobility A, U413 | Session chair(s): Fabian Wenner

1448 | Maha Attia, Bareerah Hafeez Hoorani

Co-Creating Systems Knowledge for Integrative Accessibility Planning: A Serious Game Co-Design Process

Integrating transport, land-use, and telecommunications planning is increasingly recognized as a way to address uncertainty in accessibility planning. This became particularly prominent following accessibility shifts caused by COVID-19. However, integration remains elusive due to numerous implementation challenges, many of which arise from a lack of shared understanding of the interdependencies, interactions, conflicts, and complementarities among plans. As a first step, policymakers must collaborate to develop a shared understanding focusing on how their plans can support one another. Literature emphasizes that learning through co-creating Systems Knowledge can guide this process, as it can help outline the interrelations among the different domains. Still, the literature lacks methodological guidance on how to practically incorporate Systems Knowledge into a learning process. To address this issue, this research co-designs and tests a serious game focused on co-creating Systems Knowledge, employing a design-based research approach. Serious gaming is chosen because it is a flexible, open, and creative method that allows for experimentation. The study involved two roundtable discussions with 13 accessibility and gaming experts, two prototype sessions with 10 accessibility and 10 methods experts, and two parallel game-testing sessions with seven policymakers from two Dutch municipalities.

Additional data supporting the design were collected through the analysis of policy documents and interviews with policymakers from the same municipalities. To guide the incorporation of Systems Knowledge, the co-design process revealed key methodological elements best suited for the context, including mental modeling, cause-and-effect visualization, and open-ended idea exploration. Furthermore, game testing particularly emphasized the often-overlooked role of telecommunications and its interrelation with transport and land use. For instance, the impacts of increased teleworking on traffic and housing policies were explored. Overall, the research promoted a shared understanding of accessibility planning as an overarching system of various domains that, when integrated, can offer alternative ways of access, especially amid uncertainty.

1802 | Leonardo Pomar Carlos, Carlos Leite de Souza

The Limits of Paint: An AI-Driven Comparative Assessment of "Hard" vs. "Soft" Traffic Calming in a São Paulo Post-Industrial District

In the rapid urbanization of the Global South, road safety policies often default to low-cost signaling—paint and signage—over expensive civil works, relying heavily on driver compliance with legal speed limits. However, this "soft" infrastructure frequently clashes with legacy urban morphologies designed for speed. This research empirically challenges the effectiveness of the "paint-first" approach through a case study of Rua Borges de Figueiredo, a critical connector in São Paulo's Mooca district. Currently transitioning from a heavy logistics hub to a high-density residential enclave, the street retains the wide carriageways and corner radii of its industrial past, creating severe conflicts for the growing pedestrian population.

Using consumer-grade Unmanned Aerial Vehicles (UAVs) and computer vision, the study conducts a naturalistic driving observation across three distinct micro-design scenarios: (1) a raised pedestrian table ("hard" infrastructure); (2) a standard painted crosswalk ("soft" infrastructure); and (3) a baseline control segment. The methodology employs high-frequency aerial snapshots processed via Python scripts—utilizing YOLOv8 for detection and DeepSORT for trajectory tracking—to extract precise velocity profiles and yielding behaviors of over 400 vehicles.

The comparative analysis reveals a stark disparity: "soft" infrastructure fails to statistically alter the 85th percentile speed compared to the baseline, leaving pedestrians vulnerable to high-speed conflicts fostered by the forgiving road geometry. Conversely, "hard" micro-urbanism interventions force a mechanical deceleration to safe levels (<30 km/h) regardless of driver intent. This study contributes to the urban planning literature by validating the "Self-Enforcing Road" theory in a Latin American context, demonstrating that without physical alteration, signaling is insufficient to tame aggressive driving cultures. Furthermore, it establishes a scalable, low-cost AI-driven protocol for bottom-up safety audits, advocating for a data-driven shift in municipal investment towards physical retrofitting in gentrifying post-industrial districts.

2401 | Lennert Verhulst, Giovanni Circella

Doing it together: understanding community-based accessibility practices through a commoning accessibility lens

Accessibility research has often neglected its social dimension. It is increasingly recognised that accessibility is shaped not only by individual factors (e.g., income, car ownership) and contextual conditions (e.g., built environment, transport infrastructure) but also by social relations (Manzini, 2022). Especially relevant in peri-urban and rural areas where access to services and public transport is limited or declining, the role of people and communities in assuring everyday accessibility should be actively recognised, also in planning. A locally run neighbourhood bus or 'hitchhike benches' replacing the removal of a public transport line are known examples.

This study examines such initiatives by framing them through a commoning accessibility lens (Papa et al., 2025). This perspective foregrounds the processes through which communities collaboratively create and manage conditions to provide access to socio-spatial resources, without relying solely on state or market provision. We explore the motivations for participating in these initiatives and impacts of participation on travel practices in a peri-urban Flemish context.

We conducted eight focus groups with participants from six initiatives: two community-based carsharing schemes, a children bicycle library, a repair café and two hitchhiking benches. We draw on social practice theory to link collective accessibility provision with both individual and shared practices and motivations. As such, we explore how motivations and travel practices are being structured and shaped by an interplay between materials, competences and meanings and how community action translates into improved accessibility. In this sense, we scrutinise their potential to enhance mobility justice and inclusion.

Viewing these accessibility initiatives through a commoning perspective allows us to rethink forms of ownership, decision-making, management and community participation in accessibility provision (Nikolaeva et al., 2019). In doing so, this study contributes to reconceptualising accessibility as a product of social relations and places the role of communities at the foreground of accessibility planning.

2360 | Chethika Abenayake, Nilan Shalinda, Amila Jayasingh, Sebastian Hantschel, Regine Gerike

Urban Informatics and Planning: Digital Pedestrian Pulse, Urban Sensing, and Accessibility Analytics in Cities

Everyday accessibility in cities is often planned with scarce empirical evidence on where and when people actually walk. At the same time, emerging digital traces and urban sensing technologies provide new possibilities to observe mobility patterns and simulate change scenarios. This paper positions urban informatics and planning as a joint lens to understand everyday accessibility through a digital pedestrian pulse framework, combining urban sensing, street-network analysis, and destination accessibility metrics in 50 Sri Lankan cities.

Using anonymised mobile positioning data, we construct high-resolution space–time cubes (100 m × 100 m × 15 min) and derive pulse metrics that capture the intensity, timing, and volatility of pedestrian activity at the street-segment level. These measures are linked to segment-based street-network configuration

(e.g. betweenness, angular integration) and built-environment indicators such as density, land-use mix, and destination richness derived from OpenStreetMap points of interest (POIs). Regression and machine-learning models are applied to explain variation in pulse metrics, while clustering is used to identify distinct "pulse archetypes" of streets and cities.

Findings show that highly central streets with diverse POIs support stronger and more stable pedestrian pulse, whereas fragmented networks and mono-functional areas exhibit short, shock-like peaks in activity. We illustrate how this framework can be used to: (i) diagnose gaps in pedestrian accessibility; (ii) identify priority corridors for walkability and public transport integration; and (iii) explore digital, scenario-based assessments of land-use or network changes on everyday access.

Methodologically, the study demonstrates how urban sensing, mobility big data, and AI-supported analytics can be combined into a reproducible pipeline for planning practice. Conceptually, it positions digital pedestrian pulse analytics at the intersection of accessibility and mobility debates and advanced geospatial technologies in planning within rapidly transforming Global South contexts.

1346 | Angela Seixas Pilotto

Multi-scale and multiple-variable analysis of accessibility to new real estate developments in the São Paulo Metropolitan Region

A series of analyses on the 'real estate boom' and the 'urban mobility crisis' in Brazil during the 2000s and 2010s pointed to a worsening of urban mobility conditions, predominance of individual motorized transport, intense real estate activity, increase in property prices, and urban sprawl. Starting from this context, this research aimed to understand the relationship between urban mobility conditions and the expansion of residential real estate in the São Paulo Metropolitan Region.

Using a multi-scale and multiple-variable approach, the study identified contradictions (i) between proximity and accessibility indicators; (ii) among different scales and variables in travel time analysis; (iii) regarding persistent inequalities despite the expansion of urban mobility infrastructure; (iv) between the acceleration of real estate development and the slowness of travel; and (v) concerning the emphasis on individual and privatized solutions, supported by the use of public space and funds.

Focusing especially on accessibility between new real estate developments and urban mobility infrastructure, the research combined proximity indicator analysis with fieldwork along new real estate frontiers accessed via the high-capacity public transport network. Starting from metropolitan train stations, routes to the new developments often require crossing physical barriers and involve notably unsafe areas. Findings show that proximity to mobility infrastructure is unevenly distributed and varies in quality. In addition, public transport use correlates with longer travel times and reduced accessibility, with quality service limited to a small part of the metropolis.

The study highlights critical socio-spatial inequalities within a context of capital accumulation through the production of space. It invites further examination of whether these contradictions can illuminate new possibilities in disputes over public space and public funds in the context of new investment cycles.

15-minute City II

Fri 3.7.11:00-12:30, Accessibility and Mobility B, U414 | Session chair(s): Ehab Diab

1973 | Cesar Marin-Flores, Subhrasankha Dey

From 15-Minute Cities to 1-Kilogram CO_2 Cities: Trade-offs Between Accessibility and Emissions in Urban Mobility

Urban mobility and accessibility studies have traditionally focused on travel time or potential access to opportunities, often overlooking the environmental cost of reaching those destinations. As cities move toward sustainable and inclusive mobility under frameworks such as the 15-minute city and Paris-aligned climate goals, there is a need for indicators that capture not only how accessible a city is but also at what environmental cost. We introduce an emission-aware accessibility framework to evaluate whether residents can remain within climate budgets, approximately 1 kgCO_2 per week for Finland's 2030 targets under the 1.5 °C Paris Agreement, while still performing a minimum set of essential weekly trips, following the "decent mobility" concept (Arnz et al., 2025). Using Helsinki as a case study, our method combines multimodal routing, life-cycle emissions, and realistic travel conditions: car routes incorporate congestion and parking search time; cycling emissions account for additional caloric energy expenditure; and public transport emissions rely on mode-specific factors provided by the Helsinki Transport Authority (HSL) in their official life-cycle assessments. Results show a clear hierarchy in the ability of modes to support carbon-compatible accessibility. Bicycling allows most residents to satisfy decent-mobility needs within the strict 2030 carbon constraints and reach a broad diversity of jobs and services. Public transport supports these needs only partially, and its feasibility depends strongly on the location of residence, with accessibility rapidly exceeding available emission budgets for many origins. Car-based mobility is incompatible with Paris-aligned targets under all scenarios, even when considering only the minimum weekly trips. These findings highlight the importance of integrating emissions into accessibility metrics and show the structural challenges that cities face in achieving climate goals.

References:

Arnz, M et al, 2025. Quantifying minimum mobility and transport needs: The who, the where and the why. Energy Research & Social Science 128. https://doi.org/10.1016/j.erss.2025.104306

1842 | Ehab Diab, Jessica Wei-Lin Lam

Understanding the determinants of people's perception of whether they reside in 15-minute neighborhoods

In recent years, the concept of the 15-minute city (15MC) has gained significant traction in academic discourse and urban policy making. While numerous studies have examined its strengths and limitations, assessed travel behaviors, and tracked its integration into policy frameworks globally, few have investigated the factors shaping individuals' perceptions of whether they reside in a 15-minute neighborhood (15MN). This study addresses that gap by exploring the determinants of perceived 15MN residency, identifying which sets of local destinations are most influential, and comparing the effectiveness of binary versus count-based access measures. Using principal component analysis (PCA) and multilevel mixed-effects logistic regression, the study analyzes survey data collected in 2024 from Saskatoon, Canada (n = 1,466). The findings reveal that perceptions of living in a 15MN are not

significantly associated with people's socioeconomic characteristics or prior knowledge of the concept. Instead, they are strongly influenced by objective access measures and other subjective perceptions. A set of destinations that include access to elementary and secondary schools, grocery stores, transit services, and proximity between home and work played a substantial role in influencing people's perceptions. Using count-based access measures within a 1,200-meter radius, while outperforming binary indicators, revealed both areas of convergence and divergence in the factors shaping perceptions of 15MNs. These results provide valuable insights for urban planners, policymakers, and researchers working to advance 15MC principles by highlighting the importance of both access quality and lived experience in shaping neighborhood perceptions.

2025 | Kofoworola Modupe Osunkoya, Najmeh Mozaffaree Pour

Proximity vs Presence: Rethinking the 15 Minute City

The 15-Minute City (15MC) model aims to develop compact, walkable neighbourhoods where basic needs such as living, working, shopping, healthcare, education, and recreation are all within a 15-minute walk or bike ride. The goal is to make people less reliant on cars, promote community participation, and strengthen urban resilience that fosters socially vibrant and sustainable environments.

However, as cities begin to redesign space around this framework, an important question remains underexplored: Does proximity lead to presence? In other words, do people actually use and occupy the areas that 15MC standards predict should be active and lively?

This study examines the relationship between 15MC accessibility and urban vitality (UV) in Tallinn using digital footprints and spatial datasets. We combined accessibility indicators with UV measures to analyse spatial and temporal patterns (February, July, and October 2020–2021). The spatial correlation and spatial-lag regression (SLM) models identify where proximity aligns with measurable human presence over time.

The results show that 15MC compliance strongly predicts presence, especially in socioeconomically diverse and well-connected neighbourhoods, thereby confirming that proximity enhances vitality when complemented by functional diversity and spatial interdependence. However, accessibility alone does not ensure liveliness, underscoring the need to integrate proximity with extensive mobility networks and high mixed-use intensity.

These findings contribute to evidence-based planning for 15MC by improving understanding of proximity and connectivity in ways that are equitable, resilient, and sustainable for urban transitions.

2136 | Erwin van Tuijl, Wilbert den Hoed

Physical, social and digital dimensions of inclusive 15-minute neighbourhoods: insights from older adults and families in a large-scale housing estate in Delft

This paper plugs into debates on 15-minute cities and social inclusion. To do so, it combines literature on 15-minute cities, large-scale housing estates, digitalisation and inclusive cities to explore why residents are challenged to adopt active mobility and deploy local amenities. More concretely, we aim to identify

physical, social and digital barriers that older adults and families in large-scale housing estates face in adopting a 15-minute lifestyle, and elucidate how they cope with these barriers. We also intend to provide concrete recommendations to support urban planners in transforming large-scale housing estates into inclusive 15-minute neighbourhoods. We report on 27 walking interviews carried out with older adults and families in a case study of a local large-scale housing estate in Delft, a Dutch medium-sized city. The interviews are part of a larger research project where we apply a mixed-method approach, encompassing a resident survey, walking interviews, participatory mapping, and co-creation workshops. The case study is characterised by high density and diversity in both population structure and building types. Our walking interviews results reveal that a weak walking infrastructure and social and traffic unsafety are key rationales for not adopting a 15-minute lifestyle for different residents. We also show how tensions between different and even within the same transport modes hinder active mobility. Moreover, coping practices (e.g., not traveling at certain times and places taking the car; walking on roads and cycling lanes) mostly complicate active mobility and access to local amenities. Social networks, in contrast, are crucial to overcome some of those barriers, particularly helping the most vulnerable citizens (with various health concerns) to obtain access to essential amenities. Finally, we show how digitalisation offers chances for inclusion and improved amenity access, but also risks to deepen the digital divide and a reduction of active mobility use.

2829 | Jan Bittner

The 15-Minute City Meets Real Life: A Critical Perspective from the Prague Metropolitan Area

The 15-minute city has become a widely promoted planning model, yet recent systematic reviews have highlighted substantial concerns regarding its assumptions and methodological foundations (1). Critiques emphasise its physical determinism and reliance on rigid threshold-based metrics. A further limitation lies in the aggregation of fundamentally different amenities into generic indicators, which obscures variation in their functions, catchment areas and mobility implications. These weaknesses are particularly evident in urban contexts that differ from intensively urbanised Western city centres.

This contribution grounds its analysis in the Prague Metropolitan Area, situated within the broader dynamics of post-socialist suburbanisation. Drawing on data from the TSK travel survey (N = 866), the study employs ordinal logistic regression and structural equation modelling to examine how accessibility shapes everyday mobility across different population subgroups. Accessibility is operationalised using walking-time measures for local amenities and public-transport–to-car travel-time ratios for regional destinations. Life-role variables (parenthood, economic activity and their interaction) are included to capture heterogeneity in behavioural responses.

The findings indicate that accessibility effects are highly differentiated. Parents are most responsive to walking access to educational amenities, whereas economically active adults respond primarily to the competitiveness of regional-scale public transport. Those combining work and care responsibilities exhibit the strongest sensitivity to both local and regional accessibility, reflecting intensified time–space constraints. Limited provision of local amenities is associated with higher precautionary car ownership,

though not necessarily with higher car use—challenging dominant Western assumptions that suburbanisation uniformly increases both.

These results underscore the limitations of universalised proximity models and highlight the need for amenity-specific, context-sensitive and life-role-aware approaches to accessibility planning.

References

MAHMOUDPOUR, Asrin and SHIRAZI, M.Reza. Critical debates on the 15-minute city: A systematic content analysis of the literature. Cities. February 2026. Vol. 169, p. 106576. DOI 10.1016/j.cities.2025.106576.

2323 | Malachy Buck, Gavan Rafferty

(Re-)imagining Belfast as a 15-Minute City: Examining Assumptions, Opportunities and Limitations for delivering Spatial Justice in a Contested Space

The proximity-based notions of the 15-minute city stimulate debate on the (in)equitable distribution of services and resources that should be inclusive and accessible. While important for any city to aspire too, the extent to which the concept can be been satisfactorily implemented in a deeply contested and segregated city, like Belfast, remains underexplored. Following protracted socio-political unrest (known as 'The Troubles'), the city continues to grapple with the socio-spatial dilemmas associated with fostering a just and equitable urban environment. This paper presents the first analysis of its kind in examining the assumptions, feasibility, and challenges of the 15-minute city concept in a post-conflict city in Europe.

Adopting a case study approach in Belfast, the research critically reviews the extent to which policy is proactively aspiring to deliver distributional justice. Using the latest socioeconomic data and spatial analysis, the paper critically examines the opportunities and limitations around notions of proximity and accessibility for producing equitable access to various resources and services in a contested space.

The analysis reveals the opportunities and limitations of the fine-grained application of the 15-minute model for promoting socio-spatial equality. The physical and psychological barriers resulting from decades of division present challenges for policy-makers in achieving distributional justice through the 15-minute concept in Belfast. The contested nature of space potentially undermines the accessibility, permeability and liveability of the community as a whole. The paper reflects on the potential for this model to inform the debate on tackling spatial inequalities/desegregation and for achieving greater distributional justice in a post-conflict city. The research also considers the challenges in understanding, mapping and integrating social-psychological geographies within spatial analysis exercises, such as that presented in the paper.

Accessibility Research II

Fri 3.7.14:00-15:30, Accessibility and Mobility A, U413 | Session chair(s): Elias Willberg

1968 | Amrit Tiwana, Martino Tran

An urban data framework for evaluating accessibility and inclusivity in cities: a case study of access to healthcare facilities in a fast-growing, diverse Canadian city

Background: Access to healthcare remains a persistent challenge, particularly for vulnerable populations such as older adults, women, visible minorities, and those with low socioeconomic status. Capturing the social dimensions of accessibility is increasingly relevant for planning decision-makers. However, few robust and easily implementable policy tools currently exist to address this challenge.

Methods: This study developed a novel methodological framework that integrates open-source, high-resolution (one km-squared) socio-demographic data with an advanced transport routing engine to assess healthcare access via public transit in Surrey, British Columbia – a fast-growing, diverse Canadian city. Using a 30-minute travel time threshold, we calculated destination-oriented ('passive') and origin-oriented ('active') accessibility to walk-in clinics, urgent care centres, and hospitals. Multilevel logistic regression was used to estimate odds ratios (ORs) and 95% confidence intervals (CIs) for the association between healthcare access and the intersectional effects of age, sex, race/ethnicity, education, income, and urbanicity (> vs. ≤ 400 people per km-squared).

Results: Overall, 319,402 (56.2%) residents could reach at least one healthcare facility within 30 minutes via public transit. Walk-in clinics were the most accessible, followed by urgent care centres and hospitals. High proportions of vulnerable populations were concentrated near major urban centres, which had access to more facilities compared to the city's peripheral and outer suburban areas. Strata with a high proportion of females (OR = 3.43, 95% CI: 1.49–7.91) had higher odds of accessibility, while older adults (OR = 0.33, 95% CI: 0.12–0.87) and non-urban areas (OR = 0.07, 95% CI: 0.03–0.14) had lower odds. Accessibility inequalities were most pronounced among older visible minorities living in non-urban areas.

Conclusions: Equity-oriented planning and investment in sustainable transportation and healthcare infrastructure are required to close accessibility gaps. This scalable, open-data framework can inform inclusive urban policy and improve access to essential services for vulnerable populations living in underserved areas.

1130 | Simo Rautiainen, Vuokko Heikinheimo

ARIFi: Accessibility and Remoteness Index of Finland – A new tool for planning and governance?

Accessibility and remoteness are closely interrelated concepts, representing relative and subjective characteristics of places that are influenced by several factors. In research, they have been measured from various perspectives and in relation to multiple variables. Accessibility (and remoteness) are also critical aspects of spatial planning. However, Finland lacks a comprehensive metric that considers the position of places within the regional structure through the lens of accessibility. Furthermore, the remoteness indicator currently employed by the national government is insufficient in several respects.

To address this gap, we have developed the Accessibility and Remoteness Index of Finland (ARIFi), which provides a comprehensive and comparable representation (whole country, 1 km grid) of the spatial positioning of places in relation to the network of service centres. The index reflects how easily service centres of varying levels can be reached from each grid cell. Conversely, it also describes remoteness as a spatial feature — indicating how remote different areas are within the regional structure. Our model is based on the Australian ARIA+ index, which we have adapted to Finnish conditions and enhanced in measurement precision. For the calculation of the index, we identified all Finnish service centres and classified them into an eight-tier hierarchy based on the availability of basic services (as of spring 2025). From each grid cell, we measured the drive time to the nearest centre at each level. The index was then constructed by aggregating standardised distance measures. While the underlying accessibility calculations represent absolute distances to service centres, the final indicator expresses relative remoteness i.e., how remote different areas appear in comparison to one another. We argue that ARIFi constitutes a valuable tool for planners, developers, and policymakers. It enables more spatially equitable decision-making and facilitates the targeted allocation of interventions.

2945 | Bianchi Dy, Gregory Newmark

Off the Clock and On the Move: Investigating Nighttime Leisure Travel Chains

Nighttime leisure is a key component of vibrant, livable, and globally competitive cities. Yet it remains understudied in transportation planning, which has primarily focused on commuting and late-shift work travel. This paper centers nighttime leisure as a legitimate trip purpose and introduces the concept of the “leisure chain”—a series of one or more leisure activities anchored by home or work within a single evening—as a more holistic unit of analysis.Using data from the 2010 Massachusetts Travel Survey, we develop a novel method to identify leisure chains. Our approach defines a temporal

window (4 PM–3 AM), uses anchor activities (home, work, errands), and limits included activities to dining, indoor/outdoor leisure, and social visits. This structure captures the duration, complexity, and mode choices of evening leisure beyond individual trips.We apply binomial logistic and gamma models to analyze the likelihood of engaging in multiple leisure activities, the length of leisure chains, and mode switching behavior. Most chains are short, home-based, and involve little mode switching, with variation shaped by age, income, group type, and day of week. Our method offers a transferable

framework to study evening leisure in other contexts and informs efforts to design more inclusive nighttime transportation systems.

2529 | Eunji Na, Yuri Lee, Seunghoon Park

Accessibility or Safety? Machine-Learning Evidence from Apartment Prices in Seoul

Walking is a fundamental travel mode that enhances both urban livability and public health. Because of these benefits of walking, many urban planners have sought to create pedestrian-friendly environments. As part of these efforts, the planners have developed indicators to evaluate walkability. Although widely used walkability indicators such as Walk Score capture accessibility to nearby amenities, they overlook pedestrian safety, which critically influences individuals’ propensity to walk. This limitation is particularly

important because real estate platforms (e.g., Zillow) commonly rely on accessibility-based walkability measures, potentially misrepresenting neighborhood quality and its true value to residents.

This study examines whether accessibility-based walkability indicators or pedestrian-safety-based measures more strongly influence apartment prices in Seoul. Using housing transaction data from the region combined with machine learning models and explainable artificial intelligence, we assess the relative importance of existing walkability indices, pedestrian safety variables derived from collision records, apartment characteristics, and neighborhood environmental factors. Preliminary results indicate that pedestrian-safety indicators have a meaningful influence on apartment prices, suggesting that safe walking environments may play a critical role in determining housing values.

These results show significant limitations in existing walkability indices and highlight the need for a new walkability framework that integrates both accessibility and pedestrian safety. The study offers implications for urban planners, policymakers, and real estate information platforms, emphasizing the necessity of incorporating pedestrian safety into walkability assessments to support more pedestrian-friendly and equitable urban environments.

1102 | Kwan Ok Lee

Linking Neighborhoods to Transit: Climate-resilient Mobility through Sheltered Walkways

Cities seeking climate-resilient mobility must shift short trips from motorized to active modes, yet heat and rain raise first- and last-mile access costs and depress walking and transit use. While many global cities have invested in costly, grade-separated pedestrian networks concentrated in central areas to encourage climate-resilient mobility and increase walkability, Singapore has implemented the Walk-to-Ride Programme, which has progressively added sheltered walkways linking public transit hubs to surrounding public facilities and housing, in addition to common global practices. Existing studies on transport infrastructure and travel behavior indicate that such infrastructure changes people's mode choices, but most research analyzes each mode in isolation, and an underexplored question is whether such infrastructure construction leads to inter-modal substitutions across certain segments in single trips. We ask whether improving weather-protected access changes travel at the margin. We study Singapore's citywide sheltered walkway expansion that links public transportation with nearby neighborhoods. We assemble geospatial records on link locations and construction phases, hourly station-to-station flows, and three waves of household travel diaries. Using a difference-in-differences framework with spatial and temporal fixed effects and event time profiles, we estimate within-trip intermodal substitution at the access margin. New sheltered connections increase walking to transit hubs by about 7.5 percentage points and reduce very short feeder bus access by about 6.8 percentage points relative to comparable areas without new links. For entire trips, the probability of walking rises by about 2.8 percentage points. Effects are largest within 400 to 800 meters of hubs, stronger during

rainy and humid hours, and vary by time of day. Results are robust to alternative exposure rules, samples, and specifications. Policy implications indicate that weather-protected walkability lowers access costs, complements rail and bus supply, and scales through low-cost retrofits along existing rights of way.

Public Transport Planning

Fri 3.7.14:00-15:30, Accessibility and Mobility B, U414 | Session chair(s): Isabel Scherer

1771 | Bumsoo Lee, Srirang Sohoni

Behavior Based Framework for Identifying Transit Deserts

Public transit is essential for connecting transit-dependent individuals to employment and essential services. Yet transit access remains uneven across metropolitan areas, producing service gaps and transportation insecurity, especially among marginalized populations (Barajas and Brown 2021). Although the “transit desert” framework is widely used to identify such gaps, most studies rely on normalized comparisons of transit supply and demand (Jiao et al. 2021), which can lead to misclassification and do not establish normative thresholds of service needed to ensure basic mobility. More recent work proposes accessibility ratios comparing transit and driving as indicators of transit poverty (Klumpenhouwer and Karner 2025; Martens et al. 2022), but these studies do not explicitly define transit-dependent groups, leaving conceptual and practical gaps.

This study develops and evaluates an alternative, behaviorally grounded approach to identifying transit deserts, using the Chicago metropolitan region as a case study. Our method is guided by the characteristics and needs of transit riders, is readily replicable with publicly accessible data, and produces actionable insights for transit planners. We define transit deserts as Census block groups (BGs) where a substantial number or proportion of residents who are transit dependent lack access to adequate transit service. We distinguish among three types of gaps—transit deserts, frequency deserts, and accessibility deserts—providing a framework for tailoring policy responses to different dimensions of transit insufficiency.

Our analysis proceeds in three steps. First, we estimate BG-level transit-dependent individuals using latent profile analysis (LPA) with covariates and population synthesis. We then identify BGs in which transit-dependent residents exceed a defined threshold. Second, we classify transit-dependent BGs where a significant share or number of residents live beyond the reach of adequate transit service. Finally, we compare the results with classifications generated by existing approaches to assess the added value of our method.

2207 | Dwayne Baker

What Bus Rapid Transit Infrastructure Types Induce Greater Ridership than Standard Bus Service?: Evidence from Cities Worldwide

As urban spaces continuously adapt their transit systems to meet mobility needs, Bus Rapid Transit (BRT) has become a viable rapid transit option for cities across the globe. BRT is often touted as a more cost effective rapid transit option than rail-based systems like light rail. As such, BRT has been growing in popularity.

However, not all BRT is the same. Different types of BRT exist whereby BRT operates across vastly different infrastructure types. Some cities use exclusive, bus-only roadways (also known as busways or transitways) at one extreme. Meanwhile, other cities simply call bus routes with minimal stops but operating within mixed-vehicular traffic BRT. Many variations exist in-between. Additionally, most BRT

corridors contain a variety of BRT infrastructure types. But questions remain in terms of ridership impacts across the different BRT infrastructure types and, more precisely, how bus ridership from different ridership types compares to ridership for standard bus service.

This research thus addresses this concern by comparing ridership between standard bus service and different BRT infrastructure types across 50 cities worldwide using multivariable regressions and descriptive spatial statistics. With this research, I also establish six (6) different corridor types: exclusive, fully separated, separated, segregated, bus-only, and mixed-traffic. The first three involve infrastructure types that physically restrict personal automobiles from accessing the BRT corridors while the latter three do not physically restrict personal automobiles from accessing the infrastructure. Preliminary analyses reveal that the restrictive infrastructure types have higher ridership when compared to standard bus service, but the non-restrictive types have lower or no difference in ridership when compared to standard bus service. This study is important as it can assist planners and cities in better understanding how different types of BRT can influence ridership and therefore assist cities in determining the best form of BRT to adopt.

1347 | Hossam Hewidy

Assembling Legitimacy: Media, Power, and Governance in the Helsinki–Turku Rail Project

Large infrastructure projects (LIPs) are increasingly recognised as arenas where governance, planning, and communication intersect, revealing how spatial strategies and political legitimacy are co-produced. In Finland, the Helsinki–Turku rail initiative—popularly branded as the “One-Hour Train”—offers a critical lens to examine how media discourses construct, justify, and contest infrastructural governance. Drawing on regional governance theory and critical infrastructure studies (Flyvbjerg, 2012; Harrison et al., 2022), the study analyses how legitimacy, proximity, and power are assembled across institutional, territorial, and communicative domains. Empirical data were collected from four major Finnish media sources—YLE, Hufvudstadsbladet, Helsingin Sanomat, and Turun Sanomat—covering 162 articles published between 2018 and 2025. A qualitative content analysis identified 511 core statements encapsulating key arguments and framings. Thematic categorisation was supported by ChatGPT-5, a language-based analytical tool used for tracing category frequency and cross-source comparison. This enabled a multi-scalar interpretation of how discursive formations articulate infrastructural necessity, value, and risk within Finland’s evolving regional framework.

Findings show a tension between technocratic and critical framings: while state and municipal actors present the rail project as a symbol of modernisation and European integration, counter-narratives highlight fiscal uncertainty, uneven territorial benefits, and environmental costs. These contrasts expose the fragility of legitimacy in Finland’s polycentric planning regime, where communicative mediation often substitutes for institutional coordination. The analysis suggests that infrastructural power operates through topological rather than territorial logics—mobilised via proximity, visibility, and discourse rather than hierarchy (Allen, 2016). By tracing how journalistic assemblages shape infrastructural meaning and accountability, the study advances debates on planning, legitimacy, and media governance, showing that LIPs function as discursive infrastructures of statecraft as much as material artefacts of connectivity.

References

Allen, J. (2016). Topologies of Power. Routledge.

Flyvbjerg, B. (2012). JPER, 32(2), 169–181.

Harrison et al. (2022). Territory, Politics, Governance, 11(2), 213–221.

1743 | Fabian Wenner

Transit Infill: Potentials of applying compact-city principles to public transport networks to enhance accessibility

Urban "redensification" has long been established as a central strategy for sustainable urban development. Identifying and activating building potentials – such as infill housing, additional storeys, or repurposing disused buildings – within the existing urban perimeter helps to conserve agricultural and forest land, use urban infrastructure efficiently, and support social mixing. Urban planning offers a wide range of instruments to promote and steer such compact-city development under the principle “inside before outside.”

Can this redensification logic be transferred to urban mobility, and specifically to public transport? Recent work calls for a stronger integration of mobility into the inner-development agenda, particularly regarding the redesign of public space. However, there is (currently) limited attention to how existing public-transport networks at city or city-regional scale could strategically be improved to enhance accessibility in both theory and practice.

Applying the redensification principle to transport networks reframes priorities in transport planning: instead of focusing solely on large-scale expansions, attention shifts to exploiting numerous small-scale improvement potentials. These include creating new interchanges at line crossings, modest inner-city extensions, or relocating stations, to improve network effects and coverage. Together, such measures can substantially increase accessibility at a fraction of the cost of major expansion projects, while improving overall efficiency.

This paper develops an indicator for ‘redensification potentials’ in existing transport networks and tests it on several European cities using open data. The results reveal substantial variation between cities, largely shaped by historical path dependencies and by the extent to which integrated urban and transport planning has been pursued in the past. The paper calls for a renewed focus on potentials in existing systems to strengthen sustainable spatial development.

2236 | Jan Scheurer, Giles Thomson

How ready are Australian cities for a transit-activated transformation?

Like their counterparts elsewhere in the world, Australian cities are under pressure to achieve net zero carbon emissions by the middle of the century. There is broad consensus that this goal cannot be met by electrifying building technology and vehicle fleets alone. For much of the past century, Australian planning has supported and enabled low-density, car-based settlements, but has now reached a juncture

where decarbonisation is driving a planning rethink that aims to reduce private vehicle travel in favour of public and active transport, and promote energy-efficient forms of housing and other land uses.

Australian cities are not embarking on this process from zero: they already contain significant and growing parts where travel patterns and the built environment add up to substantially lower levels of car dependence, and hence carbon emissions. But can the qualities of these lower-emission areas be successfully rolled out to retrofit existing higher-emission areas? In other words, can Australian cities learn from themselves to envision their future form in the net-zero era?

This paper introduces a mapping tool to assess, at both the metropolitan and the local scale, the suitability of Australia's five largest cities' nodes and corridors to accommodate a successful transition towards a transit-activated, higher-density urban form to absorb general population and job growth and enable the retention or adoption of less car-dominated activity patterns and business operations. By combining measures of spatial accessibility (the Spatial Network Analysis for Multimodal Urban Transport Systems or SNAMUTS tool), urban density, vehicle ownership and mode choice data (ABS census), as well as a categorisation of available public and road space and the structure of property ownership, this analysis offers a unique approach by compiling and visualising disparate sources of knowledge to inform decision makers guiding the evolution of Australian cities in the 21st century.

1638 | Yudi Liu

Placing Transit in New Towns: Planning Paradox, Property Institution, and Urban Sprawl

Reformist planning concepts, such as transit-oriented development (TOD) and compact cities, consider rail transit a means towards sustainable development by countering the costs of automobiles (Breheny, 1992; Ewing, 1997; Suzuki et al., 2013). However, historical and contemporary lessons across the world exhibit that rail transit fuels but does not "manage" urban growth on its own without spatial planning efforts (Haywood, 1997; Shen & Wu, 2020).

This study revisits three transit-served new towns in greater Tokyo served by an enormous rail transit network: the privately envisioned Tama Denen Toshi, the statutory plan of Tama New Town, and the infrastructure-driven Tsukuba Express Town. Robert Cervero (1998), a leading advocate of TOD, characterizes these developments as global exemplars. However, Tokyo remains disreputable in its metropolitan sprawl, in which the three new towns are surrounded by unplanned and sprawling spaces (Hebbert & Nakai, 1988; Parker & Amati, 2009; Sorensen, 2011).

The analysis reexamines the puzzling relationship between rail transit, new towns, and sprawl by exploring institutional changes and development outcomes across the three cases through a refined historical institutionalist framework based on Sorensen's (2018) urban property system. It finds that conservative politics, pro-growth planning rules, and private railway companies co-evolved, stabilizing a triadic alignment of rail transit, residential use, and private investment across the three new towns. Consequently, these areas exhibit similar socio-demographics despite their varied development methods, lending entities, and urban forms.

These findings situate the new towns and metropolitan sprawl in the same urban property system, challenging the dichotomic perception between TOD and sprawl. This study argues for considering rail transit as a multifaceted process rather than a panacea in spatial planning. In addition, it suggests the urban property system to further conceptualize urban form as an informal institution and to understand the ideational dimension of power asymmetry (Pierson, 2016; Sorensen, 2015).

Track 2: Culture and Heritage

Track chairs: Evangelia Athanassiou, Eeva Berglund, Bakti Setiawan, Kiran Shinde, Jani Vuolteenaho

Territorial planning and cultural landscapes

Tue 30.6.14:00-15:30, Culture and Heritage, Y313 | Session chair(s): Marco Pütz

2412 | Javier Ostos-Prieto

Urban development and the Andalusian monastic city: Keys for its integration into territorial planning

Urban development and territorial planning constitute a relevant field of study for understanding the evolution and organization of territory. In this context, the monastic city emerges as a significant element whose territorial influence has traditionally been underestimated. Its analysis broadens the understanding of regional structure and highlights its role within the urban system. It is argued that the network of monastic cities forms a structuring component of the territory and that its integration into urban and rural planning can promote cohesion, balance, and the enhancement of convent heritage.

The main objective of this research is to assess the role of the monastic city within contemporary territorial planning. It aims to determine its potential as a support for infrastructure, cultural heritage, facilities, and environmental strategies, as well as to evaluate its contribution to territorial cohesion. Additionally, it seeks to identify the main axes of the convent network in the territory of Andalusia, Spain, based on cartographic and numerical comparisons.

The research is grounded in the comparison and analysis of historical and contemporary maps, along with numerical data that allow for interpreting the evolution of the Andalusian convent network between the 18th and 21st centuries. This approach facilitates the identification of persistent spatial patterns and the assessment of their current relevance.

The analysis conducted has made it possible to identify four main axes that structure the Andalusian convent network. These axes demonstrate the historical continuity of the system and its capacity to serve as a basis for future heritage developments, linking convent, city, and territory. The findings reinforce the need to review and update current urban plans, as most municipalities do not adequately incorporate the protection of convent heritage. Integrating these territorial keys into planning would contribute to cultural enhancement and territorial balance.

1023 | Vignir Freyr Helgason

Relational Heritage Planning Approaches: Integrating Heritage in Strategic Planning for Place Qualities

This article explores the potential of integrating local heritage knowledge in strategic planning and development of peri-urban landscapes surrounding Oslo. It focuses on the Akershus region, including the municipalities of Lørenskog and Lillestrøm, as a critical case study. The region is undergoing intensive

densification and redevelopment, guided by transit-oriented strategies aiming at managing growth sustainably. As a part of a broader research project examining the use and practice of 'place quality' in Norwegian planning, where urban transformation and changes in cultural landscapes have been linked to a perceived loss of identity among inhabitants in places such as Lørenskog. This article explores how local, regional, and national levels of government can strategically engage with cultural heritage in planning, as well as how heritage concerns can be better integrated into planning to enhance local place qualities. By examining qualitative interview data gathered through focus group presentations and discussion during a conference session with planners, architects and heritage experts in 2023, the article identifies themes that reflect the interplay between heritage, place identity, and urban development. The research draws on relational planning theories to explore how the qualities of local places can be enhanced through heritage knowledge, and on the author's practical experience from planning and heritage management in municipalities within the region. In some instances, heritage plans are integrated with municipal planning, for example, through zoning regulations. However, they often appear thematic plans, as knowledge containers disconnected from planning, and are easily left unprioritised. The article, therefore, suggests adopting a more strategic and relational approach to heritage planning at various planning levels to achieve better integration across municipal planning fields.

1409 | Ben Gitai

Agents of Relationality and Imaginality in Transitional Landscape in Switzerland

This research examines the Orbe-Chavornay interscape as a paradigmatic example of how diverse agents co-produce transitional landscapes in Switzerland through complex relational and imaginative practices. Situated at the convergence of the A1 motorway and Yverdon-Lausanne railway line, this territory hosts multiple agents—including the Nestlé industrial complex, COOP's national distribution hub, prison facilities, and extensive agricultural plains—whose interactions generate emergent spatial, economic, and ecological configurations. Through a transdisciplinary methodological framework deployed over the past decades (Gital, 2025), the study traces how human and non-human agents negotiate and reimagine the metabolic flows of industrial waste, transforming them into regenerative infrastructures that mediate between competing land uses and climate adaptation imperatives.

The research reveals how relationality among diverse actors—industrial operations, agricultural systems, logistical networks, and peripheral zones—enables experimental innovation flows that inform urban resilience strategies and landscape development practices. Three critical challenges emerge from this relational analysis: the material and political complexities of industrial waste treatment within assemblage rather than resource-disconnection paradigms; the interplay between microclimatic systems shaped by multiple agents; and the absence of integrated planning frameworks capable of coordinating across industry, landscape ecology, and land policy spheres. Drawing on historical evolution, situated knowledge, topological design methods, and temporal modeling approaches across four interconnected work packages, this research establishes transitional landscapes as vital experimental territories where agents continuously negotiate between existing conditions and imagined futures at the urban-rural interface.

2099 | Ragnhildur Sigurðardóttir, Laura Ahearn Meyerson, Sigríður Kristjánsdóttir

Tides of Memory: Landscapes, Stories, and Change in Flóinn

This research investigates the cultural landscape of Flóinn, focusing on how long-term land use, community memory, and local resources shape contemporary planning possibilities in Eyrarbakki and Stokkseyri. The study combines community-based methods—photograph collection, memory recording, and participatory workshops—with a historical–geographical analysis of settlement development over the past 1100 years, set against the deeper geological formation of the area. By inviting residents to share historical images, personal stories, and spatial memories, the project documents how place identity is formed across generations and how demographic shifts influence perceptions of heritage and landscape value.

The research also examines local resource use, with particular attention to coastal materials such as seaweed, exploring how traditional and artistic harvesting practices may support sustainable economic development. Together, these components reveal the interplay between landscape processes, cultural continuity, and human adaptation in a region shaped by shifting coastlines, agriculture, and small-town resilience.

This presentation argues that understanding the long-term land use history of Flóinn—and grounding planning in the lived experiences of both long-settled and newly arrived residents—creates a stronger foundation for future development. By integrating archaeology, morphology, community knowledge, and ecological resources, the project outlines a framework for planning in rural coastal areas that respects environmental limits while strengthening cultural identity. Although centered on Eyrarbakki and Stokkseyri, the approach offers insight for other Nordic communities seeking to connect historical landscapes with sustainable futures.

Contested memory, politics of heritage

Tue 30.6.16:00-17:30, Culture and Heritage, Y313 | Session chair(s): Jani Vuolteenaho

1814 | Evangelia Athanassiou

Interweaving Heritage Protection and Public Space Production: Actors, Boundaries, and Contestations around the Galerian Complex in Thessaloniki

The paper examines the interweaving of heritage protection and public space production along the Roman ruins of the Galerian Complex, in the city centre of Thessaloniki. In doing so, it brings into dialogue approaches originating from two distinct fields that have gained significant momentum in recent decades. Critical heritage studies explore how heritage is produced, delineated, protected, and used, highlighting the power structures embedded within these processes. Critical geographical approaches to public space foreground developments that undermine its public nature.

Drawing on literature from both fields, the paper examines the heritage process as interwoven with processes that produce public space. Assemblages of actors and mechanisms give rise to specific regimes of control and exclusion, as well as contestation. These processes unfold within a globalised context of touristification and commodification. The everyday use of historic places is transformed, and

new boundaries within public space are created—driven by the imperatives of making public space, not only “safe and clean” but also distinctive, marketable and attractive to tourists.

The pedestrianised axis linking Thessaloniki’s waterfront to the ruins of the Palace of Galerius and the UNESCO World Heritage Site of the Rotunda forms a sequence of vibrant public spaces, primarily frequented by young people. Different strategies and frameworks of management and maintenance – refurbishment, policing, private maintenance, a local version of Business Improvement Districts, aptly called Galerius Mall - have been tested with a view to enhancing its distinctive historic character. Recently, the enclosure of the ruins with a tall metal fence was vindicated by the archeological authority on the grounds of heritage protection, safety and cleanliness and was subsequently contested and removed. The paper aims to map the assemblage of actors and mechanisms involved in an ongoing process of enclosing and contesting both heritage and public space.

1484 | Alain Bourdin, Peng Ieng Lei

Gentrification and Heritage: Toward a Theoretical Renewal?

Early work on gentrification (Herzhaft-Marin, 1985; Glass, 1964) emphasized its relatively slow, processual character. Moreover, gentrifiers choose not merely a location or even a dwelling, but an urban ambience and ultimately a way of life, underpinned by the emergence of a new educated middle class.

Gentrification initially applies to specific contexts: degraded historic neighborhoods or working-class districts of the Industrial Revolution. The new residents—to varying degrees—share a set of new values that partly overlap with heritagization: an emphasis on historicity (museographic or nostalgic), the mobilization of collective memory, a quest for authenticity in social life as well as in the materiality of heritage objects, and the revalorization of the neighborhood, of popular or “mixed” culture, and of urbanity. Their practices often follow a logic of distinction.

Large-scale urban renewal initiatives or those involving “social cleansing” constitute distinct urbanistic and sociological realities. Hence, broadening the concept of gentrification is a methodological error.

The urban objects at stake are changing with the recognition of twentieth-century heritage, which itself has become a target of gentrification (as with the Cité Radieuse in Marseille), the impact of Airbnb, and above all the expansion of industrial heritage.

This new heritage has become a platform for artistic activity and novel uses, including through “third places” etc. It mobilizes the living memory, and its reference to industrial activity often eclipses the residential dimension. The presence of innovative economic activities, the transformation of mass tourism, and the global evolution of the educated middle class have substantially reshaped the relationship between heritage and gentrification. New actors and new scenarios of heritage urbanism are emerging worldwide.

This paper analyzes this evolution.

Herzhaft-Marin, Y. (1985). Ravenscourt Road: Une rue de Londres en cours de « gentrification ». Didier Érudition.

Glass, R. (1964). London: Aspects of Change. London: MacGibbon & Kee.

2661 | Deike Peters

The "Berlin Wall" Concept 20-Years On: Encountering the Wall Memorial Today

Twenty years ago, on 12 June 2006, the Berlin Senate published its Masterplan (Gesamtkonzept) for the memorialization and documentation of the Berlin Wall. It was a much-needed official planning response to the fact that by then, (too) much of the wall had been physically erased from the fabric of the reunified city. Desires to adequately preserve, design and designate spaces for the memorialization of Berlin's traumatic and divided past were faced with a rapidly evolving and spectacularized re-building and making of a "New Berlin." This paper investigates whether and how the key aims of the memorial concept were achieved and how visitors encounter the wall and its history today as a result. Both the official Wall Memorial at Bernauer Strasse and the East Side Gallery, have become absorbed into the regular 'tourism circuit' of the city. Key insights come from a study tour that the author, a German-American urban planning scholar who participated in many of the intensely fought "memorialization" debates in the "New Berlin" at the time, led for an international study group of students from the US, Canada, Japan, Vietnam, Nepal. How are young aspiring global urbanists with no prior knowledge of this history able to "encounter" the physical space(s) today? Did the memorial concept "succeed"? Why or why not?

And, E., and Spittler, U. "Remembering the Berlin Wall: The Wall Memorial Ensemble Bernauer Strasse." German Life and Letters, vol. 59, no. 2, 2006,

Bertens, H. "Succeeding by Failing: The Bernauer Straße Wall Memorial as Performative Memorial." German Life and Letters, 2021

Bach, E. "The Berlin Wall after the Berlin Wall: Site into Sight." Memory Studies, vol. 8, no. 4, 2015

Till, Karen E. The new Berlin: Memory, politics, place. Minnesota Press, 2005.

1653 | Joanna Kopacz-Gruzlewska, Yuriy Kryvoruchko

Enhancing sense of belonging as a heritage preservation method of modernist villa estates in Lviv, Ukraine

Today, the term "cultural heritage" has acquired social significance. It has become a relationship to the certain legacy rather than a collection of protected objects. Despite its reference to material substances rooted in the past, the term increasingly concerns identity, oscillating between the individualism of the present day and responsibility for the legacy of the past. The nature of this relationship depends on the essence of the heritage object. Monuments of high cultural and national significance are often subject to a certain sacralization, making this relationship rather one-sided. In the case of houses or residential districts embedded in everyday life, a mutual interaction develops.

An example of heritage woven into the everyday life of residents are the modernist villa districts of Lviv. They were built in the interwar period responding to the housing needs of the growing administrative and educational staff. Built in the 1930s, they were used for only a few years in accordance with their original

purpose. As a result of changing national sovereignty, political and economic systems, ownership structures and family patterns, the buildings and entire neighborhoods underwent far-reaching transformations. The original urban context for which they were designed also diminished. However, the unique spirit of the place has not disappeared.

The heritage underlying identity has many aspects in common with the sense of belonging, which is one of the basic human needs. It is based on the feeling of acceptance, inclusion, and security that results from belonging to a particular place and group. The sense of belonging is a feeling of being part of something bigger, while at the same time having the ability to shape that reality. Therefore, heritage preservation should be a grassroots initiative rather than a legal requirement and shape local communities by encouraging the sense of remembrance and responsibility.

1494 | Guangfeng Zhai

Construction of a Value-Oriented Identification Standard System for Historical and Cultural Resource Carriers: A Case Study of the Taihu Lake Basin

Grounding in the practical context and policy directive of "comprehensive spatial coverage and inclusion of all elements," this study addresses limitations in China's current historical and cultural conservation system. These limitations, namely fragmented resource identification and static value assessment, result in numerous non-statutory resources bearing living culture – such as historical place names and other everyday spatial cultural carriers – falling outside the legal framework. This creates a disconnect between heritage conservation and spatial development.

In response, this paper systematically constructs a value-oriented standard system for identifying historical and cultural resource carriers. This system integrates five value dimensions – political, economic, social, technological-cultural, and geographical – with a core three-dimensional value framework of "cultural gene, temporal continuity, and regional identity." It further introduces the concept of dynamic relevance, enhancing the systematic nature and explanatory power of the assessment through three perspectives: diachronic layering, synchronic correlation, and multi-stakeholder involvement.

Methodologically, it employs a combination of the Delphi expert consultation method, the Analytic Hierarchy Process (AHP), and fuzzy comprehensive evaluation to scientifically establish the indicator structure and weighting system. This forms a complete process encompassing element screening, indicator construction, and comprehensive assessment.

An empirical study conducted in the Taihu Lake Basin effectively identified and supplemented multiple non-statutory heritage elements, including toponymic heritage and folk customs and techniques. This verified the system's effectiveness and applicability in identifying and evaluating cultural heritage across different periods, of multiple types, and comprising all elements. The study provides a theoretical basis and methodological support for enhancing the comprehensiveness and adaptability of historical and cultural heritage resource management in urban planning. Furthermore, it helps maintain cultural integrity within the context of dynamic spatial development, facilitates the shift of heritage from static preservation to living transmission, and increases the resilience of urban cultural heritage.

Continuity, discontinuity

Thu 2.7.11:00-12:30, Culture and Heritage, Y313 | Session chair(s): Evangelia Athanassiou

1541 | Karina Landman

Rethinking meaning and memory in public spaces in South Africa: from revolution to evolution

Cities in Africa are testimonies of a rich culture and heritage. However, beliefs, values, customs and behaviours are often very diverse. Heritage is contested and bears the scars of many historical periods, namely the pre-colonial, colonial, and post-colonial eras. In South Africa, the post-colonial ethos also stands alongside the post-apartheid remaking of cities and public spaces. These histories raise numerous questions about the meaning and memory embodied in post-apartheid spaces, as well as the potential for transformation related to these interconnected and fluid concepts. Whose heritage? Whose culture? Whose spaces are they, and are they really public? These meanings and memories are often contested and associated with a range of aspirations entangled with present and past histories.

This paper examines the concepts of culture and heritage as expressed through meaning and memory in various public spaces in South Africa, with a particular focus on the City of Tshwane – the municipal area encompassing Pretoria, the country's capital. The paper discusses the meaning and memory of violence associated with colonialism and apartheid and juxtaposes this with the potential in the post-colonial and apartheid context. Framed through a focus on regenerative development and design, the paper argues for a shift from revolution to evolution by repositioning meaning and memory in post-apartheid South Africa. The paper posits that culture and heritage are not fixed entities, but rather dynamic manifestations linked to specific occurrences in space and time. Following this premise and adopting a broad view of culture and heritage, the author demonstrates their roles in constantly reshaping public spaces and reinventing urban communities in the City of Tshwane.

1788 | Iuliia Eremenko

Heritage-Led Urban Planning: Negotiating the Past and Future of Garden City Hellerau

This study investigates the role of World Heritage status in the (re)construction of memory, demonstrating how memory frameworks guide material interventions, spatial redevelopment, and planning strategies. The research employs a case study approach focusing on the site of Hellerau, Germany. Hellerau, a 140-hectare garden city near Dresden, is a significant cultural and architectural landmark. Built between 1909 and 1914, it includes approximately 800 buildings and represents one of the earliest and most successful garden city projects. This site is known today primarily as the home of the Rhythm Institute founded by Émile Jacques-Dalcroze, which attracted renowned European avant-garde artists and intellectuals and became a cornerstone of modern expressive dance. However, the site’s history is multifaceted. From the 1930s, Hellerau was used by the police and the SS, and after 1945 it served the Red Army until 1992, transforming its cultural landscape. These overlapping histories reveal how memory becomes materially inscribed in space, shaping perceptions of authenticity and influencing everyday urban environments. Russia’s invasion of Ukraine adds new tensions, making Soviet-era elements increasingly politically charged.

The study is based on semi-structured interviews with administrators, site managers, activists, and experts involved in the World Heritage application, as well as a qualitative analysis of site information materials. The research shows that the (re)construction of memory directly affects real construction, guiding decisions on restoration priorities, acceptable forms of renovation, and long-term planning strategies for the area. Competing memories determine which buildings are preserved, which are reinterpreted, and which can be rebuilt or newly added. Pursuing World Heritage status promotes a narrative centered on Hellerau's artistic legacy while marginalizing its associations with the SS and the Red Army military presence. Different versions of the past are strategically mobilized to secure funding for restoration, conservation, or even new construction within the site.

1939 | Liutauras Nekrošius, Kateryna Didenko

MONOTOWN HERITAGE AT RISK: THE CASE OF VISAGINAS

In the twentieth century, rapid urbanization stimulated the emergence of monotowns built to serve a single enterprise or an industrial cluster. Typical of the Soviet Union, such settlements were shaped by modernist planning principles and designed to fulfill state economic priorities. Visaginas in Lithuania is a representative example of this urban typology: constructed in the 1970s–1980s to house the staff of the Ignalina Nuclear Power Plant, it was conceived as a specialized settlement embedded in a natural environment. The city consisted of compact micro-districts, extensive green areas, and an efficient network of pedestrian and bicycle paths. Its spatial organization reflected a commitment to accessibility, with schools, kindergartens, and public services located within walking distance.

The urban environment combined standardized prefabricated housing with customized design projects, producing diversity in materials and spatial compositions. Pedestrian corridors, public buildings, and small-scale structures rendered in an "atomic" aesthetic helped shape the city's distinctive identity while preserving the functional coherence of the modernist plan. Following the phased shutdown of the Ignalina Nuclear Power Plant (2004–2009), Visaginas faced a series of challenges. Its modernist heritage, once emblematic of late Soviet urbanism, currently lacks legal protection, leaving significant structures vulnerable to decay or demolition. The loss of iconic buildings underscores the fragility of this legacy.

Nevertheless, local initiatives have fostered growing recognition of Visaginas's heritage value and have mobilized professional communities and international organizations toward its preservation. Today, the city stands as a prominent example of Soviet modernist urbanism and as a place where efforts to preserve modernist heritage continue to develop.

1978 | Svenja Hönig

Tracing Loss – Devastation as Heritage of the Rhenish Lignite Mining Area

The paper explores the destruction associated with lignite mining in the Rhenish mining area (Germany) as a specific and uneasy form of cultural heritage. Focusing on the villages of Keyenberg, Kuckum, Unterwestrich, Oberwestrich, and Berverath, it examines places that were largely resettled in anticipation of opencast mining but are now – due to the early coal phase-out – unexpectedly preserved. While narratives of loss in mining contexts often highlight personal memory, displacement trauma, and

community identity, this paper turns to the material manifestations of loss inscribed in the built environment.

The study argues that devastated or threatened settlements constitute a mostly overlooked heritage category. Through a (historical) site analysis, it shows how the prospect of destruction has shaped architectural development, spatial organization, and the villages' visual and landscape relationships. Material traces of abandonment, boarded windows, overgrown plots, removed house numbers, overflowing letterboxes, as well as voids left by relocated monuments illustrate the gradual unmaking of the villages.

In addition, the paper considers traces of resistance and reappropriation. Protest signs such as yellow crosses, graffiti, informational structures created by activist groups, and the presence of a few remaining residents document the contested nature of the devastation. At the same time, certain routine practices continue: a local bakery remains in operation, former residents maintain their former properties, and some empty houses serve as accommodation for refugees. These examples reveal an ambivalent landscape shaped simultaneously by loss, persistence, and new uses.

By foregrounding loss as a material and emotional phenomenon, the article contributes to critical heritage studies. It argues that loss – often marginalized in institutional heritage discourses – should be understood as a significant aspect of heritage formation in post-industrial landscapes. Recognizing loss as heritage makes visible places and narratives that remain excluded from dominant frameworks of industrial and mining heritage.

Lived heritage, everyday life and informality

Thu 2.7.14:00-15:30, Culture and Heritage, Y313 | Session chair(s): Bakti Setiawan

1439 | Geng Ma

Informal Economies as Everyday Heritage: Pocket Parks and Subaltern Agency in Underdeveloped Chinese Cities

In underdeveloped Chinese cities, informal economies are commonly treated as governance burdens or signs of disorder. This study reframes informal vending practices in pocket parks as everyday lived heritage—embodied cultural practices through which marginalised groups negotiate legitimacy, social recognition, and livelihood reproduction in micro-urban spaces. Using Guiyang as a representative case, pocket parks are not understood here as minor green infrastructures, but as hybrid socio-cultural landscapes in which economic survival, social interaction, and cultural meaning are continuously co-produced. Integrating deep-learning based behavioural recognition, GIS spatial analysis and temporal pattern modelling, the research empirically reveals how informal vending practices are strategically adapted across time, facilities, and micro-contextual spatial conditions. On this basis, we propose an adaptive governance framework focused on "time-sharing and flexible spatial negotiation" that conceptualises public space not as a fixed managerial object, but as an ongoing cultural process of negotiation. Rather than exclusion, coexistence is positioned as a core mechanism for recognising the visibility and legitimacy of subaltern everyday practices in public space. This research offers a heritage-centred perspective for understanding socio-spatial dynamics in Global South micro-spaces,

demonstrating that the everyday survival activities of low-income groups are not merely economic tactics, but socially meaningful cultural practices through which lived heritage is transmitted into the contemporary city.

1188 | Akira Takahashi, Mayu Sugie, Daisuke Matsui, Asanobu Kitamoto

A Methodological Approach to Understanding Cultural Landscapes and Living Heritage: The Case of Hida-Furukawa, Japan

This study examines how younger generations understand and inherit local cultural landscapes and community memory through educational practice in Hida-Furukawa, Gifu, Japan. The town retains traces of everyday life without excessive tourism, offering a setting for exploring living heritage. Its townscape has long been shaped by 'Sōba'—a tacit understanding of local values and norms in both social behavior and architectural design. However, generational change has gradually weakened this shared understanding, posing challenges for transmitting local identity and memory.

Grounded in the view that heritage is a process of reinterpretation embedded in everyday practices, this study explores how educational participation functions as place-based learning that fosters young people's sense of belonging.

The research consisted of four stages using mixed methods:

(1) Six students aged 14–15 conducted comparative town walks using "MemoryGraph (NII, 2025)," a digital application developed by Asanobu Kitamoto that links archival photographs with map-based locations, allowing comparison of past and present townscapes;

(2) Following fieldwork, students interviewed long-term residents—people who have lived in Furukawa for over 40 years—to explore intergenerational differences in memory and perception;

(3) Questionnaires were conducted with up to 100 students who did not take part in the workshop to identify differences, compared with workshop participants, in their understanding of the local landscape and sense of connection to the community.

Findings suggest that viewing historical photographs through MemoryGraph—which spatializes memory and connects past and present landscapes—helped students rediscover their relationship with local places and narratives. Framing the cultural landscape as "dynamic heritage," the study proposes a methodological approach integrating digital tools and educational practice to mediate intergenerational transmission of memory and engagement with everyday heritage.

Reference:

NII (2025), Memorygraph, Available at: https://mp.ex.nii.ac.jp (Accessed: 21 October 2025).

Acknowledgement:

This work was supported by ROIS-DS-JOINT (021RP2025) to A. Takahashi.

1933 | Sanam Mirzaye-Ahmadi, Niyusha Zarei

Narrative passages: integrating heritage and everyday life in Ciutat Vella, Barcelona

From James Throgmorton's view of planning as persuasive storytelling, to Merlijn Van Hulst's conception of storytelling as a model of and for planning, and Leonie Sandercock's articulation of the "story turn" in planning, planning scholars have explored the intersection of storytelling and urban planning to connect history, culture, and everyday life. These approaches aim to bring planning closer to the lived experiences. This trajectory has led to the introduction of what Lieven Ameel calls the "narrative turn" in urban planning.

This narrative turn needs "practice" as it is going further into the conversations of urban planning. Here, the case study of such effort in the historic Ciutat Vella is presented from the very beginning to the ongoing stages.

On an open call of an international competition, the city of Barcelona casted light on their will to improve their covered walkways and passages. We proposed our plan based on narrative planning approach to address the issues. The plan won the award in the summer of 2025.

In the plan, three types of narratives were analyzed: narratives for, in, and of planning. We did not begin by asking, "What should planners do?" but rather, "What interactions occur between people and places—in other words, what stories are there?" This question led us to four types of narrative interactions—inspiration, exploration, construction, and communication—through which heritage can be integrated into everyday life. Along this path, we not only preserved the essence of heritage but also expanded the concept to embrace everyday spaces.

Finally, 9 policies, 28 actions and an action plan for 8 leading projects were presented. The outcome is a promising state that the plan is well received. Our ultimate aim is for urban planning to be more informed of narratives in the practices related to everyday spaces, culture and heritage.

2329 | Selen Karadoğan, A. Burak Büyükcivelek

Rituals at the Edge: The Spatial and Political Peripherality of Nevruz in Istanbul

Peripherality is generally understood as a physical condition, yet this paper adopts it as a conceptual frame for analyzing how cities regulate visibility, identity, and collective expression. Using peripherality as the overarching term, the study traces the historical, spatial, and political trajectory of the Nevruz ritual in Türkiye, drawing on archival newspapers (1929–2025), and fieldwork. The analysis shows that Nevruz has long been positioned at various "edges" of urban life. Historically, it was tied to natural settings and neighborhood environments located at the city's margins. Politically, it occupied an ambiguous place within official narratives, often framed as peripheral to the national story. In contemporary Istanbul, its relocation to vast, centrally located but highly managed open spaces such as Yenikapı, produces a new form of peripherality: one that exists inside the center yet functions as a controlled boundary. These spaces provide visibility while simultaneously limiting spontaneity and shaping how the ritual is performed. The paper shows that peripherality operates not as a fixed location but as an evolving urban strategy. Through spatial regulations, security-oriented arrangements, and discursive reframing, the city continually reshapes where and how Nevruz can take place. At the same time, communities mobilize the

ritual to reclaim presence and assert belonging within these redefined urban environments. The paper argues that understanding Nevruz through the peripherality offers broader insights into how contemporary cities manage cultural expression, negotiate conflict, and structure the conditions of collective life.

2825 | Ludmila Kolouchova

Creative Clusters as Lived Heritage: Socio-Spatial Transformations in Mumbai's Cultural Economy

Mumbai's creative economy is shaped by a dense layering of inherited craft traditions, artisanal labour, film production ecologies, and emerging digital media industries. While these activities contribute substantially to India's cultural identity and urban economy (Kukreja, Puri and Rahut, 2023), the neighbourhoods that host them remain largely absent from official heritage and planning discourses. This paper examines these creative clusters as lived cultural heritage, conceptualising them as socio-material landscapes where everyday cultural production, spatial practices, and working-class histories intersect with formal planning processes, thereby illuminating how planning currently marginalises these peripheral cultural spaces.

This study employs a mixed-method spatial analysis to examine the distribution of creative clusters in Mumbai. Data from Google Maps is used to identify the location of both formal and informal economic activities based on an Indian creative industries framework by Kukreja, Puri and Rahut (2023). Spatial clustering maps their distribution across neighbourhoods, highlighting densities, proximities to key urban infrastructures, and spatial vulnerabilities. Field-based morphological observations complement the digital analysis, documenting urban form, street-level practices, building typologies, and signs of heritage-in-the-making.

Findings reveal a pronounced spatial duality: traditional cultural sectors are concentrated in dense, vulnerable, and frequently stigmatised neighbourhoods, while technology-intensive industries occupy highly formalised business districts or offices with robust security measures and restricted access. Redevelopment, commodification of "creative city" narratives, and resettlement policies increasingly threaten the continuity of artisanal cultural production.

Interpreting these transformations through the lens of heritage-making and spatial governance, the paper argues that creative clusters function as hybrid cultural landscapes that embody informal knowledge, collective memory, and spatial resilience. Their decline under pressures of real estate speculation and urban restructuring raises critical questions about authenticity and the futures of working-class cultural practices.

Kukreja, P., Puri, H. and Rahut, D. (2023). Creative India: Tapping the Full Potential. Asian Development Bank Institute. Available at:https://doi.org/10.56506/KCBI3886.

Actors and tools

Fri 3.7.11:00-12:30, Culture and Heritage, Y313 | Session chair(s): Laura Berger

1001 | Zhu Qian

Resettling heritage buildings: the case of a large ensemble of relocated historic residences in Bengbu, China

Historic building relocation can be driven by heritage conservation, urban redevelopment, environmental risk management, or economic imperatives. In addition to maintain the originality and authenticity during and after relocation, heritage relocation is a multi-actor process where different stakeholders play distinct roles and have their respective risks, costs, and benefits. From the perspective of the authorized heritage discourse for authenticity, which is a negotiated claim mobilized by policies, investors, and communities, this study examines the Moon over the Lake project located in Bengbu, China. With a total of 450 vernacular heritage buildings collected from across the country, the project spans over a decade and is the largest relocated traditional residence collection in China. Through visual analysis, participatory observation, interviews, and digital ethnography, the study reveals how local grassroots organizations, business entities, cultural activists, and communities interact with government agencies, investors, and politicians in historic building relocation, a sophisticated cohesive social process rather than a mere technical operation. The heritage relocation process and outcomes encounter tremendous challenges in maintaining heritage's ontological, contextual, and use values. Specifically, the top-down and crisis-driven approach disrupts social structure and historic relatedness and makes the preservation of cultural value and social connection difficult. Producing object-centered displays may sever environmental, social and historical ties, introduce misunderstandings, and mislead historic building users and consumers. The criticism of commodification of heritage collection and tourism-centered development directs debates to the people- and community-oriented priority in heritage relocation.

2558 | Bhuvana Nanaiah, Slađana Lazarević

Review of digital tools that support regenerative (re)design of post-industrial sites.

Regeneration of post-industrial urban landscapes involves heritage-based transformation of these sites to meet contemporary and future needs of cities. The concept is well established and practiced across Europe, with many industrial sites transitioning over the past decade. While these processes continue to be replicated across an increasing number of erstwhile industrial sites, discourses around heritage and its utility in addressing climate change have also evolved over the past years. On the other hand, the innovation of digital tools in the architecture and construction industry has also gained significant prominence, especially in new builds. However, the utility of these tools in the redesign and regeneration of contested heritage landscapes remains largely unexplored. Existing reviews focus on the employment of tools from a siloed perspective, focusing on either heritage, or social , or environmental aspects of regeneration. A comprehensive study of digital tools employed in integrated urban planning typologies such as urban regeneration is absent. This study, therefore, undertakes a review of digital tools that support the regenerative (re)design of post-industrial sites from two contrasting lenses- heritage and climate. The research is performed in two stages. First, we review scientific literature to identify the digital tools used in academic work within this intersection. Next, through practitioner interviews, the research maps the tools employed in practice across four cities in Europe, that recently underwent post-industrial regeneration. The study thereby maps different tools and their utility across various stages of regeneration

implementation. This thereby helps identify the strengths and challenges of the tools, as well as compare their applicability across different geographic, climatic, and institutional contexts.

2954 | Raúl Puente-Asuero, Barbara Maćkiewicz, Paulina Jeziorek

Living Nature: Integrating Urban Gardens into Museum Space and Visitor Engagement

Museums are often perceived as indoor galleries filled with static exhibits, sometimes difficult to understand and relate to. At the same time, urban gardens provide an important interface between nature and society. This fact has also been recognised by museums, which are increasingly incorporating urban gardens into their spaces and programmes. This study aims to gain an understanding of the reasons why, alongside their traditional activities, museums are interested in including urban agriculture. Based on participant observation, individual in-depth interviews, and case studies, the authors analyse the different strategies museums adopt regarding access to gardens located on their premises and activities they offered there. Additionally, the study analyses the conflicts, challenges and opportunities related to garden-originated interconnections between museums and nature, which may impact the ongoing transformation of urban communities and space. The results reveal that introducing urban gardens into museum spaces is primarily aimed at diversifying the museum's offer, thus broadening the visitor base, thereby fostering the museum's integration with the local community. Such museums expand their social role, transforming a visit into an interdisciplinary exploration of biodiversity, sustainability, and food culture. However, art is rarely incorporated into gardening activities. Collaborating with artists can be challenging and not always successful. It works best if the artist is knowledgeable, attentive, expresses artistic ideas aren't excessively original and seeks to get on the same wavelength as the gardeners. Aesthetics are an important consideration limiting potential activities in museum-located urban gardens. While these should be places for experimentation, including compost and manure, such activities are deemed to disturb the "beauty of the garden", and are consequently not permitted. Rather than being publicly accessible community gardens, some museum gardens remain closed spaces, with activities requiring a fee, and the museum visit included in the price.

Urban cultures and lived heritage

Fri 3.7.14:00-15:30, Culture and Heritage, Y313 | Session chair(s): Javier Ostos Prieto

1483 | Joost Tennekes, Judith Hin, Katherine Vanhoose, Jolien Groot

Are the happiness machines ageing well? A conceptual framework for studying fit and misfit between residential neighborhoods in the Netherlands of the 70s and 80s and their changing resident population

In the 1970s and 1980s, Dutch residential areas were developed on a more 'human scale', reacting against the functionalist apartment blocks of the 1960s. Their architecture and urban design emphasized slow-traffic routes, 'woonerfs', green public spaces, gradual transitions between private and public space, organic street patterns, and mixed housing types and incomes—features believed to foster social interaction and community (Provoost 2025). In practice, however, these neighborhoods mainly targeted families with (young) children.

Over time, their populations have diversified. Changes in household composition, age structure, and housing culture have introduced user groups with different expectations and needs. While the original design reflected family-oriented ideals, contemporary residents include singles, elderly people, and other household types whose daily practices often diverge from those assumptions.

Despite their scale and social ambition, these neighborhoods have remained in the periphery of the attention of policy makers, who tend to focus on either post-war areas from the 1950s–1960s, where social issues are more acute, or on new housing developments addressing current shortages.

This exploratory study develops a conceptual framework to assess the (mis)match between these neighborhoods' original urban design principles and the lived experiences of today's residents. The framework builds on the capability approach (Janssen&Basta 2022), which evaluates how urban environments enable or constrain people's real opportunities to live the lives they value. Based on nearly 100 interviews across three neighborhoods, we explore how this approach can be interpreted and adapted for this context.

The resulting framework helps assess how effectively the original design—once centered on community and family life—supports diverse user groups today, and offers a transferable method applicable to neighborhoods from other periods and countries.

Provoost, M. (2025). Bouwen aan de geluksmachine. International New Town Institute.

Janssen, C., & Basta, C. (2022). Are good intentions enough?, European Planning Studies, 32(2), 368–389.

1950 | Aditi Mehta

Improvised Infrastructure of Care: The Basement Mosques of Regent Park

Toronto's Regent Park has been undergoing a well-studied mixed-income redevelopment process since 2005. Yet, none of the existing research except one book chapter (Syed, 2016) investigates the Muslim experience of the neighbourhood. This is surprising given the Muslim population in the area increased by 12.31% from 2011 to 2021 (City of Toronto, 2021). One reason for this gap in scholarship may be that the field of urban planning does not often engage with faith, and planning practitioners see their work as secular (Manouchehrifar, 2018; Manouchehrifar and Forester, 2021).

This research seeks to better understand how Muslim residents exercise their right to the city and remake space to serve their needs by investigating the phenomenon of basement mosques in the neighbourhood. Since the early 2000s, Muslim tenants of social housing buildings organized to transform the basements of their midrise apartment dwellings into mosques. At one point, there were six ad-hoc basement mosques operating in Regent Park, serving over 250 residents. Beyond religious services, these basement mosques provided programming for residents including childcare, tutoring, and health education. In this article I ask:

1. How did the community organize to create these improvised spaces of faith and care in Regent Park?

2. What services did the basement mosques of Regent Park provide to the community?

3. How can urban planners better engage with faith in their practice?

Through interviews and focus groups with leaders and users of the basement mosques, as well as planning practitioners, I show how city officials initially supported the basement mosques for providing community development services without local government aid. However, after redevelopment, the city policed and removed these spaces, deeming them unsafe. This article argues that religion deeply affects the way one experiences the built environment and encourages planners to rethink how they respond to religious diversity.

1960 | Sigríður Kristjánsdóttir

the hidden people of iceland, case study of hafnarfjordur

This paper examines how Icelandic folklore can inform contemporary planning by exploring the spatial presence of the huldufólk (hidden people) in Hafnarfjörður. Using a hand-drawn map „The hidden World“ created by Erla Stefánsdóttir of known hidden-people sites, the study connects intangible cultural heritage with urban morphology to show how local beliefs have shaped everyday planning decisions, protected landscapes, and influenced development patterns. The analysis combines morphological mapping, archival planning material, and interviews with planners to trace how stories of invisible inhabitants become territorial claims with real effects on street layouts, building placement, and conservation choices.

The case highlights a peripheral yet powerful layer of planning knowledge: one that emerges from cultural narratives rather than technical systems. In a global moment where algorithmic tools, rapid urban growth, and geopolitical pressures tend to centralize decision-making, Icelandic folklore reframes planning as a pluralistic and multispecies practice attentive to place-based meaning. The Hafnarfjörður example invites broader reflection on how non-human and non-technocratic actors—mythical or otherwise—shape territorial governance and challenge dominant assumptions about rationality, legitimacy, and spatial justice.

By positioning folklore as an alternative epistemology, the presentation contributes to debates on peripheral visions in planning, showing how small municipalities at the edges of global systems can offer models of culturally grounded, inclusive, and ecologically sensitive planning practice. It calls for renewed attention to community knowledge systems that persist outside data-driven paradigms yet remain vital for negotiating futures in uncertain times.

985 | Manoela Massuchetto Jazar

The cultural reframing of Brazilian favelas: what peripheral literature reveals about urban belonging

This research analyzes Brazilian favelas as living cultural landscapes shaped by memory, everyday practices and territorial struggle rather than institutional preservation. It challenges hegemonic planning narratives that frame informal settlements only through lenses of illegality, risk or “urban deficit,” arguing instead that favelas constitute socio-spatial formations where community ties, symbolic production and belonging consolidate over time. Building on debates on the right to the city (Lefebvre), peripheral epistemologies (Milton Santos) and narrative insurgency (Dalcastagnè), the study explores how cultural heritage can emerge from below as a political construction rooted in lived experience. Using discourse

analysis of three literary works produced by favela residents including Carolina Maria de Jesus (Quarto de Despejo, 1960), Conceição Evaristo (Becos da Memória, 2006), and Sérgio Vaz (Flores de Alvenaria, 2016), the proposal traces three historical phases of favela urbanization in Brazil: emergence and stigma (1950s), displacement and relocation (1980s), and consolidation with cultural affirmation (2000s). Literature here functions as a form of territorial testimony that introduces the notion of urbevivência (urban lived experience), a concept derived from Evaristo's escrevivência. The term underscores how knowledge about urban space arises through direct inhabitation and circulation, revealing embodied and situated practices of dwelling often neglected by conventional planning. The findings demonstrate that favelas produce heritagization from below. This concept refers to forms of insurgent heritage manifested not through monumental preservation but through memory, affective geographies and community resistance. This perspective expands planning theory by integrating peripheral cultural production into debates on heritage and spatial justice. Ultimately, the work argues that acknowledging the cultural legitimacy of favelas reframes them not as absences in the city but as agents actively producing urban futures.

Track 3: Economics

Track chairs: Emmanuèle Cunningham Sabot, Heidi Falkenbach, Oskari Harjunen

Quantitative urban analytics I: Causal inference and quasi-experiments

Tue 30.6.14:00-15:30, Economics, Y346 | Session chair(s): Heidi Falkenbach

1524 | Qixuan Wang, Jie Ren, Zirui Chen, Di Diao

Free Trade Zones and Urban Innovation Intensity: A Spatial Difference-in-Differences Analysis of Chinese Cities

Free Trade Zones (FTZs) have emerged as key policy instruments for promoting trade liberalization and regional economic upgrading in China. Designated by the central government in selected cities, FTZs implement comprehensive packages of preferential policies, including infrastructure investment, trade facilitation, fiscal and tax incentives, and flexible land-use arrangements. They represent major institutional experiments in reallocating land-use rights and attracting global capital, technology, and talent.

While the direct impacts of FTZs on foreign direct investment and technology transfer have been widely examined, their broader effects on urban innovation remain insufficiently understood, an issue of particular significance as China transitions toward an innovation-driven economy. Given the critical importance of enhancing the land-use efficiency of innovation for sustainable development in land-constrained transition economies, this study investigates how FTZs influence the efficiency of land use for innovation activities in China.

Using panel data for 284 Chinese cities from 2010 to 2020, we first employ propensity score matching (PSM) to construct comparable treatment and control groups, and then apply a spatial difference-in-differences (DID) framework to identify the causal effect of FTZ establishment on urban innovation intensity, which is measured as innovation output per unit of construction land. Results show that FTZs significantly improve innovation intensity in host cities while producing negative spillovers in adjacent cities, reflecting spatial concentration of innovation resources. These findings are robust across a series of robustness tests. Heterogeneity analysis further reveals that the effects vary across regions, FTZ sizes, and administrative levels of cities. Mechanism analysis indicates that FTZs promote urban innovation intensity through both government-led interventions and market-driven mechanisms. The findings highlight the need for policymakers to not only promote the diffusion of FTZ benefits within host cities but also mitigate the widening regional innovation disparities through coordinated planning and intercity policy alignment.

2231 | Kazuya Inagaki, Hideki Yaginuma, Shintaro Terabe, Masanori Ajito

Causal inference on the spillover effects of urban master plans in the Tokyo metropolitan area

Urban Master Plans (hereafter, UMPs) in Japan present long-term visions for cities, and these visions function as key instruments for guiding and promoting land-use policies. Despite their widespread

adoption, concerns have been raised regarding their practical effectiveness, and debates persist over their limited functionality. Nearly thirty years after the system's introduction, it is crucial to empirically assess the socio-economic changes that UMPs have actually generated.

This study estimates the causal effects of UMP formulation on socio-economic activities—such as demographic change and variations in the number of offices and stores—across municipalities in the Tokyo metropolitan area, using a statistical causal inference framework. We set 2000–2010 as the evaluation period, defining municipalities that formulated a UMP before 2010 as the treated group and those without a UMP by 2010 as the control group. Propensity score methods and inverse probability weighting (IPW) were applied to ensure comparability between the groups and to estimate the ten-year impacts of UMP formulation.

The results reveal that, although the magnitude of each effect is modest, UMPs exert broad and positive impacts on socio-economic activities. Specifically, (1) through land-use regulation and guidance—core components of spatial planning—UMPs can generate positive causal effects on social indicators (e.g., net migration, crime incidence) and economic indicators (e.g., the number of offices and restaurants). In contrast, (2) indicators heavily influenced by market factors and less directly shaped by planning interventions (e.g., land prices and fiscal indicators) show limited or no measurable effects. Despite their weak legal enforceability, Japanese UMPs appear to influence the behavior of residents and private actors, functioning as institutional signals that shape expectations, foster coordination, and potentially create positive spillover effects within local communities.

2514 | Touko Väänänen, Oskari Harjunen

Metro investment and car use

Although cars provide a flexible and typically fast means of transportation, they also cause many negative externalities such as air pollution, noise and congestion. These negative externalities are especially pronounced in cities, where the high population density affirms the problems from car usage. Improving public transportation systems is one way to lower car use in cities, as car use tends to be lower in areas with good public transportation connections. However, empirical evidence for the efficiency of different interventions to reduce car use and ownership is still scarce.

This study provides causal evidence on how car usage and ownership is affected by a major infrastructure improvement. We exploit the introduction of eight new metro stations to an existing metro line that runs in the largest urban area in the Helsinki metropolitan area, Finland. This quasi-experimental setup allows us to use difference-in-differences estimation design with impressive micro-level datasets on total population combined with car inspection data to analyse the causal effects of expanding the metro line on car ownership and usage in the treatment group – households who live near the new metro stations. In the analysis, our matched control group consists of households that live in areas that have similar transportational and socio-demographic attributes as the areas near the new transportation hubs. We find that the opening of the new metro line decreased the yearly VKT of the affected households by roughly 12 percent but had no effect to the car ownership.

1718 | Guibo Sun

The Value-Capture Paradox of Metro Accessibility and Gated Communities in China

This paper highlights a critical challenge: although metro projects are rationalised to enhance accessibility, a fundamental public good, the benefits of new metros in China are often captured by private property, particularly through gated community developments. We argue that using land leasing as a financing strategy to cover the heavy costs of massive metro investments has resulted in the principle of creating permeable station areas, a key aspect of Transit-Oriented Development (TOD), becoming secondary or even irrelevant. We conducted a natural experiment research design with longitudinal data to investigate the relationship between metro expansion and the emergence of new gated communities around stations in Nanchang, located in southeastern China. Our methods included spatial mapping and difference-in-differences approaches to identify causality, measuring the extent of metro-induced gated communities through treatment-control group comparisons. Our findings reveal that, compared to control areas, an average of eight additional gated communities were built around each new station, with the total area of gated community compounds in station catchments increasing by 0.5 km^2. The metro-induced treatment effects remained significantly high for up to six years after the new line was constructed. These findings suggest that China's current land-infrastructure financing strategy might limit the long-term benefits of costly metro investments and constitute a significant and enduring planning failure: the issue of accessibility capture by gated communities is driven by local governments, in a phenomenon that we term a ‘value-capture paradox’, where the public goals used to justify metro projects are sidelined in pursuit of short-term financing solutions. Our study contributes to the global debate on infrastructure-led development, as well as the understanding of displacement and gentrification issues in transportation infrastructure.

1194 | Kaio Nogueira, Chris Foye

(R)FAR and beyond: upzoning and the determinants of residential (re)development in São Paulo

Using a novel block-level dataset of all residential (re)developments in São Paulo, this paper investigates the spatial determinants of (re)development following the city’s 2016 rezoning. In line with the development economics of viability, the results indicate that blocks with greater residual development potential (Residual Floor Area Ratio, RFAR), lower plot fragmentation and higher income levels were significantly more likely to be redeveloped. Development was also more likely to occur in blocks with greater variation in RFAR, suggesting developers favour infill sites. The findings further reveal that developers are more likely to develop blocks with lower proportions of black people, suggesting potential racial discrimination. Overall, our findings provide insight into why and where urban residential (re)development occurs and how this is mediated by rezoning planning reforms such as transit-oriented zones (TOZ).

Quantitative urban analytics II: spatial ML, GIS, and spatial econometrics

Tue 30.6.16:00-17:30, Economics, Y346 | Session chair(s): Oskari Harjunen

2448 | Saiyi CHEN, Minghao ZUO, Muhan LI, Tian CHEN

Exploring the commodification of accessibility in waterfront residential price inequality : An analysis from XGBoost-GeoShapley

Waterfront proximity is increasingly commodified, yet whether unequal access to urban rivers amplifies residential price disparities remains under-explored. To control for post-COVID policy interventions, 2020 sale-price data were used , we quantify how differential accessibility—measured by visual exposure, walking distance and flood-risk-adjusted availability—is capitalised into housing values. We extend SHAP to a GeoShapley framework that preserves spatial autocorrelation while recovering location-specific marginal effects from a nonlinear XGBoost model.Results reveal a three-regime, non-linear distance–price gradient for proximity to the Haihe River and its tributaries, with clear threshold effects at 1.0 km and 1.3 km: spatially heterogeneous: the marginal willingness to pay for river proximity differs sharply across the main stem and the smaller tributaries. within 1 km, a 1 % reduction in distance raises prices by 0.155 %; with a 0.074 % increase per 1 % additional distance in the 1–1.3 km sub-zone and 0.147 % in the 1.3–1.5 km sub-zone. These findings confirm that expanding the riparian no-build buffer from 1 km to 1.5 km enlarges the amenity-scarce zone, raising aggregate residential value by 1.2 % without increasing flood losses. The premium heterogeneity widens the price distribution: Gini coefficient rises by 0.7 pp within 1.5 km of rivers, confirming that accessibility inequalities are systematically capitalised. By integrating machine-learning interpretability with urban-economic theory, the study provides an operational benchmark for pricing waterfront land and underscores the need to couple blue-space conservation with inclusive-access policies to mitigate environmental injustice.

1537 | Dejan Malenic

Neighbourhood Level Innovation: Spatial Regression Modelling of Industry Specific Patent Clusters in Australia

Cities have long been understood as drivers of innovation, resulting in numerous policies attempting to increase its output. Underpinning many of these policies is the understanding that cities possess certain qualities that drive innovation and promote knowledge spillover between different industries. However, a key limitation of past studies is that innovation clusters are identified by looking at patents in aggregate, which tends to over represent industries which are more likely to patent minor inventions. Meanwhile, studies which disaggregate patents by industrial categorisation only look at innovation on a large scale; either cities or whole countries. To date, there have been no studies looking at innovation at the neighbourhood level.

This study addresses this gap by examining innovation at a sub city scale within individual industrial categories. It uses spatial regression modelling to examine patent outputs in Australia over a 20 year period from 1999 to 2019. Firstly, it confirms that neighbourhood level clusters of innovation exist within cities and that they occur in various locations, which are not always population or employment centres. Secondly, it finds that patent clusters of individual industries are neither significantly correlated to other industries, nor to employment density. Instead, industrial agglomerations are identified as drivers of innovation in related fields. This is notable because some industries; such as agriculture, mining or construction; have lower total numbers of patentable inventions and also tend to have employment centres in peri urban areas or rural regions. In these cases, the peri urban and rural areas also emerge as clusters of related innovation. Therefore, knowledge spillover between industries may be overestimated

and instead single industry or sectoral clusters are found to be drivers of innovation. This has an implication for funding and policy, highlighting the growing importance of peri urban and peripheral areas for economic productivity.

2555 | Bijun Li, Chao Ma, Ye Zhang

Multi-Seasonal Regulatory Mechanisms of Blue-Green Spaces on Urban Rain-Heat Trade-off and Synergistic Effects

Under global climate change and rapid urbanization, high-density cities face dual challenges of intensifying heat islands and extreme rainfall events. This study investigates the seasonal regulatory mechanisms of blue-green spaces on urban rain-heat coupling effects in Guangzhou to provide scientific basis for optimizing blue-green infrastructure configuration.

An integrated "remote sensing-meteorology-hydrology" dataset covering 628 km^2 was constructed by fusing 144-period Sentinel-2 and Landsat-9 imagery (2023-2024), 11 meteorological stations, and 52 drainage monitoring points. Blue-green spaces were extracted using Random Forest classification (OA=93.7%) at 10-meter resolution. Morlet wavelet coherence analysis across 10 m–3000 m scales identified 1.5 km as the optimal spatial scale for rain-heat regulation based on R^2-maximization between landscape indices and land surface temperature anomaly/runoff coefficient. At this scale, an XGBoost model incorporating 8 landscape indices coupled with meteorological and topographic factors (13-dimensional features) was developed, with SHAP analysis revealing vegetation coverage, patch connectivity, and spatial distribution evenness as key regulatory factors serving as priority intervention targets.

Scenario simulations demonstrated that summer cooling reached 2–4℃ with 5–10% runoff reduction, while winter effects were approximately half. The "synergistic optimization" scenario outperformed simple "10% area increase" by ~20% in marginal benefits, validating the "configuration-over-area" principle and confirming significant seasonal variations aligned with subtropical monsoon characteristics.

This study proposes 1.5 km grids as the "minimum management unit" for climate-adaptive planning, recommending vegetation coverage, connectivity, and evenness replace traditional green space ratios in local guidelines. The quantified marginal benefits (each 1% green space increase yields 0.8% runoff reduction and 0.11℃ summer cooling) align with Guangdong-Hong Kong-Macao Greater Bay Area climate adaptation pilot scales, providing direct evidence for Guangzhou's specialized planning initiatives.

2499 | VO NGUYEN THI MINH TRANG

Optimizing Taiwan Renewable Energy in Respect of Energy-Food-Biodiversity Security to Achieve Net-Zero Goals by Integrating GIS Spatial Data And Economic Analysis

Taiwan’s commitment to phasing out nuclear power by 2025, coupled with its dependence on imported fossil fuels, poses urgent challenges for achieving long-term energy security and net-zero goals. Yet the island’s dense population, limited arable land, and climate vulnerabilities, including typhoons, droughts,

and rapid biodiversity decline, complicate the expansion of renewable energy infrastructure. Renewable systems such as agrivoltaics, aquavoltaics, and bioenergy offer promising dual-use opportunities, but their large-scale deployment requires careful alignment with food security, ecosystem health, and farmer acceptance. Existing research in Taiwan largely examines these components in isolation, leaving significant gaps in understanding the spatial, economic, ecological, and social trade-offs of dual-use renewable energy transitions.

This study develops an integrated framework combining GIS-based spatial suitability analysis, economic trade-off modeling, farmer acceptance assessment, and policy evaluation to identify sustainable pathways for renewable energy development within Taiwan's agricultural landscape. GIS analysis will map optimal locations for agrivoltaic, aquavoltaic, and bioenergy installations by integrating land use, solar radiation, hydrological conditions, agricultural productivity, and biodiversity indicators. Economic modeling will quantify trade-offs between renewable energy generation, agricultural output, ecosystem services, and biodiversity preservation under multiple land-use scenarios. Complementing these analyses, farmer surveys and interviews will investigate social acceptance, perceived risks and benefits, and the socio-economic factors shaping willingness to adopt dual-use systems. The study also evaluates existing regulatory frameworks to identify policy gaps and propose strategies that support energy–food–biodiversity co-benefits.

1293 | Helena Schuch, Michael Meschik, Astrid Gühnemann

Evaluating the hidden costs of on-street parking: a social cost analysis approach and the case of Vienna

Economic evaluations of parking policies commonly revolve around questions of transport efficiency from the point of view of car drivers. For instance, a widespread research object is the optimal setting of parking fees to reduce search traffic. This paper proposes a different economic instrument to inform parking policy, which is widely applied in transport infrastructure appraisal, but so far underutilised regarding the provisioning of public parking spaces: social cost analysis. By providing a full picture of the cost categories in question, the parking supply can be evaluated with regard to its wider impact on society and the environment. This paper attempts to provide the first in-depth derivation of the total social costs of on-street parking in an urban environment and proposes a categorisation of the costs in question, methods, and source materials to do so. It argues that a broad range of cost factors, partitioned as provisioning costs, external costs, and opportunity costs are borne by society when supplying on-street parking. Furthermore, the calculation results are applied to the on-street parking supply of a case example, the city of Vienna, to highlight the potential costs that accrue for a city due to the provision of parking spaces on public streets. The resulting cost range for an individual parking space is between € 800 and € 16,290 per year, the wide range indicating a considerable level of uncertainty. The lack of preceding work on the social costs of parking highlights that this result should be seen as an invitation for further research. In conclusion, the paper argues for taking all social costs, and especially externalities, into account when planning for parking, and for considering alternative land uses and the possible benefits foregone when providing space for stationary traffic.

Governing transitions: wealth, migration, foundations, finance, and quality

Thu 2.7.16:00-17:30, Economics, Y346 | Session chair(s): Emmanuèle Cunningham Sabot

1426 | Feng Yaoyi, Zhang Mingyu, Liu Xiang

Linking the Digital Economy to Population Migration Decisions: Evidence from China

Amid the rapid changes in global migration patterns, digitalization has become an important driving force influencing both individual development and regional integration. The existing literature, however, has accorded little attention to the role of regional digitalization in population migration. Therefore, this study aims to investigate the impact mechanism of regional digital economy development on population migration decisions.

The study constructs a comprehensive evaluation method for digital economy development from four dimensions: digital infrastructure, digital industry, digitalization environment, and digital application. Taking 30 provincial-level administrative units in China as the research area, the research conducts an empirical analysis based on over 10,000 individual survey records from the 2022 China Family Panel Studies (CFPS) database. Interregional migration behavior is captured by analyzing the respondents' current residence and place of birth, and a logistic regression model is employed for empirical testing.

The findings indicated significant spatial disparities in the digital economy development across Chinese provinces, with higher levels concentrated mainly in the eastern coastal regions. Individuals are more likely to migrate to provinces with better digital economy development. The mediation analysis identifies three significant pathways through which the digital economy indirectly drives migration: (1) by generating higher economic returns and boosting household income; (2) by fostering new business forms and models, which substantially expand employment opportunities; and (3) by enhancing the quality of life through convenient online services and improved access to information.

The study highlights the crucial role of the digital economy in reshaping population spatial patterns and provides new evidence for understanding migration in the digital era. It suggests that policymakers should consider enhancing digital capabilities as a core factor in regional development and population attraction strategies. Furthermore, regional planning should optimize spatial governance models from the perspective of coordinating “population–virtual and physical space”.

1157 | Boris A. Portnov

Worldwide Geographies of Wealth and the ‘Valued Attribute’ Concept

The patterns of wealth concentration across the globe are not immediately clear. Even in Europe, a relatively small and densely populated continent, the location of places that generate the most national wealth looks quite irregular, with isolated ‘peaks’ surrounding by ‘hollows’ that border each other. Quite often, the ‘spikes’ on this map are the largest cities of nations and their capitals, while the ‘depressions’ between them are less populated regions and rural areas, but not always. Thus, in a large number of cases, this general observation is not upheld. The conceptual model, termed the ‘valued attribute concept’, is suggested to explain such (ir)regularities. According to this concept, during each historical period, several attributes of location were important and the most valued, and places, which accumulated most of these favourable attributes, concentrated collective wealth as a result. If in

antiquity, such attributes included the availability of fresh water, a temperate climate, and fertile land for agriculture and the cultivation of life stock, later elevated and naturally protected places gained importance, while previously valued attributes retained their importance as well. With accelerated industrial development, the proximity to natural resources gained prominence, while the importance of size became even stronger than before, due to the size of the market for produced goods and services, albeit not due to sole defence considerations, as before. As development progressed, the available services and other urban functions, as well as the infrastructure linking places, allowing factor exchanges and urban expansion, gained prominence. As the list of these 'valued attributes' tends to change with time, the location of the wealth loci may also change. In this presentation, this concept is supported by empirical data processed using geo-information tools, applied to European and worldwide data.

975 | Michael Getzner

Conceptualizing the foundational economy as a cornerstone of biodiversity conservation and restoration

Degrowth scholars emphasize the importance of the foundational economy (FE) for 'living well within planetary boundaries'. The foundational economy describes the provision and regulation of everyday goods and services needed for the satisfaction of basic needs, such as housing, care, education, energy, food and mobility. However, there is a lack of conceptual models linking FE production and consumption to biodiversity conservation and restoration. This paper develops an ecological-economic model of ecosystem services, biodiversity conservation, and the foundational economy. Furthermore, it deals with the planning challenges originating from the FE concept as an alternative socio-economic model at the local and regional level.

It further embeds FE sectors in the whole economy and provides economic arguments both on the supply side (e.g., economies of scale, scope and density; transaction costs) as well as on the demand side (e.g., trust in institutions; universal basic services; willingness to accept changes) in favor of resource efficiency. Compared to extractive and financialized business models, FE production has major environmental advantages, especially if connected to public and not-for-profit economic activities.

Though FE production is certainly a necessary condition for biodiversity conservation, it is not per se a sufficient strategy. The foundational economy also is embedded in natural processes; thus, respective institutional, legal and economic frameworks are needed to limit environmental impacts of FE. Planning for the FE can provide these frameworks in regard to land use changes and local infrastructures, thus playing a paramount role for the advancement of a 'good life within planetary boundaries'. The presentation links these different streams of the scholarly debate and shows the connections, but also the potential conflicts between the FE and degrowth discourses, and the de- and postgrowth planning debate.

1221 | Jose Pedro Sousa, Clara Vale, Marina Borges, Vanessa Tavares

Making Quality Visible: Rethinking Modular Construction within Contemporary Planning Frameworks

The construction sector is facing a convergence of challenges, from the urgent need to adopt more sustainable practices to the growing difficulty of ensuring affordability, driven by rising costs, labour shortages, and persistent low productivity. These pressures are not only technical but also societal and territorial, raising fundamental questions about how planning can meaningfully guide and evaluate emerging modes of construction. This shift aligns with broader global agendas for sustainable development (United Nations, 2015).

Within this context, industrialized and modular construction has re-emerged as a promising approach, offering increased efficiency, better control over production, and the potential to reduce environmental impact (Smith & Quale, 2017; KieranTimberlake, 2019). Yet, despite these advantages, its broader implications—particularly in terms of spatial quality, social equity, and long-term sustainability—remain insufficiently understood and only weakly embedded in planning and decision-making processes.

At the same time, initiatives such as the New European Bauhaus (European Commission, 2021) and the Davos Baukultur Quality System (World Economic Forum, 2018) call for a more holistic understanding of quality in the built environment, one that integrates environmental, social, cultural, and aesthetic dimensions. However, current evaluation practices remain fragmented, making it difficult to grasp the full value of alternative construction approaches.

This paper argues that what is missing is not only better solutions, but better ways of understanding and evaluating them. It therefore advocates for the development of an integrated evaluation approach capable of making explicit the relationships between technical performance, architectural quality, environmental impact, and social relevance. Such a framework can support more informed, transparent, and value-driven decision-making, reinforcing the role of planning in shaping the future of the built environment.

Acknowledgement

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References

European Commission. 2021. New European Bauhaus: Beautiful, Sustainable, Together. Brussels: European Commission.

KieranTimberlake. 2019. Refabricating Architecture: How Manufacturing Methodologies Are Poised to Transform Building Construction. New York: McGraw-Hill Education.

Smith, Ryan E., and John D. Quale. 2017. Offsite Architecture: Constructing the Future. New York: Routledge.

United Nations. 2015. Transforming Our World: The 2030 Agenda for Sustainable Development. New York: United Nations.

World Economic Forum. 2018. Davos Declaration: Towards a High-Quality Baukultur for Europe. Geneva: World Economic Forum.

1941 | Thomas Machiels, Chris den Heijer

Financing Climate Adaptation with Developer Obligations: Emerging Models from the UK, USA, and the Netherlands

Current levels of climate adaptaton investments globally are insufficient to meet rising needs caused by climate change. At present, most climate adaptation investments are funded through public budgets. However, budget cuts and shifts in political and societal priorities have pushed climate adaptation further down the agenda.

One type of financial instrument used to harness private sector capital is developer obligations (DOs). DOs are contributions made by property developers to compensate for public externalities resulting from spatial development projects. DOs are well-established and widely used instruments in local planning practice to provide infrastructure and social amenities. Despite wide uptake, little is yet known about how local governments mobilize DOs explicitly in support of climate adaptive infrastructure investment.

Planning legislation and procedural constraints often limit the application of DOs to narrowly defined and project-specific public cost management. Emerging practices, however, show innovative use of DOs, leveraging them for broader investment plans concerning climate adaptation. These innovations prompt our overarching question: How are local governments innovating DOs to upscale and ensure sustained funding for climate adaptation measures?

We answer this question through a comparative analysis of three DO case studies: Dorset Heathlands (UK), the Washington Stormwater Retention Credit (SRC) Trading Programme (USA), and Groenfonds Midden-Delfland (The Netherlands). Data is collected through desk research and semi-structured interviews. We examine how local authorities in these cases are currently innovating with DOs as funding mechanisms for coherent, forward-looking adaptation strategies. We focus on how planning actors navigate, reinterpret, and at times stretch existing legal and procedural frameworks to support more financially durable and spatially integrated adaptation investments via DOs. The three case studies reveal varied legal embeddedness of DOs, different approaches to how DOs are innovated for climate adaptation, and, consequently, differing outcomes in terms of added value for climate adaptation finance and implementation.

Housing, land policy, and metropolitan redevelopment

Thu 2.7.17:45-19:15, Economics, Y346 | Session chair(s): Emmanuèle Cunningham Sabot

1332 | Kim Jeonghye, Kim Saehoon

When Costs Outweigh Value : Economic Unsustainability of Aging Houses in Shrinking Cities

This study examines the growing issue of aging multi-family housing in the context of structural demographic and economic decline, using South Korea's shrinking cities as a primary case. While rapid urbanization in the late 20th century led to a large stock of apartment complexes, many are now over 30 years old and facing physical deterioration. In South Korea, large-scale apartment developments built in the 1970s and 1980s are aging, yet systematic renewal has been delayed due to legal, fiscal, and institutional constraints.

In metropolitan areas such as Seoul, ongoing housing demand, buyer capacity, and public financial support continue to sustain redevelopment. In contrast, shrinking cities face a combination of falling demand, stagnant markets, and declining local finances, resulting in accelerated residential decay and asset devaluation.

This research compares five shrinking cities with key metropolitan areas, utilizing transaction-level data to estimate changes in asset values and quantify financial burdens from maintenance and operational costs. It introduces and applies a novel "Housing Ownership Sustainability Index (HOSI)," which integrates rental returns, asset appreciation, and holding costs to evaluate the long-term viability of ownership.

Findings reveal that while capital regions maintain asset values even for aging properties due to redevelopment expectations, shrinking cities exhibit a "negative ownership effect" where costs exceed returns. The study argues for a paradigm shift in housing policy for low-demand areas—from large-scale redevelopment toward selective maintenance, adaptive reuse, and professionalized management through public–private collaboration.

Ultimately, sustainable housing in declining cities must focus not on the pace of redevelopment, but on reducing the "invisible cost of inaction" through long-term stewardship and incremental improvements.

1229 | Babak Firoozi Fooladi, Heidi Falkenbach

Balancing financial constraints and public objectives: Assessing the impact of public land ownership on housing development

We investigate whether direct public intervention into the land markets through landownership affects the duration of housing development projects. Using time-to-event (TTE) econometric models and novel, detailed data on housing projects from 2016 to 2023 in the Netherlands, we examine the duration from approval of land use plans to the issuance of building permits for housing projects on publicly and privately owned land under varying market conditions. Our results reveal significant differences between the duration dynamics for housing projects on publicly versus privately owned lands. We find that projects on publicly owned land receive building permits much later than those on privately owned land when housing prices are expected to decline. Conversely, when housing prices are expected to rise, the duration to obtaining building permit is significantly shorter for projects on publicly owned land. These findings suggest that public authorities are sensitive to financial considerations, yet their behaviour is characterised by loss-aversion, rather than profit seeking. Additionally, we observe that developers

undertaking projects on publicly owned land take shorter to start construction after received the building permit. This difference, although small in magnitude, may result from public authorities selecting developers with the capacity for timely implementation or exerting implicit or explicit pressure on the developers to implement the projects swiftly.

1422 | Jessica Verheij, Josje Bouwmeester, Vera Götze

Beyond the law: How informal institutions shape land policy. A comparison between Switzerland and the Netherlands

Public landownership is a key tool in land policy, as it allows local governments to steer spatial development not just as regulators but as landowners. The extensive body of literature on the role of public landownership in planning indicates different functions of public landownership, among others: 1) as a steering mechanism to influence land uses beyond zoning regulations; 2) to deliver public goods like affordable housing and urban green space; 3) to avoid land hording and land speculation; and 4) to recapture part of the surplus value that planning decisions create (Debrunner & Hartmann, 2020; Lloyd, 2018; van der Krabben & Jacobs, 2013). Yet the actual use of public landownership by local governments differs substantially across contexts. Adopting a new-institutionalist approach, we aim to understand how differences in land policy and the use of public landownership can be explained. We make a comparison between the Netherlands and Switzerland, two countries where municipalities have similar planning instruments available, but where land policy looks very different. By zooming in on four urban development projects in different municipalities, we seek to examine the factors that explain the divergent application of land policy. We show that Dutch municipalities use public landownership to position themselves as market actors. By actively acquiring, servicing, and selling land, they generate revenue, steer development outcomes, and accelerate housing production. In Switzerland, by contrast, municipal landownership is largely confined to supporting the non-market housing sector, enabling cooperatives and other forms of affordable housing beyond the market. These contrasting practices cannot be explained by formal instruments alone. They reflect deeper institutionalized understandings of the role of the state, the meaning of land, and the importance of private property. By tracing these differences, the paper shows how informal institutions shape the use of public landownership, and thereby the application of land policy.

2685 | Marcela RIVA de MONTI

The case of Buenos Aires Microcentro, An opportunity to revisit city core redevelopment projects

As a consequence of the economic restructuring and decentralization that took place in the late 1990s, the metropolis of Buenos Aires experienced a rapid suburbanization process, resulting in a concomitant stagnation and population loss of the central business area.

While Buenos Aires city core remains the cultural and economic heart of Argentina, many people have moved to the surrounding suburban areas (Greater Buenos Aires) in search of a more secure

environment, affordable housing, larger living spaces, and a better quality of life, as well as job opportunities with less commuting time.

The transition from an industrial to a service, creative and technology-oriented economy in Argentina, in conjunction with the post-pandemic transformation in working conditions, has also been a contributing factor to this shift. The establishment of specialized district hubs in suburban nodes has resulted in a decline in urban job opportunities.

The Buenos Aires city center was historically distinguished by its concentration of commercial, hospitality, financial, and office buildings. The development of this area of the city was subject to stringent zoning regulations, resulting in an exceedingly small residential population. Recognising this situation, various initiatives have been implemented to revitalise the area by converting office buildings into residential and mixed-use spaces.

The present paper puts forward a detailed investigation of the initiative, leveraging the expertise accumulated from notable redevelopment initiatives, such as Puerto Madero, with the objective of circumventing its inherent limitations. These include, but are not limited to, deficiencies in social infrastructure, residential options catering to diverse income brackets, accessibility solutions, the design of green spaces and permeable land, as well as the implementation of collaborative and participatory design in accordance with the Sustainability Agenda 2030.

1070 | Andre Legarza

The case for growth: how states finance public goods

Degrowth perspectives often privilege imaginaries of alternative futures – yet contemporary states tie their redistributive capacity to fiscal and demographic growth. Value capture instruments, such as property taxation and improvement districts, presume expanding populations, rising land values, and continued construction. These structural dependencies make growth a precondition for a wide array of public goods – from infrastructure maintenance to the operation of schools. This paper argues that without rethinking the fiscal and demographic dependencies of contemporary redistributive instruments, degrowth, as an agenda, risks undermining the public goods on which many rely. I call for planning scholars to more directly account for, confront, and reconfigure how states capture and redistribute surplus value to avoid creating new urban inequalities.

Innovation ecosystems, platforms, and industrial transformation

Fri 3.7.09:00-10:30, Economics, Y346 | Session chair(s): Michael Getzner

2744 | Bingyu Luo, Anthony Gar-On Yeh

Differentiating Cluster Dynamics in Incubator-Led and Independent Shared Offices: Spatial, Industrial, and Network Perspectives in Shanghai

The rise of shared office spaces has reshaped urban entrepreneurial ecosystems (Autio et al., 2018; Mitev et al., 2018), yet the mechanisms and characteristics of firm clustering within these spaces remain underexplored. This study investigates the defining features of cluster formation in incubator-led versus

independent shared offices, focusing on three dimensions: geographic proximity to key assets, industrial and technological specialization, and the structure and strength of internal networks among member firms.

Drawing on preliminary empirical studies in Shanghai, we find distinct clustering patterns between the two types of shared offices. In independent, non-incubator shared offices, firms primarily cluster around commercial and transportation amenities, suggesting that accessibility and convenience drive co-location. In contrast, incubator-led shared offices exhibit clustering oriented toward strategic network formation: firms prioritize proximity to anchor firms, other similarly sized enterprises, and supportive policy environments. This indicates that incubator-mediated spaces foster more intentional, network-driven agglomerations that may enhance knowledge exchange, collaboration, and innovation outcomes.

By integrating spatial analysis with organizational and network perspectives, this study contributes to a nuanced understanding of how different shared office models shape urban entrepreneurial landscapes. The findings offer implications for urban planners and policymakers seeking to design innovation districts, optimize incubator strategies, and localize knowledge-intensive industries. Understanding these differential clustering dynamics can inform interventions that balance accessibility, network formation, and sectoral specialization to strengthen urban innovation ecosystems.

This research ultimately highlights the interplay between spatial location, industrial focus, and internal networking in shaping the effectiveness of shared offices as catalysts for entrepreneurial growth, providing a comparative lens for global urban planning and innovation strategies.

1442 | ChengWei Tsai, Yung-Chi Yen

Post-Industrial Transformation of Global Cities under Globalization: The Case of Neihu Technology Park, Taipei

The restructuring of the global industrial division and the rise of the knowledge economy have significantly transformed the industrial and economic structures of contemporary cities, shifting from manufacturing-oriented production toward more complex and knowledge-intensive forms of development. In this transition, urban industrial space is shaped not only by industrial upgrading but also by constraints such as limited urban land resources, leading to new spatial development patterns.

Drawing on evidence from the Taipei metropolitan area, industrial verticalization has emerged as a key policy response to both land scarcity and industrial transformation. Compared to traditional horizontally expanded industrial zones, vertical industrial developments integrate production, research, and service functions within multi-story buildings, representing a new spatial organizational form under post-industrial transition.

However, existing industrial planning systems tend to rely on conventional zoning logics, which may not fully reflect the evolving spatial characteristics of vertically integrated industrial developments, making it challenging to comprehend the spatial dynamics of post-industrial transformation. To address this issue, this study aims to examine how industrial verticalization reshapes the interaction between industrial activities and urban spatial form. By integrating data on vertical industrial development cases, firm

locations, building uses, and land-use patterns, the research adopts a multi-scalar analytical approach to explore spatial configurations and functional compositions.

The analysis is expected to reveal differentiated spatial patterns and organizational forms across various industrial activities, demonstrating how verticalization reconfigures the relationship between spatial form and industrial functions. Furthermore, it seeks to elucidate the evolving mechanisms between urban industrial structure and urban morphology. The findings will provide empirical insights for spatial design, land-use regulation, and policy adjustments in urban industrial parks.

1565 | Richard Hu, Ximeng Lin

The culturalisation of state developmentalism: The experiment in Hefei, China

The state developmentalism that has steered China's growth and transformation for nearly half a century has been evolving in terms of both discourse and practice. One latest representation of it is culturalisation: the use of culture—both as a public good and as an industrial sector—to empower industrial upgrading and innovation-driven growth in the broad context of pursuing 'new-quality productive force' and 'high-quality development', both strategic goals in the official narrative for a 'new era'. In this article, we unpack the very nature and materialisation of such culturalisation in the context of an evolving state developmentalism. We conduct a case study in Hefei, one leading hi-tech hub in China, where the state is conducting an ambitious initiative to 'culturalise' the city's industrial base and, further, to inject new dynamism into its innovation capacity that has been established exclusively on hi-tech sectors. We focus on the Ziyunshan (Baohe) Cultural and Creative Industrial Park, a developed area of 79 km^2, for which the state is consolidating the existing spatial clusters into the imagining of a cohesive and holistic vision about cultural and creative futures. We access a diversity of materials (policies, plans, official documents, and administrative data), conduct fieldwork, and interview a group of stakeholders from both the public and private sectors. Through analysing the diverse sources of data, we identify an explicit gap—sometimes contradiction—between the state and the market in envisioning and governing the 'culturalisation', which further impacts the reconciliation of 'capable state' and 'effective market', the orthodox principle set for China's national development guidelines. To address these problems, we argue for the establishment of intermediaries between the state and the market—and the legitimacy of doing so—to mediate the top-down and the bottom-up approaches in fulfilling the 'cultural' vision for the 'new-era' developmentalism.

2521 | Mario Paris, Fulvio Adobati, Elettra Barbieri

From Shock to Adaptation: Monitoring Regional Retail Systems in Lombardy in times of polycrisis

Recent crises - from the COVID-19 pandemic to the energy and raw materials shocks, the reconfiguration of global value chains, and persistent inflation - have profoundly altered local economies and urban consumption geographies. Within this evolving scenario, the monitoring framework developed by the Centro Studi sul Territorio "Lelio Pagani" of Università degli studi di Bergamo for PoliS-Lombardia provides

an interpretative key to understanding how the commercial sector functions as both an indicator and a driver of resilience across different territorial contexts.

The study, carried out in support of the Programma Pluriennale di Sviluppo del Settore Commerciale (PPSSC) of the Lombardy Region, explores how retail systems react to economic instability and changing patterns of urban life. Through the integration of quantitative indicators and spatial analyses, the research maps the dynamics of goods supply, identifying territorial patterns of stability and fragility. The findings reveal a differentiated geography of adaptation: while high-density urban areas experience selective contraction and the transformation of traditional formats, low-density and mountain areas show signs of resilience through proximity trade, multifunctional services, and the role of commercial districts as nodes of local identity and cohesion. In parallel, the research tackles the growth of the e-commerce and the impact of the platform economies on the consumption habits.

By framing commerce as both a vulnerable target and a potential mechanism of resilience, the contribution links empirical evidence to the theoretical debate on planning under conditions of crisis and uncertainty. The commercial system emerges as a sensitive sensor of urban transformation, reflecting the social, economic, and spatial dimensions of fragility and recovery. The paper argues for a renewed attention to monitoring practices as policy tools that can anticipate vulnerabilities and support adaptive, context-specific strategies for sustainable territorial development.

2495 | Weike Li, Gianni Talamini

State-Platform Symbiosis: A triangulated analysis of the rural e-commerce development in post-socialist China

In the platform era, the spatial expansion of platform-mediated capital accumulation is reconfiguring patterns of urbanisation in small towns and rural areas. Those areas historically considered geographically peripheral are increasingly integrated into platform economic networks virtually and production system regionally. In China, Taobao, the largest Chinese e-commerce platform owned by Alibaba, has facilitated the emergence of thousands of platform-dependent rural industrial clusters—Taobao Villages or Taobao Towns. As of 2022, a total of 2429 towns and 7780 villages were recognised by Taobao. Existing studies often explain this phenomenon through fragmented factors such as location, platform empowerment, entrepreneurship, or government support; however, they pay limited attention to the broader political–economic conditions. This mixed-methods research examines how state–business relations reshape rural industrialisation and territorial development in the Pearl River Delta through the triangulation of systematic policy review, spatial analysis, and semi-structured interviews, investigating the convergence of e-commerce development strategies in government policies with those of Alibaba. This research contends that such platform-dependent industrial clusters are not merely a product of market-driven platform capital but rather a strategic symbiosis between the state and the platform. In this peculiar relationship, the expansion of private capital is systematically subordinated to the public development interests, revealing a unique model of platform-empowered urbanisation in post-socialist China. This research contributes to debates on platform urbanism by emphasising the Chinese state's critical role in promoting digital urbanisation.

Streets, retail, and commercial districts

Fri 3.7.11:00-12:30, Economics, Y346 | Session chair(s): Birgit Hausleitner

2900 | Milan Husar, Sila Ceren Varis Husar

Innovation Campuses as Spatial Drivers of High-Value Manufacturing

Innovation campuses have emerged as a specific spatial planning instruments that integrates research, manufacturing, education and entrepreneurship within a compact area. In this presentation, we examine experience from Basque Region, Oresund Region and region Amsterdam-Delft-Einhoven to determine how spatial design, land-use models and governance of innovation ecosystems can strategically shape high-value manufacturing outcomes. Drawing on field-based insights from cluster organizations and campus operators in the Netherlands, Spain and Denmark, we explore how built environment configuration, co-location strategies, and multi-actor governance models influence regional competitiveness and knowledge-intensive production.

From a spatial planning perspective, the presented models highlight the importance of integrating zoning flexibility, mobility connections and real estate strategies with industrial policy and technology development. They also underscore the role of spatial governance in fostering collaboration among municipalities, companies and knowledge institutions. We conclude with identifying transferable lessons for these emerging innovative manufacturing regions, particularly the potential of innovation campuses to function as hybrid spatial infrastructures that support green transition goals, talent development and industrial resilience.

2405 | Jost Buscher

Commercial Areas of the Future – Planning Strategies for Six Different Types

Commercial and industrial areas remain key locations for economic activity and represent significant land use for local authorities and businesses. In Germany, they account for around one-fifth of the total settlement area and are of considerable relevance to local authority finances due to the trade tax paid by local businesses. But the designation of new commercial and industrial areas has increased land consumption and contributed to progressive urban sprawl. As a result, municipalities are faced with the task of developing sustainable planning strategies in this volatile land market that reduce land consumption and avoid planning deficits.

Against this backdrop, the ERDF-funded NAWISWF project is developing planning approaches for sustainable commercial and industrial areas. The predominantly rural study region of South Westphalia in North Rhine-Westphalia is characterised by industrial use, which is mainly based on sectors such as metal processing and automotive supply and is home to so-called hidden champions. The difficult acquisition of land and nature conservation regulations are also currently hampering the development of new areas. Sustainable planning approaches should therefore aim to work with companies as future landowners to consolidate sustainability measures.

This research examines differentiated planning strategies for the sustainable development of commercial and industrial areas from an urban planning perspective. It outlines both planning law and informal approaches that can ensure efficient and climate-adapted land use despite uncertainties. For the

purpose of systematic differentiation, six types of new commercial and industrial areas were identified on the basis of an inventory of 15 new commercial and industrial areas in the study region, including discussions with urban planning and economic development agencies. These areas differ in terms of location, size, use and transport links. The planning strategies are also based on a synthesis of a literature analysis and an international good practice analysis.

2746 | Luke Juday

Demographic Upheaval in the American City Center

Between 1990 and 2010, metropolitan areas in the United States experienced a dramatic demographic shift in which younger, highly educated workers reposition themselves from the suburban ring into the city center. Lower-income families moved in turn from the center to older "inner-ring" suburbs, while older and wealthier households spread out further into new suburban rings. This shift was accompanied by a wave of discourse around "gentrification" and "revitalization."

Many have speculated that this trend is slowing or reversing itself in the wake of the Great Recession and COVID-19 pandemic. Using the most recent American Community Survey data and a spatial analysis tool known as the "distance profile," this project shows this speculation to be largely false; the concentration of educated young adults in the city center has only continued to increase. This has had profound implications for life cycle movements, affecting everything from elementary school enrollment to demand for public amenities, as working-class families who raise children in place are replaced by upper middle-class families who move into the city center as young adults and then out to the suburbs after childbirth.

1015 | Pablo Villar-Abeijón, Oriol Marquet

Pedestrianization: a New Trigger of Commercial Gentrification in Barcelona?

Pedestrianization has become a widespread planning intervention in contemporary urban policy, framed as a tool to enhance livability, redistribute public space, and stimulate local commerce. As a form of land-use regulation, it influences accessibility, land values and commercial and housing markets. Yet, in cities shaped by housing unaffordability, tourism pressure and financialized land markets, its broader social and economic outcomes remain contested. This paper examines whether pedestrianization, as a built-environment intervention, contributes to commercial gentrification in Barcelona (a city where public space and land has become increasingly commodified and shaped by market actors and tourism).

Using a quasi-experimental design, 225 pedestrianized street segments implemented between 2015 and 2020 were matched with comparable non-pedestrianized streets. Commercial census data from 2014 to 2022 were analyzed to examine changes in business turnover, retail diversity and commerce composition. Findings indicate that pedestrianization is associated with slightly higher closure rates of existing businesses and a modest decline in commercial diversity. However, it does not lead to increased business creation, nor to a significant rise in leisure, hospitality or tourist-oriented activities commonly linked to commercial gentrification and feelings of displacement.

These results nuance the assumption that pedestrianization inherently drives economic vitality or accelerates commercial upgrading. Instead, they suggest that wider land market dynamics (such as tourism demand and pre-existing commercial structures) play a more decisive role than the intervention itself. In a city where tourism, housing market pressures and commodification of space are already advanced, pedestrianization alone does not seem to accelerate commercial gentrification.

The paper contributes empirically to debates on the economics of planning and the social inclusion consequences of built-environment interventions. It underscores the need for complementary public measures (such as commercial rent regulation, housing affordability tools and tourism management) to mitigate market-driven displacement and support more equitable and socially inclusive spatial development.

1559 | Yu-Wei Lai, Hao-Teng Cheng

Pedestrian Behavior and Spatial Characteristics in Arcade Spaces: An Integrated Qualitative and Quantitative Approach

Arcades are a representative architectural typology in Asian cities, originating from urban design considerations that respond to high solar exposure and frequent rainfall. Taiwanese cities, renowned for their high-density and mixed land use, feature arcades that enhance street-level livability and economic vitality while serving as important spaces for social interaction. As a form of privately owned public space (POPS), arcades have long been a distinctive subject of urban studies, as their spaces embody tensions between power relations and boundaries of use. To comprehensively reflect the spatial characteristics of arcade use, this study adopts a mixed-method approach to examine walkability, integrating qualitative methods—including behavioral observation, walking path analysis, and walk-along interviews—to interpret user perceptions. In parallel, space syntax—a graph-based spatial configuration method—is employed to analyze the spatial characteristics of walking environments, enabling a comparison between the quantitative and qualitative findings on walkability. By integrating results derived from different methodological approaches, the study aims to identify characteristic patterns of pedestrian route choices within arcade spaces.

Track 4: Education and Skills

Track chairs: Andrew Butt, Susa Eräranta, Andrea I. Frank, Hossam Hewidy

Planning didactics

Tue 30.6.14:00-15:30, Education and Skills, U271 U9 | Session chair(s): Hossam Hewidy, Tommy Lindgren

2461 | Elin Børrud, Marius Grønning, Anja Standal

Building a Framework for Spatial Planning Didactics

The presentation addresses the need to systematize and clarify learning processes in spatial planning, responding to educational challenges in preparing future planners. Spatial planning spans multiple disciplines (study programs), requiring collaboration among professionals with diverse disciplinary knowledge, methodological skills and perspectives. Despite these differences, planners share a common concern for planning future spatial conditions and their societal impacts, sustainable development and community preparedness.

The challenge is both theoretical and methodological. Theoretically, the question is whether spatial planning qualifies as a subject within the concept of subject didactics — "teaching theory" for a specific discipline, guiding the selection of content and approaches to teaching and learning.

Given spatial planning's interdisciplinary nature, a flexible framework is essential. So far this framework consists of eight learning aspects.

These learning aspects, we believe, contribute to the planners learning through planning methods—scientific, creative, technical, and production—combined with writing, conceptualization, and argumentation; drawing and visual representation of time-space; and digitization and technology use. It is inherently multidisciplinary, interdisciplinary, and transdisciplinary, taking place in project collaboration and group learning among actors, and through interaction with external stakeholders via participation, user insight, and involvement. Additional dimensions include spatial experience or "1:1" learning through fieldwork, study tours, and full-scale testing, alongside a historical foundation of inherited knowledge, cultural references, and professional traditions. Across these categories, key didactic questions arise: What is learned? Why should it be learned? How does one learn?

Methodologically, the study explores how students and practitioners learn planning, based on the hypothesis that certain fundamental learning aspects are critical for professional competence. Empirical data include classroom observations, interviews, and questionnaires. The presentation will present the proposed framework, discuss its implications for planning education, and examine how it can prepare students to manage their future professional practise.

1769 | Bonnie J. Johnson

Re-invigorating the Technical with Art and the Avant-garde

Staff reports are the most ubiquitous written documents created by planners working for local governments around the world. Little is known about them, but they are often not easy to read or create. Their purpose is to take applications or proposals made by property owners for changes to the use of their land or buildings, analyze their viability in terms of governmental policies and goals, and then provide that analysis to elected or appointed officials to make their decisions. Previous research shows that staff reports have not changed much over time (Johnson & Lyles, 2016). The conundrum with these reports and others that planners are known for is best said by Sandercock (2003, p. 21) who notes that policy reports are "dry as dust. Life's juices have been squeezed from them." How can we bring life to these lifeless documents?

For this study, I am researching if changing how staff reports are taught in planning school can change what staff reports become. My hypothesis is that staff reports will not change unless we activate unusual ways of thinking about them. The teaching involves using art (Pinder, 2008), "fashion thinking"(Nixon & Blakley, 2012; Särmäkari & Vänskä, 2020), and avant-garde (jagodzinski, 2013) versions of staff reports to manufacture surprise. The results indicate that the process does break open preconceived notions of how staff reports must be written. The process allows student planners to "pull back the curtain" on their internal dialogues and "expert ways of knowing" (Wiske, 1998). Results of similar staff report research with planning commissioners indicate that this is the exact sort of information they are looking for in the staff reports (Johnson 2025). Unexpected results are students indicating that the process of creating the avant-garde staff reports helped with their mental health (Schweitzer, 2016).

1150 | Keisha Maloney

Developing Critical Consciousness in Planning Education

In the face of overlapping socio-ecological crises, some practicing and aspiring planners hope to transform governance systems through their professional praxis. Planning educators are thus challenged to prepare future practitioners with the knowledge, skills, and motivation that may enable systemic change. Grounded in liberation through education, engaging students in Paolo Freire's (1970) process of critical consciousness may enhance the professionalization of transformative planners. There are three components of critical consciousness: critical reflection - understanding the systemic roots of the issue, critical action - the ability to challenge those roots, and critical motivation - a commitment to challenge systemic oppression.

This research asks: How do various instructional approaches to planning education impact students' critical consciousness? A pre-post survey was administered in seven planning courses across three years of an undergraduate Urban Studies program to measure students' development of critical consciousness. 15 Likert statements were posed, each reflecting a core planning challenge and relating to one of the three components of critical consciousness. With over 600 survey responses, this paper shows how various approaches to planning education impact students' self-reported sense of critical consciousness. The results show that in theory-based courses, students report positively about their understanding of and commitment to systemic liberation. In experiential and community-engaged learning courses, students report more pessimism about the transformative potential of the planning discipline, but hold a more realistic sense of how change is initiated in governance systems. This paper argues that planning education can substantially impart critical consciousness by offering courses that

widen students' knowledge, and then refine understanding by applying knowledge in action, ultimately imparting a 'radically incremental' approach to planning. To ensure students remain motivated to engage in transformative praxis, planning educators should provide space for students to recalibrate their learning experiences across the program arc.

1841 | Laura Tate

Building Empathy Through Design: Integrating Planning Theory and Design Thinking in Interdisciplinary Undergraduate Education

Current undergraduate cohorts have experienced momentous upheaval: a global pandemic and the introduction of generative AI technologies. This has significantly challenged students' interpersonal skill development, including empathy (e.g. Yang et al, 2023; and Cerutti et al, 2024). Empathy is crucial for planners and those in related fields building sustainable communities, especially given the complexity of addressing social sustainability. Yet empathy is hard to teach, particularly given developmental delays impacting this cohort and ongoing geopolitically induced social challenges in today's classroom.

Inspired by studio pedagogy concepts of learning-by-doing and reflection-in-action (Hewidy et al., 2024), this presentation explores how combining equity-oriented planning frameworks (e.g. Zapata & Bates, 2015) with simplified design thinking methods (e.g. denDekker,) can build student empathy for marginalized groups. In so doing, it implicitly links inclusion for the marginalized with broader social and economic sustainability outcomes. The approach is implemented in an interdisciplinary undergraduate sustainability course (SD 381) where approximately 40% of students study planning, with others from business, sociology, criminology, and resource management.

Students begin by selecting a specific marginalized demographic group (e.g., suburban elderly men, working women concerned about transit safety, or parents balancing daycare and commuting). Through AI-facilitated empathy interviews, peer workshopping, and scholarly research, they scope out a corresponding transit promotion campaign. Later, students propose physical interventions—redesigning rapid bus stops and surrounding nodes—for the same demographic, incorporating transit-oriented development principles, ecosystem preservation, and behavior change strategies. The phased assignments' applied, low-barrier nature facilitates empathy development. Observed outcomes suggest that students move beyond superficial understandings toward nuanced recognition of systemic barriers while developing confidence that city-building interventions can meaningfully address marginalization.

The presentation will share specific assignment designs, discuss student work outcomes, and reflect on practical strategies for fostering transformative empathy skills in interdisciplinary undergraduate contexts.

1922 | Garyfallia Katsavounidou

Teaching is not lecturing: Implementing the science of learning to re-engineer the classroom environment in planning schools

In our current shifting environment of higher education, deeply affected by the rise of online learning and artificial intelligence, the challenge for planning schools lies in how to re-engineer the classroom

environment not towards more digitalization but towards quality face-to-face teaching. This pedagogical transformation cannot happen without acknowledging that instructors may be experts in their field, but not in teaching. In the past decades, the science of learning is developing exponentially, both through neuroscience findings on how the brain works and how learning happens (Medina 2009) and by innovative research in the field of Adult Education, which focuses on effective teaching methodologies required to meet learners' needs (Knowles 1990, Jerram 2002). However, university teaching methods appear to be uninfluenced by these phenomenal advances in the science of learning. Teaching often equates with lecturing, this century-old, one-directional communication of knowledge from the 'expert' (teacher) to the students (Oakley, 2019). There are much more effective ways to teach and evaluate complex thinking and learning than what is in use in the traditional class, such as active learning, in-class collaboration, retrieval practice, and peer instruction (Agarwal, 2019). Students and instructors find such innovative research-based teaching more rewarding, and with lasting long-term results (Wieman, 2019). The crucial questions are what kind of pedagogical knowledge university instructors need and how this expertise can be translated into teaching practice. This paper explores innovative teaching practices in planning curricula, based on two sources: a qualitative study through a questionnaire addressed to authors of papers related to pedagogy presented at the AESOP 2025 congress and a reflective assessment of teaching theoretical modules in a Greek planning school, in which active learning and Adult Education techniques are used. It examines these findings through the lens of the science of learning, offering a toolkit of transferable teaching techniques.

Collaborative education

Tue 30.6.16:00-17:30, Education and Skills, U271 U9 | Session chair(s): John D Landis

2353 | Claudia Cassatella, Isabel Loupa Ramos, Akito Murayama

Virtual Exchanges in Planning Education. A Blended Model

This contribution focuses on the potentials and limits of using virtual exchanges (VE) in Planning education, based on two case studies of Collaborative On-line International Learning experiences.

The use of VE in higher education has received increasing attention after the pandemic. There is a large consensus on the use of VE for acquiring "intercultural competence" in line with the UN SDG 4.7 "Education for sustainable development and global citizenship" (see, for inst., Tzoumis and Douvlou 2025). However, to date, literature on planning education has paid little attention to this opportunity; on the contrary, it has stressed the importance of training planners in real-world settings and by situated approaches. In particular, planning studio pedagogies are based on experiential learning. Indeed, first-hand experience of places, and dialogue with stakeholders are relevant for training the knowledge competences, but also for the value competence and for mobilising the interpersonal skills that allow for co-creation.

The increasing internationalisation of higher education (International Association of Universities, Global Internationalisation Survey 2024) poses new challenges to such place-based approaches (linguistic barriers, cultural bias,...) but also opportunities to train planners for global citizenship.

We tested the use of Virtual Exchanges in an international setting, as modules of didactical activities jointly organised and offered by two or more universities, which also included an intensive on-site design workshop. We discuss what components and phases of the teaching and learning process could be

substituted or assisted by virtual activities, and we conclude that the hybrid model (integration of online and in-person activities) seems the most suitable to integrate the benefits of intercultural collaboration and situated approaches.

2386 | John Accordino, Swantje Grotheer, Kirsten Mangels

International Planning Education – Collaborative, In-Person Learning to develop transformative skills in Trans-Atlantic Seminars

International knowledge and understanding are vitally important for twenty-first century planners, especially for the perspective they can provide about their own planning system and possibilities for improvement. In ten Years of Trans-Atlantic Seminar (TAS) in Urban & Regional Planning within the planning education programs at Virginia Commonwealth University, USA and RPTU University of Kaiserslautern, Germany we have gained a wealth of insights through intercultural exchange.

The contribution bases on a common study where we reviewed education literature and described the operation and student learning outcomes of a Trans-Atlantic Seminar that both universities have jointly offered for ten years. The account is based upon the results of confidential interviews with thirty-nine German and American students who have taken the Seminar. In this research we found preparatory readings, on-site discussions with practitioners, and collaborative peer-to-peer work, creates deep understanding and lasting learning. The TAS is one model that has worked reasonably well and transformative skills such as listening, co-creation and critical understanding of students general understanding of, and approach to, planning developed.

Our interpretation of the interviews of participants in the TAS is that it has furnished a learning and personal growth experience that reflects the benefits of collaborative, international learning identified by education scholars, which is reflected in the philosophies expressed by the German and American planning associations. Both the in-person aspect, especially personally experiencing the place whose planning system one is studying, as well as the multiple modes of learning entailed in the Seminar have, according to participants, contributed to its value as an effective learning and personal growth vehicle.

Ref.: Accordino, John, et al. “What Do Students Gain from Collaborative, In-Person, International Education? Ten Years of the Trans-Atlantic Seminar in Urban & Regional Planning.” JPER 45 (2024): 700 - 711.

1143 | Rolondus Rice, Brandon L. Toliver, Kwesi Daniels

Rethinking Planning Education in the Age of AI: The Tuskegee University Perspective

The advent of artificial intelligence is transforming the competencies required of future planners, calling for a redesign of planning education to cultivate technologically adept and ethically grounded professionals. This paper presents Tuskegee University’s approach to integrating AI literacy, planning ethics, and community engagement into its evolving curriculum. Rooted in Tuskegee’s historic “head, hand, and heart” philosophy—unifying intellectual rigor, applied skill, and moral purpose—the initiative aligns with the Tuskegee Renaissance under Dr. Mark A. Brown, which expands academic programs in high-demand fields such as AI and data science.

The reimagined planning program leverages student-driven and interdisciplinary strategies to prepare graduates to address complex spatial and social challenges. Signature innovations include co-designed courses that unite faculty from urban planning, computer science, and philosophy; applied workshops where students explore the use of machine learning in real-world planning scenarios; and mentorship networks connecting students with alumni and industry experts at the intersection of AI and the built environment. Students employ AI tools to analyze historical datasets—such as redlining patterns, infrastructure disparities, and environmental risks—while incorporating community voices to ensure contextual relevance and equity in problem-solving.

A sustained emphasis on participatory learning and data ethics reinforces accountability and underscores the social obligations of technological innovation. This integrative approach demonstrates that cross-disciplinary education more effectively equips students for complex, data-rich policy and design settings. By embedding AI case studies and ethical reflection into studios and seminars, Tuskegee University models how historically grounded institutions can guide the ethical adoption of emerging technology. This session positions Tuskegee as a case study for HBCUs and universities globally seeking to use AI not as a replacement for human judgment, but as a catalyst for innovation, equity, and empowerment in the planning profession.

1201 | Kay Bergamini, Marisol Peñailillo, Lucas Loayza

AI-Assisted Co-Creation of an Urban Planning Curriculum: The Case of the Pontificia Universidad Católica de Chile

The Pontificia Universidad Católica de Chile is developing a new undergraduate program in Urban Planning through an innovative, participatory, and AI-assisted process. Unlike traditional top-down curriculum design, this initiative involved academics, alumni, representatives from the public and private sectors, and students in a series of workshops aimed at defining the competencies, contents, and learning outcomes that characterize the contemporary urban planner.

The process was structured around iterative workshops focused on identifying core and applied contents, designing learning outcomes, and assembling the curricular structure. AI tools were used throughout to synthesize discussions, categorize topics, and generate preliminary curriculum drafts based on participant inputs. This made it possible to efficiently integrate multiple disciplinary perspectives, such as urbanism, geography, environmental studies, public administration, and design, into a coherent educational framework.

The resulting curriculum emphasizes interdisciplinarity, sustainability, and ethical responsibility. It combines theoretical, instrumental, and applied learning, with a strong digital component that includes spatial data analysis, GIS, and AI-based territorial modeling. The participatory process not only strengthened institutional collaboration but also fostered ownership and transparency in decision-making.

This experience demonstrates how AI can facilitate collective academic processes, enhancing inclusivity and analytical depth without replacing human deliberation. The methodology offers a replicable model for other universities seeking to design curricula in complex and evolving fields such as urban planning and environmental management.

2418 | Juliana Martins, Thorsten Wiechmann, Paulo Silva

Responding to Artificial Intelligence in Planning Education: A European Overview

Artificial Intelligence (AI) is having a transformative impact on both planning practice and planning education. While emerging scholarship has begun to explore the implications, opportunities, and challenges of AI adoption within professional planning practice, comparatively little attention has been paid to its influence on planning education. Yet the potential consequences are far-reaching -challenging established pedagogical approaches and assessment integrity, prompting the integration of AI-related competencies and content into planning curricula, and raising questions about students' creativity, critical thinking, and learning processes. For educators and institutions alike, AI also brings new demands for staff upskilling as well as new opportunities to enhance teaching quality, learning experiences, and administrative efficiency.

This paper presents results from a survey conducted among AESOP member schools across Europe. The study aims to provide an initial overview of how planning schools are currently responding to the challenges posed by AI - what strategies are being developed, what needs have emerged, and where gaps or deficits remain. It examines institutional responses through policy development, curriculum adaptation, assessment practices, and everyday teaching experience.

By mapping these developments across European contexts, this research contributes to emerging debates on the future of planning education in an era increasingly shaped by digital technologies. The findings offer insights into how educators perceive the role of AI in reshaping professional competencies and pedagogical priorities - and how planning education begins to navigate the opportunities and risks associated with this technological transformation.

Professional transformation

Tue 30.6.17:45-19:15, Education and Skills, U271 U9 | Session chair(s): Susa Eräranta, Hossam Hewidy

1098 | Paul Burton

The initial education of planners: reform or revolution

The initial professional education of planners in Australia takes place in universities through both undergraduate and postgraduate programs. There is currently a shortage of planners and employers in all sectors report growing problems of stress, overwork and burnout. At the same time, university planning programs have been closing around the country, mainly because enrolments have been at best modest, leaving them vulnerable to poor cost/benefit assessments by their host institutions. This presentation explores the many challenges facing university-based programs and reviews past and present attempts to deal with them in incremental, reformist ways. It proposes an alternative approach that allows a longer-term process of professional training and intellectual development, encourages greater collaboration rather than competition among university providers and welcomes other providers into the training and education system.

1213 | Meaghan McSorley, Darby Webb, Luke Ourednik, Kate Williams

Exploring Professional Identity Formation in the Reflections of Graduate Urban Planning Students

Professional preparedness is an enduring concern in planning education (Argyris & Schon 1992; Greenlee et al. 2015). While students often equate preparedness with technical proficiency, educators recognize that affective dimensions—such as values, judgment, and behavior—are essential to transformative practice (Greenlee et al. 2015; Forester 2013). Reflection plays a critical role in this development, yet planning educators need conceptual tools to guide students through the emotional and intellectual challenges of defining who they are as emerging professionals in a field reckoning with its own historical injustices.

This paper introduces Professional Identity Formation (PIF) theory to planning education and apply it through analysis of student reflections. PIF describes the iterative process through which individuals integrate the knowledge, skills, values, ethics, and behaviors of their profession into their pre-existing identities. Originating in medical education, PIF has been linked to outcomes such as enhanced personal resilience, improved patient safety outcomes, and physician retention (Fitzgerald 2020) — suggesting its potential relevance to planning educators seeking to prepare adaptive practitioners.

Drawing on grounded theory methods, we analyze three cohorts of American graduate students' Planning Philosophy Statements (PPS)—a reflective assignment inviting students to articulate their motivations, values, and positionality in relation to the planning profession. We find that many students use PPS to grapple with their changing motivation for becoming a planner as they come up against the challenges, realities, and tensions inherent in professional practice. Their statements demonstrate varying levels of PIF, with some students beginning to embrace their unique planner identity through language of personal responsibility (e.g., "our/my actions" vs. "the planners' actions") & engaging substantively with tensions between ideals and complex realities without attempting to resolve tension with platitudes.

This study advances reflection-based pedagogy in planning education and illustrates how attention to PIF can support students in developing resilient, ethically-grounded professional identities.

1918 | Catherine Brinkley

From Aristotle to AI: getting the good life with plan evaluation

Over 2,400 years ago, Aristotle collected and compared 158 city constitutions. His evaluation formed the basis of his recommendations in Politics and Ethics for achieving eudaimonia (the good life).

Though he continues to be at the hub of modern scholarly citation networks, his comparative planning approach blinked out somewhere along the way.

Today, few scholars are focused on plan evaluation; studies use only a handful of plans; and educators do not regularly teach students how to read plans. For the public, local land-use plans are still required to guide future development, but the plans are often difficult to locate on balkanized governmental websites. Once found, plans are full of jargon and difficult to understand-- making regional coordination

and plan engagement challenging. In sum, planning is awash with information-- but there is little informed guidance about what is in place and what works.

This research aims to bridge this gap with a focus on building a search engine for land-use plans in California covering 482 cities within 58 counties housing approximately 40 million people on 423,970 km2. We use open source software, making our approach replicable.

We note that California does not require plan formatting standards. Few plans list Meta data that would make webscraping easy. Plans were collected over a five year period, including visiting municipal libraries to create machine readable PDF scans of paper copies. More than a quarter of plans in use are out of date per state requirements. Due to the vast and varied language in plans, we indexed terms with ElastiSearch to create a high-fidelity term search. We piloted targeted policy identification and plan evaluation in a classroom setting of 75 undergraduates.

As governments increasingly embrace FAIR data standards (Findable, Accessible, Interoperable, and Reusable), this research showcases research and teaching tools for plan evaluation.

2482 | Sagar Shah, Petra Hurtado

Future-Ready Planners: Lessons from APA's Upskilling Planners Initiative

Planners today work in an environment defined by rapid and constant change—from politics and technology to climate and governance. The pace of this change is so great that many planners, across career stages, tell us that the education they received does not fully match the demands they face when they enter practice. In response to this growing gap, the American Planning Association (APA) launched the Upskilling Planners Initiative to answer a simple but important question: How can APA equip planners with the skills they need now and in the future to do their jobs effectively?

Over the past four years, we have worked with hundreds of planners through surveys, workshops, and trainings to understand their most pressing skill gaps and explore effective ways to address them. What we consistently hear is that these gaps are not about needing "more GIS" or "more zoning knowledge." Instead, planners emphasize skills they say they did not receive enough of in school: managing conflict in polarized environments, facilitating difficult conversations, building community trust, practicing active listening, communicating strategically in political contexts, navigating digital engagement, and using emerging tools—including AI—in ethical and practical ways.

This presentation will share lessons learned from building and iterating the upskilling program, with a focus on the skills planners say they lack now and know they will need in the future. It will explore what it takes to train planners in these skills. The session will also highlight the persistent gap between planning education and the practical use of these skills in the field. Finally, it will consider what these findings mean for planning schools and curricula and explore how educators, practitioners, and professional associations can work together to design learning environments that prepare planners for an uncertain, evolving, AI-influenced, and politically complex future.

2658 | Anja Standal

SITRAP and the Future of Planning Education: Integrating Lifelong Learning, Institutional Cooperation, and Professional Development

Norwegian planning education is increasingly shaped by lifelong learning principles, driven by national policy and institutional innovation. Universities are both running traditional full-time study programs as well as introducing flexible, modular teaching to accommodate professionals. In these programs, there is a strong emphasis on integrating practice and education. Employing methods such as experiential learning, co-creation working together with municipal planning authorities, and theory concerning interdisciplinary and practice-oriented learning. This enables us to build transformative competencies such as collaboration and ethical judgment as a means of address complex societal challenges.

Norway's Centre for Excellence in Education in spatial planning (SITRAP), plays a key role in this work and the national planning context by driving pedagogical innovation. Seeking to foster interdisciplinary collaboration and linking academic programs with lifelong learning initiatives to strengthen and develop the professional planning community.

The paper situates SITRAPs work within the evolving landscape of Norwegian planning education, examining its role in bridging ordinary study programs and programs for further education for individuals already in employment and life-long learning. Through a combination of research and a review of selected material from experience-based courses/programs in continuing education, we highlight the interplay between academic knowledge and practical expertise and so doing explore contemporary practice and potential for innovation. By linking practice with education and collaborative work across institutions in this way, we aim to better understand and strengthen the professional community of Norwegian planning. The paper contributes to contemporary discourse by outlining pathways for integrated lifelong learning, institutional cooperation between planning schools, practice and local authorities, to ensure Norwegian planners to address complex societal challenges.

Critical spatial pedagogies

Thu 2.7.11:00-12:30, Education and Skills, U271 U9 | Session chair(s): Catherine Brinkley

1963 | Sigríður Kristjánsdóttir

Rooted Form: Why Teaching Urban Morphology Matters in Planning Education"

Urban morphology—the study of the physical form of cities—provides planners with deep insight into how urban fabrics evolve, adapt, and persist. Drawing on the concepts in "The Roots of Urban Morphology", this presentation argues for the centrality of morphology in planning curricula. By exploring foundational thinkers (e.g., Conzen, Caniggia, Whitehand, Maffei) and key morphological principles, planners can develop a richer spatial literacy, noticing patterns in street networks, building typologies, and transitional zones that often go invisible in standard planning training.

Teaching urban morphology enhances planners' capacity to:

1. Understand the historical processes that shaped present-day urban form.
2. Diagnose spatial patterns that influence walkability, density, connectivity, and resilience.

3. Propose interventions that respect and reinforce existing urban grain rather than erasing it.

4. Bridge disciplines—including geography, architecture, history—to foster more holistic thinking.

In a time when planning education often emphasizes land-use models, big data, and algorithmic tools—without grounding in the physical form of cities—the inclusion of morphology is not a luxury but a necessity. This talk calls for a pedagogical shift: integrating morphological theory, analytical techniques (e.g., figure-ground mapping), and historic-typological thinking into planning programs, to cultivate future urban professionals who understand not just "what we build" but "how it grows, transforms, and endures."

2156 | Sarah Cooper

Teaching planning on stolen land: Reflections on pedagogy, practice and colonialism

Given the importance of land in professional planning, as well as in Indigenous Peoples' resistance to colonial claims to land, how can planning schools in settler colonial countries recognize and address their complicity in preparing students to uphold settler colonial regimes of power? Professional planning in Canada is a practice of the Canadian state, and is frequently seen as a progressive practice towards a better future (Marcuse, 2011). However, the Canadian state's legitimacy is often challenged and critiqued by Indigenous Peoples intent on reclaiming and reasserting their rights, including their right to self-determination and to make decisions about their lands and territories (Pasternak & King, 2019). As such, there is a contradiction inherent in professional planning practice: its ability to act progressively is limited by its constitution as a colonial practice. How then can we prepare students to uphold Indigenous rights while navigating the complexities of planning in a colonial context?

This paper seeks to answer the above questions through two lenses. First, I develop a theoretical emplacement of professional planning in a settler colonial context (following Dorries, 2022; Porter, 2010). Second, I reflect critically (Crawley, 2012) on my experiences teaching Planning Theory and the Indigenous Planning Studio (a course where students work with a First Nation on hands-on projects identified by the partner) in the Master of City Planning program at the University of Manitoba, Canada, and in co-leading the development of a reconciliation action plan for the Faculty of Architecture. These analyses interrogate professional planning as a progressive practice, and argue for a more explicitly anti-colonial form of planning pedagogy in settler colonial contexts.

2220 | Timothy Ross, Ronald Buliung, Tanya Titchkosky, Paul Hess

Engaging Disability Theory in Planning Practice

Disability in planning education and practice is widely under-theorized. Normalized ableist values within planning education and practice have contributed to persistent inattention to the experiences and needs of disabled people, as well as many theoretical disability perspectives. This presentation will consider key findings and points from our published commentary, which suggests that planners must respond to normalized inattention to disability in the planning field by developing a more robust theoretical

grounding in disability. To support engagement with disability theory in planning research and practice, we consider five theoretical disability perspectives with a view to providing scholars and practitioners with a disability theory toolkit. The perspectives are: (1) the medical, (2), social, and (3) biopsychosocial models of disability; (4) a neoliberal viewpoint on disability; and (5) a critical ableist studies lens. In presenting each perspective, a planning scenario will be considered to show how the perspective can inform a planner's understanding of and actions toward disability in different ways, thus enhancing thought about disability, accessibility, and inclusion. Planners are encouraged to reflect on the disability perspective(s) they employ and how it influences their planning research and practice, which in turn affects the daily lives of disabled people. This presentation will also show how disability is overlooked in planning education (e.g., inadequate disability representation among planning faculty and students, inattention to disability in planning journals, and a lack of disability consideration in planning program curricula). Our presentation concludes with a call on planning practitioners, educators, and institutions to embrace disability theory and the complexity of both disability experiences and theories. This will help planners to move beyond depoliticized and individualized approaches to disability and, in so doing, contribute to unsettling the normalcy of disabled people's exclusion in planned environments.

2550 | Johan Pries, Lorena Melgaço

Scaling up planning education? On the changing scalar imaginations of Swedish planning and planning pedagogy

The possibilities and constraints of spatial planning tracks closely with the scalar politics embedded in the legal instruments available to planners. In Sweden, planning has relentlessly focused on, and taken place at, the municipal scale. Regional, national and transnational tools have largely been used by planners in improvised and non-statutory ways beyond the realm of formal planning. This, however, seems to be changing. Attention to regional governance in the country, which can be trace to its joining the EU in the 1990s, seems to have been accelerated by a recent change to the legislative framework. Since 2019, three regional authorities, Stockholm, Skåne and Halland, have been tasked to pilot statutory regional spatial plans. The possibilities and constraints of this new scale of planning is still being explored and shaped in professional practice, in scholarly research and in planning education.

Against this background, we ask how planning education can combine critical analysis with the changing scalar politics of planning practice in Sweden. Teaching future planners to work across scales requires novel ways of connecting research, practice and pedagogy. On the one hand, we educators need to address the paucity of research, and on the other, restructure pedagogical projects to better understand and incorporate regional planning in the Swedish context.

In this presentation, we draw on a series of interviews and workshops with planners to reflect on the opportunities and challenges brought by the scaling up planning education to meet the changing scalar politics of planning practice. Further, we reflect on the way we teach students to use their critical faculties in practice towards new perspectives on new, bigger and more complex problems.

2651 | Zeynep Eraydın, Elif Merve Nalçakar

Reimagining Planning Education through the Urban Chronotope: A Pedagogical Experiment in Studio Learning

Recent shifts in planning education have increasingly prioritized problem-solving and technical efficiency, while the theoretical foundations that once supported innovative thinking have struggled to generate new conceptual frameworks. This situation has gradually weakened creativity within planning pedagogy. Over time, the constraints experienced in educational settings become amplified in professional practice, limiting the discipline's capacity to renew itself and respond to emerging urban challenges. As a result, studio courses—traditionally the core spaces for experimentation in planning education—now face the urgent need to adopt innovative pedagogical programs that foster critical, imaginative, and exploratory thinking.

In response to this need, the TEDU City Planning Studio introduced an alternative approach through the development of the urban chronotope, offering students a distinct way of conceptualizing and engaging with urban complexity. The concept of the chronotope, originally articulated by Mikhail Bakhtin, refers to the intrinsic interconnectedness of temporal and spatial dimensions. In its simplest terms, chronotopes can be understood as narratives of space–time settings, where a topos—a place, figure, or condition—embodies chronos, the layers of time.

Applied to urban studies and planning, the chronotope highlights that urban places cannot be understood solely through their physical morphology; they are equally shaped by accumulated temporal traces, historical experiences, and cultural practices. A street, a square, or a riverfront carries multiple layers of meaning formed through past uses and transformations. Approaching urban space chronotopically encourages students to recognize the coexistence of these time-layers and to construct design ideas that reinterpret, challenge, or project them into alternative futures. This paper discusses the structure, implementation, and outcomes of the urban chronotope method as an innovative studio pedagogy. It argues that such temporal-spatial thinking fosters deeper critical reflection, enriches creativity, and offers a renewed pathway for re-imagining planning education.

Sustainability pedagogies

Thu 2.7.14:00-15:30, Education and Skills, U271 U9 | Session chair(s): Susa Eräranta, Christine Mady

2752 | Ender Peker, Aybuke Balahun Coban

Teaching Climate Responsive Urban Design: Exploring Its Pedagogical Value in Planning Education

Cities face intensifying pressures from climate change, and planning education must equip future planners with the capacity to produce climate responsive environments. This study examines the pedagogical value of teaching climate responsive urban design (CRUD) within planning curricula. It adopts a qualitative approach supplemented by quantitative tools and is structured around one exploratory and two quasi-experimental research questions: (1) What is the significance of integrating CRUD in planning education? (2) Which components of CRUD contribute to learning, and to what extent? (3) What are the most effective pedagogical methods for teaching CRUD?

The research uses CRP446 Climate Responsive Urban Design—an elective course offered at Middle East Technical University—as a case study. 45 students from three academic terms participated voluntarily in a survey containing open- and closed-ended questions, complemented by a focus group. Open-ended responses provided qualitative insight into students' learning experiences, while Likert-scale items enabled quantitative assessments of CRUD course content such as climate–city relations, multi-scalar design thinking, thermal comfort, green and blue infrastructure, water sensitive urban design, nature-based solutions and climate justice. Students also evaluated teaching methods including lectures, seminars, field visits, group work, co-design workshops, one-to-one critiques, and final group projects.

The qualitative component is anticipated to reveal how students frame and interpret their learning experiences within planning education. The quantitative analysis helps identify which CRUD components most strongly align with students' perceived learning outcomes and which teaching methods appear to foster deeper engagement and understanding. By combining these two strands of data, the study aims to articulate how CRUD can be meaningfully incorporated into planning curricula and which dimensions of the course hold the greatest potential for enhancing climate responsive competencies.

1818 | Mari Kågström, Juliane Biehl, Charlotta Faith-Ell, Gesa Geißler

Navigating Context and Complexity: Pedagogical Insights from Environmental Assessment Teaching

Environmental assessment (EA) is a key instrument for planning, imagining and evaluating sustainable futures, yet its pedagogical foundations within planning education remain underexplored. This paper examines how EA is taught and conceptualised in higher education in Sweden and Germany, focusing on educators' key messages, pedagogical approaches, and perceived challenges.

Drawing on interviews and curriculum analyses, the study explores not only how EA teaching is organised and which contents and competences are in the focus, but also the contextual conditions that shape it – such as institutional settings, interdisciplinary collaboration, and educators' room for pedagogical improvements.

Findings indicate that EA teaching offers scope for developing diverse competences and engaging students with complex theory–practice relations, while also revealing tensions between normative sustainability goals and disciplinary traditions.

In addition to the empirical study, the paper presents a conceptual framework that connects observed teaching practices with insights from sustainability competence literature, offering a three-dimensional lens (knowledge, skills and attitudes) for considering how planners might be better prepared for decision-making that involves environmental and social trade-offs.

At the conference, the paper will use these insights to open a discussion on what lessons from EA pedagogy and its enabling conditions might mean for planning education more broadly, particularly in fostering reflective, inclusive, and context-sensitive learning environments for future planners.

2944 | Jennifer Minner, August Guba

Brighter Futures: Youth Illuminating Circularity and Reuse in the Built Environment

Circularity offers a powerful framework for reimagining urban futures. When applied to cities and the built environment, circularity involves the continuous reuse of buildings and building materials at their highest utility, reducing waste and pollution associated with demolition, and conserving embodied carbon. This is particularly important for planners, whose plans and recommended policies can result in the demolition or repurposing of buildings and shape the built environment. Circular city frameworks and policies are much better known in European cities, while in North America, they are not recognized by either policymakers or the general public. This presentation centers on the experiences of creating and implementing a youth program that brings together university students with high school students in the Binghamton tri-city area of New York State in the USA. In the program, youth co-researchers apply circularity to their community to envision more sustainable and equitable urban futures. The youth program has experimented with a variety of methods over three years of its operation, including estimating embodied carbon, zine-making, Photovoice, storyboarding artistic approaches to interpreting local history and circular futures using animated building projections, and crafting local deconstruction and reuse policies. This presentation offers insights on place-based curricula and community engagement and takeaways for those interested in engaging youth with circularity, city planning, and historic preservation.

1184 | Sofia Wiberg, Pavel Grabalov

Cultivating phronetic competence through reflective narratives: A pedagogical approach to lifelong learning in the Scandinavian built environment

To achieve sustainability transformation, it is not enough to have excellent technical skills and advanced theoretical models. Many sustainability-related issues are unpredictable and emerge in the encounter with everyday professional practices. Working for transformation involves navigating goal conflicts, power dynamics, and ethically complex situations. Addressing these challenges requires a deeper contextual understanding and the ability to make well-grounded, situation-specific judgments – an ability known as phronesis, or practical wisdom. Phronesis cannot be learned through manuals or theoretical texts; it develops through engagement in real-world contexts combined with time and space for reflection.

This paper explores pedagogical approaches to foster phronetic competence by sharing experiences from three continuing education courses for professionals working in the built environment in Sweden and Norway. Participants were asked to write first-person reflective narratives based on professional experiences that were difficult to manage, problematic, or caused friction. These narratives were later used as the basis for collective reflection and dialogue.

While reflective assignments are well established in planning education, we extend this discussion by situating reflection within continuing education and linking it explicitly to phronetic learning. The practitioners' narratives reveal the complexity of roles, processes, and ethical dilemmas they face in their daily work. Our experience highlights both the potential and challenges of this approach – such as building trust, enabling vulnerability, and creating a safe space for reflecting on ethically demanding situations without the need to find immediate solutions.

We conclude by discussing how reflective practices can be scaled and sustained in professional education and how educators might assess or support the development of phronetic competence over time. These pedagogical challenges point to the need for continued exploration of lifelong learning methods that strengthen practitioners' capacity to navigate the complexities of sustainability transformation in the built environment.

1274 | Amy Lerner, Mor Shilon

Embedding Sustainability and Climate Change into Planning Pedagogy: A Review of Pedagogical Approaches

Climate change and the need for sustainable settlements require integrating sustainability into planning education. While planning traditionally addresses inequality and diversity, environmental concerns are less central. To address this gap, we review tools in Higher Education for Sustainable Development (HESD) to apply them in urban planning education to advance sustainability. Through an extensive literature review, we identify key approaches to be integrated into planning pedagogy: inter- and trans-disciplinarity; reflexivity; project-based learning; and role-playing games. We conclude that bolstering a post-anthropocentric perspective, where nature and the environment are prioritized, would improve the role that planners play in shaping sustainable futures.

Engaged pedagogies

Thu 2.7.16:00-17:30, Education and Skills, U271 U9 | Session chair(s): Tommy Lindgren

1322 | Javier Martinez, Funda Atun, Martin van Hooijdonk

Children's geo-citizen science: transformative learning with primary school pupils

Geo-citizen science can engage communities, support societal transformation, and recognise how different forms of knowledge contribute to science. In urban planning, geo-citizen science with and by children can advance child-friendly cities and amplify children's voices in planning decisions. As part of a transdisciplinary collaboration, we implemented an active research framework with a primary school in our city. Guided by a transformative learning stance, we shifted pupils from recipients of knowledge to critical and creative co-researchers. We co-developed the research with a group of pupils, their teacher, a visualisation artist, and an urban planner.

The research explored climate-resilient cities and well-being through a guided tour on nature-based solutions; co-teaching on citizen science, climate-adaptive cities and well-being; participatory, map-based surveys; and the preparation of an exhibition with the support of a visual artist. Our aim was to propose actions that support structural transformations in cities to reduce the impacts of climate change. The project concluded with presentations from children to a broader audience and a poster exhibition.

Reflections show that children practised and promoted the European Union's Plan for Children's Rights, particularly the right to participate in decisions affecting their lives. Collaboration with local government increased consideration of children's perceptions of climate-related problems and potential solutions in their community. We observed transformative learning outcomes, including empathy, co-creation, and

reflective judgement on pupils' everyday environments. Presenting findings in an artistic format increased public awareness by communicating scientific knowledge produced by children.

2907 | Christian Peer

Planning educational landscapes for sustainable development

Education is widely regarded as the key to shaping a desirable future. It operates within the tension between historically evolved structures and contemporary demands arising from social and ecological change. Both present and future transformations are marked by a high degree of complexity and a broad spectrum of involved actors. Given the diverse individual, collective, and systemic conditions and interests at play, education reveals itself as a multifaceted and often instrumentalized concept that is culturally determined and politically contested. Negotiation processes concerning future learning environments are therefore both inevitable and intrinsic to democratically constituted societies and their practices of social and transformative learning.

Drawing on the changing role of knowledge production in education and spatial development in the context of sustainability transformation, this article presents experiences from attempts to establish novel inclusive educational infrastructures and educational landscapes in cities and urban neighbourhoods. With regard to university planning curricula, the article refers empirically to experimental developments in the educational landscapes teaching module at the Faculty of Architecture and Spatial Planning at TU Wien. It shows how, since the mid-2010s, innovative developments in educational infrastructures have gone hand in hand with a shift towards inter- and transdisciplinary experimental governance and a gradual change in the university education of architects and planners. Opportunities and challenges of transformative learning and learning settings are critically reflected upon, as are underlying sometimes contradictory concepts and technological aspirations. Given the complexity and dynamics of societal innovation processes, critical reflection on the instrumentalization of education has become an increasingly vital aspect of transformative learning. In this sense, education always carries both an orientational function and a mandate for action.

1619 | Rachel de Castro Almeida, Viviane Zerlotini da Silva, Isis Detomi

Urban learnings and inequalities: living cartographies of youth in Belo Horizonte (Brazil)

The research focused on understanding the urban experiences of peripheral and elite youth in Belo Horizonte (Brazil), investigating how different socio-spatial conditions shape perceptions, practices, and senses of belonging in the city. Conducted throughout 2024 as part of the YOUTH Consortium, in partnership with four universities from Austria and Israel, it adopted an exploratory and qualitative approach, combining focus groups, social mapping, and self-narration.

More than a data-gathering exercise, the methodology sought to challenge dominant paradigms about youth and the city by incorporating diverse knowledges, practices, and worldviews. These experiences trace a living cartography of times, bodies, and practices, where youth cultures express urban learnings that question hegemonic planning pedagogies and propose ethical, creative, and collective ways of imagining and producing the urban.

In Belo Horizonte, the Brazilian research team established a partnership with a non-governmental organisation active in youth policy. Beyond facilitating access to peripheral youth, this collaboration aimed to promote joint data analysis and political engagement. Access to elite youth, in turn, was achieved through snowball sampling, beginning with one participant who referred others within their social circle.

The focus groups, held separately with each social group, encouraged open conversations about trajectories, mobility, barriers, and experiences of exclusion. The social mapping activities visually represented everyday routes, meeting places, and symbolic boundaries, while self-narratives provided socio-economic context and family trajectories.

Conducted with ethical rigour and continuous reflexivity, the process was shared in international exchange spaces, such as the YOUTH Spring School 2024, and publicly presented at the OKUPA event in Belo Horizonte — a forum for debating the right to the city and the cultural expression of peripheral youth. These initiatives reinforced the project's commitment to engaged methodologies and to the construction of more just, grounded, and hopeful urban futures.

1857 | Andrei MITREA, Vlad COCHECI

Playing the City: Teaching Planning Operations and Negotiating the Public Interest

In Central and Eastern Europe, urban development is increasingly shaped not by regulatory plans but by planning operations—project-based, negotiated, and financially assembled interventions emerging from structural fragilities. Restitution, privatisation, land scarcity, municipal undercapacity, and intensifying litigation have hollowed out the authority of zoning and comprehensive plans. As disputes move from planning boards to courts and public land reserves vanish, cities govern through operational deals in which financial structuring, risk allocation, and legal defensibility outweigh regulatory intent. Yet planning education continues to train students for a regulatory paradigm that no longer exists in practice.

This exercise presents a pedagogical response: a master-level studio in which students translate the institutional and financial architecture of a planning operation into a serious game. Working with real urban sites, they analyse functional programmes, institutional actors, funding streams, expenditure flows, and contract models, then convert these elements into game mechanics that make scarcity, power asymmetries, and negotiation dynamics visible and playable.

The studio unfolds in two sprints: first, analytical decomposition of a planning operation; second, synthesis into a playable prototype tested collaboratively across teams. Through iterative play, students identify leverage points, track risk flows, and see how outcomes emerge from misaligned incentives and competing interests. The method decentralises expertise, foregrounds situated knowledge, and embraces conflict as a learning device—mirroring the contested realities of contemporary Central and Eastern European cities.

By framing planning operations as systems to be played, contested, and redesigned, the exercise cultivates strategic, ethical, and imaginative capacities essential for traversing post-regulatory urbanism. It demonstrates that serious games can provide a critical, practice-oriented pedagogy, equipping

planners to engage with the negotiated, financially constrained, and contract-based futures increasingly shaping urban development across the region.

1578 | Alexandra Gomes

Kuwaitscapes: An experiential and inclusive Card Game approach to Planning Education

Urban planning and design in Kuwait, as in other Gulf countries, have long been shaped by technocratic, top-down approaches that prioritise policy and infrastructure over people. The resulting urban form - designed for cars rather than communities - has had lasting effects on mobility, health, social interaction, and environmental quality. Research has demonstrated these impacts; however, evidence-based findings alone have not been sufficient to influence policy and decision-making, making teaching and public engagement fundamental tools for shaping the mindsets of newer generations.

In response to this challenge, Kuwaitscapes was developed as an experimental, research-based card game that seeks to bridge the gap between teaching, research, public engagement, and spatial literacy. Developed through a collaboration between LSE and Kuwait University, the game translates empirical insights about Kuwait's public spaces into an accessible and playful format that encourages participants to think critically about the lived experiences of others in urban life.

While initially conceived as a tool for public dialogue, Kuwaitscapes has also proven to offer an alternative pedagogical model for planning education. By situating learning within a collaborative, creative, and locally grounded process, it nurtures skills often marginalised in conventional planning curricula - empathy, storytelling, ethical reflection, spatial awareness, and co-creation. The game's participatory format decentralises expert authority, inviting students to engage critically with current urban realities and to imagine more inclusive and sustainable futures.

This presentation reflects on Kuwaitscapes as both a serious game and a pedagogical experiment: an exploration of how playful, experiential tools can foster transformative learning within and beyond formal educational contexts. Using the cases of Kuwait and Oman, it demonstrates how, when used in teaching, the game fosters reflective, situated, and inclusive approaches to urban assessment and design, contributing to a shift away from the dominant technocratic planning paradigm.

Studio-based learning

Thu 2.7.17:45-19:15, Education and Skills, U271 U9 | Session chair(s): Christian Peer

2460 | Riny Sharma, Rolee Aranya, Anna Selmeczi, Mercy Brown-Luthango

Reflecting on localized urban studios as a critical pedagogical space for southern urbanism: experiences from North-South and South-South academic communities

This article examines the appropriateness of applying critical pedagogy through studio-based learning as a way to engage with southern urbanism and respond to postcolonial critiques of urban planning.

Anchored in scholarship on Southern Urbanism, the Southeastern turn in urban studies, and critiques of planning's disciplinary biases, particularly its treatment of informality, we argue for pedagogical approaches that foreground contextualized urban practice, lived experience, and reflexive, situated learning. These theoretical positions highlight the need for planning education that moves beyond universalized models toward approaches that cultivate critical reflection, unlearning, and co-production in specific socio-spatial contexts.

The empirical sections present planning programs from the School of Planning and Architecture, Delhi, University of Cape Town and Norwegian University of Science and Technology Trondheim. Each program has developed studio-centered pedagogies shaped by institutional histories, evolving priorities, and changing urban conditions. We trace how these programs integrate fieldwork, participatory methods, interdisciplinary collaboration, and reflective practice, showing how studios have served as key platforms for pedagogical evolution.

Each program interprets context differently, using grounded practice, experiential engagement, and situated knowledge, and these differences enhance pedagogical diversity. A brief reflection on NTNU's 2022 fieldwork in Kochi, India, illustrates how faculty from the three institutions engaged in comparative pedagogical reflection. This encounter provided opportunities for cross-learning, mutual critique, and dialogue around how fieldwork methodologies adapt across institutional and geographic contexts.

The discussion synthesizes collective reflections from faculty across the programs, identifying differences and similarities in how critical pedagogy is interpreted and enacted. We examine the insights gained through applying critical pedagogy, particularly regarding contextualization, questions of scale, and the extent to which our experiences confirm, extend, or challenge ideas within southern urbanism. We conclude by showing how studio-based critical pedagogy can contribute to more grounded, adaptive, and reflexive planning education across diverse settings.

1206 | Rosanna Rivero, Umit Yilmaz

Studio and Geodesign Pedagogies in Practice: Case Studies in Georgia, USA

Studio-based pedagogy, once central to U.S. planning education, has its roots in the physical design traditions of architecture and landscape architecture, where it fostered spatial literacy, iterative problem-solving, and place-based engagement. Over the past century, however, the ascendancy of policy analysis, social science methods, and non-physical approaches has diminished the role of spatial and design skills in accredited curricula in the USA. This presentation offers an alternative proposal for a studio-based, multi-scale curriculum, featuring several case studies, that draws on a 15-year experience in Georgia, USA. Some of these cases originated from experimental implementations that incorporated ideas from Geodesign, an iterative and collaborative framework developed by researchers and practitioners (Steinitz, 2012; Carr and Zwick, 2007). Emerging pedagogical approaches in design education emphasize transdisciplinary collaboration, reflexive practice, and integration of digital technologies to address complex societal and environmental challenges. These models move beyond the traditional master–apprentice studio format, advocating for more inclusive, participatory, and context-responsive learning environments that prepare students for rapidly evolving professional landscapes (Oxman 1986). As part of our study, we assessed over 50 PAB-accredited programs to validate our

approach. In addition, our geodesign studios, offered as the third of three 3-studios, that start from local, to city-wide, and regional, have proved to provide additional benefits, but allowing studios to combine technical and design skills within a collaborative framework. Student recruitment and evaluation, job placement, and employer feedback indicate that this approach has been effective as an alternative to existing planning programs in the USA.

1946 | Priyam Das, Sandy Jiyoon Kim

Learning to Plan, Planning to Learn: Student and Client Experiences in Graduate Urban Planning Practicums

Practicum courses are a cornerstone of graduate urban planning education, providing opportunities for students to apply theoretical knowledge to real-world challenges while offering community and organizational partners meaningful planning insights. Although scholarship in this area has largely focused on student learning outcomes, recent work has urged educators to intentionally design supportive spaces that cultivate both analytical thinking and affective learning, helping students build self-awareness, navigate challenging turning points, and ultimately foster lasting personal and professional transformation. Yet, clients' perspectives and the relational, ethical, and power-laden dimensions of collaboration remain underexplored.

Grounded in communicative and collaborative planning theory, reflective practice, and critical planning approaches, this study investigates both student and client experiences in practicum courses, exploring how negotiation, reciprocity, and institutional structures shape learning and outcomes. Drawing on qualitative data from interviews, structured reflections, and evaluations gathered over four academic years, the analysis is informed by the experiential learning cycle and communities of practice framework.

Findings indicate that practicum courses are transformative for students' professional identity and skills, while clients benefit from innovative analyses, though challenges arise around expectations, scope, and timelines. By bridging theory, pedagogy, and practice, this paper contributes to planning education literature by illustrating how structured experiential learning can foster reflective, justice-oriented practitioners. By examining both student and client experiences, it offers practical guidance for designing graduate urban planning practicums that balance learning objectives with community impact, and highlights strategies for enhancing collaboration, reciprocity, and reflective learning.

2616 | Birthe Uhlhorn, Tigran Keryan, Verena Radinger-Peer

Living Labs as Catalysts for Transdisciplinary Knowledge Production and Competence Development

Living Labs have emerged as promising learning and experimentation environments where students, researchers, and societal actors collaboratively engage in sustainable transformation processes. As practice-oriented, reflexive, and co-creative settings, they foster key competencies increasingly required in planning education—such as systems thinking, futures and design literacy, inter- and transdisciplinary collaboration, and normative reflection. Yet, little is known about the organisational conditions that

enable Living Labs within higher education to fully unfold their transformative learning potential and support integrated knowledge creation.

This contribution presents initial insights from a comparative study of Living Labs across seven European countries (Germany, the Netherlands, Finland, Austria, Lithuania, Greece, and the Czech Republic). Building on Schneidewind et al. (2018), the analysis examines how actors draw on, reproduce, or transform existing rules and resources, and how these dynamics shape collaborative and transdisciplinary knowledge production as well as the development of transformative competencies. It further examines how the respective Living Lab formats enable targeted skill and competence development.

The findings highlight that Living Labs can strengthen competence development in meaningful ways—particularly by enabling iterative experimentation, cross-boundary collaboration, and shared reflection on complex sustainability challenges. At the same time, the study shows that their transformative potential remains fragile when institutional support, continuity, and legitimacy are not sufficiently secured. The contribution offers impulses for planning pedagogy and higher education strategies aimed at embedding inclusive, transdisciplinary, and future-oriented learning spaces as central elements of sustainable planning education.

1513 | Xiao Ma, Dejan Malenic, Sam Holland, Leonardo Nogueira de Moraes, James Thompson

Virtual Exploration: Virtual Site Visits as a Pedagogical Framework

Site Visits have traditionally been cornerstones of planning education, allowing students to develop contextual decision making skills. However, instructors are often limited to nearby locations when choosing site visits due to logistical, budgetary or accessibility constraints. Traditional site visits tend to be similar, preferring places that are accessible in large urban centres near universities, which limits students' exposure to the diverse cultural contexts of rural, international or marginalised communities. Using two Virtual Site Visits (VSVs) deployed across undergraduate and postgraduate subjects in urban planning, we develop a framework for successful VSV integration into build environment pedagogy, contributing to a theoretical foundation for innovation in urban planning education.

VSVs are most effective when they are not simple like-for-like replacements for traditional site visits and instead leverage the unique aspects of digital technologies. Incorporating a range of technological tools including 3D modelling, drone footage, 360 photos and videos, and video interviews, our VSVs explore two sites that would have been inaccessible in the past. In Bandung, Indonesia, the VSV explores an informal settlement that has traditionally been closed to foreign visitors. Meanwhile, in Melbourne, Australia it examines an industrial renewal site that is too large to visit physically. We found that the VSVs were more effective at exposing students to new perspectives and challenging biases than traditional classroom activities, facilitating cultural awareness, empathy, and place based decision making.

We assessed student engagement and learning outcomes through likert scale surveys and two student focus groups. The responses showed very strong engagement among the student cohorts; highlighting the need for student led learning, interactivity, multi-modal delivery of content, peer interaction and

assessment integration when designing VSVs. Critically, we find that a curated experience that leaves some room for freeform exploration of the sites resulted in the best learning outcomes.

1164 | Anna Juliane Heinrich, Maxi Heitmayer

Educating for Hybridity: Studio Pedagogy and Transformative Skills in Planning Education

Digital infrastructures—especially mobile devices and applications—and physical environments increasingly merge, creating hybrid spaces that imbricate and augment tangible surroundings with virtual layers, data flows, and digital connections. Daily life around the world is shaped by these entanglements: by navigating with apps instead of wandering, by locative media that guide our choices of cafés, and by algorithmic feeds that influence how we experience public spaces. Yet while this hybridity is lived reality, its implications for planning practice remain poorly understood. Planners must urgently engage with these hybrid spatialities, and this contribution explores how planning education can respond—rethinking not only what is taught, but also how.

Drawing on a Bachelor-level research and design studio in Urban and Regional Planning at Technische Universität Berlin, the contribution presents a pedagogical approach that integrates empirical inquiry with design experimentation. Through research-led teaching, students became both investigators and co-creators: using digital tools—a mapping app and first-person video capture ("subcams")—they studied everyday spatial experiences in Berlin, developing typologies of hybrid spatial practices and spaces and design proposals while critically reflecting on how technologies shape perception, interaction, and urban life.

The studio functioned as a laboratory for integrating research-led teaching, design thinking, and critical digital literacy. By working as both researchers and designers, students developed transformative capacities—reflexivity, ethical judgement, and creativity. The findings demonstrate how inclusive, situated, and technology-aware pedagogies can bridge theory, practice, and lived experience. Linking to the WPSC 2026 theme "Peripheral Visions – Rethinking Planning", the contribution positions hybrid and research-led studio teaching as a means to recentre planning education around inclusivity, experimentation, and co-creative imagination—skills urgently needed for sustainable and just futures.

Critical AI pedagogies

Fri 3.7.09:00-10:30, Education and Skills, U271 U9 | Session chair(s): Susa Eräranta, Paulo Silva

1737 | Asma Mehan

Educating the Post-AI Planner: Rethinking Competencies and Ethics in an Algorithmic Planning Landscape

The rapid expansion of artificial intelligence is reshaping not only the tools available to planners but also the epistemologies, ethics, and institutional responsibilities that underpin the planning profession. As generative AI, predictive modelling, and automated decision-making systems become embedded in governance and design processes, planning education faces a critical moment of transformation. This paper argues that the emergence of what may be termed the "post-AI planner" requires a fundamental

rethinking of pedagogical priorities, moving beyond technical proficiency toward a deeper engagement with the socio-technical systems that increasingly mediate planning knowledge and practice.

Current debates within the AESOP–ACSP Task Forces on AI in Planning highlight that AI is no longer an optional add-on but a structural condition that will shape how future planners interpret spatial data, negotiate stakeholder interests, and evaluate policy outcomes. The challenge is twofold: planners must learn to work with AI systems while also developing the judgment necessary to question, contest, and redirect their outputs. This requires cultivating competencies in algorithmic literacy, ethical reasoning, and critical data perspectives, particularly in relation to bias, transparency, and the uneven social impacts of automated decision tools.

Drawing on empirical insights from teaching, research laboratories, and community-engaged studios, the paper proposes a pedagogical model that integrates critical reflection with applied experimentation. Rather than treating AI as a purely technical domain, planning education should foreground its political and ethical dimensions, preparing students to navigate issues of surveillance, accountability, labour transformation, and the shifting boundaries of professional expertise. The aim is to produce planners who are not displaced by automation but who can strategically shape AI's role in urban governance. By reframing planning education around critical agency, democratic values, and socio-technical awareness, the paper contributes to developing an internationally relevant framework for a resilient and responsible AI-augmented planning profession.

2644 | Steven Forrest, Bianca Kronemann

Critical AI Pedagogies in Higher Education for Students to Explore Career Pathways

Artificial intelligence brings both challenges and opportunities for universities as it reshapes education. A challenge for educators is in supporting students to use AI whilst ensuring it is inclusive and fosters critical thinking skills. This project students' critical thinking skills in designing career pathways to support Sustainable Development Goals.

Different modes of instruction were explored to assess their impact on students' critical thinking skills when focusing on a specific task. The task was for students to self-reflect on their strengths, aspirations and skills to explore potential career pathways. Students participating in the project set out to complete this task through different forms of interaction consisting of i) paper-based activity sheets supporting self-reflection on values, aspirations and skills; ii) AI-based conversations through web browsers with inputs typed in by the students who then read and engage with the responses; iii) a real-time Mixed-Reality conversation with an AI avatar.

The critical reflection and thinking skills of students were then compared to understand the differing extents of critical thinking and self-defined 'success' of the methods. The initial implementation involved a diverse cohort of 14 students (ranging from Bachelor to Master students) that reflected the varied knowledge required for urban planning. Data was collected through pre/post-workshop surveys, debrief discussions, participant observation and analysis of the transcripts from the AI interactions to examine critical thinking through different levels of interaction on the topic of career pathways.

Engagement varied with the web browser conversation leading to the lowest critical engagement with career pathway exploration. Findings suggest that AI presented benefits of greater knowledge depth and exploration of 'what could be'. However, the Mixed-Reality interaction (and group discussion) led to students becoming more critical of the value of AI, its formulaic responses, the real-world value, and the ethical aspects of AI in education.

1142 | Tommy Lindgren, Hossam Hewidy

When Students Talk to Machines: Dialogic Learning and AI in Planning Education

Large language models (LLMs) have fundamentally challenged traditional forms of academic assessment that rely on written essays and reflective diaries. In a mandatory introductory course in architecture and landscape architecture at Aalto University, enrolling around one hundred students annually, conventional assignments were replaced with dialogic exercises conducted using AI language models. This pedagogical redesign emerged from the growing impossibility of verifying authorship in AI-generated texts and the recognition that banning AI use is neither realistic nor educationally constructive. Instead, students were required to conduct an eight-turn dialogue with an LLM, followed by a brief reflection on the depth, reliability, and learning value of the interaction. The new format shifted learning from passive reporting to active inquiry, compelling students to formulate questions grounded in their own curiosity and confusion. Early observations suggest that dialogic engagement fostered deeper conceptual exploration and a renewed sense of agency in learning. Similar to the Intelligent Dialogue-Based Approach proposed by Wu et al. (2025), this method cultivated higher-order thinking by encouraging students to analyse, evaluate, and create knowledge through iterative questioning. It also aligns with Michel-Villarreal et al. (2023), who emphasise that generative AI can serve as an ethnographic "thing" to explore, demanding clear pedagogical and ethical frameworks for responsible integration.

From a broader European perspective, this experiment resonates with Aler Tubella et al. (2024), who call for embedding "Trustworthy AI" principles within higher education to ensure ethical and transparent learning environments. Yet, as Essien et al. (2024) argue, such integration also risks reinforcing surface-level cognition if not guided by reflective scaffolding. By transforming AI from a threat to a co-learner, the course reintroduced dialogue as the foundation of academic practice. The experiment suggests that AI-mediated inquiry can revitalise critical thinking and collaborative learning—reconnecting digital education with its Socratic roots in conversation.

1957 | Katie OConnell, Meaghan McSorley, Nisha Botchwey

AI as a Tool for Humanizing Planning Education: Moving Beyond Knowledge Acquisition to Critical Reflection

This presentation examines how planning education can integrate generative AI (GenAI) while preserving the profession's core values and enhancing its unique disciplinary perspective. Drawing on planning education's historical responses to technological innovation—from 1950s computer modeling through GIS adoption to contemporary urban informatics—we identify recurring tensions between technical competency and professional judgment, efficiency and democratic participation, and data-driven

analysis and value-laden practice. These historical patterns reveal that planning education's most significant challenge is not whether to adopt new technologies, but how to integrate them in ways that strengthen rather than undermine the profession's commitment to equity and public participation.

We argue that GenAI presents novel challenges compared to previous planning technologies, affecting virtually every aspect of planning work from policy analysis to community engagement. Unlike tools that enhance specific technical skills, GenAI fundamentally alters the relationship between student effort and learning outcomes, raising urgent questions about academic integrity, skill development, and appropriate assessment methods. To navigate these challenges, we propose using Bloom's Taxonomy and Freire's principles of humanizing education as complementary frameworks. Bloom's cognitive hierarchy illuminates what mental work GenAI can replicate versus what requires human development, while Freire's pedagogy addresses whether technology integration liberates or oppresses learners by enhancing or undermining their capacity to critically name and transform their professional worlds.

Together, these frameworks suggest an approach we term "critical collaboration with AI," where students learn to use GenAI strategically while maintaining intellectual independence, treating AI outputs as starting points for critical analysis rather than authoritative conclusions. This approach requires educators to design assignments that scaffold appropriate use, focus assessment on distinctively human competencies such as contextual judgment and ethical reasoning, and explicitly cultivate students' confidence in their developing expertise. Planning education's response to GenAI will fundamentally shape whether these tools democratize planning knowledge or create new forms of exclusion.

980 | Muzeyyen Anil Senyel Kurkcuoglu, Mustafa Rasit Sahin, Sila Ozdemir, Emine Yetiskul Senbil

From Awareness to Engagement: Shifting Perceptions of AI Among Planning Students

The integration of Artificial Intelligence (AI) into urban planning and design offers numerous opportunities but also poses various risks and challenges. Fostering familiarity and competence with AI technologies among the next generation of planners is essential—not only for enabling the effective and efficient use of these technologies but also for cultivating awareness of potential threats and enhancing the capacity to respond proactively. With these aims, an elective course titled Artificial Intelligence in Urban Planning and Design has been introduced in the Department of City and Regional Planning at METU. This course introduces the general definition, applications, and algorithms of AI, followed by a discussion of specific application areas related to urban planning and design. It also includes hands-on exercises demonstrating selected AI tools and their practical use in these contexts. This study examines the influence of this course on students' familiarity, perceptions, and competencies regarding AI, based on data collected from two separate cohorts who completed the course in different semesters. A pre–post survey design revealed significant gains in AI familiarity and demonstrated increases in students' intentions to further improve their AI-related skills and programming experience. The number of students planning to further develop their competence in AI increased significantly, as did those intending to use AI in future projects. At the end of the semester, students' concerns regarding the use of AI in planning appeared to shift from issues of implementation and cost toward ethical and technical awareness, while they developed a more conscious understanding of the social and professional dimensions of AI in

planning. The comparison between students' expectations before the course and their reported gains showed that the course effectively moved students from theoretical curiosity and practical expectations to more concrete engagement and experiential learning with AI technologies.

1807 | Patrick Witte

Back to the future? A critical reflection on planning curricula in light of Artificial Intelligence

Spatial planning is shaped by societal developments, and universities have a responsibility to equip planning students for an uncertain and constantly changing future. The rapid rise of generative Artificial Intelligence (AI) tools along with their widespread use, has significant implications for how we organize planning education, particularly assessment. However, the rise and availability of such tools also have implications for the discipline of planning itself. The everyday practice of the profession is undergoing permanent transitions due to AI innovations, which have implications for both the knowledge and skills base of graduates. First, in terms of the knowledge base: digitalization, in a broad sense, impacts how we analyze and shape the living environment in many ways. Consider, for example, the influence of automation, the platform economy, smart cities, or the increasing use of digital planning by governments and organizations (such as 'digital twins'). Second, the skills base is also affected: regardless of how we handle generative AI in relation to assessment, the reality of the future labor market is that being able to use such tools effectively and responsibly will become a crucial workplace skill that we must prepare our students for. In this contribution, I argue that, while the rapid surge of AI technologies in planning should certainly be acknowledged in planning curricula, this does not lessen the necessity to continue, or perhaps even to strengthen, sufficient disciplinary attention to the 'pillars of planning.' This contribution will create an inventory and analysis of the Master's curricula of different planning schools affiliated with AESOP, and conduct a comparative analysis of how these curricula have responded (or not) to the necessary balancing act between disciplinary grounding and attention to new developments, such as AI. This will result in a critical reflection on the graduate attributes our future planners should attain.

Applied AI pedagogies

Fri 3.7.11:00-12:30, Education and Skills, U271 U9 | Session chair(s): Juliana Martins, Christine Mady

1772 | Ivis Garcia

From Classroom to Certification: Creating AI-Powered Learning Apps for Planning Education

This presentation demonstrates the development of AICP.city, an AI-powered application helping planning students and practitioners prepare for the American Institute of Certified Planners (AICP) certification exam. The project evolved from Texas A&M course materials into a freely accessible platform combining AI-generated scripts (Claude), professional audio narration (11 Labs), and interactive assessments.

The workflow showcases iterative human-AI collaboration: (1) AI generates course scripts that undergo careful editing for accuracy and pedagogical effectiveness, (2) refined text converts to professional audio for accessibility, (3) assessment materials receive team-based review and refinement based on user feedback and evolving certification standards, and (4) content deploys through learning management systems and web applications. This approach—where AI accelerates initial creation but human expertise guides refinement—maintains quality while achieving significant efficiencies.

The model enables effective flipped classrooms: students engage with edited AI-generated lectures before class, arriving prepared for deeper discussion and applied activities. The methodology extends beyond AICP and US contexts. European universities could adapt this framework for national (RTPI, RICS), while AESOP could develop foundational multilingual modules standardizing baseline knowledge across diverse educational systems.

Key outcomes include a functional certification app, scalable content creation workflow, engagement evidence through analytics, and a microcredentialing model. Participants will gain practical insights into AI tool selection, quality control processes, and institutional deployment strategies.

2132 | Caterina Villani

Futuring in the AI Era: Teaching Street Experiments Through Virtual Observation and Critical Generative Tools

Artificial intelligence is beginning to influence how planners observe cities and imagine alternatives, raising new questions for planning education. Building on an ongoing project 'GenAI for street-experiment teaching', this paper discusses the redesign of a final-year urban design studio module taught in a Sino–Irish programme. The redesign uses futuring (Hoffman et al, 2021), supported by virtual street labs, to help students work with uncertainty and form more reflective judgements about the urban futures they envision supported by text to image artificial intelligence. Students begin with structured virtual observations of international street intersections and street experiments case studies. These “street labs” allow them to examine spatial configurations, governance choices and user behaviours without relying on fieldwork, which is often not feasible at this distance. The observations then inform the students’ own street-experiment designs. Generative AI is used sparingly and always critically: students document prompts, discuss biases and reflect on what kinds of social realities their AI-generated scenarios foreground or obscure. The studio combines problem-based and inquiry-based learning to give students space to explore different pathways, test ideas and build their speculative capacities. Threshold concepts, such as understanding streets as socio-technical systems and spatial reallocation as a political act, anchor design decisions and help students connect the future scenarios they create with wider governance and equity implications. The paper argues that combining futuring with virtual observation and critical AI literacy can strengthen future planners’ anticipatory skills and ethical awareness. Rather than treating AI as an automatic design tool, the module positions it as a way to question assumptions, broaden imaginaries and support more attentive, responsible forms of planning practice.

2585 | Fabio Bayro Kaiser

Urban form-giving techniques as an AI-supported approach to integrated spatial design

The growing integration of AI is reshaping how urban environments are analysed and interpreted in planning education. This shift raises important questions about how conceptual reasoning, spatial analysis, and design interpretation should evolve in relation to one another. A series of courses at RWTH Aachen University addresses this by combining work on historical and contemporary paradigms, multi-scalar morphological analysis, and applied form-giving techniques. Together, these components show that conceptual understanding guides how planning problems are framed; analytical methods reveal structural conditions and patterns; and design practices translate these insights into actionable spatial strategies. Their interdependence becomes increasingly important as AI enters planning education, because each competency conditions how the others are used and understood.

Within these courses, activities such as mapping guiding ideas, working with accessible datasets, diagramming, and role-play create opportunities to examine where AI can support inquiry and where it may mislead. AI-assisted analyses can help to identify structural patterns or compare urban forms, but they also risk blurring the line between computational regularities and meaningful spatial insight. Integrating AI into hands-on exercises, therefore, makes visible the distinction between what algorithms can reliably compute and what requires contextual interpretation. This process highlights that understanding urban form cannot be reduced to automated pattern-finding; it depends on linking outputs to intentions, scales, and histories.

This paper suggests that the central challenge for planning education is not to adopt AI uncritically, but to ensure that the relationships among reasoning, analysis, and design remain transparent and ethically grounded. Issues such as bias, opaque model assumptions, and overstated precision require deliberate reflection rather than passive acceptance. Addressing these concerns strengthens the capacity to interpret and question digital outputs, ensuring that AI becomes a catalyst for clearer thinking rather than a substitute for judgment.

1634 | Anthony Vanky

Rebuilding the Algorithm: Teaching AI in Urban Planning Through Critical Making

This research advances critical making (Ratto 2021) as a core pedagogical approach for teaching the sociotechnical dimensions of artificial intelligence (AI) in urban planning. As algorithmic systems increasingly shape urban decision-making—from public safety to transportation operations—students must learn not only how these tools function, but also how their logics, assumptions, and datasets encode particular values. Critical making bridges this gap by combining material engagement with theoretical inquiry: students create, manipulate, and evaluate data-driven systems to interrogate how knowledge is structured and operationalized in AI applications.

Drawing on two graduate courses—Urban Sensing and Data, and Urban Technologies, Innovations, and Planning Institutions—this study examines how hands-on, critical-making practices cultivate epistemological awareness. In the first course, students build and adapt sensing tools to generate urban datasets, including sound-detection systems modeled after ShotSpotter and movement-tracking devices

for transportation applications. These projects make visible how sensor-based data collection constructs the urban environment—and the biases embedded in such representations, with opportunities to reorient datafication towards urbanist and justice-oriented measures.

In the second course, students collectively develop and test their own urbanist-oriented dataset for computer vision against algorithms already used in contexts ranging from public space monitoring to robotics. This process surfaces the biases in widely used AI libraries and challenges students to reflect on the assumptions in their own data practices. Across both settings, critical making functions as an iterative, reflective methodology that reorients AI development toward urbanist values such as equity, accountability, and contextual specificity.

Through pre- and post-course assessments, this research examines how critical-making pedagogies enable students to grapple with the limitations and possibilities of algorithmic systems. It contributes to emerging scholarship in critical data studies and planning education, offering a model for training practitioners capable of engaging AI not just as a tool, but as a terrain of political and epistemic struggle.

2723 | Ying Long, Qi Hao, Yue Ma, Qianru Yang

Empowering Planning Education with the "AI Technology Chain": Validating a Multi-Dimensional Framework for Habitat Research through a Localized Workshop

The rapid evolution of Artificial Intelligence (AI) presents both a challenge and an opportunity for urban planning pedagogy. While AI offers powerful tools for analyzing complex environments, effectively integrating these technologies into field teaching—especially in marginalized or data-scarce "peripheral" regions—remains underexplored. This paper presents an innovative pedagogical experiment: an intensive localized workshop held in Zagunao, a Tibetan-Qiang ethnic town in Western China, which served as a testbed to validate a comprehensive "AI Technology Chain" for inclusive habitat research.

The workshop adopted a "Sky-Ground-Society" multi-dimensional framework. To capture the urban fabric systematically, we structured four collaborative groups in a progressive, macro-to-micro sequence: (1) UAV Group establishing the macro-scale digital base; (2) Street View Group conducting meso-scale mobile sensing and facade element recognition via Multimodal Large Language Models (MLLMs); (3) LiDAR Group performing micro-scale, high-precision heritage scanning; and (4) Social Sensing Group revealing intangible social sentiments. This hierarchical workflow enabled the seamless fusion of innovative technologies with situated local knowledge.

The results demonstrate that the "AI Technology Chain" not only enhances analysis efficiency but also supports inclusive pedagogies by lowering the technical barrier for students to engage with complex field environments. By shifting from traditional manual surveys to AI-assisted "active sensing," the workshop successfully constructed a multi-source database characterizing the unique ethnic urban fabric. This study validates a replicable teaching model that fosters digital literacy and provides a cost-effective technical pathway for understanding under-represented peripheral regions.

Institutional networks

Fri 3.7.14:00-15:30, Education and Skills, U271 U9 | Session chair(s): Sila Ceren Varis Husar

2354 | Qing Yuan Guo, Malachy Buck, Eren Efeoglu, Donato Casavola

The AESOP Young Academics Network: Education Through Democratic Self-Organization

This paper examines the role of democratic, self-organizing networks as a vital pillar within planning education. The AESOP Young Academics Network (YAN) is presented as a case through which to explore how a self-governed learning community can be organized and sustained, and how such organization enables learning, interaction, and knowledge development associated with planning education. The empirical analysis is guided by the framework of the community of inquiry, drawn from the pragmatist tradition. This framework suggests that collaborative inquiry has advantages over individual inquiry when addressing social problems in which the costs of information gathering are high and guiding values for inquiry are uncertain (Dewey, 1916; Healey, 2008). A key form of infrastructure for enabling such inquiry is the development of a community of inquirers committed to working together, sharing experiences, and sustaining a shared process of reflection.

The analysis is structured in two parts. The first part examines the forms and organization of YAN, while the second considers how these forms support the attainment of functions associated with educational purposes (Korsgaard, 2008). In the first part, the paper provides a descriptive analysis of YAN's structure, focusing on democratic self-organization, institutional interdependencies, digital infrastructure, and features shaped by historical trajectories. In the second part, the paper provides an explanatory analysis of how YAN's structure enables the delivery of multiple initiatives. Finally, we argue that these initiatives fulfill educational purposes for young academics through two complementary forms. The first is a centralized form of community building, structured around YAN and reinforced through coordinated knowledge delivery. The second is a decentralized form, emerging through contingent and spontaneous encounters during social events and conferences. This argument is supported by qualitative and quantitative evidence drawn from YAN's evaluation archives.

1717 | Shiyi Song, Chao Chen, Wenlong Lan

Practice-Education Integration · Innovative Cultivation ——Curriculum Reform and Practice of Urban-Rural Renewal Planning and Design in the AI Era

Under the background of urban-rural regeneration strategies, urban and rural planning education faces an urgent need to transform its talent cultivation model. Traditional teaching models, plagued by issues such as theoretical lag, disconnection from practice, and insufficient collaboration, struggle to meet the demand for interdisciplinary talent in the era of inventory planning. This research, taking the curriculum reform of the Urban-Rural Regeneration Planning and Design course at Xi'an University of Architecture and Technology as a practical case, proposes an innovative teaching framework based on industry-education collaboration and AI technology empowerment. By reconstructing a curriculum system characterized by "demand-orientation, interdisciplinary integration, and full-lifecycle coverage," integrating cutting-edge technologies like artificial intelligence and digital twins, and establishing virtual simulation platforms and real-project practice vehicles through university-enterprise collaboration, this study explores pathways for the deep integration of the education chain, industry chain, and innovation chain. The reform practice uses AI technology as a link to break down disciplinary barriers and the

superficial nature of university-enterprise cooperation, providing a referential model for urban and rural planning education to adapt to industry transformations. Over the past decade, this series of courses has cultivated a large number of urban-rural regeneration planning and design professionals with solid expertise for Western China and the whole country, playing a significant role in the national urban renewal action; students have repeatedly achieved excellent results in competitions organized by the International Union of Architects (UIA) and the World Urban Planning Education Network (WUPEN); relying on the course, various domestic and international joint teaching activities have been widely carried out, establishing a national teaching exchange platform and promoting the common development of numerous planning schools in the Yellow River Basin and Western regions. This teaching achievement was awarded the Second Prize of the university-level teaching achievement award.

Track 5: Environment

Track chairs: Marco Amati, Ranja Hautamäki, Mahbubur Meenar, Francesco Musco

Climate Justice I

Tue 30.6.14:00-15:30, Environment A, A123 A1 | Session chair(s): Marco Amati

2310 | Jin Xu, Rakib Akhtar

Translating Climate Adaptation Knowledge into Neighbourhood-Scale Design: A Multidisciplinary Studio Experiment in Digbeth, Birmingham

Climate adaptation continues to face significant implementation gaps between global or national level and the neighbourhood scale, where climate risks are more directly experienced but climate information remains less accessible. These challenges are intensified by a knowledge-transfer gap between climate science and the practices of urban planners and designers. This paper investigates how climate knowledge can more effectively inform local planning and design strategies and conversely, how planning perspectives can contribute back to climate science through a studio-based planning teaching experiment.

The research draws on a design studio in Digbeth, Birmingham. Digbeth is a post-industrial district exposed to flooding, pollution, and biodiversity fragmentation, which serves as a real-site laboratory for examining neighbourhood-scale climate adaptation within a broader planetary context. The project collaborated with climate scientists, engineers, planners, designers and students, facilitating the co-interpretation of flood models, pollution datasets and multi-species mapping. These restructured interdisciplinary workflows embedded climate science into design thinking and grounded adaptation strategies to solve local socio-ecological challenges. Through this process, we developed science-based strategies including flood adaptation, brownfield repair, microclimatic interventions, and blue–green network reconnection, and evaluated these strategies through simulation-modelling tests.

Although neighbourhood-scale interventions may appear incremental relative to planetary-scale climate challenges, the study explores how adaptation must begin in the everyday environments where risks, vulnerabilities, and opportunities are situated. The multidisciplinary approach repositions urban planning and design as active interpretative practices capable of making climate knowledge legible, situated, and operational, and highlights how interdisciplinary workflows can help bridge the knowledge-transfer gap.

2465 | Giuliano Salvatore Magnelli, Nabil Georges Bonduki

The Peripheral Green Deficit in São Paulo, Brazil: A GIS-Based Methodology for Prioritizing New Public Green Spaces

This study analyzes the distribution of the green public spaces in São Paulo, following its 2014 Strategic Master Plan macrozoning (Magnelli, 2025). It focuses on the Structuration and Qualification of Urbanization Macrozone, a high-density macrozone subdivided into four macroareas, based on socioeconomic indices and public infrastructure levels. The empirical findings reveal a concentration of public green spaces in central areas, contrasting their scarcity in densely populated peripheral

neighborhoods, highlighting core-periphery imbalances in urban development (Villaça, 1998). Considering that background, it's intended to highlight how to create new public green spaces, prioritizing vulnerable territories.

The research positions green infrastructure as essential for affirming the right to the city (Lefebvre, 1969), guaranteeing ecosystem services, enhancing urban livability (Benedict&McMahon, 2002), and mitigating climate hazards through an equity Green Public Space distribution (Heckert&Rosan, 2020). It proposes a geospatial methodology to identify "voids" lying beyond the 1-kilometer service radius of existing green public spaces, above 20,000 m^2, a minimum area considered relevant for urban fruition and climate change mitigation. This approach draws on the 15-minute city concept (Moreno, 2024) and the policies of the current Paris administration, which has prioritized neighborhood-scale to reconceptualize these peripheral areas as potential centralities through strategic public investment to ensure pedestrian access to infrastructure throughout the city's territory.

Using QGIS v3.28, a key tool for empowering planners and communities and data from the Municipal Department of Green and Environment, the methodology isolates underserved regions. There, an actionable plan for peripheral transformation is proposed, enumerating urban legal instruments and measures to enhance the creation of new green public spaces, prioritizing the macroareas of high social and environmental vulnerability. The findings provide insights for addressing socio-spatial inequalities and offer a referencing framework for Global South megacities facing spatial fragmentation and also for Global North cities addressing urgent green transition.

1392 | Tzuyuan Stessa Chao, Chan Tung Ho

Where Might Displacement Follow Climate Adaptation? Reading Citywide Signals in Kaohsiung, Taiwan

To address the threat of climate change, governments worldwide are continuously promoting diverse climate adaptation strategies and policies to enhance urban resilience. While these adaptation measures can improve safety among residents, they may also reshape local lifestyles and resident demographics, potentially leading to climate gentrification. Empirical studies in Western cities have pointed out the exclusionary effects, but experiences in East Asia remain relatively limited. This study takes Kaohsiung City as a case study to examine the possibility of climate gentrification in Taiwan and focuses on identifying and interpreting its signs through practical observation combined with local knowledge.

The study is conducted in two phases. First, a focused literature review was conducted to establish an evaluation framework for climate gentrification and identify potential mechanism pathways. Secondly, a group of domestic experts was involved to define a set of localized indicators, tailored to Taiwan's institutional context, using the Fuzzy Delphi Method (FDM). Based on the consensus indicators and weights, screening scores were calculated at the administrative district level, and their spatial distribution was visualized using Geographic Information Systems (GIS) to interpret citywide spatial patterns. Subsequently, target areas were selected within potential high-risk zones and finer-scale data were employed for a detailed analysis to identify intra-area heterogeneity.

The study aims to integrate a citywide climate resilience map, administrative district screening scores, and small-scale analysis to propose a preliminary map and operable observation framework for climate gentrification risk in Kaohsiung City, identifying high induction areas and vulnerable profiles. The result aims to provide early warnings and serve as a basis for cross-departmental dialogue. The contribution of the research lies in risk identification and establishing localized indicators and weights to address the insufficiency of experience with this issue in East Asian cities, while attempting to transplant this framework to other Taiwanese cities.

2815 | Joshua Kirshner, Patricia Guidão Cruz Ruggiero, Adrian Gonzalez, Gabriela Marques di Giulio

Linking Evidence on One Health, Biodiversity and Climate Justice for Climate Adaptation Policy in the State of São Paulo, Brazil

This paper examines how policymakers are co-creating, communicating, interpreting and integrating evidence in climate adaptation policies in the state of São Paulo, Brazil. Brazil is at the forefront of accelerating climate change. The impacts of climate change and biodiversity loss intersect with social and economic vulnerabilities most acutely in Brazil's urban areas which are characterised by a history of poor planning, changing governance and inadequate infrastructure. We will focus on multi-level climate adaptation policy in the state of São Paulo, Brazil, and in the municipalities of São Paulo, Campinas and Santos. At state level, São Paulo's Climate Adaptation and Resilience State Plan (PEARC; SEMIL, 2024) commits it to the "Race to Zero" and "Race to Resilience" campaigns, within the scope of the UN Framework Convention on Climate Change.

Focusing on two themes (One Health and biodiversity) and one transversal theme (climate justice) identified as priorities in state-level adaptation policy for São Paulo, we examine factors affecting the uptake and application of evidence in adaptation policies across state and municipal levels and its effectiveness in alleviating inequalities and vulnerability. Taking a comparative approach within a transdisciplinary synthesis framing, the paper (1) identifies constraints around the effective integration of scientific evidence into climate adaptation policy; (2) develops an understanding of effective evidence utilisation mechanisms; and (3) generates recommendations on how evidence can be more effectively mobilized in policy to address interlinked environmental and health challenges. This work aims to provide new insights into the opportunities for integrating and communicating scientific evidence in policymaking for climate adaptation in urban areas.

2947 | Siyu Yu, Matt Malecha, Phil Berke

Plan Integration for Resilience Scorecard™ for Multi-hazards Approach

While hazard effects can be independent of each other, in many cases interactions and compounded consequences (Liu et al., 2016). Recognizing such potentialities, scholars and many authorities have been increasingly calling for research that goes beyond single hazard events to take into account multiple relevant hazards.

It has been increasingly recognized among planning and disaster scholars that plan integration – the extent to which the ecosystem of planning documents is consistent for a particular goal (Berke et al., 2019; Yu et al., 2025) – can play a substantial role in strengthening community resilience to natural hazards and its absence can weaken it. Given the severe impacts of multi-hazards and the potential of plan integration to relieve them, it is critical that planners take hazard resilience into account. Yet, despite the growing scholarly attention to multi-hazard approaches and plan integration, no process has emerged regarding how to evaluate plan integration in the context of multiple hazards. This study addressed this gap by extending the Plan Integration for Resilience Scorecard™ method to encompass multi-hazards. We demonstrate the novel PIRS™ for multi-hazards approach in Beaumont, Texas, by simultaneously evaluating the community's network of plans for three hazards: flooding, wildfire, and extreme heat.

Results show that the areas highly exposed to multiple hazards mainly cluster along the Neches River. Encouragingly, the disaster- and infrastructure-oriented plans, such as Beaumont's Emergency Management Plan, are well-integrated for vulnerability reduction in most cases, thus strengthening the community's resilience toward multi-hazards. However, the development-oriented plans, such as Beaumont's Development Strategies Plan, contain a considerable number of policies that exacerbate hazard vulnerability which, taken together, can overwhelm the more limited resilience-boosting policies and weaken the community's multi-hazards resilience. Such knowledge is significant for planning practitioners since it enables the continuous tracking of their performance regarding multi-hazards plan integration.

1844 | Linda Zardo, Vittore Negretto

Planning Under Climate Uncertainty: A Scenario-Driven Approach to Flood Risk in Kotu–Banjul

Coastal cities in West Africa are rapidly expanding while facing intensifying climate pressures that increasingly surpass local ecological boundaries. Flooding, wetland degradation, and uncontrolled land conversion create socio-ecological vulnerabilities that municipal planning frameworks struggle to address, especially where financial resources and hydrological data are limited. This study explores how integrated, practice-oriented planning tools can support just and resilient futures in Kotu–Banjul, The Gambia—an urban territory highly exposed to compound riverine and pluvial flooding.

The research advances a mixed-method framework that combines hydrological modelling, socio-economic analysis, and situated local knowledge. Climate scenario analysis, based on the IPCC Shared Socioeconomic Pathways (SSPs), is used to assess how demographic trends, governance capacities, and climate trajectories jointly reshape future flood risks. Flood extents for multiple return periods are modelled under alternative SSPs and linked to estimates of direct and indirect economic damages. This approach captures how differing development pathways may either alleviate or intensify pressure on local ecosystems and human wellbeing.

A GIS-based prototype decision-support tool was co-designed and tested with municipal planners and community representatives. The tool enables users to visualize spatialized flood impacts and compare the effectiveness of various adaptation strategies, including nature-based solutions, drainage rehabilitation, land-use regulation, and infrastructure upgrades. Participatory workshops and interviews

helped validate model assumptions, identify vulnerable groups, and contextualize damage estimates within everyday planning constraints.

Findings demonstrate that combining scenario-based hazard modelling with place-based socio-ecological insights enhances the relevance of risk information in data-poor contexts. Comparing adaptation measures across SSPs reveals substantial differences in avoided damages and highlights the importance of planning under uncertainty. The study shows how adaptable, low-cost decision-support tools can help small and medium-sized cities navigate ecological limits, political and economic pressures, and shifting territorial responsibilities—placing planning practice at the core of sustainability transformations.

Heat Island 1

Tue 30.6.14:00-15:30, Environment B, A215 A2 | Session chair(s): Sagar Verma

2508 | Yuri Lee, Eunji Na, Seunghoon Park

Optimizing the Vertical City: Finding the Equilibrium between High Density and Thermal Comfort using MARS

Urbanization has significantly improved living conditions and socio-economic activities; however, the resulting environmental degradation, increased energy consumption, and pollution have accelerated climate change and intensified the Urban Heat Island (UHI) phenomenon. Although numerous studies have explored UHI mitigation strategies, most have relied on two-dimensional planar indicators—such as building coverage ratios and impervious surface areas—thereby failing to capture the three-dimensional (3D) spatial characteristics of high-density contemporary cities. Preliminary results from this study reveal a complex trade-off: high-rise buildings can trap heat and elevate surface temperatures, while simultaneously providing cooling benefits through shading. This demonstrates that urban microclimates exhibit characteristics that cannot be sufficiently explained by simple linear models, underscoring the need for quantitative analysis of their non-linear relationships.

This study employs MARS (Multivariate Adaptive Regression Splines) to identify the non-linear effects and thresholds of 3D urban variables influencing UHI intensity. Based on a 100-meter grid framework for Seoul, South Korea, a Digital Surface Model (DSM) was constructed to derive detailed 3D indicators such as Sky View Factor (SVF) and Surface Roughness. By identifying non-linear effects and the "knots" (inflection points) at which variable relationships shift, this study aims to determine optimal urban environmental conditions for UHI mitigation.

The identification of non-linear thresholds offers concrete design criteria for the spatial configuration of the built environment—such as appropriate building heights and densities—and contributes to the development of effective, evidence-based UHI management policies for future urban development.

1446 | Bahar Gedikli Bilgin

Climate-Responsive Planning: Innovative and Adaptive Approaches for Existing Urban Areas - The Case of Talgrund-West, Stuttgart

Starting from the city scale and extending to the neighborhood and building scales, spatial planning and design interventions can be effective in reducing energy consumption and mitigating the urban heat island effect—a phenomenon where air and surface temperatures in urban areas are higher than those in surrounding rural regions. These interventions involve a range of spatial strategies, including city's morphological structure, mobility systems, built-up areas, open and green spaces, street orientation and layout, building configuration, building height, and construction materials. Such strategies are applied both in new and existing urban environments. However, implementions to attain climate-responsive environments in existing urban areas tends to be more challenging, often requiring more innovative and adaptive design strategies to overcome spatial and structural constraints.

This study focuses on such adaptive solutions in an already existing urban area, the Talgrund West district of Stuttgart, Germany. The perimeter block is the main urban pattern there, i.e. the basic morphological unit. The study analyzes the Framework Plan (Rahmenplan Talgrund West) developed for this district, and explores its strategies to mitigate the urban heat island effect and improve microclimatic conditions, with particular emphasis on green space interventions. The plan is place-specific, i.e. it pays attention to the existing morphological characteristics, and includes strategies to enhance the green infrastructure accordingly. While mainly focusing on the Stuttgart case, this research also incorporates adaptive design solutions from other cities to provide a broader perspective about contemporary practices. Building on these practices, the study aims to underline that adaptive and innovative approaches to mitigating the urban heat island effect can be effectively formulated across multiple spatial scales. It also highlights the importance of planning and design strategies that should respond to place-specific priorities, challenges, and needs in attaining climate-responsive living environments.

2042 | Yang Zhou, Dongxue Li

The Spatiotemporal Dynamics and Driving Mechanisms of Urban Heat Islands in Southeast Asian Capitals within a Local Climate Zone Perspective

The rapid urbanization of Southeast Asian cities, set within a tropical climate, intensifies the Urban Heat Island (UHI) effect, posing critical environmental and public health challenges.This study conducts a comparative analysis of four capital cities—Bangkok, Jakarta, Hanoi, and Vientiane—representing different stages of urban development, to examine the spatiotemporal evolution of UHIs and their driving mechanisms.The study employs GeoAI-based machine learning models to generate higher-accuracy land surface temperature data. Local Climate Zones (LCZs) are classified using a Random Forest algorithm, and thermal differences among LCZ types are further quantified. XGBoost modeling combined with SHAP analysis is applied to identify the principal driving factors and reveal their interaction effects.The results reveal pronounced differences in UHI intensity and spatial configuration across the four cities. Bangkok and Jakarta exhibit the strongest and most spatially continuous UHIs, driven by highly compact built-up areas, extensive impervious surfaces, and limited urban greenery; Jakarta is additionally influenced by its coastal humid environment and the rapid expansion of reclaimed land. Hanoi demonstrates a multi-core, corridor-shaped UHI structure closely aligned with industrial development axes, whereas Vientiane

shows weaker overall UHI intensity but distinct hotspots in its dense historic center. Across cities, LCZs exhibit consistent thermal hierarchies: compact mid- and high-rise zones (LCZ 2 and 3) and large industrial areas (LCZ 10) consistently act as heat cores, with temperatures 2–4°C above city averages; vegetation-dominated LCZ A and B show the strongest cooling effects and significantly reduce temperatures in adjacent zones.Among key morphological drivers, NDVI and SVF exhibit the strongest cooling contributions, whereas imperviousness and building density are the dominant warming factors, particularly in Bangkok and Jakarta. Building on these mechanism insights, the study proposes context-sensitive planning strategies for urban form optimization and ecological restoration, which are further validated through ENVI-met microclimate simulations.

1708 | Shiyi Song, Ran Guo

Spatial Mechanisms of Carbon Emissions in High-Altitude Hypoxic Cities: Analyzing the Pathways in Lhasa, Tibet

As the highest plateau in the world, the Qinghai–Xizang Plateau is shaped by intense solar radiation, extreme cold, hypoxic conditions, and diverse sociocultural traditions. These unique factors limit the applicability of conventional low-carbon planning theories developed for low-altitude regions. Focusing on Tibet, this study integrates low-carbon development goals with the health challenges posed by hypoxia, while incorporating local cultural practices and lifestyles to systematically analyze the drivers of urban carbon emissions.

Using Lhasa as the case study, the research first identifies how strong radiation, severe cold, and hypoxia collectively influence spatial carbon-emission pathways. It reveals residents' energy-use behaviors under high-altitude conditions—such as increased heating demand and dependence on oxygen-supply facilities—and examines their impacts on building energy consumption, transport efficiency, and the layout of public service infrastructure. The study further analyzes the synergies between solar-energy infrastructure and urban spatial structure, including the compatibility between solar technologies and traditional Tibetan architecture form.

Then, the study identifies traits of climate-adaptive urban carbon emissions, revealing gradient effects of photovoltaic coverage and building orientation under heterogeneous solar radiation. It links solar gains to cultural customs and spatial organization and explains how functional mix, development intensity, and carbon sensitivity dynamically balance under extreme cold, hypoxia, and strong radiation. It clarifies how oxygen-facility distribution interacts with energy-use efficiency.

Finally, the study examines multi-scale mechanisms shaping spatial carbon-emission patterns. At the urban scale, it analyzes structure, density, road networks; at the neighborhood scale, it considers functional mix and oxygen-supply service areas affecting travel and transport emissions; at the building-cluster scale, it investigates the carbon implications of traditional courtyard layouts and spatial patterns surrounding religious and community nodes.

This study clarifies how plateau environments and cultural–health factors shape urban carbon footprints, offering a framework for adaptive, context-sensitive planning.

2273 | Poui Chong, Chao Liu

AI based Assessment of Intra-Urban Spatial Carbon Emissions for Megacities: Maps, Comparisons and strategies

Megacities, characterized by extreme population density and intensive economic activity, are major contributors to national and global carbon emissions. Yet the spatial patterns of emissions within megacities remain insufficiently understood. This lack of understanding largely stems from the limitations of current carbon accounting methods.Emission factor–based methods guided by IPCC frameworks offer only city-level totals, while atmospheric inversion approaches depend on complex physical models and high-precision monitoring data, limiting their applicability across cities. These constraints hinder the development of high-resolution and generalizable spatial emission models. This study addresses these gaps by identifying the intra-urban spatial structure of carbon emissions, producing high-resolution spatiotemporal carbon emission maps, and comparing key influencing mechanisms across global megacities to inform targeted low-carbon planning strategies.This study develops an AI-based framework for simulating high-resolution spatial carbon emissions in megacities, using Shanghai, Paris, London, New York, and Singapore as case studies. Multi-source datasets are standardized, with carbon emissions as the dependent variable and urban environmental features—including CO2concentration, natural conditions, built-environment attributes, and socio-economic indicators—as predictors. Random Forest and XGBoost models are trained on Shanghai's data, and feature importance identifies wind speed, temperature, CO2concentration, POI density, and distance to major point-source emitters as dominant factors. Transfer learning and causal analysis further adapt the model to other megacities, enhancing cross-city generalization.The study is expected to deliver an AI-based concentration-informed inversion model, high-resolution spatiotemporal carbon emission maps, and a modeling framework that generalizes across megacities. By comparing emission-driving mechanisms globally, it also proposes spatial planning strategies for targeted urban decarbonization. These outcomes strengthen the technical basis for fine-scale carbon emission assessment in megacities. The research advances methodological innovation by integrating multi-source data, AI modeling, and transfer learning to capture intra-urban emission patterns with greater accuracy and cross-city applicability.

Streams & Wetlands

Tue 30.6.16:00-17:30, Environment A, A123 A1 | Session chair(s): Raúl Santiago-Bartolomei

2851 | Renata Cristina Ferreira

Between Normative Convergences and Practical Divergences: The Protection of River Margins in the Brazilian and Colombian Experience

This article aims to present the results of an investigation into the management of rondas hídricas in Colombia, taking the city of Bogotá—and in particular the Fucha River—as reference. Through an analysis of land use and forms of governmental intervention along this watercourse, we seek to understand public policy strategies for the conservation of river margins areas in the Colombian urban context. The proposal intends to establish a comparative dialogue with the Brazilian reality, drawing on the study of Permanent Preservation Areas (APPs), as defined by the Forest Code (Law No. 12.651/2012), and on the initiatives carried out through the Program for the Conservation and Restoration of APPs in the city of São Paulo.

This research is part of the project Territórios da Água, which, from a geographic perspective, aims to develop a typology of river margins in São Paulo, drawing insights from the Colombian experience that may be relevant to the Brazilian context. This dialogue seeks to understand the protection of urban rivers, focusing primarily on the role of public actors in these processes, while considering local specificities and the relationship between the population and these spaces. The analysis was conducted as part of an International Research Internship Project designed to complement theoretical and methodological efforts with practical realities in two Latin American urban centers. The methodology consisted of interviews with key actors and a critical review of bibliographic material on the topics addressed, including public policy analysis, fieldwork, and visits to institutions involved in the management of rondas hídricas in Bogotá. The research suggests that although Colombia and Brazil initially established analogous strategies for the environmental protection of urban rivers, the distinct evolution of these policies has produced varied environmental outcomes. In the Brazilian case, the failure to effectively implement environmental norms has exacerbated environmental degradation in cities.

2484 | Yunjie Zhang, Li Hou

Bordering the Borderless: The Governance of Water, Mudflat, and Migrating Birds in Shenzhen Bay

Ecology has become an essential means and source of state power in the contemporary world. This research attempts to explore how ecological governance in an area across the border has been impacted by more-than-human actors, i.e., birds, water, mangrove, as well as national and municipal governments, organizations, scientists, designers, engineers, and bird watchers, to form a unique coalition of social-ecological systems in Shenzhen Bay, South China Sea.

In the Bay area, Mai Po Wetland in Hong Kong and Futian Wetland in Shenzhen are located on opposite sides, providing stops for migrating birds on one of the most significant global flyways. Notably, they underwent extensive human intervention and “ecological flourishing” alongside rigorous urbanization, border politics, and a shift of regimes.

Drawing on archival research, interviews, ecological data collection, and mapping, we ask how different states and societies wield ecology to reshape nature and social relationships through practices labeled “conservation.” We find that environmental transformation in Shenzhen Bay is driven by shifting preferences and strategies toward particular nonhuman actors: supporting some natures over others—with constant modification — and imprinting the evolving power relationships between humans and nature, between different regimes, and between state and society. We argue that these ecological techniques and practices still reflect a human-centered logic of production, treating ecological space as a managed asset for urban benefit rather than aiming for a “net ecological gain.” In this sense, ecological conservation becomes a tool of territorial competition and power-grasping.

2457 | Di Shao, Gianni Talamini

Producing New Natures: Urban River Governance in Shenzhen, 1980-2025

Industrialisation and urbanisation have fundamentally altered urban river systems, affecting geomorphology, water quality, and human-river relationships. Since its establishment in 1979, Shenzhen has experienced rapid urbanisation, transforming its river system into flood control channels and sewage repositories. Recently, the economic, ecological, and cultural value of Shenzhen's rivers has been reexamined, leading to a regeneration plan to rejuvenate nearly all 300 rivers from 2020 to 2025, creating a recreational network and ecological protection pattern.

This research uses urban political ecology to illustrate the interactions during the production of hydrosocial space. First, it examines the evolution of the Chinese aesthetic tradition on nature; by doing so, it aims to explore an alternative rationality that repairs a sensuous, non-alienated relationship between humans and nature. Second, it explores the role of technopolitics in shaping infrastructure and river landscapes by analysing socio-economic changes and urban master plans in Shenzhen from 1980 to 2025. Third, by tracking water resources supporting the transformation from 2020 to 2025, this research posits that Shenzhen is producing new natures by controlling urban water metabolism, supported by advances in water management technologies such as cross-border water diversion, reservoirs, sewage treatment, reclaimed water use, and sponge city facilities. Greening and ecologizing the most visible aspect—urban rivers—of the hydrosocial circulation in Shenzhen eliminates the perceived contradiction between urbanisation and environmental degradation, while reinforcing the city's reputation as a global centre for innovation. Moreover, the promotion of general ecological needs covertly reinforces the interests of specific social groups. Eventually, this research returns to the individuals' daily lives to study their behaviours and interactions in riverfront areas, while exploring their perceptions, expectations, and imagination of Shenzhen's urban river landscapes and water cultures.

Despite the many contradictions in controlled socio-natural hybrids, riverfront spaces show potential for creative resistance and liberation.

922 | Luna Khirfan

Urban Palimpsests and Planetary Boundaries: Socio-Spatial Transformations of Urban Streams in Amman, Seoul, and Zürich

This paper investigates how urban planning can reconfigure socio-spatial relationships between city residents and urban streams in response to climate change, environmental degradation, and planetary boundaries. Using the palimpsest analogy, I compare historical and contemporary transformations in Amman (Jordan), Seoul (South Korea), and Zürich (Switzerland), revealing how infrastructure has either fostered metabolization—the beneficial transformation of natural resources—or led to catabolization, a destructive form of metabolization that undermines ecological integrity and resilience.

Historically, urban infrastructures embedded streams with symbolic and utilitarian significance, epitomizing metabolization. However, 20th-century development erased these connections, burying streams beneath roads and urban expansions, disrupting ecological functions and social ties. Today, Amman continues this trajectory despite severe water insecurity exacerbated by the climate crisis. In

contrast, Seoul and Zürich have embraced nature-based solutions through stream daylighting initiatives. Seoul's Cheonggyecheon restoration and Zürich's bachkonzept policy exemplify innovative planning practices that redefined infrastructure, governance, and public values, aligning with planetary boundaries and enhancing urban resilience.

The study is framed through structure-function urban transformation, distinguishing between structural shifts in spatial and policy frameworks and functional innovations in ecological, hydrological, and behavioral systems. Methodologically, it draws on archaeological research, historical maps and aerial photographs, planning documents, contemporary spatial data, and in situ observations. It analyzes socio-spatial stream connections—longitudinal (ecological corridors), lateral (bridges), and vertical (riverbanks)—to understand how urban morphology and infrastructure mediate human-stream relationships.

By grounding academic inquiry in real-world planning challenges, this paper offers practice-based insights into how cities can restore ecological integrity while navigating climate pressures, governance shifts, and urban expansion. It demonstrates how reimagining urban streams can yield multi-win outcomes: improved public spaces, active living environments, flood mitigation, and biodiversity restoration—positioning planning at the core of sustainability transformations.

2674 | Morgan Fett

Degrowth and Well-being Policy: Lessons Learned from Ecuador's Anti-Extractive Movement

The climate crisis has necessitated an urgent shift towards an alternative approach to our planning systems. Over the past several decades, as 'green growth' and 'sustainable development' movements have been insufficient in preventing the escalating climate crisis, degrowth has emerged as an alternative framework for planning, resource allocation, and development practices – not as an extension, but as a critique of the aforementioned models. Degrowth research argues that 'sustainable' models will not be sufficient for working within planetary boundaries if those models function on the premise of a growth paradigm, and instead proposes a radical reorganization of the political economy to significantly reduce energy throughput. Within the degrowth literature, well-being has been introduced as a crucial component of degrowth, as a framework, policy goal, and tool for discourse.

Drawing on research in Quito, Ecuador, I examine a recent grassroots social movement to end oil drilling in the Amazon and present alternative development proposals as an illustrative case study where actors leveraged nature-based degrowth and well-being agendas to combat fossil fuel hegemony – or the pervasive, dominant role fossil fuel energy plays in the global economy and understandings of development – and promote alternatives. Through this case study, I make the argument that degrowth can be better mainstreamed by detailing feasible alternatives to pro-growth development practices and promoting more direct democracy and grassroots power in governance structures so that degrowth agendas can be advanced. Additionally, I argue that well-being offers a useful framework for guiding resource allocation, development, and planning initiatives but it must incorporate the well-being of nature and of future generations in order to best support the tenets of degrowth. Ultimately, this research

explores the role of planning in addressing planetary boundaries by incorporating the nature-based agendas and cosmovisions of grassroots Indigenous and environmentalist actors in the Global South.

Climate Justice II

Tue 30.6.16:00-17:30, Environment B, A215 A2 | Session chair(s): Linda Zardo

1819 | Mari Kågström, Helena Nordh

Negotiating greenery: How urban green space rules and tools shape planning practices and outcomes

In response to the EU Nature Restoration Law, which requires member states to reverse negative trends in ecosystem degradation, Sweden has proposed a National Restoration Plan that identifies the development and implementation of planning instruments as key strategies for protecting and restoring urban ecosystems. Within this framework, municipalities play a central role, with growing reliance on urban greening instruments such as the Green Space Factor, based on a quantitative formula for how ecosystem services can be integrated in new housing developments, and the 3-30-300 guideline, which explores visible trees from dwellings, tree canopy coverage and residents' access to greenery.

Grounded in a Swedish context, this study explores how these instruments are interpreted and applied in practice, and how planners perceive their limitations and benefits. Drawing on ten qualitative, semi-structured interviews and a co-creation workshop with planners, the research examines everyday practices, implementation challenges, and the anticipated and experienced impacts on the physical environment associated with these instruments.

Analytically, the study employs an effectiveness framework to examine how planners understand the instruments' overall aims and whether these are being achieved (substantive); how planners work to integrate the instruments into planning processes (procedural); the resource demands and cost implications associated with implementing and adapting the instruments (transactive); the perceived credibility and acceptability of the instruments (legitimate); and whether they contribute to longer-term shifts in norms and work practices (transformative). Results from the analysis will be shared at the conference.

While the effectiveness framework is well established within environmental assessment scholarship, it has rarely been applied to specific urban greening instruments. By transferring this multidimensional lens to the study of the Green Space Factor and the 3-30-300 guideline, the paper contributes to debates on urban green space planning practice and offers new empirical insights into the use and perceived effectiveness of these instruments.

2240 | Tanja Herdt, Livia Lutz, Roman Zwicky, Manuel Bleibler

Negotiating Care in Urban Landscapes: Conflicting Demands, Participation, and Climate-Responsive Planning

Urban landscapes are sites of overlapping demands for climate adaptation, biodiversity, recreation, agriculture, and public health. This paper explores how a culture of care can guide planning strategies

that navigate these often conflicting claims. Based on the SNSF project Mapping Needs, Shaping Cities in the Geneva and Zurich metropolitan regions, the study examines how Public Participation Geographic Information Systems (PPGIS) can capture spatially-explicit data on residents' perceptions, mobility, and landscape use.

Instead of reporting results, the paper focuses on how such analyses can reveal potential conflicts, synergies, and deficits in care-oriented landscape governance. Multifunctional spaces often serve simultaneously as ecological habitats, recreational areas, and social spaces, raising questions about which actors are cared for, and how conflicts between biodiversity, leisure, health, and agricultural functions can be negotiated. PPGIS offers a tool to visualize and deliberate these tensions, supporting inclusive, evidence-based, and socially responsive planning processes.

Care is conceptualized as relational, context-specific, and democratic, emphasizing negotiation among human and ecological needs. The study critically examines how urban planning practices and institutional frameworks can foster more resilient, equitable, and biodiversity-sensitive landscapes, highlighting opportunities, risks, and limitations for embedding care principles in climate-adaptive urban environments.

1974 | Magdalena Belof, Agnieszka Szumilas, Małgorzata Bartyna-Zielińska

Between "Concrete Fever" and Greenwashing: Searching for Ecological Balance in the Regeneration of Public Spaces in Lower Silesian Towns.

Over the past three decades, Poland's public spaces have seen substantial qualitative change, driven by the rapid development of post-1989 transition's urban regeneration. The first wave of 1990s and early-2000s projects was largely technical and image-oriented, and within a decade many faced strong criticism for reinforcing "concrete fever" (betonoza), shaped by rigid conservation doctrines and poor climate adaptation. Since the 2010s this trend has begun to reverse, with regeneration efforts increasingly oriented toward "ecologisation". Notably, many sites have been reworked only shortly after previous transformations. This article critically examines recent pro-ecological public space interventions in Lower Silesian (Poland) towns. Two research questions guide the study. First: does the current grey-to-green transition represent a genuine paradigm shift—reflected in strategic documents and aligned with New European Bauhaus and Nature-Based Solutions principles—or is it mainly driven by funding access or political reactions to betonoza criticism? Second: do the changes genuinely address climate challenges, or are they merely cosmetic re-greening that feeds superficial "ecologisation" and greenwashing? The study focuses on towns that have transformed major public spaces over the past 15 years, with particular attention to secondary, pro-ecological metamorphoses. Strategic document analysis, a structured review of social media, and stakeholder interviews address the first question; design documentation and fieldwork inform the second. The study is grounded in a theoretical matrix developed within the HORIZON Sleeping Beauty project.

Sources:

1. Awakening Sleeping Beauties... Horizon Europe, Project No. 101181784.
2. Dymek, D. & Jóźwik, J. (2021) Annales UMCS, 76(2), 83–96.

3. EC (2015) Nature-Based Solutions & Re-Naturing Cities.

4. EC (2022) New European Bauhaus Compass.

5. IUCN (2020) Global Standard for Nature-Based Solutions.

6. Januchta-Szostak, et.al (2023) ZNPP – Architektura i Urbanistyka, 15, pp. 69–86.

7. Mencwel, J. (2020) Betonoza.

8. Rynio, D. et al. (2023) Biblioteka Regionalisty, 23, 96–102.

1675 | Olivia Karulska, Anne Budinger

Blueprints in planning – Qualification of the regional open space system of the Ruhr Region

The protection and qualitative enhancement of green corridors is a central task of the RVR. But in a polycentric region like the Ruhr Metropolis, green corridors are not only large-scale projects but often heavily fragmented and not continuous in all places. Thus enhancing the green corridors requires precise, detailed planning under the challenge of rapidly changing planning parameters (land use requirements, competition for space, climate protection and adaptation, etc.).Furthermore, due to the corridor's spatial extent, a large number of stakeholders (local authorities, associations, landowners, etc.) must be involved in the process.

So how does one approach such a complex planning task (making a regional open space system in a metropolitan region sustainable on the basis of green corridors) and formulate the most effective solutions possible?

As one of the green corridors, the Grünzug E is a pilot project, which aims to provide an answer to this question.

Being a pilot case opens windows of opportunities for experimental approaches in the field of informal planning instruments. Under the leadership of the RVR and with the participation of the municipalities within the green corridor, as well as the IGA GmbH 2027, a multi-stage planning process was designed, tested and will be the main subject of the following presentation.

Based on a strategic development concept from 2023 an ideas workshop was held in November 2024 as a co-creative, cooperative process in which several planning teams worked on concrete solutions within the green corridor. A recommendation committee accompanied the process. The resulting implementation strategy is a milestone of the tested bottom-up process. We aim to transfer the multi-phase planning process approach for similar tasks in other green corridors to serve as a blueprint in the Ruhr Region and elsewhere.

2352 | Keiro Hattori

The Research on Spatial Image of Berlin

Since Kevin Lynch presented his idea of "Image Study of Cities" and its methodology in 1960, it has been used for survey of cities and implemented in making a city plan in various countries. It provides lots of information how citizens perceive the physical environment of their cities and help urban planners to make a better city planning.

Berlin, the largest city in Germany and its capital, has a peculiar and complex history even within the European context. This dramatic history of the city creates various contexts for people to grasp its image according to their perspective. Therefore, conducting Kevin Lynch style image study survey would help planners and policy maker to understand Berlin's unique characteristics.

The author had conducted the city image map survey and related questionnaire survey to students in Berlin Technology University in summer and fall of 2024. 45 students participated in the survey. First related question asked respondents to give three adjectives that best describe the Berlin. Second related question asked respondents to give three landmarks that they identify Berlin. For the analysis of the image map survey, they were organized by the contents that they have described or not. The contents that were used to quantify are follows.

1) City Boundary

2) Linear Structures (River, Railway, and Road)

3) Zone (Neighborhoods)

4) Landmarks

Overall, one can deduce the followings from the image study. 1) The spatial image of Berlin is obscure; 2) Berlin is the compound of neighborhoods; 3) Spree River and Ring line function as spatial identifiers of the city; 4) Landmarks that are significant in terms of understanding spatial structures are Fernsehturm, Brandenburg Tor, and Tiergarten; 5) The natural features play an important role for people to understand the city's edge.

2925 | Michael Drescher, Adam Skoyles, Dawn Parker, Derek Robinson

A complex systems and interdisciplinary perspective on sustainable urban development

With the global population increasingly urbanizing, cities often are seen as a solution to society's sustainability problems but also as a magnifier of environmental and social challenges. Cities grow by increasing density and outward expansion. While systems of green and blue spaces are meant to help combating climate change effects in cities, typically they are lost to both forms of urban growth. The loss of green and blue space systems reduces urban climate change adaptation through increased urban heat and floods. It also can further hinder urban climate change mitigation through terrestrial carbon stock losses and increased aquatic greenhouse gas emissions. Urban residential landscapes can be designed to limit these effects. But the actual implementation of these designs requires participation from municipal planners, land developers, and homebuyers, who may harbor conflicting priorities including

enforcing regulations, reducing business risk, and minimizing cost. Motivating these stakeholders to include climate change adaptation and mitigation into their priorities requires sound accounting of the sustainability performance of these landscapes. Additionally, these urban residential landscape designs need to satisfy economic imperatives. Individual climate-responsive residential development landscapes are important as advanced demonstration and learning opportunities. However, these projects have to be implemented at scale to make significant contributions to increasing urban sustainability. System-wide up-scaling of these initiatives may be possible if progressive land developers embrace climate-responsive residential development as early adopters, thus creating pressure on competing land developers. Over time, these competitive forces may shift the residential land development market toward increased sustainability.

Flood & Water

Tue 30.6.17:45-19:15, Environment A, A123 A1 | Session chair(s): Gianni Talamini

2481 | Li Hou, Yunjie Zhang

Integrating Shenzhen into the Greater Bay Area: A City-Region Analysis from the Perspective of Inter-Scalar Water Governance

In the Greater Bay Area, water has long served as a key natural element shaping and reshaping “city-region relationship”, while also representing significant political and artificial landscape features. Due to geography and climatic conditions, Shenzhen, as a Special Economic Zone in China, has faced ongoing challenges of water scarcity alongside rapid urbanization. To mitigate these issues, Shenzhen has adopted various approaches of water resource allocation, from local negotiations to regional coordination, involving multi-scalar interactions with national, provincial, and local governments as well as Hong Kong. We draw on political ecology, urban and planning history to explore how water transfers redefine Shenzhen’s city-region relationships based on local archival documents, historical maps, and interviews. We find that as Shenzhen becomes increasingly reliant on regional water supply, fostering deeper integration with the region, enhances its negotiation capacity with local and provincial governments, contributes unequal ecological impacts within the evolving urban network hierarchy, and begins to explore ecological compensation. This research introduces water as an effective lens for examining city-region relationship, providing insights into resource allocation, environmental change, and the interactions among multi-scalar governments.

1309 | Viviane Zerlotini da Silva, Alícia Duarte Penna, Eduardo Moutinho Ramalho Bittencourt, Tiago Castelo Branco Lourenço

Arrudas Valley: Urban Facilities for Water and Waste Management

The work developed within the university-based teaching and learning unit, the Integration Office (Escritório de Integração – EI), of the PUC Minas Architecture and Urban Planning Course, showcases a practice of ecosystemic urbanism focused on providing direct technical assistance to self-produced territories in the Metropolitan Region of Belo Horizonte. Developed between 2008 and 2020, the work discusses forms of urban planning that consider planetary boundaries and environmental degradation,

acknowledging the city as a living and interdependent system. The EI operates on the principle that sustainable urbanisation processes and techniques must promote the reconnection between society, nature, and the built environment. This is grounded in the notion of the geo-supported city, which continuously integrates the geological infrastructure, urban systems, and buildings in a continuous relationship. The EI's work is organised around the Ecosystemic Planning Unit, which adopts the hydrographic micro-basin as its territorial scale of reference. This choice brings planning closer to the residents' perception of their environment, allowing local knowledge to guide technical decisions. The actions aim to respect the site's carrying capacity and promote participatory environmental rehabilitation processes across three zones of the micro-basin: the headwaters, the slopes, and the valley floor. The interventions include the treatment of erosion, with guidance on earth movement in risk areas; waste management, through the closure of landfill sites to protect the water table and reduce disease vectors; and water management, through the cleaning and monitoring of springs and drainage lines. The work also involves nature-based solutions implemented via joint efforts (mutirões), such as infiltration trenches constructed with tyres and civil construction waste, which serve as full-scale demonstrations of accessible and replicable solutions. These actions consolidate the communities' capacity to self-manage their urbanisation processes, transforming daily life into a field for ecological and political experimentation.

1205 | Raúl Santiago-Bartolomei, Tischa Muñoz-Erickson, Hallie Eakin, David Iwaniec
Enabling Adaptation Pathways in an Urban Watershed in Post-Disaster Puerto Rico

Following the impacts of Hurricanes María, Irma and Fiona, Puerto Rico has struggled to recover from catastrophic flooding, while simultaneously initiating longer-term adaptation planning. Disparate initiatives from federal, territory, municipal and civil society actors entail distinct agendas for action as well as overlapping timelines for implementation, creating conditions of policy fragmentation, disrupted flow of climate knowledge, and the potential for maladaptive outcomes for vulnerable communities. Helping stakeholders navigate the complexity of their institutional environment can be as critical as facilitating their understanding of climate dynamics. Our work focuses on identifying and assessing how the roles, priorities, mental models, and knowledge systems of institutional and governance actors create barriers or enabling conditions for effective and equitable adaptation pathways for vulnerable communities. The overarching questions driving our approach are: (1) How are community-level and institutional-level flood adaptation pathways, and their associated actor-knowledge networks, intersecting, aligning, or conflicting across spatial and temporal scales and policy sectors?; and (2) How can a networked governance assessment, applied in a co-production process, help reveal the interdependencies of barriers and enabling factors across pathways? For this project, we created and tested participatory tools to improve adaptation governance in the Río Piedras urban watershed in San Juan, where flood adaptation initiatives are concentrated. Specifically we (1) developed a networked governance assessment framework that maps different desired adaptation pathways; and (2) applied a co-production process with stakeholders to identify the multi-scale and cross-sector pathway intersections, identify capacities and opportunities to overcome barriers, navigate governance complexity, and enable collaboration and partnerships. Our approach makes the intersecting agendas of disparate agencies operating at distinct spatial and temporal scales visible to flood-affected

communities, and, concurrently, to make visible the needs and values of local communities accessible to agencies responsible for adaptation interventions.

957 | Tingting Shi

Research on the Construction of Tourism Corridor Along Pinglu Canal from the Perspective of Heritage Tourism Integration

The perspective of heritage tourism integrates both heritage conservation and development, aligning with the principles of sustainability and people-oriented planning. As one of China's major planned artificial canals, the Pinglu Canal carries significant expectations for regional development in Guangxi, making research along its corridor of strong practical relevance.

This study approaches the Pinglu Canal from the perspective of heritage tourism integration. It first defines the concept of heritage tourism and selects the Nanning–Qinzhou section of the canal as the study area. A classification framework of heritage tourism resources is constructed, comprising four major categories and nine subcategories, based on which the spatial distribution characteristics of heritage resources are analyzed. Six influencing factors—such as elevation and slope—are selected, and combined with ArcGIS and the AHP to perform corridor suitability grading, resistance analysis, and weight calculation. Through weighted overlay, a comprehensive resistance surface is generated to identify suitable zones and optimal routes for corridor development.

The study ultimately proposes a spatial structure characterized by a "T-shaped main axis and one ring corridor", as well as an "one-feature, three-primary, two-secondary" heritage cluster system. Finally, it puts forward preliminary strategies for heritage protection and development, providing reference for the future construction and sustainable management of the Pinglu Canal.

1266 | Mariana Araujo de Oliveira, Danielle Maranhão de Castro, Angélica Benatti Alvim

CLIMATE CRISIS IN THE GLOBAL SOUTH: Environmental (IN)Justice in Municipal Documents of Fortaleza, Ceará, Brazil

The city of Fortaleza, in northeastern Brazil, reflects the national context in which public policies generate structural inequalities. Its accelerated urban expansion followed a hygienist and exclusionary logic, with public authorities promoting housing policies incapable of meeting demand, resulting in informal settlements in environmentally fragile areas, mainly along riverbanks in the city's west and southwest. This study discusses how structural factors consolidate scenarios of environmental injustice and reproduce urban and social inequalities. The hypothesis is that socially vulnerable populations are disproportionately affected by climate change's extreme events. As several authors argue, risk emerges when environmental fragility intersects with social vulnerability. Thus, an area is not inherently "at risk," but becomes so through patterns of use and occupation. Communities living near river basins face flood risks due to conditions that forced them into those spaces. This reflects climate injustice: while well-infrastructured areas undergo gentrification, economically vulnerable groups are displaced to the "leftover" territories, often unsuitable for habitation, deepening their exposure and inequality. Urban planning documents from Fortaleza have only recently begun addressing the climate crisis. This evolution

can be observed in their titles: the 2009 Master Plan emphasized “Participation,” while more recent documents, such as those from 2020, now include “Climate” as a key theme. Although this shift represents progress, content analysis reveals that these texts still neglect climate justice. This omission is evident in how they portray vulnerable river basin areas, often as problems rather than results of structural exclusion. Urban planning in Fortaleza must adopt a multiscalar approach where environmental, social, economic, and climatic dimensions are integrated. Stronger articulation among environmental and social protection policies is essential to ensure the right to the city, affordable and adequate housing, and a healthy life for vulnerable citizens.

Special thanks: This work is an excerpt from the work carried out by the research group in which we participate, "Climate emergency and public policies in Brazilian cities: challenges of urban resilience in environmentally sensitive areas." Coordinated by Professor Angélica Benatti Alvim and funded by the National Council for Scientific and Technological Development (CNPq) and the Mackenzie Research and Innovation Fund (MackPesquisa). We would also like to thank Brazil’s Coordination for the Improvement of Higher Education Personnel (CAPES), that provided the funds for part of the studies.

Heat & Health

Tue 30.6.17:45-19:15, Environment B, A215 A2 | Session chair(s): Marco Amati

2369 | Silvia Crivello, Elena Camilla Pede, Luca Staricco

Libraries as climate shelters for a just adaptation to heat waves

In recent decades, both academic and political discourse increasingly emphasized justice and equity in responses to climate change at global, national, and local scales. Across the world, many cities are creating or reconfiguring outdoor or indoor public spaces as climate shelters to help their most vulnerable residents adapt to extreme climate risks. In particular, indoor facilities equipped with air-conditioning can deliver thermal relief during heat waves to residents who are particularly vulnerable (due to their socioeconomic status, age, and health conditions) and who also live in homes characterized by energy poverty and inadequate indoor cooling.

In this context, the study explores the potential role of public libraries in Turin, Italy, as climate shelters in the event of heat waves and urban heat islands. Adopting a mixed methodological approach – which includes spatial analysis, surveys, interviews, and focus groups –, the article shows that the people who are most vulnerable to the hazard of heat waves live predominantly in urban areas where both this hazard and socio-material deprivation are higher. Based on this correlation, the article proposes using public libraries as climate shelters to simultaneously improve climatic and social justice at the urban level, planning to drive transformative, inclusive change for revitalizing neighbourhoods and safeguarding vulnerable populations from displacement. The hypothesis is that libraries, thanks to their open-access to everybody, can offer shelter to the most vulnerable citizen exposed to heat waves; at the same time, promoting libraries as climate shelters can “push” some citizens – who do not normally attend this kind of service – to approach them and thus have the opportunity to discover the wide range of services and support they can offer.

2623 | Sarah L. Coffin, Orhun Aydin, Donivan James, Enbal Shacham

Anticipating Urban Extremes: Mapping Urban Heat and Flooding to Achieve Equity and Resilience

In 2023, The International Panel on Climate Change (IPCC) projected that the global population threatened by extreme heat exposure will increase from 30% to between 48 and 76% by 2100. Further, for every 1^0 (F) of warming, the air holds an additional 4% more moisture, increasing global flood risks (IPCC 2023). Challenges posed by unprecedented climate extremes are often magnified in urban environments, further exacerbating existing urban inequalities. Understanding these vulnerabilities requires robust and interdisciplinary planning efforts across multiple time horizons, demanding comprehensive data, computational methods, and robust planning strategies for crafting community-based resilience and sustainability outcomes.

This paper introduces early findings from Saint Louis, Missouri-based Resilience Center, ADAPT-STL, which aims to establish an extensive interdisciplinary climate monitoring, modeling and decision-making framework for St. Louis, Missouri, USA. Weather data indicates that by 2085, temperatures in the Midwest US are projected to increase between 2.5 to 5.3°C (NOAA 2025), forcing cities to develop planning strategies that embrace climate adaptation and resilience while ensuring an equitable distribution of remedies. This requires planners to reflect on community knowledge about how extreme heat and flooding impacts vulnerable populations, while mapping out adaptation strategies. As demonstrated in Schön's work on the reflective practitioner (1982), we employ a similar social learning strategy to understand how residents are impacted by these climate extremes. We deploy a hybrid network of weather data and remote sensing tools to measure urban micrometeorology across multiple neighborhoods that we integrate with detailed information about the built environment to form a high-resolution digital twin of the urban environment. Preliminary results already show strong relationships between green space shape and surrounding land-use and urban cooling effects with large and established green spaces, which are projected to be 8.2^0 C cooler than neighborhoods projected to suffer prolonged heat islands.

1421 | Alexandra Stankulova, Luca Staricco

Planning healthier and more just cities to cope with heat waves. An innovative methodology for identifying priority locations for urban green areas as climate shelters

In the context of the increasing frequency and magnitude of extreme heat events, leading to high levels of morbidity and mortality during the summer season, the presence of public green spaces inside cities can be very beneficial for mitigating the effects of climate change but also for protecting the most vulnerable people.

Green spaces can act as a system of climate shelters, as it has already been proposed in series of cities such as Barcelona and Paris, given their evapotranspiration and shading qualities, but also thanks to the fact that they are open and welcoming to all kinds of population groups, including elderly, children, women, people from ethnic minorities or of low-economic status. Unfortunately, these kinds of spaces are often characterised by limited accessibility, a phenomenon that gets even more accentuated when we take into consideration vulnerable population groups mainly due to their slower walking speed.

The objective of the current work is to develop a methodology for identifying priority urban zones for creating new urban green areas or priority levels for modifying existing ones. This methodology is based on a newly proposed climate-sensitive accessibility measure, which takes into account the impact of the heat onto the pedestrian walking behaviour, and the heat risk characterising the population living within a certain area.

The city of Turin, Italy has been selected as a case study onto which to test the methodology. All the operational steps are presented. The obtained results show the utility of the methodology as a decision-support tool for creating more just and healthier cities, by identifying the most effective interventions on urban green areas.

1076 | Tzu-Ling Chen

Examining the cooling effects and carbon sinks of green infrastructure and urban built forms on surface temperature based on the co-benefits perspective

The Urban Heat Island (UHI) effect, a significant issue arising from urbanization, has caused severe disruptions to global and regional natural and human systems. The extensive presence of impervious surfaces, buildings, and transportation infrastructure in urban areas not only increases heat accumulation but also leads to a gradual rise in temperatures within urban centers. Among the strategies to mitigate the UHI effect, green infrastructure has gained increasing attention. Urban green spaces can help alleviate the UHI effect by reducing surface temperatures and enhancing carbon sequestration. The expansion of urban green spaces, particularly large, continuous green areas, not only cools surface temperatures but also increases carbon sequestration, thereby reducing atmospheric carbon dioxide concentrations. However, improper green space configurations may exacerbate the UHI effect, making certain greening strategies ineffective or even worsening the intensity of heat islands in urban or localized areas. This study aims to investigate the impact of green infrastructure on the UHI effect and its co-benefits with carbon sequestration. Specifically, the research focuses on urban green spaces in the built-up areas of Taipei City. By employing numerical models, the study will estimate the carbon sequestration capacity of urban green spaces and analyze the cooling effects of different green space configurations on the surrounding built environment based on specific levels of carbon sequestration. The research will utilize remote sensing technology to obtain height data of urban green spaces and integrate these with surface temperature data to conduct regression analysis, thereby uncovering the spatial relationship between various built environment characteristics and the cooling effects of green spaces. Ultimately, this study aims to provide concrete recommendations for green space configurations that can effectively increase carbon sequestration while mitigating the UHI effect, offering adaptive strategies for future green infrastructure planning.

Green Equity

Thu 2.7.11:00-12:30, Environment A, A123 A1 | Session chair(s): Ranja Hautamäki

1530 | Xuanmin Dong

Re-Centering the Planner: Operationalizing Environmental Inclusion through Fractal Analysis of Local Climate Zones

In an era of climate crisis, spatial planning faces a dual anxiety: its perceived "peripheral" role against other policies, and the fear of "algorithmic knowledge domination" marginalizing the "prudent planner." This paper challenges this narrative by arguing that complex data tools, when wielded critically, are essential for re-centering planning as the core arbiter of spatial justice.

We argue that the climate crisis is fundamentally a crisis of environmental inclusion, manifesting as the unequal spatial distribution of environmental "goods" (e.g., cooling green spaces) and "bads" (e.g., heat-retaining surfaces). Using Beijing as a case study, we operationalize this concept through a novel methodology. We first map the city using the Local Climate Zones (LCZ) framework, identifying the spatial allocation of different thermal environments. We then employ fractal analysis (Dbs) not as a "black box," but as a planner's tool to quantify the morphological complexity of these zones.

Our findings reveal stark distributional effects of development: the fractal dimension (Dbs) of built-up types is universally higher than natural types, visualizing the 'pancake-style' expansion that simplifies ecological spaces. More critically, we uncover spatial signatures of inequity: ‘Sparsely built’ areas (e.g., urban villages) show an extremely high Dbs (1.66), indicating chaotic form and high vulnerability. Conversely, 'Water bodies' exhibit a low Dbs (1.23), reflecting an over-simplified, channelized system that lacks the ecological complexity to provide environmental goods.

This study demonstrates how the prudent planner can leverage remote sensing and fractal theory to move beyond technical application, instead exposing the socio-political dimensions of urban form and championing a data-driven agenda for radical environmental inclusion.

2224 | Hong Li, Yang Xiao

Does the Approach of “Just Green Enough” Really Prevent Green Gentrification?

The “just green enough” approach advocates for the provision of small-scale parks to mitigate green gentrification. Previous studies have explored the effectiveness of this strategy by combining park characteristics and location, but they have largely overlooked the impact of socioeconomic circumstances with varying initial accessibility to parks on green gentrification, necessitating further empirical validation. This study examined the green gentrification associated with newly built parks in Shanghai from 2010 to 2020, considering park scale, function, location, and the moderating effect of initial park accessibility. Our findings revealed that new parks induced gentrification in nearby areas, though the extent varied across park scale, function, and location. Furthermore, we found that the mediating effect of initial park accessibility varied in different park types and locations. This study enriches empirical research on green gentrification and offers policy recommendations for equitable urban green space planning.

2710 | Irina Branko

Tirana's Green Mirage: Illusions of Sustainability in a Rapidly Urbanizing City

Tirana, once a city of 200,000 inhabitants, is rapidly transforming into a metropolitan hub for Albania, now housing approximately one million residents. Over the past 35 years, formal and informal developments have fundamentally altered the city's footprint and internal morphology, while ongoing construction and road infrastructure projects accelerate this transformation. Despite the Tirana 2030 General Local Plan's visionary commitment to a "green urban center", institutional neglect of natural preservation in urban, peri-urban, and semi-natural spaces remains starkly evident. While economic growth is imperative in transitional contexts, Tirana's breakneck urbanization cannot justify marginalizing environmental and social imperatives. The city's sole major park - originally conceived as an urban escape - epitomizes this tension: suffocated by the very growth it was meant to offset, it now diminishes in size while high-rise developments encircle its perimeter. These projects capitalize on the park's aesthetic value, commanding premium real estate prices that exclude lower-income residents. Critically, this development forfeits the park's potential as green infrastructure connecting peripheral ecological zones to the urban core. Similar threats loom over sites like Farka Lake and Paskuqan, where the loss of these spaces would rupture vital ecological corridors and erode urban resilience. Central question: Can Tirana recalibrate its development model before green space becomes a relic of privilege rather than a foundational right of urban life? Through cartographic analysis and spatial ethnography, this article develops a framework for green infrastructure that counters green gentrification.

964 | Arpa Aishwarya, Salla Eilola, Nora Fagerholm, Elisa Lähde

Exploring Distributional Justice with 3-30-300 Rule: The role of socio- economic status in Urban Green Accessibility

Amid growing sustainability and resilience challenges, including climate change and public health concerns, urban green spaces have emerged as globally significant assets that enhance the quality of urban living.To implement this theory in practice, a new 3-30-300 rule of thumb has been introduced that requires every citizen to be able to see at least three trees from their home, have 30 per cent tree canopy cover in their neighbourhood, and not live more than 300 metres away from the nearest green space. However, urban greening policies and branding can also contribute to rising housing costs and land values, resulting in unequal distribution of green spaces within our cities. Applying the 3-30-300 rule, this study investigates how urban green space is distributed across Finnish neighbourhoods in the context of the city of Turku. It aims to further explore how the 3-30-300 rule is associated with the socio-economic level of the neighbourhoods measured based on the education, unemployment, and income level of its residents. Through a participatory map-based survey, 990 respondents across the city marked the nature places that they access during their everyday lives. Followingly, they shared the duration and frequency of their visits along with the transport accessibility to these urban green spaces. Based on this data, the study explores whether living in neighbourhoods with low 3-30-300 and socio-economic status enforces compensatory travel behaviours for its residents to access urban green further away from home. Our findings highlight the current state of distributional justice in urban nature across Finnish neighbourhoods and acknowledge any existing inequalities among diverse socio-economic groups. Furthermore, the study underlines the critical importance of the planning context, as the accelerating impacts of climate

change make equitable distribution of urban green spaces essential for ensuring the future resilience of our cities.

1033 | Charles Goode

Green Infrastructure and Urban Centre Repurposing: Learning Lessons from the West Midlands

With the profound and accelerating decline of urban centres as places for retail traditionally supported by high levels of footfall and chain (national) retailing, there is an emerging trend of urban areas around the world introducing urban greening as a way to try to improve a range of environmental and social factors including increasing dwell time, socialisation and footfall alongside aiming to improve people's physical and mental wellbeing and perception of place. This paper, which focuses on the findings from an interdisciplinary impact project, which critically evaluated the economic and environmental impacts of urban greening in a post-industrial landscape (West Bromwich). Whilst there are initial promising signs in terms of the impact of urban greening upon air quality and Urban Heat Island, the study found the main benefits of greening to be related to creating intergenerational spaces of sociality in urban centres. The paper reflects upon the wider emerging implications for theory and practice and develops policy recommendations whilst reflecting on the broader changes in the funding landscape for the repurposing of urban centres. The paper is therefore very timely at a moment of significant interest in green infrastructure and its introduction in many cities around the world.

Heat Island 2

Thu 2.7.11:00-12:30, Environment B, A215 A2 | Session chair(s): Deniz Can

2831 | Deniz Can

Mapping Thermal Inequality for Climate Resilience: How Uneven Access to Shade Shapes Everyday Urban Life

With the first quarter of the 21st century the impacts of the climate crisis have been more visible in the urban landscape, intensifying the search for resilient approaches to extreme climatic conditions. Severe weather conditions along with urban heat stresses and unequal distribution of green and cooling infrastructure raise the question of spatial justice in the context of heat and climate change. Cooling and shading infrastructures function as resources that provide resilience to heat exposure especially for the densely urbanized areas, while unequal distribution of cooling infrastructure creates vulnerabilities rooted in climate crisis and impacts patterns of daily life and urban behavior. This study explores the concept of thermal inequality both as a spatial and social phenomenon and influences the way people inhabit, navigate, and experience urban and public spaces. It investigates heat related inequalities in the case of Ankara's urban context, through examining the availability of cooling elements and infrastructure (such as shaded public areas, tree canopies, water features, pergolas), mapping access to these components and exploring how availability and accessibility of these components shape urban behavior and daily life. Focusing on everyday life experiences, the research aims to investigate how unequal access to shade and cooling infrastructure influences patterns of mobility, comfort, and behavior in public space. Through face to face and online surveys the study documents the experiences of heat in

public space, including daily routines, movement patterns, comfort levels and social interactions within the urban landscape. The objective of the study is to identify and map out thermally vulnerable areas as perceived by residents in different neighborhoods and contexts within the city. To create a basis for climate-responsive and resilient planning, the study explores cooling infrastructures as both ecological assets and social rights, thus highlighting thermal inequalities and the need to center communities for climate-resilient planning.

2260 | Mushu Zhao, Shuyu Lei, Weifeng Li

Incorporating Urban Thermal Comfort into TOD Planning: Non-linear Heterogeneous Built Environment Effects

Transit-Oriented Development (TOD) has been widely promoted as a planning framework aimed at reducing automobile dependence and mitigating urban sprawl by encouraging the use of public transit and active travel. However, the increasing frequency of record-breaking heat events may undermine the pedestrian and cycling-friendly conditions that TOD seeks to promote. In addition, some of TOD's core principles, such as high density and compact urban form, have been identified as contributing factors to the urban heat island effect. This raises concerns about whether these principles may conflict with other TOD goals such as walkability and people-oriented urban design. These issues highlight the urgent need to incorporate heat mitigation strategies into TOD planning. This study evaluates outdoor thermal comfort during the summer in Shanghai and analyzes the nonlinear and spatially heterogeneous effects of TOD structural factors on thermal conditions. Using the Geospatial Explainable AI (GeoXAI) framework, which enhances model interpretability and accounts for spatial variation, we find that traditional TOD indicators such as population density and building density are positively associated with elevated thermal discomfort. By reconstructing the Design dimension of the TOD evaluation framework, we identify that metro catchment areas with greater variation in building height, higher vegetation ratio, and increased sky view factor are associated with improved thermal comfort. By assessing thermal conditions at the station level and exploring the potential of TOD design to reduce heat stress, this study provides recommendations for integrating thermal mitigation strategies into urban planning and transit-oriented development practices.

1982 | Chao Ma, Bijun Li, Ye Zhang, Peng Yao

Does Heat-Flood Exposure Exacerbate Environmental Inequality in High-Density Urban Areas? An Empirical Study of 6 Megacities in China

Background

Climate change intensifies heat-flood exposure in high-density urban areas. Environmental inequality stemming from uneven resource allocation during urbanization further elevates climate risks for vulnerable groups. Existing studies mostly focus on climate risk quantification or single-dimensional analysis of environmental inequality, rarely systematically exploring the spatial synergy effects and driving mechanisms between heat-flood exposure and environmental inequality in high-density areas. Thus, this

study constructs a "risk coupling-spatial correlation-threshold regulation" analytical framework to reveal these mechanisms.

Methods

The research covers central urban areas of 7 megacities with a total population exceeding 15 million. 1) An environmental inequality evaluation system is established based on vulnerability-accessibility-stress dimensions. A heat-flood exposure index is developed using UTCI, SWAT-simulated waterlogging data (calibrated by multi source data), and a coupling coordination model. 2) Kernel density estimation (describing spatial distribution), LISA (verifying clustering patterns), MGWR (revealing association patterns) are combined to analyze spatial characteristics and correlation mechanisms. 3) A heat-flood vulnerability index is constructed by coupling heat-flood exposure and environmental inequality. Ten core indicators are selected from natural regulation and social response dimensions, with a coupled model integrating RF (factor importance ranking), GBDT (nonlinear relationship fitting), and Bayesian network (threshold effect identification) to analyze the complex correlation between heat-flood vulnerability and driving factors and accurately identify key regulatory thresholds.

Conclusions

Heat-flood exposure and environmental inequality show significant central agglomeration, with stronger intensity in core areas. They exhibit strong positive spatial correlation (global Moran's I: 0.62–0.78), and MGWR reveals heterogeneous positive driving effects of heat-flood exposure on environmental inequality, most pronounced in Beijing (0.57) and Chengdu (0.53). Key thresholds: blue-green space coverage ≥35.2% (natural regulation), public service accessibility ≤15.3 minutes, and emergency response efficiency ≥85.6% (social response). Policies should optimize blue-green space, equalize public services, and strengthen emergency capacity to mitigate compound risks through balanced resource allocation.

1443 | Yi Ju Chao, Tzuyuan Stessa Chao

Urban Heat and Active Ageing: Exploring the Relationship Between Temperature Change and Ageing Well-being in Tainan, Taiwan

Climate change and population aging are century-defining urban challenges. According to the National Oceanic and Atmospheric Administration (NOAA, 2024), the global average temperature in 2023 was 1.19°C higher than the twentieth-century average, making it the warmest year since 1880. Global warming has become an important issue affecting urban health and quality of life. Taiwan is also facing rapid aging and urban heating simultaneously. The heat risk and life participation of elders are challenged in their daily exposure. This combination not only increases the heat-related health risk but also compresses the outdoor activities and social participation of elders, impacting the realization of "active aging." Therefore, it is necessary to evaluate the correlation between warming and active aging through spatial quantification methods and identify risk hotspots to support local adaptation.

Previous studies have largely examined extreme heat and its effects on health and mortality, with limited quantitative, spatial analysis of how changes in high-temperature environments shape active-aging outcomes. Accordingly, this study employs the Taiwan Active Aging Index (TAAI) in the Tainan metropolitan area, calculating regional-scale scores. Research method combines multi-period

temperature change data and uses Geographic Information System (GIS) for map superimposition and spatial analysis. Spatial statistics (Moran's I, LISA) were employed to identify clustering patterns and spatial correlations among different risk clusters. This approach examines the impact of high-temperature environments on active aging performance in an aging society while analyzing the spatial relationships and intensity between temperature variations across different periods and the TAAI.

This study aims to reveal the potential impact of high-temperature environments on the performance of aging populations and provide empirical evidence for climate adaptation and senior-friendly urban planning. By classifying risks and identifying neighborhood-level hotspots, we suggest priority interventions and resource allocation to inform cross-departmental collaboration and localized decisions.

1753 | Azem KURU, Büşra BEGEN OKAY

Long-Term Assessment of Urban Heat Island Dynamics in Istanbul Using Meteorological and Socio-Economic Data

This study investigates the environmental and anthropogenic drivers of the Urban Heat Island (UHI) effect in Istanbul by integrating long-term meteorological observations with socio-economic indicators. Using datasets from the Turkish State Meteorological Service (TSMS) and the Turkish Statistical Institute (TurkStat), the research examines changes in temperature, relative humidity, wind speed, population, electricity consumption, and motor vehicle ownership between 1970 and 2023. Results indicate a clear and continuous warming trend, with annual average temperatures increasing from 13–14°C in the 1970s to 15–16°C in the 2020s. July averages show the most pronounced rise, exceeding 25°C in recent years, highlighting the intensification of summer heat stress. Parallel to these climatic changes, Istanbul's electricity consumption more than doubled, and the motor vehicle fleet expanded from 2.5 million to over 5.4 million between 2007 and 2023, significantly increasing anthropogenic heat emissions. Population dynamics also contributed to the spatial variability of UHI intensity, with dramatic growth in peripheral districts such as Esenyurt, Başakşehir, and Arnavutköy. At the same time, a long-term decline in average wind speed, likely linked to increasing urban density and disrupted wind corridors, has reduced natural ventilation and exacerbated thermal accumulation in the city. The combined analysis shows that UHI in Istanbul is driven not only by climatic factors but also by rapid urbanization, high energy demand, transportation emissions, and the loss of natural surfaces. The findings emphasize the need for evidence-based urban planning strategies that integrate green infrastructure, protect wind corridors, promote energy efficiency, and prioritize permeable and reflective materials. This study provides a comprehensive assessment of UHI dynamics in Istanbul and offers insights applicable to other rapidly growing metropolitan regions facing similar climatic and urbanization pressures.

Green Carbon and Landscape

Thu 2.7.14:00-15:30, Environment A, A123 A1 | Session chair(s): Nora Fagerholm

2506 | Davide Vettore

Landscape under pressure: rethinking the role of landscape assessment in times of climate and ecological transition

Across Europe, landscape is increasingly exposed to overlapping pressures from climate change, biodiversity loss and energy transition. Within environmental planning and assessment, landscape often remains a marginal and weakly operational category, constrained by fragmented visual studies and static inventories. Building on a landscape evaluation framework, this contribution explores how landscape can be assessed in ways that respond to contemporary environmental transformations and support territorial resilience.

The research adopts a conceptual lens informed by Eugenio Turri's understanding of landscape as a culturally mediated, perceptual relation between society and territory, and Alberto Magnaghi's notion of territorial heritage as a living, place-based system of environmental, productive and symbolic values. From this perspective, landscape is not a backdrop, but a dynamic interface where environmental change, everyday practices and long-term territorial structures intersect.

Empirically, the Italian context offers a laboratory for testing landscape indicators, characterised by strong regional differences and uneven data availability. In particular, the ISPRA's "Carta della Natura" system of indicators provides a multi-scalar description of habitats, ecological value and landscape quality, offering an occasion to explore how these indicators can support Environmental Impact Assessment, and highlighting whether their current use remains weakly connected to planning practices.

Methodologically, the research combines a critical review of existing practices with the development of a framework of landscape indicators tailored to contemporary transitions. This framework articulates different families of indicators – morphological and land-use patterns, ecological connectivity and ecosystem functions, perceptual dimensions, and socio-cultural practices – and discusses how they can be operationalised using existing datasets and adapted to local specificities.

Rethinking landscape indicators is not only a technical exercise, but a way to reposition landscape at the core of environmental planning, enabling planners to read impacts, address conflicts and support informed decisions on preserving and improving landscape quality.

2748 | Federica Isola, Francesca Leccis, Federica Leone, Corrado Zoppi

Regional spatial planning and global climate change: An ecosystem service-based approach concerning two Southern Italian Regions

Climate change presents significant threats to human health, influencing both physical conditions and mental well-being. Reducing these impacts depends on keeping the carbon cycle in balance, since carbon dioxide helps control the planet's temperature by shaping the behavior of greenhouse gases. In accordance with the Paris Climate Agreement, which aims for climate neutrality by the end of the century, the objective is to keep global warming within 1.5 °C by reaching a balance between carbon released into the atmosphere and carbon removed from it. Yet the carbon that is already accumulated in

the atmosphere could still drive roughly 0.6 °C of additional warming, even if emissions ceased immediately. For this reason, attaining net-zero emissions is crucial to avoid surpassing the temperature threshold and underscores the need to understand how ecosystems store and capture carbon.

This study introduces a methodological approach to achieving climate neutrality through planning strategies, relying on the Carbon Capture Capacity (CCC) indicator to evaluate existing conditions and emerging patterns. CCC is examined together with five ecosystem services (ESs): reduction of heat stress, habitat quality, agricultural and timber outputs, scenic value, and the potential for outdoor recreation (POA). The analysis investigates spatial relationships between CCC and these ESs in Basilicata and Campania to assess how multifunctional ecosystems can strengthen carbon sequestration and support global climate-neutrality goals.

The spatial distribution of CCC is derived using the "Carbon Storage and Sequestration" module in the InVEST software, which calculates carbon stored in above- and below-ground vegetation, dead organic matter, and soils. Findings indicate that heat-stress reduction and habitat quality show the strongest positive associations with CCC, while POA has a moderate influence. Agricultural and timber production, along with scenic value, display weaker connections; however, scenic value highlights the importance of carefully locating photovoltaic and wind energy systems to preserve landscape character.

2489 | Paula-Kaisa Leppänen

Residential vegetation and its climate impacts

Challenges in densely built urban areas, such as the heat island effect and urban flooding, will be exacerbated by climate change due to abundance of impervious surfaces and the scarcity of vegetation. Preserving and enhancing urban green infrastructure is a cost-effective way to mitigate many of the problems posed by climate change. Although urban green and its climate impacts have received increasing attention, the current research has not systematically studied carbon sequestration and storage capacity of residential green spaces, and how planning practices affect the associated climate benefits. Furthermore, surveys of urban vegetation have primarily focused on domestic gardens or public green areas, often neglecting the urban yards of apartment buildings, even though they are a common urban typology and thus impact the lives of major part of citizens.

This study focuses on this research gap of residential vegetation of urban neighbourhoods and their climate benefits, especially carbon sequestration and storage. In order to understand the complexity of the topic a multi-scalar and multidisciplinary approach is required. Hence, the study examines urban vegetation through a combination of field survey, GIS-based analyses, and climate modelling. The case-studies were conducted in Helsinki.

The study demonstrates that residential areas constructed in the early 2010s exhibit lower levels of vegetation, especially large trees, compared to older neighbourhoods. This reduction in canopy cover has, in turn, diminished the climate benefits provided by residential vegetation. Our research underscores the importance of ensuring sufficient tree cover and permeable surfaces in cities with progressive climate mitigation agendas throughout urban planning, construction, and property management stages.

2753 | Sabrina Lai, Federica Isola, Federica Leone, Francesca Leccis

A methodological approach for ecosystem-service hotspot identification at the regional scale: Evidence from Basilicata and Campania, Italy.

Evaluating ecosystem services (ESs), the material goods and non-material benefits essential for sustaining human existence and improving quality of life, are a critical component of spatial planning. By regulating modifications in land use, spatial planning can substantially transform the ecological composition and functioning, both in urban areas and in natural or seminatural landscapes. Such transformations influence the availability of ESs and, in turn, affect environmental conditions and societal well-being. In this perspective, this work advances a methodological procedure aimed at delineating ES hotspots, conceived as spatially distinct zones that deliver exceptionally high levels of ES provision, in order to promote more environmentally responsible planning strategies.

The methodological approach comprises two main steps, of which the first consists of a biophysical analysis of three essential regulating ESs: habitat quality, which reflects the capacity of ecological systems to maintain diverse biological communities; carbon storage and sequestration, which captures ecosystems' role in mitigating climate change through the removal of greenhouse gases from the atmosphere; and land surface temperature, which serves as a diagnostic measure of the thermal regulation provided by vegetated landscapes. In the second stage, hotspots of ES supply are identified based on a combination of spatial statistical techniques, which makes the identification method robust and less prone to the inherent sensitivity associated with each specific technique.

When applied to the southern Italian regions of Campania and Basilicata, this approach facilitates a comparative assessment of the magnitude, configuration, and distribution of ES hotspots across the two areas. Because the framework can be readily adapted to any location where biophysical ES data are available, it provides planners and policymakers with robust, evidence-based guidance to support more sustainable and context-sensitive planning decisions.

2922 | Ana Ruiz-Varona, Enrique Cano-Suñén, Federico Bellisardi, Jose Javier Ramasco

Towards Ecological Planning Based on Territorial Energy and Human Mobility Patterns

Cities are energetic and ecological systems shaped by the continuous interaction between environmental gradients, biophysical processes, and human mobility. This contribution develops a conceptual and methodological framework for ecological planning grounded in the energetic structure of the territory, extending the idea that "nature performs work for man" and that planning must align with natural forces to avoid ecological, social, and energetic costs. Using GIS-based environmental layers, mobility data and physiographic analysis, we argue that the territory should be understood not as a passive surface but as an energy field that channels, constrains and enables urban form. Daily mobility, commonly examined through infrastructure or accessibility lenses, can instead be interpreted as an adaptive energetic process, where individuals and urban systems seek to reduce unnecessary work and stabilize movement within favorable environmental conditions. The proposed approach identifies territorial energy costs (slopes, ecological resistances, natural flows, and environmental fragilities) and integrates them with mobility patterns to reveal where urban development contradicts natural dynamics, generating high environmental burdens, exposure to hazards, or reduced habitability. Conversely, it

highlights energetically favorable corridors where planning can reinforce ecological functions, enhance connectivity, and support resilient urban morphologies. The result is a replicable tool for practice-based urbanism that bridges ecological thinking and spatial analysis.

965 | Ranja Hautamäki

How urban green spaces contribute to carbon-neutrality: Bridging research and practice for evidence-based recommendations in carbon-smartness

Reaching the carbon-neutrality targets of cities necessitates not only reducing emissions but also enhancing carbon sinks. Urban green is a cost-effective sink that provides numerous co-benefits beyond carbon sequestration (CSS): it mitigates urban flooding and heatwaves, enhances biodiversity and well-being, underscoring the interconnectedness of climate change, biodiversity loss, and human activities. Despite its potential, the CSS of urban green is not being harnessed effectively although the interest in natural carbon removal is growing. Emission-oriented climate policies often overlook the significance of carbon sinks and the multifunctionality of urban green spaces. This gap is exacerbated by a deficiency in knowledge and assessment methodologies, coupled with an underestimation of the contributions of urban carbon sinks.

In a 6-year research project Co-Carbon we have explored how urban green contributes to carbon-neutrality within the climate-biodiversity-society nexus. We have filled in the knowledge gaps, quantified the CSS of urban green and its co-benefits and developed evidence-based recommendations for carbon-smartness. We have brought together atmospheric, soil and social scientists and landscape architects and combined environmental observations, process-based modelling, ppgis/gis analysis, life cycle analysis and practice-oriented design research. We have bridged research and practice by engaging cities and landscape industries in the co-creation of carbon-smart practices.

This presentation summarizes our three key policy recommendations: 1) preserving existing carbon storages in urban planning, 2) creating new multifunctional sinks, and 3) adopting low-emission practices in the construction and management of urban green. Our study demonstrates that the implementation of carbon-smartness occurs across scales, ranging from strategic planning to the design and management of parks and individual plots. To effectively integrate urban green into urban planning, it is crucial to adopt more efficient planning tools and to advance holistic climate policies that encompass carbon sinks, biodiversity and well-being targets.

Climate Adaptation 1

Thu 2.7.14:00-15:30, Environment B, A215 A2 | Session chair(s): Marina Borges

2346 | Malachy Buck, Peter Davids, B. Ayça Ataç-Studt, Carla Ferreira

Challenges of Climate-Induced Relocation: A European Perspective on Landowner Resistance

Across Europe, a variety of strategies are employed to manage escalating natural hazard risk. While long-standing threats like flooding and wildfire have historically impacted populations and property, the

increasing intensity and frequency of these events, driven by climate change is necessitating more proactive risk management, sometimes involving community relocation.

Despite the variable presence of compensation, incentives and non-monetary support to encourage and facilitate relocation, this strategy introduces significant challenges and is often met with resistance from homeowners, who often continue to live in risky areas. This paper investigates how governments approach this issue, for example, do governments take on the financial risk of those who do not wish to move by paying homeowners damages, if not, how should they intervene against the will of such homeowners?

Employing a comparative case study methodology, the paper analyses cases within Wales, Belgium, England, Türkiye, Portugal and Italy. These risks cover pluvial flooding, coastal flooding and erosion, landslides and wildfires, providing an analysis across risks which are increasingly threatening communities across Europe. Drawing upon the Policy Arrangements Approach, this study examines the interplay of actors, resources, rules and discourses shaping the institutional settings governing the response to climate risk. Our six cases reflect diverse geographies, varying legal cultures and differing approaches to land policy, property rights and community involvement. By analysing these contextual differences, this research contributes to a deeper understanding of how institutional frameworks shape government and landowner behaviour concerning climate risk and relocation.

The paper presents a typology of four different types of response to climate risk within Europe, from non-intervention to strategies which employ emergency relocation. By comparatively analysing the effectiveness and implications of these diverse strategies across varying institutional settings, the paper identifies more effective approaches to managing risk through spatial planning and land policy.

1238 | Annet Kempenaar, Gaby Langendijk, Dana Stuparu

Designing Dynamic Development Pathways for a climate proof Boschstraatkwartier

Climate change calls for urgent and transformative changes in the way we design, plan and organize neighbourhoods and cities. The fundamental uncertainties regarding the impacts of climate change call for responses and design solutions that are flexible and adaptive. In this context, planning approaches that focus on ‘design’, also coined as design-led or design-based planning, are increasingly advocated as a means to develop such flexible and adaptive strategies and solutions. However, design-led planning lacks well-established methods and methodologies that can do justice to (climate related) unknowns and uncertainties, to the needed long-term perspective in planning for climate change, to avoiding lock-ins that harness future generations in unwanted situations, while also taking into account, and connecting to other spatial issues and challenges. Dynamic Adaptive Policy Pathways (DAPP) from the field of climate adaptation studies holds promising possibilities on this front. DAPP is a decision analysis framework that unravels possible decision pathways over time, building on different scenario’s, and identifying tipping-points and interdependencies. Employing a participatory action research strategy, this study aimed to test the value of DAPP for design-based planning for climate change. We explored future scenarios for a climate neutral, climate proof and liveable Boschstraatkwartier, a neigbourhood in Maastricht (the Netherlands). The research was performed in and with the neighbourhood and resulted in identifying short-term ‘low-hanging fruit’ measures, ’no-regret’ actions, as well as future decisions and

possibilities. As such, the study showed the potential of a Designing Dynamic Development Pathways approach in developing responses to climate change that provide direction for necessary action, indicate critical choices, and illuminate future options.

1820 | Deema Abo Elassal, Yosef Jabareen

Distribution of adaptation measures and their implications on social justice – The case of New York City

In the era of climate change, many cities are acknowledging the importance of adaptation planning, and are actively developing policies to cope with the inevitable impacts. In recent years, some cities have recognized the link between adaptation planning and social justice, actively creating adaptation policies that integrate both aspects. As these cities increasingly weave social justice into their adaptation planning, the real significance of this inclusion often lies in the finer details rather than in broad policy statements. This study focuses on these details by examining the allocation of adaptation measures and their implications for social justice as outlined in various plans. Utilizing the frameworks of Jabareen (2013) and Abo Elassal and Jabareen (2025), this paper analyzes the distribution of adaptation measures based on planning scale (city-wide versus neighborhood-level), targeted groups, the visions of plans, and procedural justice, using New York City's climate action plans from 2007 to 2023 as a case study. The findings reveal an evolving vision that emphasizes equity and social justice, addressing the historical inequalities faced by disadvantaged groups. However, this rhetorical shift is not evident in the procedural processes or the actual distribution of adaptation measures. Most plans remain top-down and show limited meaningful public engagement, with only a few exceptions. Adaptation initiatives are primarily designed at the city-wide level, often overlooking the diverse needs and vulnerabilities of communities and neighborhoods, which can hinder their ability to cope with various climatic scenarios. This disconnect undermines the goal of adaptation and risks worsening the vulnerabilities of already disadvantaged communities.

1338 | Gérard Hutter, Marco Neubert, Regine Ortlepp

Compound climate risks and urban resilience – the case of Dresden

Compound climate risks are defined by the interaction of climate change risks, "which may be characterized by single extreme events or multiple coincident or sequential events that interact with exposed systems or sectors." (Simpson et al. 2023, p. 3) There are preconditioned, multivariate, temporally and spatially bounding climate risks (Zscheischler et al. 2020). Global climate change is increasingly characterized by high impact compound events (Ridder et al. 2022).

The management of compound climate risks requires combined innovations (i.e. new policy mix). In addition to established natural hazard management, further policies such as climate change adaptation and spatial planning play important roles. Management efforts entail complementary innovations which (potentially) include

- Conceptual innovations (e.g., new risk assessment method),

- Technical innovations (e.g., new web-based application),
- Social innovations (e.g., new actor network),
- Planning and policy innovations (e.g., new formal rules, funding schemes).

Complementary innovations may transcend specialized and institutionalized boundaries of natural hazard management. Innovations depend on context-sensitive and transdisciplinary efforts to increase resilience. The single case study on Dresden focuses on how a citizen science approach for adapting the building sector and green-blue infrastructure to climate change comes under pressure to consider compound climate risks. Up to now, the approach considers multiple, but unrelated climate risks (Danke et al. 2025). Implications for innovation in planning and policy development are considered. The contribution to the WPSC 2026 is provided by a team of interdisciplinary authors belonging to strategic planning scholarship, physical geography, and civil engineering with a focus on the building stock.

1556 | Thomas Immel, Antje Matern

Urban planning in Düsseldorf between creating housing and climate adaptation

Düsseldorf is one of Germany‘s most prosperous cities, exceeding 700,000 inhabitants in 2035. In terms of ensuring a liveable future for city dwellers, this presents two key conflicting challenges: firstly, creating housing by inner-city development and secondly, climate adaptation to the evident effects of climate change, in particular: urban heat islands, reduced nighttime cooling, heavy rainfall events. Nature-based solutions, in-cluding blue-green infrastructure, and structural adaptations via density measures and building positioning, are crucial. The city's strategic planning actors are called upon to combine structural densification with climate-related measures in order to preserve ecological integrity while managing economic pressures at local level.

This paper analyses the tension between housing construction and climate adaptation based on 31 binding land-use plans in Düsseldorf’s inner-city development undertaken in 2024. It provides insights into planning practice at the interface of environment, the built environment and policy in German municipal planning. The city pursues a compact building principle with high densities: 23 and 25 plans exceed the land utilisation ordi-nance values for floor area ratio and floor space index, respectively. To compensate, ex-tensive and intensive roof and underground parking garage greening with defined mini-mum substrate thicknesses are mandatory. Individual plans include facade greening, multifunctional retention areas, roof garden and secured public green spaces. However, the city's decision not to undertake climate modelling analyses is critical. This hinders optimized planning alternatives for climate-adapted densification. Although all plans contain greening specifications for traffic areas and inner courtyards, the bioclimatic situation will deteriorate in at least 16 cases. It is apparent that the city's primary objec-tive remains housing construction, with small-scale climate adaptation measures being implemented in small-scale plans. The findings of the paper underscore the need for greater integration of climate adaptation into urban land-use planning to ensure sus-tainable urban development and quality of life in urban agglomerations.

2192 | Karen Vella, Jill Blakely, Margaret Gooch, Ananya Majumdar

Scenarios at Scale: A Governance Framework to Address Impacts and Risks of Marine Cloud Seeding and Brightening Technologies in the Great Barrier Reef

In the face of pressures of climate change and biodiversity loss and terrestrial impacts on marine and atmospheric health, planners globally are rethinking planning theories, approaches and priorities. Despite calls to action heralded by the bleaching of the world's coral reefs from solar radiation exposure, pollution and cumulative pressures, planning, regulatory and permitting systems have not transformed at the scale or pace required. Loss of coral reefs with Outstanding Universal Value (OUV), as designated by the UNESCO's World Heritage Committee has ecological consequences and deep socio-economic consequences across many sectors and communities, locally, regionally and internationally.

As protective geo-engineering technologies, such as marine cloud brightening (MCB), emerge to provide reef-saving benefits, they also raise profound governance, ethical, and institutional questions. While efforts to develop, test and deploy geo-engineering rapidly advances, concomitant governance frameworks must also be developed to maximize the benefits while addressing any potential cumulative impacts and risks to environment and society. New technologies are emerging into a restrictive policy environment—the Convention on Biological Diversity reaffirmed its moratorium on geo-engineering in 2024—and one that often engenders cumulative environmental impacts rather than prevent them.

Beyond reefs, governance of geoengineering technologies is not well-developed in any context, marine, terrestrial, aquatic or atmospheric. Outdated local and regional permitting regimes and limited experience in effective multi-level governance systems (building, leading, supporting integrated action), all confound global agendas to effectively combat climate change. We explore the opportunity to move beyond 'past habits' through 'scenarios at scale' to align policy and regulatory tools and cumulative impact assessment within strong governance systems for regional-scale action using subsidiarity as a critical success factor.

We present the results of an initial literature review which explored rapid scenario building, subsidiarity, cumulative effects assessment, climate emergency response systems and healthy governance for restoration across marine and coastal domains.

Carbon & Energy

Thu 2.7.16:00-17:30, Environment A, A123 A1 | Session chair(s): Antti Roose

2250 | Emilia Suomalainen, Vuokko Heikinheimo, Antti Rehunen

Long distances and longer winters? Assessment of mode shift potential in Finland

Finland, as many other countries in the Global North, has a car-centric transport system, and it is often thought that there is little potential for modal shift given the relatively low population densities and long distances. In this work, we set out to quantify the potential for shifting travel by car towards sustainable modes of transport, namely walking, cycling, and public transport. The mode shift potential is assessed based on mode-specific travel time budgets, trip information derived from the Finnish National Travel Survey, and counterfactual travel times obtained by routing analysis. Travel by car both as driver and passenger is taken into account and different scenarios are constructed for acceptable daily travel time

budgets based on current behaviour. Our estimate of the potential of active travel takes seasonality into account - this is crucial for making credible mode shift assessments in cold climate countries due to the impact of weather and road surface conditions on active travel behaviour. Furthermore, our assessment considers trip chaining (the practice of combining multiple stops and several activities within a journey), as modal shift is assessed for home-based round trips. The emission reduction potential is estimated based on car mileage as driver. Our preliminary results suggest that there is substantial potential for a modal shift and that the obstacles to sustainable mobility often lie elsewhere than in the trip distances and winter conditions found in Finland. In the Helsinki region, in our baseline scenario over half of all round trips by car and a quarter of car mileage could be shifted. This study provides the first comprehensive assessment for mode shift potential away from car use in Finland, covering both active travel and public transport and provides new impetus for future measures in favour of modal shift.

1271 | Chuanhui Gao, Simin Yan, Chen Chen

How do SDGs reshape rural environment and development in territorial context? Investigating the multi-level policy transmission and adaptive local planning practices in Rural China

Strengthening urban-rural linkages is essential for achieving the Sustainable Development Goals (SDGs) and reducing inequalities by United Nations. Despite aggravating environmental challenges, research remains predominantly urban-centric, leaving limited understanding of how SDGs are embedded into rural development targets, policy frameworks and localization processes, particularly in the Global South. This raises two critical questions: 1) How can rural territories localize global SDGs amidst intertwined global and regional development challenges? 2) What roles do planning scholars and practitioners play in this process at both national and local level?

To address these questions, we look into the multi-level policy transmission processes across global, national/regional and local scales—by linking global SDG frameworks with territorial rural practices in China. First, guided by the PRISMA protocol, we review international literature on rural development published since the adoption of the SDGs in 2015 (n=188), tracing thematic trajectories and identifying emerging synergies and trade-offs between SDGs and rural development. Second, recognizing China's significance as a major Global South country and its elimination of absolute poverty (SDG1) in 2021, we examine how rural-related SDGs are incorporated into national and subnational agendas. Keyword-based analysis of policy documents reveals how SDGs are transmitted through the policy system and transformed into implementation plans (n=16). Third, drawing on evidence from Deqing County in Zhejiang Province—the first county-level territories in China to monitor SDG progress (2017)—we assess how local environmental and socio-economic practices interpret and operationalize global expectations alongside their contextual goals.

Preliminary findings reveal that rural SDG localization in China is driven by multi-level policy transmission and adaptive local planning practices. The research further emphasizes that equitable urban-rural development guided by SDGs must not come at the expense of silencing rural voices in decision-making. Instead, it should redefine territorial responsibilities and prioritize the local innovation, governance experimentation, and transformative potential of rural areas.

1453 | Luis Ángel Ramírez Cordova, Rosanna Rivero, Yan Duan

A Geodesign Global-to-Local Framework Enhanced by Machine Learning: The Venezuela Renewable Energy Case Study

Local CO_2 emissions are escalating to levels that can no longer be addressed through purely local actions. As emphasized by the Global Climate Geodesign Challenge (GC) and the Global-to-Local-to-Global (GLG) initiative led by Steinitz, Campagna, and Rivero, effective climate change mitigation requires a globally coordinated yet locally implemented framework. The central question driving these efforts is: which spatial planning and geodesign methods can most effectively contribute to stabilizing the Earth's climate over the coming decades?

The GLG framework connects global climate data with local design decision-making through iterative feedback. Within this system, 117 climate mitigation projects across nine land-use and land-cover (LULC) systems form a rule-based typology for evaluating capability, suitability, and feasibility. Using the GLG Global Explorer, participants analyze projected land-use and ecosystem changes to 2050 and translate them into rule-based Gantt designs sequencing actions from carbon sequestration to emission reduction, guided by readiness, cost, and ecological performance.

Historical Foundation:

This research builds upon the 2015 Harvard–UGA–Esri geodesign collaboration, where Steinitz and Rivero demonstrated how geodesign bridges global datasets and local spatial reasoning. That collaboration established the conceptual foundation for linking scientific models to local governance and planning applications.

Venezuela Case Study:

Venezuela serves as a national-scale case study, implemented in collaboration with the Universidad Católica Andrés Bello (UCAB), whose graduate program selected local renewable energy initiatives aligned with GLG priorities. Using Random Forest, XGBoost, and SHAP-based interpretability, the study performs predictive classification to identify and explain the most feasible and high-impact renewable energy projects across ecological, spatial, and economic dimensions.

By integrating geodesign reasoning with machine learning transparency, this study advances a globally coordinated, locally grounded, and computationally interpretable framework for equitable climate action toward 2050 stabilization goals.

2071 | John Landis

Mirror, Mirror on the Wall: Who is the Greenest (U.S.) State of All?

Much of the public's attention to energy and environmental issues is understandably focused at the national level. However, when it comes to policies, programs, and investments that shape how human settlement forms and behavior affect the natural environment, the real action is usually at the state and local levels. If states are truly the laboratories of democracy, as U.S. Supreme Court Justice Louis Brandeis observed in 1922, then in matters related to resource conservation and environmental quality, now is an opportune time to assess how various state "experiments" have turned out.

This presentation examines recent environmental progress in the U.S. through the lens of states and metro areas. Drawing on long-established metrics and a diversity of governmental and research organization data sources, it looks at post-2000 changes in ten areas: (i) urban land conversion and sprawl; ii) organized land conservation efforts; (iii) urban park size and quality; (iv) car use and roadway congestion; (v) electric vehicle registrations; (vi) public transit use and pedestrian activity); (vii) domestic energy consumption; (viii) residential energy efficiency; (ix) renewable energy generation; and, (x) domestic water consumption. To compare states of different sizes, each measure is reported and analyzed on a per capita basis. In each case, a statistical model is developed that compares the metric to a series of state population and economic characteristics, and, where appropriate, to particular policy interventions. The modeling results are then used to identify states that stand out as performance leaders and laggards. The particular circumstances behind their performance are then investigated. These two modes—statistical modeling coupled with outlier case study analysis—are then used to identify key policy and programmatic takeaways for state and local governments looking to improve their environmental protection and energy conservation performance.

2505 | Ravit Hananel

Ideology or Epidemiology? Renewable Energy in a Peripheral City

The accelerating global climate crisis has intensified the urgency of transitioning to renewable energy systems, yet the adoption of decentralized renewable energy (DRE) technologies remains deeply uneven across social and spatial contexts. Existing literature consistently shows that rooftop photovoltaic (PV) systems are disproportionately adopted in affluent, well-resourced localities, while low-income or marginalized communities face structural barriers related to financing, regulatory complexity, housing form, and limited access to information. This study challenges these prevailing assumptions through an in-depth investigation of Beit She'an—a small, peripheral, and socioeconomically disadvantaged city in northern Israel—that nevertheless leads the country in rooftop solar implementation, having realized 52 percent of its installation potential. This empirical deviation from dominant global and national patterns raises central questions regarding the local conditions, mechanisms, and social dynamics that enabled such success.

Using a multi-stage, mixed-methods research design, the study integrates municipal-level demographic and socioeconomic data; an attitudinal survey administered to households with and without solar installations; and semi-structured interviews with residents and local solar entrepreneurs. The findings reveal that, despite structural constraints, three interconnected mechanisms drive adoption in Beit She'an: (1) financial accessibility through widespread use of bank loans repaid via system-generated income; (2) strong community networks, trust-based referrals, and visible peer effects that accelerate diffusion; and (3) a supportive local context characterized by social cohesion, local entrepreneurial activity, and suitable detached-housing stock.

The study contributes theoretically by highlighting how marginalized localities can, under specific social and infrastructural conditions, exceed expected renewable-energy adoption rates. Practically, it offers policy insights for scaling equitable DRE deployment, emphasizing the need for simplified regulation, targeted financing for low-income households, and community-embedded outreach models. Situated

within broader debates on energy justice and spatial inequality, the Beit She'an case demonstrates the importance of place-based analysis in understanding—and transforming—the uneven geography of the clean energy transition.

Planning at the edge

Thu 2.7.16:00-17:30, Environment B, A215 A2 | Session chair(s): Ranja Hautamäki

2942 | Laura E. Taylor

Conservation or Crisis? The Politics of Toronto's Greenbelt

The Ontario Greenbelt, which surrounds the Toronto urban region is a place of contradiction, at once a regional growth management success protecting over 800,000 hectares of natural heritage and farmland, but also a failure contributing to Toronto's housing affordability crisis and entrenching a "rural character" grounded in white settler-colonial histories. In the past couple of years, dramatic politics found the Ontario provincial government, environmental organizations, and would-be developers in public clashes over the future of the Greenbelt, and indeed, over the future of natural environment protection in Ontario generally.

Peri-urban areas around large city-regions are the sites of great conflict between urban development and environmental conservation. Toronto, Canada is a case study in itself of the challenges of environmental planning, where its peri-urban areas operate simultaneously as green infrastructure, biodiversity conservation zones, working landscapes, lifestyle destinations, and lightly governed private-property territories, producing political tensions over rights, responsibilities, and acceptable uses.

Drawing on Agyeman's (2013) critique of sustainability in planning in Introducing Just Sustainabilities, in this paper I consider the contradictions posed by Ontario's Greenbelt. Agyeman argues that environmental sustainability is insufficient if issues of food sovereignty, social inclusion, and cultural diversity are not also included leading me to question if the Greenbelt is actually sustainable. I also question whether peri-urban issues represent a weak spot in both planning theory and practice and in fact exemplify the persistent marginalization of rural planning and persistent "methodological cityism" (Wachsmuth & Angelo, 2015) of a discipline oriented toward urban problems. I describe Toronto's regional and local governance, climate action and antienvironmentalism, and examine the story of the emerging landscape itself, shaped over the 20 years since the Greenbelt was announced. I offer practical lessons for peri-urban and rural planning in other places based on the Ontario experience.

2952 | Özge Ekinci

Counterurbanization and Urban–Rural Transition in Seferihisar: A Spatial Analysis

The aim of this study is to quantitatively examine the counterurbanization processes that have become increasingly visible in the district of Seferihisar, located on the western fringe of the İzmir metropolitan region. Historically a rural settlement, the district has experienced notable socio-spatial transformation following the Cittaslow designation in 2009, the redevelopment of Sığacık, and the rise of lifestyle-oriented rural preferences, particularly after the COVID-19 pandemic. This transformation is also

measurable: TÜİK's ADNKS data show that Seferihisar's population increased from more than a 100% rise while digital real-estate platforms such as Endeksa report significant increases in housing prices, indicating growing residential demand commonly associated with counterurbanization. According to İzmir Development Agency (İZKA), the district constitutes a "transition zone" between rural and urban functions, and its reclassification in the Urban Centre Database (UCDB)—from a "suburban zone" in 2019 to a "dense–semi dense urban cluster" in 2024—reflects intensifying settlement patterns and demographic growth.

International scholarship provides a strong conceptual basis for interpreting these shifts. Studies show that counterurbanization is driven by multi-scalar spatial processes (Cudlín et al., 2025), hybrid rural–urban assemblages (Wu et al., 2025), lifestyle and rural idyll imaginaries (Donaire et al., 2025), socio-demographic restructuring led by educated middle-class migrants (Bański, 2025), and post-pandemic shifts in residential preferences (Scott et al., 2024). In the Global South context, amenity-driven migration and classed rural return have also gained importance (Rojo-Mendoza et al., 2025; Türkkan, 2024).

To analyse these dynamics, the study employs a fully quantitative methodology using TÜİK population and migration statistics, Endeksa housing price indices, municipal building permits, and CORINE land cover data. Spatial statistics (Moran's I, LISA), spatial regression (SLM/SEM), MGWR, hedonic pricing models, and landscape metrics will be applied to provide a high-resolution understanding of how counterurbanization shapes demographic, spatial, and real-estate patterns in the district.

2788 | Aysegul Sari, İrem Duygu Tiryaki Kesler

When Planning Becomes Peripheral: Ecological Degradation and Urban Expansion in Tokat

Tokat is located in the central Black Sea region of northern Anatolia and is in a valley system surrounded by the Canik Mountains to the north and the Köse Mountains to the south. The city lies along the Yeşilırmak River (ancient Iris River), which, along with its tributaries, provides fertile plains for grain cultivation, orchards, and pasture since its Hellenistic times. While Tokat has historically been prominent as an administrative and religious center, travel accounts from the 19th and early 20th centuries depict the city primarily through its natural and rural characteristics. These narratives highlight fertile river plains, orchards, and the Iris River, Kelkit, Tozanlı, and Çekerek Valleys, illustrating a socio-ecological territoriality in which natural features structured everyday life, production, and settlement. Over time, however, the natural and agricultural landscapes of the city are replaced with urban development, indicating a tension between historical environmental relationships and modern urban expansions.

Considering the degradation of the natural landscapes and the weakening of the human-nature relationship in Tokat, this study critically examines the diminishing role of ecological considerations within local planning decisions. A systematic review of the stories in 20 travel books from the 19th and early 20th centuries reveals the key and most common natural components, namely the valleys, the Euphrates/Iris/river, and the mountains, mentioned in the anecdotes of the travelers. In contrast, current development plans often permit expansion into valley floors, while uncontrolled waste in the Iris River undermines agricultural practices and reduces the city's historical, organic connection to its surrounding landscape to mere plots for habitation.

The findings underscore the need to re-center spatial planning around ecological territoriality and to restore the city's historical landscape connections within future urban development strategies.

2733 | Kristine Lien Skog

Local politicians' preferences in land-use planning: clearer frameworks or continued autonomy for better nature and climate decisions?

Global environmental problems are created by the tyranny of small decisions and require local action to be solved. Then the costs to mitigate and adapt become local, while the benefits for improved nature and climate are distributed among many. In Norwegian land use planning, there is a large degree of autonomy, where municipalities are asked to solve complex environmental problems within the framework of strong local self-government. Ultimately, it is the local politician who bears the responsibility for safeguarding the climate and ecosystems by their land use decisions. It is a great responsibility. Initial studies within farmland preservation show that politicians want clearer frameworks within which land use planning can operate, where party political stance is not decisive for their attitudes. This study covers a larger geographical area, and will, through a survey, look at how local politicians and planners weigh today's autonomy against clearer frameworks in land use planning to safeguard farmland preservation, nature and the climate. The results will be discussed through the theory of multi-level governance and institutional theory related to handling global environmental problems and generate recommendations for policy development for future land use planning.

2518 | Luciana Travassos

Critical aspects of climate adaptation in the periphery: the challenge of innovating in the face of historical inequalities

Climate adaptation in peripheral or semi-peripheral countries faces significant obstacles due to the historical production of space processes and often exacerbates constructed environmental injustices, as it has been pushing for a paradigm shift in public policy-making without placing, at the centre of the debate, the constraints arising from this process.

At its roots are: (1) great inequality in access to land and/or areas with infrastructure, which leads the poorest population to occupy areas of environmental fragility or interest, especially in cities, or areas of low productivity and poor infrastructure in rural areas; (2) low capacity to provide infrastructure and the implementation of conventional and inadequate infrastructure; (3) deforestation and non-compliance with environmental laws; and (4) failure to recognise territorial diversity in policies, which produces different degrees of environmental liabilities in the territories.

This scenario leads to a triple territorial liability. In urban areas with higher land values and privileged locations, infrastructure remains partially incomplete, especially with regard to sewage systems, and has been built with infrastructure that is inadequate for environmental conditions. The excessive emphasis on grey infrastructure and soil sealing creates serious problems to stormwater management. In peripheral urban areas, neighbourhoods undergoing consolidation or areas of urban expansion, infrastructure is very incomplete, fragmented or non-existent, while at the same time, when it does arrive, even today, it

reproduces the inadequate model of central areas. Finally, in rural areas there is a complete absence or inadequacy of infrastructure, which attempts to emulate urban infrastructure, causing a series of impacts.

Recognising this context in adaptation policies is essential to tackling the climate crisis, which overlaps with urban, rural, financial and State crises, forming the specific characteristics of the polycrisis affecting these countries.

This research is funded by the São Paulo Research Foundation (FAPESP), Brazil, under Process Number 2023/10072-0.

Informality and resilience

Thu 2.7.17:45-19:15, Environment A, A123 A1 | Session chair(s): Małgorzata Barbara Havel

1702 | Huang Ziwen, Michihiro KITA

The Erosion of Adaptive Space: A Longitudinal Comparative Study of Formal and Non-Formal Utilization in Hangzhou's Residential Outdoor Environment

China has experienced profound and rapid urbanization and corresponding shifts in residential forms. The proliferation of high-density housing has created a critical urban vulnerability—the systemic failure to accommodate residents' everyday adaptive needs. This research critically examines this vulnerability by analyzing outdoor residential space utilization in Hangzhou, a rapidly urbanizing, high-density metropolis. The study employs a longitudinal comparative methodology, analyzing current field data against historical data (collected ten years prior) across six representative areas. These sites encompass traditional Xianglong (alley/lane) spaces, pre-1949 Lilong (lane houses), post-1980s TuanDi (housing estates), and modern Xiaoqu (gated communities).

The methodology defines spatial hierarchy based on pathway connectivity, utilizing four established metrics to measure non-formal adaptation and personalized expression: Activity, Expression (displaying plants/items), Desk/Chair Placement (placing furniture), and Spillover (encroachment).

Findings reveal a significant historical transformation and a pronounced systemic duality. Traditional, complex spaces foster high frequency and diversity of non-formal, self-driven activities, acting as an essential adaptive mechanism for daily life. In sharp contrast, modern communities exhibit simplified structures and restricted activities. The comparative analysis confirms this duality has been exacerbated: While older areas maintain high non-formal intensity, these historic areas now confront a crisis of functional decline where essential residential use is displaced by formal commercial and tourism-oriented activities. Meanwhile, modern communities have intensified their structural isolation with rigorous property management that has further suppressed individualized use, systematically eroding citizen agency over public space and leading to brittle urban environments.

The results offer critical insights for urban planners and designers in cities across the Global South facing similar challenges of rapid high-density urbanization, the preservation of vernacular life patterns. The study suggests that successful high-density planning requires integrating the necessity of management

flexibility with the creation of intermediate spatial hierarchies that accommodate residents' self-driven expression and robust community interaction.

2770 | Kristina L Nilsson

Culture and heritage in the Nordic Arctic

The Nordic Arctic has historically been inhabited by national minorities such a the Sami population. Remains of heritage interest are settlements built usingby traditional styles and materials. Later, when the Arctic was of interest for fishing and the coastlines were occupied by fishing villages today, it was seen as curiosity for the tourist industry. The Arctic is located in a unique natural landscape that is of heritage interest.

The Northern parts of Nordic countries are also rich in natural resources, which have been of interest for at least 100 years. In recsent times, such resources have renewed interest in the so-called green transition. The resources of rare minerals are often located inland, far from both settlements and infrastructure. These very different types of interests can cause divergence in how one is conscious of valuable heritage.

Tourism and resource outtakes can also cause tensions between traditional and the culture of conscious ways of living in relation to immigration or the fly-in-fly-out of people from more southern parts of the countriy.

2377 | Xiao Ma, Bagas Dwipantara Putra, Adelle Spark, Nathan Pittman

Community Agency in Informal Urbanisation Capital Switching- 'self-sufficiency' in Bandung Kampung as a case study

This paper examines how marginalised urban communities actively direct capital flows through strategic resource conversion, challenging dominant narratives that position informal settlements as passive recipients of external investment. Drawing on 20 interviews with government officials, community leaders, and residents in Bandung's kampung communities, we analyse the waste management transformation in Taman Hainan Kampung as a paradigmatic case of community-driven capital switching.

Rather than merely responding to government disinvestment and inadequate municipal services, the residents strategically converted environmental burdens into multiple forms of capital, for example, transforming organic waste into agricultural inputs through composting and urban farming ('buruan sae'), converting recyclable materials into handicrafts and potential tourism attractions, and leveraging successful waste sorting practices into symbolic capital that earned official recognition as a 'Waste-Free Area' and 'Kampung Mandiri'. This community-initiated transformation demonstrates how residents actively execute capital switching across environmental, economic, social, and symbolic domains.

Our findings reveal three key mechanisms of community agency in capital switching: (1) strategic resource reframing, where residents reconceptualise waste from burden to opportunity; (2) multi-scalar

capital leveraging, where community successes generate recognition and resources at municipal level; and (3) temporal capital accumulation, where immediate waste management practices build long-term community capacity and external partnerships. The research shows that commnity's waste transformation enabled the community to shift from a position of infrastructural deficit to one of policy leadership, representing Coblong District in city-wide competitions and attracting promised government investment in waste-processing equipment.

By developing waste management strategies, kampung residents challenge the spatial and scalar assumptions of traditional capital switching frameworks, revealing how community-led capital conversion can generate alternative pathways to urban development. The research suggests that understanding community agency in capital switching is crucial for developing more equitable approaches to informal settlement upgrading that build on existing community capacities rather than replacing them with external interventions.

2216 | Cankai Cai

Land Consumption and Rural Urbanization in Guangdong Province: Navigating the "Population-Land" Paradox through Spatial Governance

This paper examines the complex relationship between land consumption and rural urbanization in Guangdong, China, with a focus on environmental, governance, and policy dimensions in spatial planning. A key issue in regions like northern Guangdong is the "population shrinkage–land expansion" paradox, where impervious surfaces grow despite rural population decline. Using remote sensing and demographic data (2005–2025), we analyze this disconnect through the impervious surface rate as an indicator of urbanization.

Results show persistent inefficiencies in land use, underscoring the need for integrated spatial governance. The recent national "Three Zones and Three Lines" policy—delineating urban development boundaries, agricultural protection zones, and ecological conservation areas—serves as a pivotal tool to enforce spatial discipline. This study evaluates its potential to restrict uncontrolled rural construction and direct development to planned areas.

However, the policy's effectiveness depends on addressing underlying economic drivers, as land expansion remains tied to local fiscal and industrial policies. Regional disparities also suggest that uniform policy application may be inadequate. Success requires complementary cross-boundary mechanisms, such as ecological compensation, land monitoring, and stock revitalization within the zoned framework.

By assessing the "Three Zones and Three Lines" in Guangdong's context, this study highlights that while zoning is necessary, its integration with adaptive, region-specific economic and ecological measures is crucial for sustainable urban–rural transformation amid demographic change.

2883 | Gianfranco Pozzer, Laura Colini, Domenico Patassini, Giovanna Marconi

Refugee Camps as Evolving Urban Settlements: A Multiscalar Approach to Climate Risks, Accommodation and Urbanization

In the face of accelerating urbanization, economic precarity, geopolitical conflict, and climate change, a structural emergency - what Spence calls a 'permacrisis' - has solidified. Refugee and IDP camps embody this transition from temporariness to near permanence, frequently attaining special statuses that broaden displaced populations' options for habitation and livelihoods. This process of "urban-campisation", documented in various contexts challenges traditional views of refugee & IDP camps as temporary fixes and calls for urban planning approaches that recognise camps as evolving urban settlements requiring structured, sustained intervention similar to cities.

While existing studies emphasise the urban transformation of camps, they often overlook the intersection of this urbanization with climate change and ecological vulnerability. Drawing upon a case study of long-term refugee and IDP settlements in Ethiopia, this study employs a multiscalar risk assessment framework to map exposure, hazard, and vulnerability in these transitioning settlements. The preliminary outcomes facilitate a critical analysis of spatial conditions, accommodation facilities, and support policy development at the intersection of forced displacement, urbanisation, and climate adaptation, advancing scholarship on durable refugee habitation and settlement in an era of climate crisis and protracted instability.

This rearticulated abstract synthesises research insights that highlight refugee camps are not merely temporary spaces, but dynamic settlements with significant implications for humanitarian response, urban and adequate housing solutions, and climate resilience policymaking.*

*This paper is a preliminary analysis of the work carried out in the EU funded project MAPS Migration and Displacement Action Plan for Sub-Saharan Africa (MAPS).

Climate Adaptation 2

Thu 2.7.17:45-19:15, Environment B, A215 A2 | Session chair(s): Alexander Wandl

974 | Anna Hurlimann, Sareh Moosavi, Alan March, Judy Bush; Georgia Warren-Myers

Tools to facilitate the integration of climate change adaptation and mitigation across decision making in the built environment

Climate change presents an existential crisis. It has provided impetus for international accords such as the Paris Agreement which seeks to limit warming to 1.5oC above pre-industrial levels (United Nations 2015), and thus limit the risks posed by climate change. Built environments (cities), where the majority of the world's population now live, make a significant contribution to climate change: they contribute up to 72% of total greenhouse gas emissions (IPCC 2022). Yet evidence suggests that climate change action is not well integrated or mainstreamed into built environment policy instruments (Hurlimann et al. 2025a; Hurlimann et al. 2025b). This undermines the ability to achieve these global goals which seek to limit the risk, harm and cost posed by climate change.

The paper presents a series of tools to assist the facilitation of climate change action in built environments. The tools were developed through a four-year Australian Research Council Discovery grant. The tools include:

- A built environment process map (Hürlimann et al. 2022)
- A built environment policy framework (Hurlimann et al. 2024)
- A framework for analysing and designing policy portfolios – for climate action (Browne et al. 2024)
- An evidence-based matrix for assessing the adequacy of emissions reduction targets in built environment policy instruments (Hurlimann et al. 2025b)
- A guide for transformative action in the built environment (Hurlimann et al. 2025c)

The methods used to develop these tools include: process mapping; literature review; workshops; policy analysis; and, in-depth interviews with over 150 Australian built environment professionals across various sectors (construction, property, urban planning, architecture, landscape architecture, urban design, and sustainability).

The results of this research can assist built environment policy makers and practitioners identify and implement actions that will progress climate change mitigation and adaptation in cities.

1770 | Gerben Koers, Kevin Raaphorst, Merel van der Wal, Sander Meijerink

Exploring the contextual hinterlands – Evaluating, understanding and improving climate service usability with an Actor Network Theory-informed perspective

Knowledge products such as climate services play a crucial role in helping urban planners choose appropriate climate adaptation measures to protect cities from increasingly frequent and intense weather events. However, these services often face “usability gaps”: the information provided may not align with what users need, or users may lack the capacity to interpret and apply it effectively in their work. Our research expands upon this notion by not only considering usability as a matter of interaction between user and climate service, but also their place within the context of the broader decision-making process. To do this, we developed an Actor-Network Theory (ANT)–informed framework to assess how climate services become embedded within projects and the organizations that use them. This perspective reconceptualizes usability to include both direct user–service interactions and the broader institutional and developmental processes that shape them.

To investigate this empirically, we conducted a literature research in the relationship between climate service usability and contextual factors. This was followed up by fieldwork combining interviews, project meeting observations, and document analysis in two case studies: (1) the Municipality of Dordrecht and (2) the Directorate-General for Water and Soil Affairs. This mixed-methods approach enabled us to trace how climate services are integrated into the actor networks that exist within these organizations. In doing so, it provided deeper and more comprehensive insights into how various human and non-human actors shape the usability of climate services during both their development and use. Finally, we applied a QCA

to identify broader patterns of contextual factors influencing usability across a larger set of Dutch municipalities.

2142 | Martina Caputo, Grazia Brunetta

Governing Climate Change Across Levels: Multilevel Adaptation and Territorial Responsibility in Europe

Cities are increasingly experiencing severe climate impacts that put pressure on urban systems and infrastructure. Nonetheless, Europe still faces notable gaps in adaptation efforts and fragmented governance (IPCC, 2022). The urgency for stronger multilevel governance and well-defined roles across all governance levels is evident (European Commission, 2021).

This study creates a framework for multilevel climate change adaptation governance in the EU in 2025, identifying five archetypes: (i) Lagging/Fragmented, (ii) Top-Down Centralised, (iii) Region-Driven, (iv) Local/Urban Bottom-Up, and (v) Integrated (Multilevel). These archetypes are defined based on eight dimensions: National strategic planning backbone; Regional adaptation mandates; Local or urban adaptation mandates; Sectoral anchoring of adaptation; Integration of adaptation content into long-term strategies; Urban policy integration; Climate-law anchoring with adaptation provisions; and Network-based local mobilisation, exemplified by engagement in the Covenant of Mayors. These dimensions are based on adaptation governance scholarship, enabling conditions, and multilevel coordination. They align with recent European assessments and policy expectations on monitoring, accountability, and territorial diffusion of climate adaptation responsibilities (IPCC, 2022; European Commission, 2021; EEA, 2023).

Building on this framework, the contribution will categorise European countries into five archetypes and explore regional patterns in the distribution of mandates and capacities. It will analyse how different combinations of national strategies, regional roles, local obligations, sectoral anchoring, climate legislation, and network-based mobilisation shape adaptation planning in practice. Particular attention will be paid to how "lower-integration" configurations (lagging/fragmented, centralised, region-driven or predominantly bottom-up) compare with more integrated models in terms of coherence, equity, and robustness of urban adaptation. The discussion will identify potential pathways for transition between archetypes – for example, through stronger local obligations, higher planning standards, and enhanced regional coordination – and will consider the implications for designing multilevel governance arrangements that can support more climate-resilient European cities.

2469 | Massimiliano Granceri Bradaschia, Davide Longato, Denis Maragno, Francesco Musco

Climate change adaptation mainstreaming through strategic environmental assessments. An in-depth analysis of environmental indicators from spatial plans in Friuli Venezia Giulia Region (Italy)

Climate change adaptation, CCA henceforth, is nowadays a shared concern, deeply investigated and advocated by international research and political organisations. However, both CCA implementation and

its monitoring and evaluation (M&E) are challenges yet to be properly addressed. From a spatial planning perspective, local plans are the land-use-oriented tools with the highest potential to enhance CCA operativity. Strategic Environmental Assessment (SEA) is also acknowledged to be a key instrument to integrate climate change concerns and hence, to monitor and evaluate climate change (CC) risks and CCA efforts. This study addresses two hypotheses, i.e., i) indicators included in SEAs' spatial plans may be used at the service of CCA M&E, ii) the full extent of indicators can be captured by multi-level planning analyses. To this aim, this study provides an in-depth analysis, through a multi-step systematic categorization, of the indicators used within the SEA of regional and municipal plans in the Friuli Venezia Giulia Region (Italy). This study brings novelty in the SEA research field by bridging the climate risk theoretical principles to the methodological approach for analysing SEAs' indicators, which are classified within the risk function frame. Key insights come from the metrics, the indicators' explicitness for CCA, and the indicators' extent into the climate risk function. Finally, the paper paves the way for further research of CC-and CCA-related indicators in both spatial planning and other public sectors to support CCA mainstreaming through SEAs.

1075 | Anais Fabre, Aysin Dedekorkut-Howes, Millicent Kennelly, Michael Howes
Olympic Climate Future: Brisbane 2032's Urban Transport Decarbonisation Prospects

In the context of the global climate crisis and growing urbanisation, decarbonising transport systems is essential for the future of cities. Mega-events such as the Olympic and Paralympic Games further exacerbate this challenge. With the International Olympic Committee (IOC) committed to halving Games-related emissions by 2030, the Brisbane 2032 Games present a key opportunity to examine whether mega-events can catalyse transformative change in decarbonising urban transport. This research examines the factors influencing Brisbane's transport planning trajectory through a comparative analysis with previous host cities, such as those of the London 2012 and Paris 2024 Games.

Brisbane initially committed to climate-positive Games by 2030. However, this target was removed by the IOC in 2022 and replaced with a 50% reduction in emissions. For transport, the host city aims for 90% venue accessibility via public and active transport and undertakes major infrastructure investments, including zero-emission buses and new/extended rail lines. However, findings reveal significant implementation barriers, including political instability, infrastructure delays, concerns about cross-region connectivity, and questions about spatial equity. Additionally, community opposition to venue locations and heritage conflicts creates sociopolitical barriers to transformative change.

Drawing on systematic literature review findings and comparative insights from previous host cities, this research examines whether Brisbane's circumstances position the Games as a catalyst for decarbonised transport transformation or merely an accelerator of pre-planned incremental improvements. The analysis contributes evidence-based recommendations for future Olympic host cities that bridge planning theory and practice, while navigating the complex intersection of mega-event planning, climate policy, and urban development under evolving political and institutional constraints.

2780 | Barbara Mušič

Toward Climate Resilience Settlements in Slovenia: Principles and Guidelines

Spatial and urban planning in Slovenia is facing significant pressure, particularly after the catastrophic floods of 2023, recognised as the worst natural disaster in the country's history. The event affected two-thirds of Slovenia, destroying several settlements and disrupting entire transport corridors, which now require long-term reconstruction (Government of the Republic of Slovenia, 2023). This disaster prompted national-level resilience planning and accelerated climate adaptation strategies across multiple levels. As settlements are most vulnerable to natural disasters and climate change, the Ministry of Natural Resources and Spatial Planning has launched a comprehensive framework to integrate climate adaptation into spatial and urban planning, focusing on strengthening environmental standards, reducing risks, and ensuring sustainable resilience.

The paper explores how national planning guidance helps cities adapt to accelerating climate change through the "Guidelines for adapting settlements to climate change", embedding adaptation into regulatory tools, design practices, and governance. It presents a framework for resilient urban futures by integrating spatial planning with ecological thresholds and climate realities, translating academic debates into actionable strategies under challenging conditions.

The paper is exposing urban planning as central to sustainability, emphasising compact development (Jato-Espino et al., 2025), green–blue infrastructure (Kim et al., 2025), and nature-based solutions (Schipper et al., 2024). It highlights key themes as water management, connected green systems, microclimate improvement (Ai & Mak, 2015), and active mobility (Dujardin et al., 2014) as essential for community wellbeing.

A key element of the assignment is testing recommendations in diverse pilot settlements to ensure place-specific adaptation. It also introduces quantitative standards as required green-space shares and access distances, which link environmental quality with spatial justice.

Acknowledgement: The development of the contribution was financially supported by the national project "Guidelines for adapting settlements to climate change", financed by the Ministry of Natural Resources and Spatial Planning of Slovenia.

Biodiversity futures

Fri 3.7.09:00-10:30, Environment A, A123 A1 | Session chair(s): Antje Matern

1947 | Marco Amati, Rick de Vos

Planning for survivance versus planning for extinction on Melbourne's peri-urban fringe

Governments all around the world are grappling with the reality of the Sixth Extinction. On the peri-urban fringe of cities in Australasia, the process of urbanisation, and in particular the continued commitment to build on green field land, increases the risk of extinction through habitat loss and fragmentation, increased human activity and pollution, and greater risks of stress, disease, injury and death to local wildlife. In a city where growth is dominant, calls to reduce or mitigate extinction, the most irreversible of

environmental problems, ring hollow. Despite the evident impacts of land use change on extinction, how the planning system can or should react remains under-explored.

In this paper we start with an analysis of the emotions related to extinction. Emotions are important as they form a basis for action and regulation. The loss and disappearance of animals, plants, and their many complex and interconnected relationships, shapes and alters how we see and feel about ourselves as a society. Emotions, we argue, are important for a consideration of policy responses to this because they help to identify and highlight what is collectively important and what therefore provokes certain regulatory responses. In relation to extinction, urban planning can be seen as the making and ending of worlds. Overall, we argue for a more nuanced perspective of extinction on the urban fringe, which necessitates urban planning practitioners to think beyond the strict guidelines of land use control and the mechanisms available through landscape ecology.

2345 | Chethika Abenayake, Chathura De Silv, Lahiru Kaveesha, Sandali Kangara

Planning for Coexistence: A Geo-AI and LUCIS-Based Land-Use Framework for Human–Elephant Conflict Landscapes in Sri Lanka

Human–wildlife conflict in biodiversity-rich yet densely settled regions exposes the limits of conventional planning in staying within planetary boundaries while safeguarding human wellbeing. In Sri Lanka, escalating human–elephant conflict (HEC) reflects deeper tensions between conservation, agriculture, settlement growth and infrastructure expansion across fragmented landscapes. This paper presents a geo-AI and LUCIS-based decision-support framework that redefines territorial responsibility by explicitly planning for more-than-human needs alongside rural livelihoods.

Building on the Land Use Conflict Identification Strategy (LUCIS), we develop multi-criteria suitability models for three competing land uses—elephant habitat, agriculture and human settlements—using ecological, topographic, climatic and accessibility indicators co-defined with national and local stakeholders. Spatial overlay analysis at 1 km^2 resolution shows that nearly half of recorded HEC incidents occur where land is simultaneously suitable for agriculture and elephant habitat, and over one-fifth in zones where all three uses intersect, revealing critical conflict hotspots and connectivity bottlenecks.

A game-theoretic spatial negotiation model then allocates land according to dynamic weights representing stakeholder preferences and biophysical constraints, while cellular automata simulate adjacency-based transitions to minimise habitat fragmentation and maintain elephant movement corridors. Scenario testing suggests that conflict hotspots can be reduced while conserving the majority of migratory pathways, illustrating how planning can mediate trade-offs between biodiversity protection, food security and rural development.

By integrating geo-AI, ecosystem-based indicators and participatory negotiation into a single framework, the study offers a transferable approach to ecosystemic urbanism and regional planning in contested landscapes. It positions planning practice as a key arena for designing just, resilient and more-than-human futures under accelerating climate and land-use pressures.

2264 | Adrienne Keane

Koalas at the edge: urban development, policy failure and biodiversity futures

Koalas are an Australian icon, recognised globally for their charm, ecological uniqueness, and rarity. However, their habitat near cities is rapidly disappearing, and what remains is under increasing pressure from urban development and wildfires. During the 2019–2020 summer season, an estimated 5,000 koalas perished in New South Wales - 17% estimated of the state's population1 - leading to their conservation status being upgraded to "endangered"—just two legislative steps away from "extinct."

Despite policy intent to protect koalas, the expansion of cities and associated housing and infrastructure on urban fringes places thousands of people within koala habitat. Koalas depend on habitat corridors to travel for food, mating, and relocation. In urban environments, they are highly vulnerable to vehicle collisions, dog attacks, and drowning in swimming pools. Urban expansion is embedded in planning strategies that must also consider ecological sustainability. In parallel, legislation exists to protect ecological values. However, in Sydney, Australia, koalas and their needs have been consistently sidelined.

South-west Sydney illustrates a 50-year pattern of cumulative impacts on koalas and other ecological values. Decision-making processes—across national, state, and local governments—prioritise growth and routinely approve developments that contradict provisions for ecological protection and conservation. It is contended that koalas could become extinct within ten years due to the combined effects of the Australian Constitution, national and state environmental laws, and state and local planning laws. It will be demonstrated that Australian environmental policy enables environmental decline. Further, that planning policy and laws perpetuate a development pathway established in the 1970s, remaining purposefully silent on the biodiversity emergency and the environmental values essential for sustainable cities.

1 Koala populations and habitat in New South Wales/Portfolio Committee No. 7 – Planning and Environment [Sydney, NSW]. Report No. 3. June, 2020.

1542 | Karina Landman

People and place: Rethinking the socio-ecological system in the City of Tshwane, South Africa

Cities and urban spaces are undergoing rapid changes worldwide, including in South Africa. New challenges require planners to address these changes in a way that considers the future well-being of the planet and its people. African cities are urbanising at the fastest rate globally. Nevertheless, poverty and inequality pose significant challenges to service delivery and housing provision, while climate change threatens the daily survival of both human and non-human inhabitants. Urban areas are characterised by fragmentation, segregation, low-density sprawl, and often a profound disconnect from nature. While there are some conversations about urban resilience, green infrastructure, and nature-based solutions, the realities on the ground make these conversations appear as utopian dreams far removed from the everyday struggles of life in settlements.

This paper examines the relationship between the environment (place) and its inhabitants (people) in the City of Tshwane, the municipal authority that encompasses the capital city, Pretoria, in South Africa. Positioned within the theoretical perspectives of resilience and regenerative development and design, this paper investigates the dynamics of the complex socio-ecological system present in the city, focusing more specifically on the function, form, and flows of people and place. In unpacking these interdependencies, the article attempts not only to highlight the impact of these components on one another but also to demonstrate how the ecological system affects the social system and vice versa. In doing so, the author argues that planning cannot begin to address the challenges of planetary boundaries, biodiversity loss, environmental degradation, and climate change without a whole-systems approach in cities. It therefore argues for an approach based on cohabitation, coexistence, and coevolution of humans and nature, positioning planning at the intersection of nature and the built environment.

2641 | Andreas Obersteg

How can urban and regional planning support the closing of nutrient cycles for sustainable development

The contribution presents an analysis of examples of how urban and regional planning could support innovative solutions to close nutrient cycles for sustainable development. Three pilot projects in Germany, Spain, and Sweden from the Horizon project P2GreeN aim to foster a circular material flow system between urban and rural areas and to restore the coupling of the water-agri-food system. Their newly developed solutions enable circular nutrient flows of nitrogen (N) and phosphorus (P), two important plant nutrients, and at the same time water polluters by connecting blue urban with green rural infrastructure. While the solutions are implemented and tested on a local spatial scale, the conference contribution explored urban and regional planning frameworks that hinder or could support the solutions‘ replication and scaling on urban and regional scale.

More concretely, two pilots tested solutions for utilization of human sanitary waste from urban settlements separated at source, and then transformed into safe fertilizers. The spatial analysis shows that the pilot solutions of decentralised sanitation systems have potential to be replicated in especially in rural areas and touristic destinations, to avoid high infrastructure investment. In urban areas, source-separation and decentralised sanitation have potential in new developments, refurbishment of existing buildings, and for public toilets. The third pilot tested the use of reclaimed water, monitoring its nutrient content for targeted irrigation, here potential for replication is evident in areas with drought problems very probably become more important due to climate change

The analysis of the spatial planning and development frameworks showed that many existing planning documents and policies already include aspects of water re-use and of alternative wastewater infrastructure. However, the contribution also identified necessary adjustments in the planning documents as well as the need to combine different instruments to support the future replication and scaling of the described pilot solutions.

Nature-Based Solutions 1

Fri 3.7.11:00-12:30, Environment A, A123 A1 | Session chair(s): Mattijs van Maasakkers

1827 | Davide Longato

Integrating Nature-based Solutions in urban planning frameworks for climate resilience: insights from the NATURED project

Nature-based Solutions (NbS) are advocated as a promising option to adapt cities to climate change, enhancing their resilience and mitigating impacts during extreme weather events such as heatwaves and heavy rain. NbS or hybrid solutions offer a wide range of social and environmental co-benefits that make them preferable to traditional grey infrastructure whenever possible. However, limited knowledge, social, cultural, and organizational barriers, and scarce propensity to change and innovate urban planning and policy frameworks may hinder the uptake of NbS in cities and limit their implementation at scale, often restricted to pilot projects realized in isolation. This prevents an effective adaptation and resilience improvement, given that diffuse NbS that provide cumulative benefits are needed to achieve tangible impact mitigation outcomes.

Taking inspiration from the NATURED project, which aim is to enhance the capacity of eleven partner cities located in the Adriatic and Ionian Region to integrate NbS within their planning and policy frameworks, this presentation will disentangle the relevant steps, activities, and actions that are jointly found of paramount importance to support municipal administrations to foster this integration within the municipal decision-making arena and, ultimately, the relevant urban planning instruments that can promote NbS replication at a wider scale. It will then provide insights from the partner cities' processes for integrating NbS into their respective public work plans, which is one of the main project outcomes.

The discussion of the project's findings will revolve around the different actions emerged for enhancing the NbS uptake in municipalities, targeting diverse goals that span from improving knowledge and capacity building of stakeholders and practitioners to strengthening policy and governance frameworks, from setting up financial and administrative procedures that facilitate the implementation of NbS to promoting engagement of citizens and relevant actors to get their feedback and more legitimate decisions.

1590 | Tommaso Gimelli, Anna Franziska Kalhorn

Finding common ground - Building shared evidence for transformative mountain adaptation through co-creation

This paper presents the MountResilience Impact Assessment Framework (MoRIA), a transparent and structured methodology designed to assess transformative climate change adaptation in European mountain regions. Developed within the EU Horizon project MountResilience, the framework provides a rigorous yet practical approach that links actions, delivery, and intended change. Grounded in a Social-Technical-Ecological Systems perspective, MoRIA combines a compact index construction strategy with narrative interpretation, allowing evidence to be weighed rather than simplified. This balanced design establishes a shared language for partners working across diverse geographies, governance systems, and disciplines.

MoRIA organises indicators across four Domains(Environmental, Societal, Economic, and Governance & Politics) and four Types (Baseline, Structure, Process, and Outcome) clarifying what constitutes progress towards adaptation. It highlights that enduring results depend not only on technical interventions but also on enabling conditions such as institutional capacity, effective participation, and knowledge infrastructures. These structural elements are understood as core outcomes in themselves rather than secondary inputs.

The evidence base is built on institutional and technical records that ensure continuity beyond the project lifetime, complemented by two survey waves to capture public priorities and acceptance, and concise narrative accounts for complex dynamics and data-poor contexts. By aligning quantitative and qualitative evidence, MoRIA fosters responsible comparison, policy learning, and transdisciplinary collaboration.

Early findings indicate that persistent challenges are more institutional than technical: even well-designed measures struggle without clear mandates, reliable data flows, and established cooperation routines. Within a consortium of 47 partners, co-creation emerges as both a strength and a challenge. Communicating impact across disciplinary and sectoral boundaries requires constant negotiation of methods, meanings, and expectations. At the same time, regional diversity becomes a creative asset that enriches design and interpretation. MoRIA explicitly acknowledges these tensions, treating the iterative process of co-creation not as an obstacle but as a driver of adaptive learning and innovation.

1879 | Thomas Hartmann

Implementing nature-based solutions for climate adaptation on private land

Nature-Based Solutions (NBS) are increasingly promoted as important measures for climate adaptation and to enhance climate resilience. Until now, NBS are primarily realized on public land, because access to the land is easier for public authorities. But NBS need to be imple-mented on a large scale to have a substantial effect. This makes the implementation of NBS on private land important. Yet, the implications of deploying NBS on private land are largely unexplored. This paper addresses the consequences and challenges of implementing NBS on private land, drawing on findings from the LAND4CLIMATE project conducted across six European frontrunner regions.

NBS such as wetland restoration, agroforestry, or urban greening offer multifunctional benefits that extend beyond risk reduction to include ecological regeneration, cultural value creation, and economic co-benefits. Yet their realisation depends strongly on social willingness and trust among actors rather than technical feasibility alone. Evidence from LAND4CLIMATE shows that traditional engineering-centred planning models—focused on identifying technically optimal sites—fail, if landowners are not willing to cooperate. Reversing this logic by starting with willing landowners and adapting measures iteratively has proven to be more effective in practice. This turns the prevalent working paradigm of engineering upside down: from technocratic “solutionism” toward socio-technical co-production. Success must be redefined beyond efficiency metrics and encompass legitimacy, and local governance capacity. Rigid proof-of-effectiveness requirements even hinders implementation; adaptive trial-and-error approaches show to generate both ecological outcomes and social acceptance under uncertainty.

The contribution highlights the lessons learned from the implementation of NBS in six Euro-pean countries, building a dedicated focus group of an interdisciplinary group of experts with-in the LAND4CLIMATE consortium. Ultimately, this contributes to the debate on modes of governance for the realisation of NBS.

2478 | Yasmin Anefalos de Oliveira, Sophie Holtkötter, B. Ayça Ataç-Studt, Peter Rico Davids

Strategies for scaling nature-based solutions on private land

Spatial implementation of nature-based solutions (NBS) on private land is still in its infancy, but essential to achieve systemic impact towards biodiversity restoration, ecological connectivity and climate resilience. For that matter, NBS implementation should tackle multi-scale strategies, integrating water management and ecosystem services through interventions in larger spaces and maximising its co-benefits. However, the utilisation of private land for mainstreaming NBS requires upscaling and replication of first experiences and experiments. This contribution explores the potential of scaling such experiments on private land.

Based on the theory of sustainability transition and diffusion of innovation, this explorative study investigates how NBS can be scaled from a niche innovation, characterised by local or specific interventions on private land, to broader implementation that potentially leads to further regime transformations. As part of the ongoing European Horizon project LAND4CLIMATE, this research addresses three of its case studies, focusing on NBS implementers in Romania, Germany and Austria, and their potential to bring NBS to scale based on a qualitative data and practice-based analysis.

Preliminary results indicate possible actions and strategies to scale NBS on private land, considering positive and negative aspects that influence NBS implementation, such as landowners' relative (social, economic and/or environmental) advantages, compatibility to the land and landowners' values, complexity of implementation, trialability opportunities, and potential visibility to other actors. Furthermore, this research discusses key aspects to be prioritised in the planning process, regarding NBS implementation in the regions of the case studies and beyond. Aligned to current discussions on climate resilience, it contributes to the improvement of practices, policies and planning instruments towards green and just cities.

1208 | Isabel Loupa-Ramos, Jorge Silva, Ana Sá, Gustavo Lopes dos Santos

Nature-Based Urban Planning: assessing compliance with principles

Cities are increasingly turning to Nature-Based Solutions (NBS) to address the impacts of climate change. However, traditional urban planning approaches are proving inadequate in leveraging these solutions. As a result, NBS are often implemented as isolated projects, lacking coherence and failing to leverage their full potential. Nature-Based Urban Planning (NBUP) is an emerging paradigm designed to fill that gap. It seeks to embed ecological processes and nature-based solutions (NBS) into urban systems through the adaptation of current planning instruments. NBUP is structured around a conceptual multidimensional framework aligned with the societal challenges and values. Around its core lies an outer shell of unified

principles that guide planning and implementation. These principles are non-compensatory, meaning all must be met when identifying specific NBS or instruments, ensuring holistic compliance rather than partial achievement.

The eight principles underpinning NBUP are: Connectivity, Integration, Multifunctionality, Inclusiveness, Subsidiarity, Precaution, Persistence, and Circularity.

Here, we provide detailed guidance on operationalizing these principles in planning practice. To support implementation, we present a checklist of criteria and indicators for each principle, accompanied by information requirements and associated metrics. This tool enables planners and policymakers to assess compliance systematically, ensuring that NBUP strategies are robust and measurable. The presentation aims to discuss the application of this checklist, explore its role in improving planning outcomes, and highlight its potential for mainstreaming nature-based approaches in urban development.

Green Equity and Health

Fri 3.7.11:00-12:30, Environment B, A215 A2 | Session chair(s): Ville Helminen

2041 | Maija Tiitu, Vuokko Heikinheimo, Sonali Sharma, Kati Vierikko

Public vs. Private Urban Green Spaces: Assessing Nature Exposure Potential across Different Neighbourhoods

Equal access to urban green spaces (UGSs) is a widely recognised objective in planning sustainable and healthy cities. Numerous recommendations and indicators have been developed to this end, such as the recent 3-30-300 principle. Despite their significant contribution to urban green infrastructure, private UGSs (PrUGSs) are often overlooked or aggregated with public UGSs in research and monitoring frameworks. There remains a need for further studies that account for the diversity of PrUGSs within cities. This study addresses this gap by examining the provision of public and private UGSs – together with their canopy cover and biodiversity values – across various neighbourhood types in the Helsinki Metropolitan Area, Finland. Specifically, we investigate how the accessibility and biodiversity of public and private UGSs vary with neighbourhood characteristics such as housing type and socio-economic status. We also explore potential inequalities in access to biodiversity, considering residents' reported use of both public and private UGSs. We utilise various national geospatial datasets, including information on land cover and vegetation height, property boundaries, building types, and socio-economic indicators, as well as an urban fabric typology reflecting residents' mobility options. Biodiversity values are derived from biotope mapping and expert assessments (Jalkanen et al., 2020). Residents' potential nature exposure – reflecting both accessibility and self-reported use – is assessed by combining geospatial data on UGS with data from an open online survey of residents. The study contributes to understanding spatial inequalities in the distribution and ecological quality of public and private UGSs across different urban forms within a single city region. By integrating biodiversity into analyses of public and private UGS access and exposure, this research highlights the importance of addressing both ecological and social dimensions of urban green equity. The findings aim to inform urban greening and land-use policies that promote more equitable and biodiverse urban environments.

2502 | Rosa Danenberg

Urban green space and health: A Systematic Review of Proximity

Green space near home is increasingly recognized as an important factor in promoting public health. Since the European Regional Office of the World Health Organization (WHO) recommended in 2016 a maximum distance of 300 m to the nearest green space of at least 0,5-1 hectare in size, this guideline has been implemented widely. The distance measure has also been incorporated into the 3-30-300 rule, which has shaped municipal and regional green space planning strategies in cities around the world. Almost ten years have passed since the distance recommendation was introduced. During those years, the number of studies on distance to green space and human health has expanded rapidly. It is therefore timely to revisit the scientific evidence regarding associations between green space proximity and human health and well-being (HH-WB). This study reports on the findings of a systematic review examining the relationship between distance to green space and HH-WB outcomes.

A systematic search was conducted on March 26, 2025, across five databases. This study follows the PRISMA protocol. After applying a set of inclusion and exclusion criteria, 239 articles were identified for full-text screening that offer a mix of longitudinal and cross-sectional study designs. The full-text screening and reading are ongoing. At the conference, we will report on the compiled evidence of HH-WB benefits associated with short distance to green space. Furthermore, we will reflect on how distance is expressed (in meters or minutes), the types of distance measures applied (i.e. network or linear) and green space typologies or qualities presented in the various studies. The results aim to inform planning scholars and practitioners working on the accessibility and availability of green space to promote a healthier and more sustainable environment.

1436 | Chiara-Charlotte Iodice-Kraft, Lizzy Moonga, Kathrin Specht, Noriko Otsuka

Co-Creating Healthier Territorial Futures: Upscaling Green & Blue Infrastructure-Based Green Care for Mental Wellbeing in Europe

European cities face intertwined crises: climate change, environmental degradation, rising mental health challenges, and unequal access to nature. Green care offers people different ways of engaging with, and use of green and blue infrastructure (GBI) that can improve their mental well-being. This human-centered health promotion would also benefit biodiversity-driven and more-than-human resilience in the nature. However, despite its potential, green care remains unevenly integrated into urban, environmental and public health planning across Europe, constrained by fragmented governance, sectoral silos, and varying policy support.

The EU-funded GreenME project explores how a co-creation approach with practice-based stakeholders (i.e., green care actors) can guide the upscaling of green care. A series of workshops in seven countries, complemented by transnational exchanges, brought together actors from policy and planning, health, social services, ecological organizations, and community initiatives to collaboratively map preconditions, challenges, and actionable measures for embedding mental health-oriented green care in planning practice.

Despite differences in governance and stages of development of green care practices, workshops in the seven countries revealed consistent issues:

- A need for scientific evidence to ensure recognition of green care beyond stakeholder circles and support integration into planning.
- Funding and promotion of green care initiatives remain major obstacles.
- The quality of GBI is critical for both human wellbeing and ecological outcomes.

These findings demonstrate shared opportunities for scalable, transnational learning. By positioning practitioners as central knowledge holders, the co-creation approach strengthens territorial responsibility for improving GBI while advancing more-than-human urban resilience. Urban planning can become a central driver of sustainable transformations when green care is treated as a cross-cutting strategy, simultaneously enhancing human mental wellbeing, and ecological integrity of GBI. The GreenME project provides practice-based insights and policy directions for embedding green care into European planning frameworks, contributing to resilient, just, and sustainable urban futures.

2725 | Xiao Shi, Lawrence Frank, William Bachman

Greenways as Infrastructure: Advancing a Holistic, Multiscale, and Health-Centered Evaluation Framework

Greenways are protected corridors of undeveloped lands that can promote access to nature, sustainable mobility, and population health. There is a lack of data and robust methods to quantify localized and systemwide benefits of Greenways complicating funding and planning decisions. The Great Rivers Greenway (GRG) Health Metrics Project in St. Louis, Missouri seeks to fill in this gap by leveraging new objectively collected data introducing a novel approach linking greenway investments to measurable health and economic outcomes.

The project applies a multi-stage framework beginning with the development of a network database integrating demographic, land use, transportation, and greenway characteristics with greenway usage data from both automated counters and GPS-based crowdsourcing. Walking and cycling profile models are constructed to characterize mode-specific patterns and to support predictive models that estimate greenway use as a function of key environmental and behavioral factors. Models are validated using both statistical methods and expert evaluation. Mode-specific estimates are then converted into physical activity metrics, reductions in heart disease, Type 2 diabetes, cancer, and all-cause mortality and resulting economic benefits through avoided healthcare costs.

The project produces systemwide, demographically adjusted estimates of greenway usage and quantifies associated health and economic benefits. By integrating built environment and greenway characteristics, the model supports scenario planning enabling practitioners to simulate and assess the impacts of proposed greenway interventions across diverse urban, suburban, and rural environments.

The GRG Health Metrics Project demonstrates a scalable spatial approach that bridges municipal boundaries, promotes equity, and supports resilience. By integrating spatial data, unbiased usage

estimation, and health impacts assessment, the project provides planners with tools to evaluate non-motorized, climate-aligned greenway networks and advances a holistic vision for sustainable, livable, and interconnected regions that transcends narrow economic metrics.

1627 | Kadri Leetmaa, Jürgen Pikk, Anto Aasa, Kairi Kreegipuu

Linking Objective and Perceived Environmental Exposure to Mental Health for Evidence-Based Planning (Estonian case)

Growing policy attention to mental health has highlighted the importance of environmental factors that support psychological wellbeing. Among these, exposure to greenery and natural elements has been shown to promote mental health. Yet evidence remains inconsistent, partly due to the diversity of measures used to capture both objective and perceived greenspace exposure.

This study examines how objectively measured and perceived greenness in residential environments are associated with mental health in Estonia—a spatial context where environmental greenness in both cities and rural areas, as well as human–nature connectedness, are generally high. Using data from the Estonian Mental Health Survey 2020–2021 (Laidra et al., 2023), which uniquely combines survey-based and registry-linked indicators of health and greenspace exposure, we analyse how mobility habits, greenspace use, social connectedness, and socioeconomic and psychological profiles mediate or moderate these associations. Mental health is assessed through three complementary indicators: registry-based clinical diagnoses of mental health disorders, validated self-assessment scales for depression risk, and self-reported overall life satisfaction. Objective greenspace exposure was calculated from open-source spatial databases for personalised buffer zones around each respondent's residence.

The results show that perceived greenness correlates more strongly with mental wellbeing than objectively measured greenness. Greater time spent walking, stronger social connectedness, and more frequent use of greenspaces are linked to better mental health and mediate the effects of physical greenness. The findings suggest that planning should prioritise engagement with nature and the quality and accessibility of green environments.

(Data: Laidra, K., Reile, R., Havik, M., Leinsalu, M., Murd, C., Tulviste, J., Tamson, M., Akkermann, K., Kreegipuu, K., Sultson, H., Ainsaar, M., Uusberg, A., Rahno, J., Panov, L., Leetmaa, K., Aasa, A., Veidebaum, T., Lehto, K., & Konstabel, K. (2023). Estonian National Mental Health Study: Design and methods for a registry-linked longitudinal survey. Brain and Behavior, 13, e3106.)

Nature-Based Solutions 2

Fri 3.7.14:00-15:30, Environment A, A123 A1 | Session chair(s): Ranja Hautamäki

1077 | Sophie Holtkötter, B. Ayça Ataç-Studt, Peter R. Davids, Yasmin Anefalos de Oliveira

Insights from implementing nature-based solutions on private land for climate adaptation

In response to growing climate risks like flooding and drought, nature-based solutions (NBS) are a promising strategy for building systemic climate resilience. However, implementing NBS on private land, which bears great potential, remains challenging. Aligning private landowner interests with public goals

for NBS lies within the realm of land policy, which relies on instruments like land readjustment, pre-emption rights, or expropriation. Yet, studies (e.g., Raska et al. 2022) show these tools often lack legitimacy and political feasibility when applied to NBS. Cooperative approaches that engage landowners directly are needed—but they raise new questions: How do we identify philanthropic landowners, engage them effectively, and scale cooperation?

This research focuses on philanthropic landowners and the benefits and sacrifices they face when mobilising land for NBS. While economic incentives play a role, a growing body of research emphasises that intrinsic motivations shape landowners' decisions (Sorice et al. 2012). As part of the European Horizon project LAND4CLIMATE, this study explores these dynamics through interviews with NBS implementers across local case studies in Austria, Czechia, Germany, Italy, Romania, and Slovakia.

First results reveal that the type of landowner and land use significantly affect the perceived benefits and sacrifices of implementing NBS. This underscores the need to move beyond one-size-fits-all incentives. Effective policy must consider diverse motivations, build trust, and respect landowner autonomy. Designing flexible, value-sensitive programs will likely foster meaningful and lasting conservation outcomes on private land.

Raška, P., et al. (2022). Identifying barriers for nature-based solutions in flood risk management: An interdisciplinary overview using an expert community approach. Journal of Environmental Management, 310, 114725. https://doi.org/10.1016/j.jenvman.2022.114725

Sorice, M. G., Kreuter, U. P., Wilcox, B. P., & Fox, W. E. (2012). Classifying land-ownership motivations in central, Texas, USA: A first step in understanding drivers of large-scale land cover change. Journal of Arid Environments, 80, 56–64. https://doi.org/10.1016/j.jaridenv.2012.01.004

1591 | Yung-Chen Cheng, Sue-Ching Jou, Jing-Chein Lu, Yu-Chun Kao

Governance, Experimentation, and Learning Processes for Mainstreaming Nature-based Solutions in Urban Wetlands: The Cases of Guandu and Huajiang Wetlands, Taipei

Urban wetlands provide multiple ecosystem services—including stormwater management, water purification, climate adaptation, biodiversity conservation, recreation, and cultural values—and are increasingly recognized as critical Nature-based Solutions (NbS) that enhance urban resilience and address global climate challenges. However, as transitional interfaces between urban and natural systems, wetlands are highly vulnerable to urbanization and hydrological alterations, resulting in pressures from spatial reduction, water quantity and quality decline, and habitat degradation. This study examines two riparian wetlands in Taipei—Guandu and Huajiang—to explore how the conceptualization of NbS has shaped their management practices and landscape transformation. It analyzes how boundary-making and boundary-opening, the coexistence of artificial and natural infrastructures, and the dynamic interactions among diverse stakeholders generate tensions and synergies in wetland governance. Since the 1980s, both wetlands have been designated as nature reserves through civic movements responding to rapid urban expansion and biodiversity loss. Yet strict regulatory control has led to unintended mangrove overgrowth and terrestrialization, resulting in a significant decline in migratory bird populations. Despite these similar origins, the two wetlands have evolved along distinct

trajectories shaped by different governance arrangements and stakeholder networks. First, the multi-level governance structure spanning central and local agencies has produced overlapping boundaries and fragmented responsibilities, leading to divergent approaches to ecological restoration. Second, the integration of local knowledge, citizen science, and technological innovation has driven experimental practices testing and adapting wetland restoration outcomes. Finally, intermediary organizations have played crucial roles in knowledge translation, coordination, and communication—bridging governmental, scientific, and community actors in the co-production of adaptive wetland management. This study reveals the complex social–ecological–technical systems dynamics of wetland governance that underpin NbS mainstreaming in urban contexts. It argues that a deeper understanding of the interplay between innovative experimentation and participatory processes are levers to achieve sustainable and resilient urban transitions.

1757 | Mina Di Marino, Siri Eriksen, Matthew Cashmore, Jan Thomas Odegard

Navigating Growth and Sustainability: Co-creating Climate Resilient Development and Nature-Based Solutions in the Oslofjord Region

Recent scientific assessments (IPCC, 2023) highlight the urgent need for transformational development to address climate change, biodiversity loss, and resource degradation. Growth-driven development accelerates land use change, emissions, and ecological decline, narrowing the window for sustainable futures. The IPCC's Climate Resilient Development (CRD) concept emphasizes integrating mitigation and adaptation to advance sustainability, recognizing that development decisions drive emissions and vulnerabilities while offering climate action opportunities (IPCC, 2023). Urban development is crucial in shaping emissions and local climate resilience. Balancing ecological goals with economic and social pressures is key to advancing CRD pathways.

This study examines CRD solutions through workshops conducted in Norway's Follo region, located south and southeast of Oslo, as part of the Co-CRED living lab initiative (funded by the Research Council of Norway). The region, home to 150,000 inhabitants across six municipalities, serves as a testbed for integrating CRD and Nature-Based Solutions (NBS) into municipal land use and development planning. While progress is being made across the country, many Norwegian municipalities are still in the early stages of adopting these approaches.

The workshops conducted -held between February 2024 and September 2025- brought together municipal planners, politicians, academics, students, and citizens to discuss NBS and identify key challenges and opportunities for tackling climate change and biodiversity loss.

Findings highlight the critical role of cross-boundary collaboration among six municipalities, addressing differing social, economic, political, and ecological contexts. Regional and national interactions—including policies, authorities, and international commitments—significantly influence CRD outcomes, often provoking tensions or synergies. The study emphasizes the need for inclusive, multi-scalar, and adaptive planning practices, where all actors collaborate to overcome barriers and advance CRD pathways. These multi-scalar interactions—regional authorities, national policies, and ecological commitments—are crucial in determining the success of CRD and NBS initiatives.

2044 | Eren Çağdaş Bilgiç, Yasin Köycü

Challenges and Opportunuties in Selecting Ecosystem Restoration Pilots under the Climate-Biodiversity Nexus: The Case of Acarlar Floodplain Forest, Türkiye

Ecosystem restoration in the context of climate and biodiversity policies requires scientifically grounded, systematic, and participatory planning approaches. The Turkish–German Cooperation for Integrated Climate and Biodiversity Action project—jointly implemented by the General Directorate of Nature Conservation and National Parks (GDNCNP), the Directorate of Climate Change (DoCC), and GIZ—represents an innovative framework combining policy and practice to operationalize this nexus in Türkiye.

Within this cooperation, the Acarlar Floodplain Forest, Sakarya Province, in Black Sea Region, has been identified as one of the initial pilot sites for ecosystem restoration. The site, one of Türkiye's largest floodplain wetlands, faces ecological degradation driven by irregular hydrological dynamics and vegetation decline. The pilot aims to establish a systematic conservation planning (SCP), which provides a structured, data-driven approach to identify and prioritize areas for conservation and restoration based on ecological representation, connectivity, and cost-efficiency.

During the inception phase, emphasis is placed on developing a coherent framework for data collection, spatial analysis, and decision-support systems that link biodiversity integrity with climate mitigation functions such as carbon sequestration—the process through which restored wetland and floodplain vegetation captures and stores atmospheric carbon in biomass and soils, enhancing both mitigation and ecosystem resilience. The process involves identifying priority habitats, defining ecological and socio-economic criteria, and designing participatory mechanisms that ensure inclusivity and transparency.

This methodological work bridges research and application, demonstrating how SCP principles can inform restoration planning at the interface of science, governance, and practice. The Turkish–German partnership serves as a platform for adaptive learning and policy innovation, aligning Türkiye's National Biodiversity Strategy Action Plan (NBSAP) with the Kunming–Montreal Global Biodiversity Framework (KMGBF).

By mid-2026, the INTERFACE team will present preliminary results on spatial data integration, methodological design, and participatory planning outcomes—offering replicable insights for climate- and biodiversity-responsive ecosystem restoration in similar socio-ecological landscapes.

2749 | Mattijs van Maasakkers, Jake Weissman

How do Markets for Ecosystem Services respond to socio-ecological pressures?

Markets for ecosystem services, like those for carbon credits, wetland and habitat restoration, and water quality improvements are a mechanism that seeks to advance the implementation of nature-based solutions to challenges like climate change, biodiversity loss and environmental degradation. Their fundamental logic is that the ecological functions lost to urban development and associated human impacts can be compensated through environmental restoration elsewhere. This research project investigates three different approaches to market-based tree-planting projects in Oregon, United States. Discharges of treated urban wastewater have caused have caused rising stream temperatures in much of the Pacific Northwestern region of the United States. Elevated water temperatures in the receiving rivers

and streams threaten endangered species of salmonids. To reduce water temperatures, several waste water treatment utilities are funding nature-based solutions across their watersheds, specifically riparian tree-planting to block sunlight from heating water. Since their inception in 2005, more than 110 km (68 miles) of riparian tree-planting has been completed across these three watersheds, but the size and locations of the tree-planting projects differs dramatically. Based on a combination of semi-structured interviews, document analysis and spatial analysis, the study investigates how institutional design interacts with social dynamics and climate change to influence the locations of riparian restoration projects. The findings of this study highlight that varying approaches to stakeholder- and community engagement produce distinct spatial outcomes of markets for ecosystem services. The markets for ecosystem services in this analysis respond to socio-ecological pressures in three distinct ways, either opportunistically, interactively and spatially. This suggests that other efforts to design credit-based markets to facilitate nature-based solutions should pay close attention to their institutional design and the repertoire of available responses to emerging pressures.

2921 | Nuno M. David, Isabel Loupa Ramos

Nature-Based Urban Planning under the EU Restoration Law: Typo-Morphological Insights from Lisbon and Odivelas, Portugal

Urban ecosystems are increasingly recognized as essential for ecological resilience and climate adaptation within planetary boundaries. The EU Restoration Law (2024) introduces binding targets for restoring degraded ecosystems, including urban ecosystems. However, its guidelines largely omit the spatial and regulatory dimensions of urban planning, raising challenges for implementation, particularly in aligning restoration targets with planning instruments. This paper explores how Nature-Based Urban Planning (NBUP)—a concept that integrates biodiversity and ecosystem services into planning frameworks—can operationalize restoration goals through typo-morphological analysis. Focusing on Lisbon and Odivelas, Portugal, the study employs high-resolution LiDAR and Copernicus imagery to delineate urban morphological units and classify open spaces with restoration potential, such as consolidated public spaces, vacant lots, green areas, and tree canopy zones. These municipalities represent a gradient from a historic capital core to a peri-urban context, providing an opportunity to test the importance of morphological typification for developing operational strategies. Identified areas will be assessed for compatibility with measures including canopy expansion, infiltration zones, and green corridors. The discussion will explore how typo-morphological analysis can inform planning practices that support ecological integrity and restoration objectives. It will also consider normative and technical barriers, outlining a conceptual framework for integrating morphological insights into planning instruments under the EU Restoration Law. By bridging scientific and policy domains, this study seeks to position spatial planning as a key enabler of sustainability transformations that foster human and more-than-human wellbeing through integrated ecological functions and habitat connectivity, ultimately contributing to the conceptual development of Nature-Based Urban Planning as a pathway for integrating ecological restoration into spatial planning.

Track 6: Governance

Track chairs: Wiwandari Handayani, Shenjing He, Helka Kalliomäki, Eva Purkarthofer, Andrea Restrepo-Mieth

Multi-Level Governance

Tue 30.6.14:00-15:30, Governance A, U356 ALMA MEDIA | Session chair(s): Yahya Shaker, Marjan Marjanovic

2794 | Matej Niksic, Manca Gjura Godec

Qualitative densification of settlements: Challenges and opportunities for multi-level governance in Slovenia

Densification of settlements has become a central strategy for sustainable spatial development in Slovenia, addressing the challenges of urban sprawl, climate change and the need to ensure high quality of life. Despite clear support in national strategic documents (ReSPR50, ZUreP-3) and European policies, the implementation of densification remains a complex and multi-layered task that requires coordination across governance levels, sectors and stakeholders.

Analysis of Slovenian practice reveals that successful densification depends on the integration of formal instruments (legislation, spatial acts, standards) and informal tools (participation, exchange of good practices, pilot projects). Key procedural challenges include fragmented competences, the absence of operational regional plans, fragmented land ownership and local community resistance due to fears of losing green spaces and neighbourhood identity. Municipalities and professionals emphasise that legitimacy can only be achieved through inclusive processes, clear quality indicators (share of green areas, accessibility, social equity) and stable financial and legal mechanisms.

Examples from Slovenia and abroad confirm that the most effective approaches treat densification as a systemic process: combining the regeneration of degraded areas, mixed-use development, sustainable mobility and the strengthening of social infrastructure. The focus is on balancing compactness, green infrastructure and social justice. This contribution highlights the need for standardised indicators, multi-level cooperation and the development of digital tools for monitoring the effects of densification, which is crucial for transferring good practices and strengthening the legitimacy of spatial policies in a broader European context.

2426 | Veronica Saddi

Urban Design as Public Policy: Collaborative Governance in Protected Urban Contexts

The paper examines how urban regeneration in protected areas can be understood as a place-based governance process, rather than merely as the implementation of planning regulations. Focusing on Italian cities, where a strongly centralised administrative tradition coexists with growing reliance on negotiated instruments, the contribution analyses how urban design projects in heritage settings become arenas in which different levels of government, planning authorities, heritage agencies, private developers, and local communities interact. Drawing on public policy analysis, the paper interprets these

interventions as policy-making processes in their own right, in which problem framing, agenda setting, formulation, decision and implementation unfold through iterative exchanges between formal planning systems and informal governance arrangements.

Empirically, the paper investigates a reference class of recent regeneration projects promoted by private or mixed actors and subject to landscape and heritage protection constraints. Particular attention is paid to the role of planning and heritage officials as intermediaries who operate at the interface between national regulations and local project negotiations. These “street-level” actors mobilise a repertoire of policy instruments that combines statutory plans, binding regulations and procedural requirements with softer tools such as design guidelines, informal consultations, inter-institutional working groups and experimental pilot agreements. The analysis shows how these instruments are assembled and adapted to reconcile development interests and conservation mandates, while responding to broader demands for transparency, participation and quality in the built environment. In doing so, the paper contributes to debates on planning as an administrative discipline and governance practice, highlighting how planning cultures and institutional legacies shape the capacity of urban design projects to support just and sustainable transitions in sensitive urban contexts.

2270 | Susanna Hedborg

Muddling through the messy practices of multi-level governance: a case of municipal planning in-between transport and urban development

Transport and urban planning can either play a role of reinforcing our current unsustainable societies or open up for systemic change to sustainable ways of living. For the latter, a broad set of changes is needed, mobilising all levels of government. Strategic transport and urban planning at the municipal, regional and national levels are adjacent and influence each other – as barriers or bridges. Institutional barriers create distributed systems with unclear mandates, roles and responsibilities, creating challenges in integrating goals and processes. In addition, different perspectives on knowledge at different government levels, as well as varied professional approaches, regulatory frameworks, and practices, create challenges in integrating planning at different levels. In other words, multi-level governance in the intersection between transport and urban planning can in practice be messy. The purpose of this study is to unveil how planning at different governmental levels influence municipal planning for just and green transition in transport and urban development. The research is grounded in an ethnographic study - through observations, interviews, field visits and document analysis - following strategic planning where municipal, regional and national collaboration was necessary to complete the planning processes. Combining institutional logics and a practice orientation, the analysis reveals that while formal systems exist for multi-level governance, the necessary informal collaborations of actually aligning their planning practices are not sufficient for transport and urban planning to facilitate towards a sustainable society. Unveiling the nitty-gritty of multi-level planning is important as formal policy goals for sustainable transition can only be effective if they actually influence the practices for those realising the policies. Contributions are intended to planning theory and practice by shedding light on the interplay between formal systems and informal collaborations, specifically how shifted practices are necessary for multi-level governance to work as bridges rather than act as barriers.

2913 | Gian-Claudia Sciara, Anna Hersperger

Spatial Planning for Sustainable Growth in Multi-level Governance Contexts: Learning from Switzerland and California

Low-density sprawl is threatening sustainable growth worldwide. Sprawling development patterns are concerning for both certain Swiss and U.S. regions, for different reasons. Since the 1980s, Switzerland has lost over 7 percent of its agricultural land to expanding lowland settlement areas. Stopping the expansion of impermeable surface area—or soil sealing—is a key goal for policymakers. Urban land area in the U.S. grew by 14 percent from 2000 to 2020, and no U.S. state has done as much as California to reduce low density, automobile dependent development and its resulting greenhouse gas emissions.

Although overarching land and planning policies in both Switzerland and California require area-wide spatial plans targeting strategic areas for sustainable compact development, urban expansion persists in both contexts. Both Switzerland and the U.S. are Federalist nations and, hence, distribute authority for planning across multi-level governance systems; this fact complicates sustainable growth management. Federalist principles assign land development decisions to the local level, close to the people. Yet, using land efficiently and preserving agricultural lands requires higher-level strategic spatial planning at the regional level, creating tension across tiers of government.

Given such tensions, this paper evaluates the institutional frameworks for planning in these two Federalist systems to identify how specific policies and policy levers work to support—or stymie—sustainable land use decision-making and outcomes. It does so by comparing and analyzing legal structures and policy mechanisms undergirding regional spatial planning and development in the U.S. and Switzerland.

We develop a generalizable understanding of how such regional-local tensions are negotiated within such multi-level governance contexts, including other Federalist countries like Australia, Belgium or Canada. Cross-continental comparisons such as this are important for science, as they support development and testing of hypotheses about how multilevel processes work and about potential causal linkages between institutional frameworks and planning outcomes.

1812 | Valeria Fedeli, Daniele Viarengo

Territorial cohesion: between policy frameworks, needs and local-regional institutional capacity.

The paper aims to outline how key regional policies in Lombardy Region, one of the most affected regions in Italy by the COVID 19 Pandemic, have allocated resources to municipalities over the period 2014–2024. The analysis compares the distribution of these funds with both the needs expressed by local territories and their capacity to access and manage the available resources.

The study considers a set of multi-level and multi-fund resources, including those from the 2014–2020 Cohesion Policy, the National Recovery and Resilience Plan (PNRR), and regional measures introduced in response to the 2020 pandemic. The decade is particularly significant because extraordinary recovery interventions reshaped regional and municipal budgets, while local authorities were required—and enabled—to develop more ambitious project proposals to tackle both the emergency and long-standing

structural issues. The chapter also intersects with the early stages of the 2021–2027 programming cycle, especially where post-pandemic adjustments influenced territorial cohesion objectives. It examines the operational frameworks of the policy programs focusing on funding criteria, allocation mechanisms, underlying narratives, and distributional outcomes, to assess whether they have implicitly or explicitly supported a territorial development strategy. It also investigates whether the exceptional nature of some funds aligned with local needs and whether the main beneficiaries were municipalities equipped with adequate administrative and management capacities. The analysis contributes to current debates on the urgency of addressing territorial disparities in Italy and the capacity of the Regional level to promote cohesion policies supported by strategic spatial imaginaries. The paper points to the need to move beyond emergency-driven approaches and strengthen the capacity of local governments to act strategically and collaboratively. The paper also concludes on the need for a more strategic role of the Regional level and finally discusses the urgency of this within the prospect of a more state-led Cohesion Policy.

1174 | Gao Junyi, Yang Zijiang

Bridging Traditional Wisdom and Modern Governance: The Practice of Living Governance in China's Yunnan Hani Rice Terraces World Heritage Site

Amid the global quest for sustainable and inclusive governance, place-based approaches are crucial for balancing cultural heritage preservation, community development, and ecological integrity. Situated within the Yunnan Honghe Hani Rice Terraces UNESCO World Heritage Site, this study examines endogenous tourism in its core zone, Azheke Village, to explore the interplay between top-down planning policies and informal local institutions.

The study reveals that, through managing their integrated forest-village-terrace-water system, the Hani community has developed an endogenous governance order based on customary law and collective action. Central to the Azheke experience is a multi-level collaborative governance framework that synthesizes informal institutions—such as traditional community deliberation—with externally introduced formal rules, including corporate management, government guidance, and academic expertise. This integration not only enhances the legitimacy of planning interventions but also, by ensuring equitable intra-community benefit-sharing, fosters residents' endogenous motivation to conserve the heritage system.

Key outcomes manifest in three areas: (1) a shift in cultural transmission from static preservation to living utilization, establishing heritage as core community capital; (2) an inclusive economic model that mitigates the "tragedy of the commons" and counteracts the corrosive effects of tourism commercialization; and (3) a reinforced community role as ecological stewards, ensuring the long-term sustainability of this globally significant agricultural heritage.

The study concludes that Azheke's living governance paradigm offers a transferable Chinese model for World Heritage stewardship and rural revitalization, while also revealing a viable path for governance innovation: the systematic embedding of local knowledge systems into modern governance structures to achieve sustainable and impactful outcomes.

Metropolitan / Regional Planning

Tue 30.6.14:00-15:30, Governance B, U358 | Session chair(s): Helka Kalliomäki

1175 | Anna Growe, Lukas Häfner

Bundled City-Regionalism in Germany: How Frameworks Govern and Paths Collide

City regions emerge through ongoing negotiation and adaptation across multiple levels of governance. Across Europe, various city-regional concepts reflect how urban agglomerations are continually repositioned within their national contexts (Casavola et al. 2025). This dynamic is particularly pronounced in Germany, where the concept of European Metropolitan Regions (MKRO 1995, 2006) introduced a new city-regional paradigm that has since evolved into a diverse landscape of cross-border and second-tier metropolitan formations (MKRO 2016). While this evolving landscape has been widely studied, its continuing transformation still leaves room for interpretation.

Using the Regional Life and Adaptation Cycle Model (Nischwitz et al. 2020), this study qualitatively compares twelve German city regions based on twenty expert interviews to examine the interplay between national frameworks, regional strategies, and emerging governance arrangements. The analysis investigates how national frameworks influence the trajectories of inter-municipal cooperation and identifies recurring patterns of institutional adaptation across differing types of city regions.

The findings indicate that the evolution of German city-regional forms follows a sequential process of a “bundled city-regionalism,” in which competing imaginaries overlap, converge, and occasionally collide across time and governance orders. Conceptualising city regions as adaptive arenas situated between national frameworks and regional path dependencies, the paper contributes to comparative city-regionalism debates by showing how entangled city-regional concepts reshape the dynamic landscape of metropolitan governance in Germany.

Casavola, Donato; Cotella, Giancarlo; Janin Rivolin, Umberto; Vitale Brovarone, Elisabetta (2025): Metropolitan governance in Europe: a classification of current national models. In: disP - The Planning Review 61 (2), S. 62–82. DOI: 10.1080/02513625.2025.2561514.

Nischwitz, Guido; Diller, Christian; Chojnowski, Patrick; Kohl, Martin (2020): Entwicklung eines neuen Modells zur Analyse regionaler Governanceprozesse. In: disP - The Planning Review 56 (2), S. 32–50. DOI: 10.1080/02513625.2020.1794125.

2141 | Martina Caputo, Erblin Berisha

From Policy Discourse to Governance Tool: Identifying the Key Characteristics of the Functional Areas Approach

Across European agendas, Functional Areas (FAs) have shifted from narrow technical tools for defining statistical regions to key references for place-based governance in urban and regional policies (Fioretti & Petroldi, 2020). The Territorial Agenda 2030 and the New Leipzig Charter explicitly support cooperation organised around FAs that transcend traditional borders. Recent guidance translates this principle into practical instruments for integrated, multilevel planning across administrative borders (CEMAT, 2017; World Bank & European Commission, 2024).

The contribution explains how FAs are conceptualised across European policy documents, academic literature and technical guidance, describing them as interconnected systems, "non-standard" geographies and soft spaces (Allmendinger & Haughton, 2009; Deas & Lord, 2006; Faludi, 2016). Drawing on CEMAT (2017) and the Functional Areas Methodological Toolkit (World Bank & European Commission, 2024), it categorises emerging European FAs into five macro-groups, detailing their qualitative and quantitative delineation methods and contrasting top–down and bottom–up approaches (Dijkstra et al., 2019; OECD, 2013).

The contribution proposes a preliminary operational framework that enables planners and researchers to understand and analyse FAs as governance tools rather than merely as statistical entities. It identifies five key defining characteristics: (i) governance, involving coordination, mandates and cooperation for joint decision-making; (ii) data/flows, interdependencies in the movement of people, goods, services, information and resources; (iii) sense of community, reflecting shared identity, narratives and legitimacy for collective action; (iv) geomorphology, the structuring physical and environmental systems; and (v) anthropisation, the human transformation of land, infrastructure and settlements. These traits are distinct, and an FA can be characterised by one or more of them, each capturing a specific dimension of how territories function as interdependent systems. The framework illustrates how these traits can be used to select case studies and to assess the degree of functional integration.

2692 | Juan Demerutis-Arenas, Jose Luis Aguila-Flores

Metropolitan Planning in Latin America: Concepts, Institutions and Practices

In Latin America, during the second half of the 20th century, there was a rapid process of urbanization driven by migration from rural areas to cities. This process has meant that planning in the region must take a metropolitan approach in the 21st century, and this is evident not only in the capitals but also in some of the second-tier cities in each country.

This paper aims to define metropolitan planning in the region. To achieve that goal, the author conducted a two-fold analysis. First, it establishes the national criteria for determining a metropolitan area or region, including population size, physical articulation, and the complexity of relationships between municipalities in conurbations or local governments with some economic, social, or environmental relationship that requires joint planning included in the metropolis.

Subsequently, based on this national delimitation, the analysis focuses on the specific actions carried out from a metropolitan perspective, whether by a metropolitan entity or by agreement or coordination between parties. To achieve this, the contents of metropolitan plans of Mexico City, Buenos Aires, Rio de Janeiro, Santiago, Guadalajara, Curitiba, Caracas, Rosario, Valle de Aburra, and São Paulo were reviewed, highlighting the topics of most significant interest.

Finally, the article concludes by highlighting the successes and advantages of metropolitan planning, as well as the asymmetries, inconsistencies, and limitations of these instruments.

2468 | Benno Schroeder

Content changes in regional strategies

In planning science, the concept of strategic spatial planning has become established and consolidated over time. Likewise, planning practice, at least in the Global North, applies it within various national planning systems, across borders, and at different scales. According to the literature, among other characteristics it features long-term orientation, which contrasts with the change it seeks to achieve through realization. Therefore, changes in spatial strategies reveal a certain paradoxical nature. While change through strategy appears common, change in strategy suggests forming an exception and therefore deserves closer examination. This requires a more concrete understanding of what such change consists in.

For numerous instances of strategic spatial planning at the regional level, strategic concepts serve as key instruments defining goals and specifying measures to achieve these. Such concepts indicate an underlying linear process of strategy formation, the focus here. Alterations in the content in strategic concepts consequently appear as one considerable sign for a change of strategy. Change refers to a process resulting in intersubjective breaks in experience. Based on these assumptions, the contribution aims to examine which types of content changes in regional strategies exist.

Empirically, following a qualitative meta-analysis research design, the study draws on the extensive body of scientific literature on strategic spatial planning. As an outcome, it presents a preliminary typology of content changes in regional strategies. This helps clarify what they mean and how they relate to each other. Planning science and practice benefit by gaining insights into the broad spectrum of potential content changes in regional strategies and considering them in their activities. These insights offer opportunities to create paths toward democratically desired societal, ecological, or technological transitions. Correspondingly, studying the processes leading to different types of change as well as contextual conditions consecutively adds further knowledge of their importance in strategic spatial planning.

1106 | Simin Yan, Anna Growe, Chenhao Fang

Tackling regional complexities: examining multiple pathways in the making of regional governance structures in 'Metropolregionen' in Germany and 'Chéngshì Qún' in China

The complex and often abstract nature of institutional processes complicates the making of regional governance structures (RGSs) in real-world mega-regional praxes (Zimmermann et al., 2020). This complexity obscures the capacity of (mega-)regions to function as full decision-making bodies (Jessop, 1998), thereby hindering collective actions in areas such as transregional infrastructure and regional spatial planning (Evers & de Vries, 2013). While diverse institutional forms—from hierarchical to collaborative structures—have been documented globally (Diller & Eichhorn, 2022; Yan & Growe, 2022), prevailing typologies often rely on dichotomous or unidimensional continua.

Responding to what Blatter (2005, p. 120) terms the 'criticism of the dichotomous typing of governance forms', this study proposes a three-dimensional analytical framework on governance actors, instruments and collaborative contents to tackle the complexities of forming RGSs in varying cases. We apply this

framework to examine long-term governance experiments in Germany—11 European 'Metropolregionen' ('metropolitan regions' in English) and in China—the 19 national 'Chéngshì Qún' ('urban agglomerations' in English), respectively, combining content analysis of multi-level regional policies with configurational approach (fuzzy-set qualitative comparative analysis, n=30) to identify multiple institutionalization pathways of forming RGSs. First-hand interviews and secondary sources further contextualize typical cases, revealing how planning culture, generative dynamics, and geopolitical settings shape governance outcomes.

Findings indicate that no single governance model fits all contexts. Instead, the formation of RGSs is a dynamic and context-dependent process, shaped by multiple conditional causalities and necessitating the core casual condition, implementation of formal instruments like legally-binding spatial planning and action plans signed by core decision-makers. Ultimately, this study highlights the value of configurational thinking and tailored institutional design. It calls for small-N but in-depth investigation for comparative (mega-) regional studies.

1163 | Lukas Smas, Peter Schmitt

Conceptualising regional planning as assemblages: (de)stabilisation of planning cultures in three metropolitan regions in Sweden

Regional planning is increasingly recognised as a vital governance tool for responding to contemporary challenges beyond the local scale, such land-use management for energy provision and transport infrastructure, industry and agriculture, protecting biological diversity and cultural heritage, promoting climate change mitigation and adaptation measures. Drawing inspiration from studies that have examined the diverse and evolving institutional and political contexts of regional planning (e.g. Smas & Schmitt 2021), this paper aims to advance the field by investigating regional planning cultures (Othengrafen & Reimer 2013, Purkarthofer et al. 2021) in Sweden's three largest regions. Although regional planning in Sweden has undergone changes in recent years, it remains anchored in a relatively weak institutional context, with different regions employing different approaches and modes of working. (Bergkvist Andersson & Schmitt 2024). We explore the regional planning cultures in three regions (Stockholm, Skåne, Västra Götaland,), by focusing on diverging agendas, resources, capacities and taken-for-granted beliefs, while also recognising different institutional conditions, geographical contexts and historical trajectories. More specifically, we propose conceptualising regional planning as an assemblage involving different configurations of human and non-human entities, governance technologies and programmes, that create and stabilise heterogeneous networks of interests, norms, values and resources (Schmitt & Wiechmann 2018). This perspective allows us to study regional planning cultures as practices connecting and holding elements together, as well as how these elements are broken apart and reconfigured in new ways. Specifically, we investigate how regional planning is organised and managed, how different stakeholders engage and collaborate, and how regional plans are produced and conceived. Comparing different regions and understanding regional planning as assemblages clarifies how regional planning cultures are established and modified, and how they enable and constrain planning practices. This contributes to an explanation of the role of regional planning in addressing contemporary sustainable development and governance challenges.

Governance in Housing

Tue 30.6.14:00-15:30, Governance C, U261 OP POHJOLA | Session chair(s): Andrea Restrepo-Mieth

1779 | Arend Jonkman, Matthijs Ham, Petra van der Kooij, Joost Tennekes

Superfluous and excessive or much needed level of ambition? Coping with policy accumulation in urban area development for housing

Larger housing developments provide housing as well as broader living environments for futures both near and far. Such projects contribute to different urgent challenges (e.g. affordable housing, climate adaptation). All levels of government place legal requirements and/or other policy ambitions on these developments, with municipalities often more ambitious than national governments (Amundsen et al., 2018). Together, the total policy package for the development project often cannot be completely implemented, due to spatial and economic boundaries. This results in value conflicts (since the optimal outcome cannot be determined objectively by a single standard) and longer processes of deliberation and negotiation. It is suggested that policy accumulation leads to stalling of plans and consequently of the housing production in general (Adviesgroep STOER, 2025). Yet, earlier research also showed that civil servants are reluctant to give up on policy ambitions to speed up housing, since uncertainty about the development pace would still exist whilst having a definitive effect on the quality of the dwelling or living environment (Jonkman, Meijer & Hartmann, 2022). However, a generic lowering of requirements and ambitions may result in suboptimal outcomes.

This study seeks to understand how municipalities cope with value conflicts (De Graaf et al., 2016) in the nexus between quality, feasibility and speed that result from policy accumulation. What value conflicts arise, how do municipalities choose and prioritize between different ambitions, and how do municipalities organize decision making whist simultaneously being in negotiations with developers? Through in-depth case study research into four Dutch municipalities, we aim to better understand municipal strategies of avoidance, coping and learning (Meijer & De Jong, 2020) for dealing with policy accumulation. By conducting semi-structured interviews and policy and planning document analysis for two housing development projects per municipality, light is shed on policy accumulation as an intrinsic and/or manageable challenge.

1868 | Austin Barber, Erwin Heurkens

Managing Urban Transformation In A Time of Housing Crisis: Planning Challenges and Governance Innovation in Two European Cities

For urban planners, managing the transformation of urban districts on the city centre fringe has long presented formidable governance challenges. These have intensified in the past five years with the accelerating urban housing crisis and the increasing intensity of real estate development pressures in major cities. Planners thus face an imperative for significant new development and densification, and an opportunity to harness international investment capital; but they also face growing risks to the intrinsic civic, creative and entrepreneurial character and distinctive economic vitality that flourishes in edge of centre locations.

Our paper examines how this urban transformation balancing act is being negotiated in Rotterdam and Birmingham. These second-tier cities are experiencing significant housing pressures, and the focus on central districts by investors is compounded by the ripple effects of high speed rail station development. Our comparative research focuses on two areas – Rotterdam Central District (RCD) and Digbeth, Birmingham – where new forms of stakeholder collaboration are emerging, and where governance processes shaping the fortunes of these eclectic districts are reaching a decisive point.

Particularly, we conduct an international comparative case study between RCD and Digbeth, aimed at understanding the role of Business Improvement Districts as an actor in managing spatial visioning, community engagement, real estate investment, and place-making. We draw upon document reviews, interviews with public, private and civil society stakeholders, and participatory observation, to examine the modes of governance that emerge, the planning policy instruments invoked, and the role of (small) business actors.

From this we develop a place-based governance framework that can help to explain the possibilities and limitations of planning in such complex scenarios. Our paper informs planning authorities and scholars about contemporary trends in place-governance arrangements, and effective applications of planning policy instruments, to sustainably transform urban areas towards 'real' societal and economic impact.

2102 | Nicola Livingstone

Institutional Investment in Build to Rent Housing: Stakeholders, Planning Policies, and Markets in Australia and the UK

Australia and the United Kingdom are experiencing housing emergencies, growing inequalities and shifting rental trends, in markets historically dominated by homeownership. Similar trends have emerged across both countries, with the dominance of neoliberalism since the 1980s leading to a retrenchment of public provision and a deepening focus on owner-occupation. But rising demand for home ownership, facilitated by deregulated mortgage lending followed by post-GFC interest rate cuts, coupled with undersupply, have increased house prices to the point of excluding many from the market. These wider trends have arguably led to a growth in the Private Rented Sector (PRS), with increasing criticisms about conditions and affordability, as well as planning systems acting as both a driver and impediment of such growth. As the PRS sector has evolved and investor capital flows into residential assets has increased, new forms of private rental housing have emerged, such as Build-to-Rent (BtR).

BtR has been proposed as a solution to poorer housing standards and increased supply, albeit with criticisms around unaffordability, despite some lower and mid-market developments taking place. This paper will analyse the (potential) contribution of BtR in both countries, unpacking structures of multi-level governance, exploring the impact of the various incentives and planning environments in international comparative perspective.

Using interview data from key stakeholders, policy analysis and case study research in both nations, we explore the role of market stakeholders and planning policy environments in the development of BtR, considering processes and outcomes in Australia and the UK.

2859 | Laura Goh

Experimenting across borders: enabling cross-jurisdictional housing innovation transfer

Innovation in by means of policy experimentation is becoming more popular as a method of addressing global housing challenges, yet successful housing policies remain trapped within jurisdictional silos. While individual governments develop creative responses to housing affordability challenges, the transfer of approaches between jurisdictions are currently ad hoc rather than systematic. This research addresses the critical gap between identifying successful interstate housing innovations and effectively implementing them across different regulatory contexts.

Drawing on housing experimentation case studies from across Australian jurisdictions, this study investigates the barriers and enablers of cross-jurisdictional policy transfer in housing innovation. Through interviews with key housing stakeholders and analysis of both successful and failed transfer attempts, the research reveals that while there is significant interest in learning from interstate successes, practitioners lack structured guidance on how to effectively adapt and implement policies across different jurisdictional contexts. Initial study results reveal that current policy transfer practices predominantly rely on informal networks rather than formal processes. Key challenges emerge from jurisdictional differences in regulatory environments, institutional structures, and policy objectives. These incompatibilities create barriers to effective transfer, as policies developed for one context may not align with the specific housing challenges, governance arrangements, or strategic priorities of another jurisdiction.

Based on these findings, this research develops evidence-based recommendations for improving cross-jurisdictional housing policy transfer. By translating research insights into practical guidance, this work contributes to more effective sharing of experimental housing innovations beyond Australian jurisdictions and supports more equitable responses to the housing crisis.

1991 | Eilert Berre Ellefsen

Concerning Consultants: the Influence of Professional Consultants and Contractual Governance on Planning Policy

Current planning systems are often described as forms of “entrepreneurial governance,” marked by privatization and the growing influence of private developers. Yet this binary view overlooks the professionals who mediate between and on behalf of public and private actors. As Linovski, Raco, and Wargent have shown, the fluid roles of consultants raise concerns about their influence on planning agendas and the democratic legitimacy of the processes they help shape. In Norway, despite high institutional trust, the expansion of consultant involvement signals a shift toward delegated, project-based governance that may sideline public ambitions.

This paper maps the extent and scope of consultant involvement in planning processes and the legal and contractual spaces they occupy? What is the leeway for private consultancies to influence public priorities and policy agendas? Where and how can private involvement and influencing occur, and what are possible implications?

To map the institutional role of planning consultancies, this paper conducts a systematic literature review (PRISMA) across political science and urban planning. The review includes peer-reviewed scientific publications, in addition to governmental reports and legal documents relevant to the Norwegian context. Sources were selected based on keywords related to consultant involvement in planning systems, contractual governance, and institutional agency.

Preliminary findings indicate that consultancies play a significant yet underexplored role in shaping planning priorities and policy agendas. The literature reveals persistent gaps in understanding how consultants operate as institutional actors, particularly in the negotiation and contracting of early-phase planning. These gaps are especially pronounced in comprehensive planning systems such as the Norwegian, with relevance for similar countries such as the UK, France and Germany.

The insights contribute to broader international debates on contractual governance and public policy, offering a Nordic perspective on how intermediary actors influence urban sustainability and institutional change.

2797 | Qingyuan Guo

Getting Houses Built: The Role of Local Authority Planners in Managing Market-Led Housing Delivery

In England's planning system, local authority planners face a fundamental accountability challenge. Under the Housing Delivery Test introduced in 2018, planners are accountable for meeting housing targets, yet they lack direct control over the private developers who actually build homes. England operates a regulatory planning system where local authorities grant permissions but private developers decide whether and when to build. Planners must therefore steer developer behaviour without formal authority, secure political support for contentious decisions, and compete internally for resources. Despite extensive documentation of these challenges, remarkably little is known about how delivery enhancement actually works in practice.

This research investigates how local authorities and local authority planners pursue delivery enhancement when success depends on actors they cannot directly control. Three research questions structure the inquiry: What challenges arise when working to enhance local housing delivery? How are policy changes initiated to address these challenges? How is implementation managed when it depends on private developers?

The study examines three London boroughs from 2018 to present, when the Housing Delivery Test intensified delivery pressure. The cases provide contrasting approaches under different market pressures and institutional configurations.

The study applies Design Recovery in Cases methodology. This approach characterises tasks carried out, contextual conditions, and outcomes that resulted from tasks in relation to contexts. It then develops explanatory accounts of how these were responsible for outcomes. By recovering how delivery enhancement worked in these cases, the research enhances understanding of how local authorities and local authority planners can enable housing delivery when steering rather than controlling key actors. This paper presents emerging findings from ongoing fieldwork.

Governance and Transportation

Tue 30.6.16:00-17:30, Governance A, U356 ALMA MEDIA | Session chair(s): Helka Kalliomäki

1775 | Hengyi Lin, Keyu Lin, Mi Diao

The Dilemma and Path Forward for Tram Development in China: A Case Study of the Zhuhai Tram's Journey from Planning to Demolition

While modern tram systems have re-emerged in Chinese cities as symbols of sustainable transportation in recent years,their implementation has exposed fundamental challenges of local adaptation. Existing studies predominantly focus on technical specifications or operational issues, lacking a systematic examination of the interconnected institutional and contextual dilemmas that lead to project failures. This research addresses this gap through an in-depth qualitative analysis of Zhuhai Tram Line 1, whose complete lifecycle, from planning in 2013 to demolition in 2021, offers unique insights into the adaption challenges of trams in China. Using process-tracing methodology and data from policy documents, operational reports, and public hearings, this study investigates why technically feasible projects fail in implementation.

The analysis reveals that the core constraint lies in the decision-making dilemma, where political rationality consistently overrides technical rationality.Specifically, the Zhuhai case demonstrates how prestige-driven agendas promoting "technological leapfrogging" with imported supercapacitor trams led to systematic disregard for operational viability, local terrain adaptation, and genuine transport demand. Four critical mechanisms explain this dilemma:First, the separation of planning approval from operational accountability created perverse incentives for project initiation. Second, technological choices prioritized symbolic innovation over climate adaptability in Zhuhai's humid environment.Third, the absence of public participation during planning resulted in route designs that failed to connect key residential areas.Fourth, persistent institutional fragmentation between transport and urban planning departments prevented integrated transit solutions.

The comprehensive failure of the Zhuhai project exposes systemic pressures latent in partially successful projects, providing analytical leverage for understanding China's tram development challenges.The study argues for fundamental reform of decision-making institutions, rather than broad recommendations.This includes establishing independent technical review committees with veto power, mandatory cost-benefit analysis encompassing operational phases, and legislated public consultation requirements.The findings emphasize that successful tram development demands institutional reforms that rebalance political and technical rationality, ensuring more adaptive implementation in Chinese cities.

2532 | Karolina Isaksson, Kelsey Oldbury, Karin Thoresson, Christian Dymén

Co-producing transformative capacity? Testing procedural policy instruments with three Swedish municipalities

This paper reports insights from an ongoing study exploring the transformative capacity of Swedish local planning organisations to plan and implement policy for sustainable mobility. We focus on the procedural aspects of policy implementation, with a specific focus on ways in which local planning organisations can tackle wicked problems and engage with politicians, citizens and local stakeholders to build support

for more sustainable transport futures, in ways that have potential to transform and challenge the role of the car.

The study applies a co-productive research approach which involves collaboration between researchers, consultants, and planners from three Swedish municipalities of various sizes and geographical locations (Linköping, Örebro, and Östersund). All three municipalities have taken clear political decisions that indicate the need to challenge car-based mobility, but face challenges to implement these stated ambitions due to unclear political leadership as well as conflicts and resistance (or the imagined risk of conflict and resistance) among local businesses and citizens.

The study draws on international experiences from cities that can be seen as "forerunners" in terms of sustainable transport policy. Against the backdrop of these international experiences, planners from the three Swedish case study municipalities have defined the type of initiatives for legitimacy creation they find most relevant to explore in their local contexts. The paper reports key insights from the municipalities' emerging experiences of "new" ways to strengthen legitimacy and capacity to introduce measures that challenge the role of the car in urban environments. Theoretical inspiration is drawn from the emerging literature on transformative capacity of public organisations, which is combined with literature on policy translation. The paper also highlights lessons from the co-productive research design processes, and highlights reflections on how researchers and planning professionals can together build knowledge for strengthened transformative capacity for sustainable transport futures.

1782 | Francesca Blanc, Juan Cabrera, Giovanni Vecchio, Elisabetta Vitale Brovarone

A thousand miles, a thousand plans: exploring urban mobility governance in Europe and Latin America

Mobility policies frame urban transformation worldwide. From the Bus Rapid Transport in Santiago del Chile or the informal bus system in Cochabamba, Bolivia, to the Urban Mobility Hubs (Luoghi Urbani della Mobilità, LUM) in the Metropolitan City of Milan, mobility policies have huge impact on steering urban dynamics at the local level. Yet the planning and delivery of these policies are often steered at metropolitan or other sub-national levels, with municipalities only partially involved. This takes place within different institutional arrangements, tools and discourses shaping the spatial organization (Janin Rivolin, 2012; Nadin et al., 2024), namely the Spatial Governance and Planning Systems (SGPS). Conceptualized as "institutional technologies" (Janin Rivolin, 2012), SGPSs are "the unintentional result of the interplay among intentional decisions and actions" (Moroni, 2010) and eventually allow public authorities to guide spatial transformations. The paper aims to comparatively inquire to what extent is mobility governance an explicit part of SGPS, examining seven case studies across Europe and Latin America. Stemming from local mobility practices (both formal and informal), the paper provides an overview of the structure, tools, and discourses that conform SGPSs across Europe and Latin America. The five case studies include one conformative SGPS (Metropolitan City of Milan, Italy), one neo-performative system (Amsterdam, the Netherlands), one performative system (London, UK), and two Latin American SGPSs (Santiago, Chile, and Cochabamba, Bolivia), where informal practices contribute to frame the so-called "other institutionality" (Blanc et al., 2023; Cabrera et al., 2025) complementing the

SGPSs. By combining desk research and secondary document analysis, the paper argues that mobility governance should be treated as a core pillar of SGPS and propose an agenda for cross-regional learning.

1880 | Jonathan Schreiber, Dimitris Milakis, Dominic Stead a

Non-binding policies for sustainable transport

This presentation explores an under-researched area in planning and governance: the role of non-binding policies. While binding policies often receive more attention, soft law and non-binding policies play a crucial role by setting visions, guidelines, recommendations, and targets that can influence policy agendas and actions. The presentation provides insights from our recent study on non-binding policies for sustainable land passenger transport in Europe combining a scoping review with content analysis. We systematically reviewed 5,826 documents across 49 policy databases maintained by international public institutions.

In total, we identified over 500 non-binding policies published between 2015 and 2024. We used Latent Dirichlet Allocation (LDA) for topic modelling to uncover key themes within these documents. Our findings suggest that non-binding policies are widely used to address transport and planning issues, vary in formality, and have grown in number over time. They are issued by diverse institutions in various formats, which we categorized systematically.

The presentation will outline the background of these policies and the main transport and planning issues they cover. We will also consider which issues may evolve into binding policy. Attendees will gain insight into the role of non-binding policies in politics and practice and their potential to advance sustainable transport in Europe.

1917 | Alois Humer, Ward Rauws

Planning around places or planning around people? Conceptual novelty of the 15-minute city approach for strategic spatial planning

Organising Services of General Interest in space is a lasting concern of strategic spatial planning. Traditionally, planning concepts start over from systemic views on locating services. This system-view on locations may be of hierarchic character like we know it from the Christallerian Central Places Concept and/or of networked character like we know it from more contemporary takes of planning concepts that involve forms of polycentricity and flows between service centres (Humer & Granqvist 2020). In any case, the entry point of planning concepts was and is always primarily a spatial one: places and their hierarchical and/or networked relation is at the core of a concept. In contrast to this, novel approaches put the people, the residents into the prime centre of attention – of which a most prominent example of contemporary planning research and planning practice is the 15-minute city concept (Moreno et al. 2021). This paper questions if the 15-minute city concept carries a conceptually new perspective when it suggests ‘people’ as the (individual) central points around which services shall be located instead of departing from ‘place’ as the central point of service location; and if this is indeed a new conceptualisation, what consequences does this imply for strategic spatial planning? The conceptual

results may rise awareness for future strategic spatial planning practice in terms of planning around places or planning around people when organising Services of General Interest in space.

LITERATURE:

Humer, A. & Granqvist, K. (2020). The gradual city-ness and town-ness of public service locations: towards spatially sensitive sector policies; Geoforum 113; 81-91. //

Moreno, C. et al. (2021). Introducing the “15-Minute City”: Sustainability, resilience and place identity in future post-pandemic cities. Smart cities, 4(1), 93-111.

ACKNOWLEDGEMENTS: ACCESSCITY4ALL Project under the DUT Call 2022.

2572 | Ward Rauws, Mahdi Rahimi, Samira Ramezani, Felix Pot

Mapping neighbourhoods from the bottom-up: Integrating perceived and used neighborhoods into spatial policy design

Neighborhoods are cornerstones of urban policy. When addressing issues, such as accessibility, loneliness or health, the neighborhood is often seen as an appropriate level for planning interventions. There may be good reasons for this. After all, neighborhoods are places where citizens may identify themselves with and feel responsible for, they sometimes form coherent communities with shared characteristics and needs, and, pragmatically speaking, offer a manageable scale for interventions.

However, neighborhood-focused policies almost always take the administrative neighborhood as the target area. As already demonstrated in literature, this administrative area often does not correspond with the area residents perceive as their neighbourhood or use it as such. In an attempt to establish the neighborhood from the bottom up, George Galster proposed in 2001 the concept of ‘degree of presence of neighborhood’. It aims to establish the neighborhood from the perceptions of its users by assessing the overlap between perceived areas of effect for individual neighbourhood characteristics and the overlap between perceived areas of effect according to different residents for the same neighborhood characteristic.

In this paper, we contribute to the methodological unravelling of the degree of presence of neighborhoods by adding the actual use of the neighbourhood using public participation GIS. Using map-based data from the Accesscity4all project, the study combines activity spaces and self-reported neighborhood boundaries of residents in the province of Groningen, The Netherlands, in order to explain why people's perceptions and use of neighborhoods deviate from administratively defined neighborhood areas. Our findings underscore the risks of designing policy interventions solely on the basis of administrative neighborhoods and argues for a shift toward governance models that acknowledge and integrate the bottom-up geographies of everyday urban life.

Participation and Co-creation

Tue 30.6.16:00-17:30, Governance B, U358 | Session chair(s): Xunran Tan

2758 | Nidhi Subramanyam

Watering growth: Elite co-production, caste capital, and the persistence of environmental casteism in urbanizing India

Co-production is widely promoted in planning and public administration as a way to enhance state capacity, democratise service delivery, and deepen citizenship. Much of this literature spotlights co-producing "communities" as subaltern and treats social capital as a benign resource that co-production can draw on and foster. However, in many Indian small cities, "co-production" manifests as business and caste elites governing with the state to plug gaps in service delivery. Using the case of Tiruppur—a small, export-oriented textile-producing city in India, this paper argues for theorising elite co-production and caste-structured social capital to understand governance and unequal urbanisation in India. As one of India's fastest growing small cities and one where water infrastructures are crucial for sustaining industrial growth, Tiruppur presents a revealing case.

Drawing on archival research, plan documents, and interviews, I trace four episodes through which Gounder-dominated provincial capital co-produced water infrastructures with a multi-scalar state: early municipal schemes reliant on elite donations of land and money; a liberalisation-era public–private partnership to secure industrial and domestic water; and, more recently, river "revitalisation" and property-level rainwater harvesting spearheaded by industrial elites through the Smart City planning process. In each case, elite co-production helps fill fiscal and technical gaps in an overstretched municipality and selectively alleviates water insecurity to maintain Tiruppur's global reach. Simultaneously, it builds on and reproduces caste capital—the social, cultural, and economic privilege of dominant caste–business groups—producing the persistence of environmental casteism, understood here as the active denial of infrastructural benefits and political voice to working classes from non-dominant castes. Overall, the Tiruppur case argues that planning theory must move beyond generic invocations of co-production and social capital towards a grounded, conflictual account of how co-produced infrastructures are assembled through unequal social and caste relations in small cities, with far-reaching consequences for just urbanisation.

2584 | Kasia Piskorek, Łukasz Damurski

Beyond Tick-Box Participation: An Evolutionary Review of Frameworks for Evaluating Public Involvement in Planning

What defines effective public participation, and how can we recognise a "good outcome"? Despite decades of debate and the rapid growth of participatory tools, this question remains only partially answered. Contemporary participation is still often evaluated through narrow, predominantly quantitative indicators such as attendance rates, cost efficiency, or online reach. While helpful, these metrics reduce participation to a technical exercise and obscure its deeper democratic, social, and cultural value.

At the same time, the design of participatory processes has become increasingly sophisticated. Practitioners now more often employ clear goal-setting, stakeholder mapping, tailored communication strategies, and diverse engagement tools. However, the evaluation of outcomes has not kept pace with

this progress. Key dimensions such as participants' lived experiences, learning processes, shifts in power relations, and changes in collective capacity are rarely captured or systematically assessed.

The paper argues that current evaluation practices lag behind the evolution of participatory process design. To address this gap, it traces over five decades of academic and practitioner approaches to evaluating public participation, identifying dominant trends as well as marginalised and underused conceptual frameworks. Through an evolutionary lens, the paper distinguishes three phases in the development of evaluation thinking: institutionalisation, communication, and globalisation.

By bringing together underrepresented models from communicative and deliberative planning, as well as capability-based and relational approaches, the paper proposes a multi-dimensional framework for evaluation. This framework moves beyond counting participants towards understanding the broad impact of participatory processes – substantive, procedural, and relational.

In doing so, it strengthens both the effectiveness and legitimacy of participatory processes. Furthermore, it contributes to building a durable culture of participation in planning, where people are genuinely recognised rather than merely measured.

2629 | Saana Rossi

Barriers and enablers for utilizing public participation GIS knowledge in planning organizations

Public participation GIS (PPGIS) provides an opportunity for participatory mapping of place-based, experiential knowledge to enhance the quality and contextualization of knowledge from public participation in planning. PPGIS data is possible to integrate into the existing planning datasets and systems, and data visualizations connected to specific qualities of the physical environment can provide valuable insights for planners.

Despite their potential, in practice, PPGIS tools have not been shown to translate into significantly increased stakeholder influence on planning outcomes (e.g., Jankowski et al., 2022; Kahila-Tani et al., 2019). In cases where influence has been documented (Nurminen et al. 2024), planners describe challenges with engaging with data beyond a superficial level, and a significant bottleneck is identified in integrating the data to planning systems. Ramirez Aranda et al (2023) argue that institutional barriers related to organizational culture, trust between stakeholders and practitioners' willingness to engage with new tools are the most pressing challenges for more efficient integration of PPGIS knowledge in practice.

This case study aims to provide solutions to the challenges practitioners face in utilizing PPGIS knowledge in everyday planning practice. The research presents an exploration of enablers, barriers and bottlenecks for using PPGIS observed in urban planning in the city of Espoo, Finland. A process to introduce city-wide PPGIS survey results into the municipal GIS revealed that even thorough dissemination of data and widespread interest in its use did not result in systematic application of the results.

The results suggest that peer-to-peer support from early adopters, case-specific demonstration of the utility of the data, and accessible guides to reduce the effect of disparities in technical skills can be

helpful in dismantling barriers and promoting systematic data utilization. If successful, introduction of new practices can empower planners to develop their own expertise related to participation and the analysis of available knowledge.

2612 | Maja Karoline Rynning, Sebastian Peters, Harpa Stefansdottir

Building legitimacy for walking - street experiments as drivers for co-creational bricolage

This paper explores how experimentation with temporary street interventions can serve as institutional driver for involving, mobilizing and engaging different actors across diverse municipal units and societal actors, triggering co-creation and building institutional and public legitimacy for promoting walkability in small to middle size rural towns in Norway.

Municipalities' strategical work for improving walkability in Norwegian rural context is often characterized by limited institutional competence, capacities and resources. Those few engaging with the issue often combat windmills of planning cultures prioritizing motor-oriented transport planning and infrastructure maintenance.

In the research project Walkmore we applied action research principles of research-practice collaboration and knowledge exchange, and accompanied two Norwegian towns, Kongsvinger and Narvik, in their strategical work for increasing walking shares. Both towns carried out low-cost temporary design changes in car dominated streets, using street furniture, mobile vegetation, pavement colouring, wall paint, playful and artistic interventions.

Through the concept of bricolage as an analytical lens, we describe the dynamics of 'making it happen', where local relations, situated knowledge and practical means at hand are activated to creatively and collaboratively realize such experiments. We argue that such 'low bar' experimentation may be particularly well suited for small and resource limited towns (in comparison with larger cities), where communication is often unbureaucratic, uncomplicated and direct, at times more personal, creative and oriented towards pragmatic problem solving.

While also considering critiques concerned with projectification and incrementalism, our paper finds that experimentations in Norwegian rural town contexts may serve as lively arenas for co-creation and collaboration, offering seed potential to change perceptions, raise awareness and increase legitimacy of walking and walkable environments among municipal governance units and beyond.

1210 | Marta-Beatriz Fernández Núñez, Oriol Marquet

Understanding Public Acceptance in Urban Experimentation

Urban experimentation has become a central strategy for advancing sustainable and equitable mobility transitions. Yet, the success of experimental interventions depends not only on their spatial or environmental outcomes but also on their capacity to build public legitimacy. This paper examines patterns of citizen acceptance toward two flagship urban experiments in Barcelona, Superblocks (Superilles) and School Streets (Protegim les Escoles), which embody contrasting approaches to reconfiguring urban mobility: one systemic and permanent, the other localized and child-centered.

Using survey data from 2,000 residents, the study applies Latent Class Analysis (LCA) to identify groups of citizens with differing levels of support for these interventions. Subsequent regression analyses explore how sociodemographic and ideological factors predict membership in each acceptance class, shedding light on the social structuring of legitimacy in experimental urban planning.

Preliminary findings suggest that School Streets enjoy broader and more consistent support, potentially reflecting their association with protecting children—a group widely perceived as vulnerable to pollution, traffic accidents, and climate risks. In contrast, Superblocks appear more politically polarized, a pattern we hypothesize stems from their strong identification with the political party and leadership that promoted them, which were often portrayed as radical for advancing such transformative policies.

By linking empirical evidence on public perception with debates on urban experimentation, planning cultures, and the politics of mobility justice, this paper contributes to understanding how legitimacy, vulnerability narratives, and politicization shape the trajectories of experimental urban policies. It argues that analyzing differentiated acceptance profiles can illuminate the democratic and governance challenges inherent in implementing transformative planning experiments.

2022 | Francesca Ranalli, Céline Janssen

Let's co-create! Planning with intergenerational communities: from case studies to methodological guidelines

Efforts in participatory planning to engage with diverse demographics, including different age groups, have led to the adoption of different tools and methods. While art carries the potential to contribute to participatory planning as an exploratory process for promoting interaction among participants, art-based and creative methods are not yet common in planning practices. This article describes the use of art-based and creative methods with intergenerational communities in case studies in the Netherlands, in combination with literature, leading to methodological guidelines to support practitioners and policymakers. The case studies included creative workshops with children, co-design with adolescents, an artistic residency with an intergenerational community, and video-making with young adults. Walk-along discussions with intergenerational groups, policymakers, and practitioners were essential to start all the described participatory processes. The workshops with children (age 6-12) adopted art lessons and artmaking to reclaim a public space. With adolescents (age 13-16), we co-designed a space for them to meet in their neighbourhood park. In the residency, an intergenerational group (age 10-65) experimented with sound walks and art making to later engage with practitioners and policymakers. Reflections on the case studies reveal that for targeting different populations in gender, ethnicity, social classes, and lifestyles, different methods are useful. Other methods are presented from the literature. Moreover, different spatial settings, such as peripheries and new towns, require an understanding of existing socio-spatial dynamics to adapt methods to the neighbourhoods' characteristics. Finally, the use of different art-based methods involves different skills, such as vocalisation and movement in the performing arts and music, and the promotion of perspective taking, self-awareness and visual narratives in the art production. The findings are discussed in light of existing literature on creative methods in participatory planning, together informing methodological guidelines for planning practitioners, developers, social workers, and municipalities that support engagement with different demographics.

Partcipatory Planning

Tue 30.6.16:00-17:30, Governance C, U261 OP POHJOLA | Session chair(s): Andrea Restrepo-Mieth

1837 | Hanin Waked, Karina Pallagst, Beate Caesar

Living labs without borders: Engaging citizens in cross-border spatial planning for societal transitions

The issue of land consumption in Europe is a phenomenon that continues persistently despite the European Union's target of achieving "no net land take by 2050." In cross-border regions, where planning processes are facing the complexity of differing planning cultures, conventional planning instruments often prove insufficient when it comes to societal transitions. This situation highlights the need for innovative and participatory approaches capable of fostering integrated solutions to land consumption.

In response, the project "LATI – Laboratory for Territorial Intelligence", conducted by researchers of the University of the Greater Region's Center for Border Studies, developed a concept for a series of cross-border living labs in three case study areas of the Greater Region. The living lab serves as an experimental and participatory environment designed to increase public awareness of spatial planning challenges in a cross-border setting. Moreover, it facilitates dialogue among diverse stakeholders, including academia, public administration, politics, and civil society. Its methodological framework follows a three-phase model: co-design, co-production, and co-evaluation, implemented through various participatory formats.

The presentation highlights results of the first living lab, which explored key research questions such as: (1) How do cross-border conditions shape housing needs and preferences? (2) What significance do sustainability and resource conservation hold in citizens' housing choices? Scholars developed the living lab as an interactive event, incorporating experimental activities, gaming elements, and future-oriented discussions. It emphasized joint learning, wherein researchers and participants were able to exchange perspectives: citizens reflected on their housing experiences, while simultaneously engaging with the planning paradigm of "no net land take."

The findings demonstrate that the living lab approach effectively generates transformation knowledge and provides a robust framework for formulating practical, action-oriented recommendations to promote sustainable land use across borders.

1119 | Byeongsun Ahn, Yuri Kazepov

Five reasons to consider participation seriously: A research agenda

Once considered a procedural instrument, participation is taking a more central role in contemporary planning practice through programs that emphasize civic engagement and education over direct planning outcomes. Increasingly, it involves a diverse range of non-planning experts and applies multiple, and different types, of participatory instruments across various stages of the planning process. This ongoing trend is redefining the roles and responsibilities of planners and reshaping their practical capacity to steer the planning process toward deliberative democracy and distributive justice. In this light, this article proposes a new research agenda for studying the complexity of participatory planning in its evolving form

as it unfolds through distinct, yet interrelated, stages of the planning process, spanning from designing, participation, implementation and maintenance to evaluation. By integrating the planning literature with policy capacity research, it identifies specific challenges within each of these stages that planners must navigate to simultaneously promote recognition, representation, and redistribution, alongside the corresponding capabilities (resources) and competences (skills) needed to overcome them. This policy-oriented approach thus highlights the full range of planning activities undertaken by diverse actors and institutions – planning and non-planning alike, and the context-bound interactions between their interests and ideas, shaping how procedural commitments to the planning process may, or may not, produce substantive outcomes for distributive justice in the long run. To this end, it sets out five key criticalities to consider when researching and practicing participation: (1) the politics of formulating design; (2) techniques for using multiple instrument types; (3) horizontal silos in implementing outputs; (4) external barriers to sustaining outcomes; and (5) methodological gaps in generating feedback.

1903 | Ashok Das, John Taylor, Kendrick Leong, Anugrah Rawiyah Salma

Lingering Tribulations or Lasting Transformations? Insights Into Indonesia's Evolving Urban Civil Society Organizations

Good urban governance can foster transformative planning; democratization and decentralization improve governance by boosting civil society. This paper seeks to: 1) discern the contours of Indonesia's expanding and evolving landscape of urban civil society organizations (CSOs); and 2) explain how these CSOs could influence local governance and planning. The fall of Indonesia's authoritarian New Order in 1998 unleashed unprecedentedly extensive decentralization and democratization. Civil society blossomed in the aftermath. Changing institutional arrangements for local planning and governance saw urban CSOs adopt novel roles — as activists, advocates, innovators, and intermediaries — to work with marginalized communities and local governments alike. However, without a robust regulatory structure governing CSOs, the numbers and roles of Indonesian urban CSOs remain poorly understood, their purpose frequently misunderstood, and their potential underestimated. This paper is part of a larger qualitative study in which we posit three phases (pre-2010, 2010-19, 2020 onwards) to explain the evolution of Indonesian urban CSOs. This paper analyzes data from a first of its kind nationwide survey of urban CSOs (n=84) that we conducted in two phases over several months in 2023 and 2024. Using descriptive statistics we illuminate the diversity of urban CSOs — types, functions, resources, approaches, stated impacts, challenges, and real and perceived relationships to the state. We also conducted in-depth interviews with 14 representative CSOs. Inferential statistical tests offer interesting insights — both expected and unexpected, even counterintuitive, especially in how one may expect variables such as CSO type, location, or age to matter. For instance, expectedly, resource constraints emerge as the biggest challenge for all; unexpectedly, location matters less and newer CSOs are not bigger users of digital/social media. The rich interview data help appreciate some findings better. CSOs are uniquely poised to transform local planning, but the Indonesian state should be more supportive and inclusive.

2948 | Kanerva Kuokkanen, Euridice Hernandez

Planning with the people: case Maunula

The authors take a micro-level and everyday perspective on peace and public space and highlight a constant negotiation regarding both when studying the planning process and current activities of Maunula House, a multi-functional public building opened in 2017 in the mixed Maunula neighbourhood in North Helsinki. Maunula House, which houses a library, a youth centre, an adult education unit, cultural events, a non-profit café and working spaces, is a central public space for the surrounding neighbourhoods, providing a non-commercial meeting place for citizens from different backgrounds and generations. Desired by the citizens since the 1980s, the space became a reality in the 2010s through a participatory planning process, which involved citizens as a recognised partner alongside the units of municipal administration. Collaboration and dialogue between the citizens and the municipal administration and across administrative units, which yet could allow differing viewpoints, were central to the planning process of the public space. The authors investigate how the participatory and inclusive ethos of the planning phase is reflected in the current governance and activities of Maunula House, highlighting the co-existence and various demands of the user groups and the need for the space to constantly reinvent itself alongside societal transformations and challenging the paradigm of the 'post-political' nature of citizen involvement. Drawing on participatory action research and interviews, the authors analyse which voices and interests manage to be heard and the challenges that other groups face in making their interests present in Maunula House. The authors draw on participatory and agnostic planning literatures (e.g., Healey, 1997; Hillier, 2003), and articulate them with studies on public space (e.g., Massey, 2005; Madanipour, 2023). The rich study offers a case for radically democratic, non-consensual interaction and highlights the importance of physical spaces, asking how to build better with (and as) the people.

2684 | Matilda Alfengård, Märit Jansson

Social infrastructure through civil society associations

Civil society has gained increased attention in discussions on sustainable urban development processes (Yngve, 2025), and recent research highlights civil society associations as key actors in the creation and maintenance of social infrastructure (SI). SI, described as "the networks of places, activities, facilities, institutions, and groups that create affordances for social connection" (Latham & Layton, 2019), functions both as a typology and an analytical concept for understanding how places, activities, and actors interact to enable social life. While the literature on SI has extensively examined and categorized its physical places, less attention has been directed towards civil society associations and their roles within SI. Recent studies suggest that formalized collaborations in urban development processes such as within local area-based initiatives tend to involve well-established civil society associations with stable finances and institutional capacity to collaborate with public organizations to create and maintain SI, rather than less established associations with constrained resources (Alfengård et al., forthcoming). This contribution therefore seeks to further investigate what role civil society associations play in the creation and establishment of SI in urban development processes. Drawing on an ongoing interview study in a neighborhood in Helsingborg, Sweden, we analyze how civil society associations participate in shaping, and are incorporated into, the neighborhood's SI and local development processes. Using theories of

capacities (Avelino, 2017), we develop a framework for examining the conditions that enable or constrain civil society associations' involvement and development through and as SI within local development processes. This approach strives to provide a more nuanced understanding of the interplay between places, organizations, and activities that together constitute SI. Our tentative assumption is that locally embedded and less established civil society associations possess stronger individual capacities but weaker structural capacities to partake in and be strengthened as SI through local development processes.

Critial Infrastructure & Transformation

Tue 30.6.17:45-19:15, Governance A, U356 ALMA MEDIA | Session chair(s): Andrea Restrepo-Mieth

1479 | Laura Müller

Governing Urban Infrastructure Transformation: Lessons from Mid-Sized European Cities on Mitigation and Adaptation

More than two-thirds of the global population will live in urban areas by 2050, emphasizing the need for climate mitigation and adaptation strategies. Despite their importance in public services, urban infrastructures (social, technical, and green-blue) often lack an integrated, interdisciplinary governance approach. Within my research, exploratory case studies examine two German and two Danish medium-sized municipalities. The focus is on the transformation and decarbonization of their respective heating supply systems exemplarily for a technical infrastructure and the management of municipal trees as an example for green-blue infrastructures, both with regards to climate mitigation and adaptation from a governance perspective. The chosen case studies are considered particularly good examples because, despite realistic constraints in municipal governance such as limited budgets or a shortage of skilled workers, they are achieving remarkable results. Their experiences are therefore transferable to other small- and medium-sized cities. Through interviews and the analysis of municipal documents, key successes and innovative approaches to climate mitigation and adaptation measures are identified in all case studies with regards to municipal heating as well as tree management.

The overall goal of this research is to promote mutual learning between municipalities, especially in the context of decarbonizing municipal heating systems and establishing a comprehensive management of municipal trees. The findings provide recommendations for future municipal decision-making processes and can contribute to the further development of governance structures in the area of climate mitigation and adaptation of and through municipal infrastructures.

1402 | Hannah Hickman, Katie McClymont, Carla DeLaurentis

Breaking the Doom Loop: What constitutes meaningful consultation in National Infrastructure Consultation?

The UK Government's Planning and Infrastructure Bill removes statutory consultation requirements for Nationally Significant Infrastructure Projects (NSIPs) in England, citing concerns that current processes create a "doom loop" of endless consultation that delays projects without improving outcomes. On the other hand, critics of the Government claim this move will just reduce democratic oversight and public

voice in planning. Yet, there is a paucity of empirical evidence about what constitutes meaningful consultation and for whom.

Drawing on a mixed methods study this paper captures detailed project-specific experiences from both participants and promoters across multiple NSIPs, providing insight into what works, for whom, and with what outcomes, addressing this evidence gap.

Key findings identify critical success factors, including establishing clarity early about what can genuinely be influenced versus predetermined requirements; optimal timing and sequencing of engagement before positions become entrenched; distinguishing between core infrastructure elements and implementation details where meaningful input is possible; and developing strategies to counter misinformation and create constructive dialogue.

These findings have implications for how the longstanding principle of public participation in planning is mediated within projects deemed to be in the national interest, where centralised decision-making frameworks intersect with expectations for localised democratic engagement.

2776 | Bernard Dwyer

Planning System and delivery of critical infrastructure through the lens of the Shannon Water Supply Project

This paper examines the effectiveness of the planning system in terms of the delivery of critical infrastructure, specifically in the context of the Shannon Water Supply Project (WSP).

The River Liffey currently provides approximately 85% of source water to the Greater Dublin Area and there is almost no spare capacity in the current supply, resulting in limited resilience within the existing system.

The WSP is defined as strategic infrastructure and will be adjudicated on by the State Planning Body (An Coimisiún Pleanála). However, it also traverses the jurisdictions of 6 local Planning Authorities. In addition, the abstraction of water is licenced by a separate agency, the EPA, and is subject to its own legislative context. This introduces complexity in terms of adherence to local planning policies as well as differing regional agendas.

Since first being mooted, the proposal to source water from the River Shannon in the less populated western region of the country has attracted significant media and public attention, much of it negative.

The project is being advanced against the backdrop of an increasingly litigious planning environment in Ireland in recent years which has prompted central government to explore measures that would assist in an acceleration of delivery of critical infrastructure.

The paper will seek to compare experiences across Europe in terms of critical state led infrastructure delivery, and the various associated regulatory and policy regimes. It will also compare approaches to balancing the wider societal and economic benefits of such infrastructure delivery with the needs of directly affected citizens.

2103 | Helka Kalliomäki, Lisa Wätzold, Franziska Sielker

European Corridor Planning Amidst Uncertainty: Strategic Spatial Planning for Industrial Renewal

Geopolitical tensions and industrial policy shifts are reshaping the spatial logic of European corridor planning. This paper contributes to the literatures on strategic spatial planning and regional industrial transitions by examining how transport corridors can serve as platforms for industrial renewal and spatial resilience in uncertain times. We apply a mixed-methods approach, combining case studies, document analysis and foresight tools. Case studies include the Kvarken Council EGTC and the Finland–Sweden fixed link initiative, and the TEN-T Rhine–Danube Corridor in Central Europe. These cases highlight how corridor planning intersects with industrial policy, sustainability transitions, and securitization in regional development. Findings show how corridor planning increasingly requires integration of foresight and spatial strategy to navigate geopolitical risks. In the paper we discuss about corridor planning that must evolve from infrastructure-centric approaches towards foresight-driven spatial strategizing that support place-based innovation and industrial resilience. The paper proposes a conceptual framework for corridor planning that synthesizes strategic spatial planning, smart specialization, and foresight methodologies, offering actionable insights for planners and policymakers across Europe.

2139 | Job Zomerplaag, Lucas Barning, Yvonne Franz

Cooling is the New Heating: Asynchronous Integration in Vienna’s Climate Adaptation and Mitigation Planning

European cities increasingly confront a dual challenge: decarbonising heating systems while preparing for intensifying heat stress. In this context, cooling has emerged as a policy priority equivalent to heating, yet adaptation and mitigation strategies often resist integration despite explicit commitments. This paper examines why these domains remain asynchronous in the case of Vienna's climate governance framework. Extending Candel and Biesbroek’s processual framework of policy integration, we develop a four-dimensional analytical model that captures the distinctive challenges of urban climate governance, adding infrastructural and participatory dimensions to better understand integration dynamics for spatial planning. Through systematic document analysis of strategic policy documents, semi-structured interviews with key stakeholders and field observations, we analyse Vienna’s attempt to bridge adaptation and mitigation particularly through neighbourhood-scale interventions.

Our findings reveal asynchronous integration patterns: strong discursive integration in policy narratives and formal institutional linkages exist alongside weaker infrastructural and participatory integration between mitigation (heating decarbonisation) and adaptation (cooling) priorities. The analysis further suggests that the material configurations of heating and cooling infrastructures relate to markedly different scales, technologies, and timelines of planning and realisation, from individual building-level cooling measures to long-term district heating network expansion, which challenges the feasibility of integrated urban climate governance in practice. For planning governance, this work contributes to understanding the interactions and evolving relations between spatial planning and urban energy organisations governing heating and cooling systems, while also critically reflecting on the material, spatial, and temporal dynamics of policy integration and its pitfalls for cities navigating concurrent mitigation and adaptation imperatives.

Digitalisation & Visualisation

Tue 30.6.17:45-19:15, Governance B, U358 | Session chair(s): Łukasz Damurski

2085 | Thomas Buhler, Annabel Richeton, Nicolas Lepy, Léo Magning-Hoffbeck

On the use of photographs in plans. Are they peripheral illustration tools or -on the contrary - at the heart of planning discourse?

This paper offers a reflexive analysis of the use of photographs in plans. While 'images' (a generic term encompassing diverse graphical forms) have already been discussed in the literature (Faludi 1996) photographs have so far been the subject of little attention.

This relative lack of interest can be partly explained by the unclear status of photographs in plans. In most planning systems, photographs are indeed non-enforceable elements, nor are they elements on which legal action can be based. Furthermore, their role in terms of discourse raises questions: are they 'mere' illustrations intended to lighten the reading, or rather more insidious elements aimed at staging favored populations, places or social practices?

These questions echo with pioneering theoretical discussions on photography (Sontag 1977). Indeed, although photographs (in general) enjoys a reputation of an "innocent and truthful craft" every photograph nevertheless "hide(s) more than it discloses" (p.23). Therefore, we will consider the elements composing photographs as tangible markers of discourse, or in other words as particular planning "signals" (Hopkins and Knaap 2018).

We will thus focus on the interactions between textual-based and photographic-based discourses. To do so, the analysis of a 27-document corpus from four French cities (Rennes, Strasbourg, La Rochelle, Dijon) covering a period of 40 years (1982–2022) has been conducted. Texts were analysed using textometry, whereas photographs for their parts with an image object recognition tool. These results were then used to conduct a series of elicitation interviews with stakeholders.

The results show that photographic discourse is, in most cases, entirely intentional on the part of the actors (including legal and communication actors). Photographic imagery is often used - in cases involving controversial subjects - to suggest preferences that are considered impossible to put into words. In this respect, photographs in plans might sometimes reveal more about 'real' intentions than texts.

1132 | Anna Kierzkowska, Łukasz Damurski, Michał Ciesielski, Aleksandra Pilch

Virtualization in progress: current trends in the urban services sector. Findings from foresight studies

The ongoing digitalization of various aspects of human life significantly affects the performance of contemporary societies, and consequently, functional structures of modern cities. Urban services are one of the sectors particularly affected by this transformation, resulting in transferring certain facilities to the Internet.

The scope of urban services undergoing virtualization is very wide, covering both commercial and public services. But still there are some amenities available in in-person mode. In order to understand the multidimensional implications of virtualization, a comprehensive, interdisciplinary research is needed.

The proposed paper examines the process of virtualization of services sector taking the perspective of various stakeholders involved in urban facilities system. It presents the results of a foresight study conducted in 2025 using the Delphi method. This method is used when the existing knowledge in a given field is insufficient or still developing.

The participants were 37 experts from 13 European countries, representing public authorities, private companies providing urban services, researchers specialized in urban services and urban planners. They were asked about (i) the main directions of services virtualization, (ii) conditions and limitations (legal, technological, social, cultural, etc.), (iii) the types of services particularly susceptible to this process.

The results are a synthesis of expert knowledge of professionals representing different disciplines which allows for a broad perspective on the topic. The findings offer an insight on the current trends related to the virtualization of urban services and their influence on spatial structures of contemporary cities.

2018 | SaeBom Song, Franziska Kreszentia Beck

The Politics of Predetermined Exploration: Power Dilemmas of Ambidexterity in the Participatory Governance of Berlin's Smart City Strategy

Smart city initiatives worldwide increasingly position participatory governance as essential for sustainable urban transitions, yet tensions persist between democratic ideals of citizen engagement and institutional realities of socio-technical transitions. This study examines the ambidextrous paradox of participatory governance through Berlin's smart city strategy, investigating whether citizen engagement genuinely enables exploratory visioning or predominantly serves to legitimize pre-determined technocratic pathways. The objective of the research is to unravel the power dynamics that shape participatory forms and to examine their implications for more inclusive citizen engagement in sustainable smart city governance.

We propose a conceptual and analytical framework, integrating ambidexterity theory with power-theoretical perspectives on participatory governance to examine how exploration and exploitation shape smart city transitions. The study employs critical discourse analysis of Berlin’s smart city strategy alongside narrative expert interviews with ten key governance actors, investigating different power configurations of citizen participation in visioning processes and implementation of pilot projects within the Strategy.

Empirical findings reveal that Berlin’s participatory governance exhibits ambidextrous dynamics, where exploratory visioning processes operate alongside exploitative implementation. Exploration unfolded through deliberative, open, and inclusive procedures that engaged diverse societal actors in developing the city’s smart strategy. Exploitation became evident in pilot projects that, though presented as participatory outcomes, were predetermined to secure financial resources. Designed by governmental and expert authorities, these projects excluded civic participation, revealing deeper structural dilemmas shaped by a financing structure mandating predefined deliverables.

The study illustrates how the contradictory planning practices, the municipality adopted to qualify for national funding, were shaped by power structures and, in turn, generated contradictory forms of citizen participation. Realizing genuine participatory governance calls for rethinking outcome-oriented evaluation systems that restrict deliberative openness. Overcoming these structural limitations and enabling long-term, transformative urban futures relies upon embracing a co-creative, process-driven visioning approach grounded in broad societal collaboration.

1423 | Eynat Mendelson-Shwartz, Talia Margalit

Is the future visualised in comprehensive plans?

Planners and urban governments prepare comprehensive plans as means to imagine, shape and advance desired urban future. As such, these plans function as a development compass, and to mediate between the wide variety of urban actors. Comprehensive plans employ verbal, numeric and visual rhetoric. We focus on the visuals- and ask how planners now shape them to convey knowledge and meaning, frame urban issues, and mediate between expert and lay perspectives (Pojani and Dominic, 2015).

Planning visuals- including schemes, images and graphs are an important communicative tool that can overcome linguistic and imaginative barriers, by picturing, explaining, persuading, and legitimizing, while also fostering deliberation about urban futures (Al-Kodmany, 1999; Dühr, 2007; Moroni and Lorini, 2021). Visual element can open up new possibilities, influence perceptions of problems and solutions, and enhance peoples' accessibility to planning knowledge and ideas.

Visuals of long-term futures are especially important in comprehensive full city plans, but despite this, they are rarely studied. This paper examines whether, and how, contemporary planners advance comprehensive plans by using visuals of long-term, alternative and even transformative city-wide futures, or by merely projecting incremental extensions of the present. Using comparative approach, we analyze visual representations from recently approved comprehensive plans in major cities across different continents, including Vancouver, Portland, Melbourne and Manchester.

Our findings reveal a recurrent gap between verbal and visual rhetoric: while the text often emphasizes visionary futures and transformative change, the visual elements tend to focus on the past and present, the local, and the particular. This disjunction constrains the communicative and persuasive potential of comprehensive plans, limiting their ability to imagine and to convey a coherent and concrete urban vision. By highlighting this gap, the paper highlights current visual politics, and contribute to ongoing discussions about governance, communication, and knowledge in urban planning.

1935 | Antje Matern

Spatial Planning for AI-Driven Data Centers: Balancing Growth, Sustainability, and Infrastructure Demands

The rapid rise of artificial intelligence (AI) and advanced data models is driving demand for high-performance computing and efficient data connectivity, leading to significant growth in data centres (DCs). DCs range from micro (<500 m^2) to small (500–2,000 m^2) to hyperscale data centres (>500,000 m^2).

In Germany alone, around 50,000 DCs covered an area of approximately 2.3 million m^2 in 2020, with computing capacity expected to triple by 2025 (Hintemann et al. 2022). Globally, data centre capacity is expected to grow by 19–22% per year through 2030, reflecting their central role in digitalisation processes (McKinsey 2024).

This expansion is putting considerable pressure on land, energy, cooling and network resources. Despite the goals for climate-neutral operation, these growth requirements often conflict with sustainability goals, underscoring the need for careful site selection, sustainable construction, integrated location decisions and the use of waste heat (Gröger et al. 2024; UBA 2022).

The challenges associated with data centres for spatial planning – such as land use conflicts, opportunities for mixed use, and infrastructure connections – continue to be inadequately addressed in research and practice. This paper provides insights from an ARL working group on planning requirements for data centres in Germany. It aims to determine the spatial planning requirements for AI-driven infrastructures from a scientific perspective, based on an understanding of location dynamics and impacts, and to discuss governance requirements and procedures.

Agency and legitimacy

Thu 2.7.11:00-12:30, Governance A, U356 ALMA MEDIA | Session chair(s): Helka Kalliomäki

1605 | Lina Hoyos-Rojas, Isabel Loupa Ramos, Luis Inostroza

Stakeholders' Agency for Biodiversity: Ecosystem Services Governance in the Planning Context

Addressing global environmental challenges requires a multi-actor perspective on policymaking. Shifts in spatial planning rationalities have emphasized its negotiated nature, shaped by interactions among diverse stakeholders rather than expert-driven processes. This recognition brings the attention to governance systems as mechanisms for achieving territorial objectives. This approach is crucial in the environmental domain, where spatial planning plays a pivotal role in halting ecosystem degradation and biodiversity loss, as highlighted by the IPBES Global Assessment (2019) and the Kunming–Montreal Global Biodiversity Framework (2022).

Within this framework, the concept of Ecosystem Services (ES)—defined as the contributions that ecosystems make to human well-being— has proven informative for accounting and localizing the benefits societies derive from nature in planning. Enhancing ES delivery has further been associated with positive impacts on biodiversity performance. Consequently, effective ES governance is essential for the establishment of institutional arrangements and mechanisms that enable collective decision-making and coordinated action in natural resource management.

This study investigates how stakeholder agency supports planning instruments for biodiversity enhancement in the municipality of Mafra, Portugal. Grounded in the theory of ES co-production—which conceptualizes the interplay between natural and human-derived capitals in generating ecosystem services—the research employed a serious game to stimulate stakeholder reflection on the alignment between co-production actions and spatial planning instruments, complemented by semi-structured

interviews examining actors' interests, capacities, and potential to implement biodiversity-enhancing measures.

Preliminary findings suggest that different forms of co-production vary in their effectiveness in supporting planning instruments. Human and manufactured capital—embodied in technical expertise, infrastructure, and individual initiative—appear most readily mobilized, whereas collective forms of action remain more difficult to operationalize. Frequently applied instruments include Protected and Conservation Areas, Information, Consultation and Engagement, Monitoring and Evaluation, and Tax Relief and Subsidies, with Best Practice Guidelines for Private Landowners emerging as particularly relevant.

1731 | Tristan Claus

The legitimacy of plan-led planning in a predominantly development-led institutional context. The case of non-conforming dwellings in Flanders, Belgium

This paper examines why plan-led approaches struggle to gain legitimacy in planning contexts that are locked into a predominantly development-led institutional path. Using the strategic attempt to phase out non-conforming dwellings in Flanders, the northern region of Belgium, as a case, it shows how this paradoxically led to legislative reforms that consolidated these dwellings instead. Non-conforming dwellings are residential dwellings located in zones allocated to agriculture, nature, or forestry in land-use plans. While the strategic vision of the Flemish government in the 1990s was to phase out these dwellings gradually through selective rezoning, it simultaneously adopted legislation that allowed their renovation, extension, and rebuilding. The subsequent Flemish government went further and made these provisions permanent rights in 2001, effectively overriding any land-use plans.

This research assessed the legitimacy of these reforms through an analysis of parliamentary reports, press coverage, and 32 semi-structured interviews with ministers, members of parliament, mayors and alderpersons, civil servants, ministerial advisers, and interest group representatives. Drawing on Richard Scott's analytical framework of institutional pillars, the findings reveal that, across both legislative periods, the plan-led approach to non-conforming dwellings faced severe legitimacy challenges from regulative, normative, and cultural-cognitive perspectives, including limited local capacity, entrenched property rights, and strong attachments to rural living. As a result, the paper introduces the concept of an Institutional Streisand Effect, whereby mounting social and political pressure on a contested plan-led policy leads not only to its reversal, but also to reforms that ultimately make the planning system even more development-led than it was before.

1512 | Simon De Boeck

Who Rules the Streets? Unfolding Powers, Actors, and the Making of New York's Public Space

Over the past three decades, New York City has pursued successive waves of transformative public space policies, ranging from Business Improvement Districts (BIDs) to the Plaza Program and, more recently, Open Streets. These initiatives have redefined who plans, funds, and manages public space in

one of the world's densest metropolitan areas. Yet, while outcomes are visible and often celebrated, the interplay between public, private, and community actors remains underexplored—particularly in recent phases of a broader policy paradigm shift in public space transformation. Addressing this gap, this case study examines how interactions among governmental, community-based, and corporate actors drive—or constrain—the transformation of public space in New York.

Anchored in a multi-method qualitative framework, the research combines policy document analysis, actor-network analysis, and spatio-temporal graphical mapping of two contrasting public realm initiatives across Manhattan and Brooklyn. Through a comparative reading of community-led and corporate-led cases, the study traces how different coalitions and funding models shape design outcomes and patterns of accessibility, situated within a conceptual timeline connecting mayoral terms and their evolving urban policies.

The study explores three broader dynamics. First, New York's public realm is co-produced through a hybrid system of actors that reconfigures traditional boundaries between public and private planning. Second, community-led initiatives reveal a renewed civic agency, yet remain vulnerable to institutional discontinuity and uneven support across boroughs. Third, the iterative layering of policies shows that transformative potential may arise not from singular visionary models but from the cumulative synergy of partial experiments across scales.

By interpreting these initiatives through the analytical lens of policy paradigm shifts, the study contributes to comparative urban planning scholarship on transformative urbanism and policy mobility, framing New York as a living laboratory of governance-driven, actor-mediated transformation.

1691 | Reece Fisher

Toward a social acceptability of logistics facilities: Assessing local opposition to logistics development projects in France through media content analysis

Recent consumption trends and environmental prerogatives have put pressure on the urban logistics system and raised public awareness of warehousing and distribution activities. Urban logistics facilities, depending on their many characteristics, can bring about both positive and negative externalities for residents. Logistics facility development concerns a plurality of stakeholders, with members of the public and neighbors directly affected by negative externalities. The objectives of this article are twofold: First, we examine the notion of social acceptability as it has been defined across fields, contexts, and cultures to select the most relevant definition for logistics developments. Next, we analyze media coverage of local opposition of warehouse development with the purpose of accessing characteristics that increase or decrease the social acceptability of a logistics facility in France. This required using quantitative media content analysis, sorting articles and the respective developments covered based on three main themes. In examining the results, we find that project-related, logistics-related, and process-related factors all contribute to logistics project acceptance and clarify necessary measures for further defining the social acceptability of urban logistics facilities.

Planning Concepts

Thu 2.7.11:00-12:30, Governance B, U358 | Session chair(s): Ward Rauws

2375 | Georgios Chatziefthymiou

Products in stock, but who's the buyer? National Urban Policies and the unrevealed role of the New City phenomenon in Africa's urbanization

Urbanization in Africa is increasingly characterized by a dual trajectory: the organic, often informal expansion of existing cities, and the deliberate, master-planned development of New Cities from scratch. This bifurcation represents more than a divergence in form; it signals the emergence of profoundly unequal spatial regimes with significant implications for equity and governance. This research systematically investigates the role of these New Cities within Africa's broader urban fabric, asking: How do National Urban Policies (NUPs) interact with New Cities, and what are the convergences and divergences between their respective visions?

To address this, the study employs an integrated analytical framework. It begins by systematically mapping state-recognized New Cities through Policy Document Analysis of official sources, while using Content Analysis to codify strategic drivers within National Urban Policies. Building on this foundation, Narrative Analysis extracts the core visions embedded in New City master plans. The inquiry culminates in a comparative synthesis, using a Dual Comparative Matrix to critically juxtapose national policy drivers with project-level narratives. This methodology reveals the complex interplay between top-down planning and developer-led urbanism.

The expected outcomes of this research concern a comprehensive and systematic understanding of New Cities in the African context, addressing a phenomenon that has been studied sporadically to date through isolated case studies. By providing a structured categorization of New Cities, their roles, and their impacts across multiple spatial and social scales, the contribution aims to integrate these developments into a unified analytical framework, highlighting both their individual characteristics and their broader significance for urbanization processes.

1097 | Paul Burton

Should Australia develop its own New Towns policy?

The UK government has embarked on a program of developing a constellation of New Towns to stimulate economic growth and manage population growth in a sustainable way. This comes 80 years after it first introduced New Towns as a major feature of post-war reconstruction. This presentation reviews the performance of the first generations of New Towns and the prospects for success of the latest manifestation. It then considers the case for developing a similar program in Australia, a country with historic connections with the UK, including in planning policy and practice, which also faces significant challenges of managing and accommodating a rapidly growing population. Having a federal system with three levels of government, Australia faces particular problems of planning at various spatial scales and has attempted a degree of high-level coordination through a new National Urban Policy (NUP). The presentation critically reviews the prospects for using New Towns as a significant component of the implementation of the NUP and the likely obstacles faced in doing so.

958 | Hans Leinfelder

'Cutting ribbons' in Flanders' urban sprawl

Linear residential development is an icon of non-vigorous planning policy in Flanders (northern part of Belgium). This type of urban sprawl is the result of zoning in land-use plans in the 1970s, and of building permit policies based on exceptions and fundamental rights to reconstruct and expand dwellings despite their actual zoning. Planning policies, in favor of landowners' interests, have resulted in 13,000 kilometers of 'ribbons'.

Much needed transitions concerning climate change, renewable energy production, biodiversity loss, and aging population do not seem to be a real concern of residents of ribbons. Flooding areas, wind turbine parks, forest expansion and retirement homes are of a completely different scale than individual houses and gardens. However, houses on river banks are flooded, distance rules to houses prevent the construction of wind turbines, forests are difficult to connect, and elderly people live in isolation in unadjusted houses along major roads. It is our belief that exactly the individuality within the large-scale ribbon development offers opportunities. Indeed, residents are fed up being subject of recurring floodings, they lie awake at night because of cars rushing by, they see their (grand)children on the way to school being victim of traffic accidents, and they count fewer birds in their backyards.

But, planning policy ambitions remain little: ribbons should no longer grow in length. The paper explores how linking the 'big' transition goals to the 'small' concerns of individual residents creates a momentum to intervene in the fabric of ribbons. At hotspots, ribbons coincide with issues on water management, renewable energy, road safety, traffic viability and biodiversity. The paper addresses policy, financial, landscape design related, communicative and psychological issues linked to 'cutting ribbons' by actively demolishing residential dwellings. The exploration of the conditions to curatively intervene in Flanders' ribbon development can inspire other extensively sprawled regions.

2109 | René Fleschurz

Between Big Ideas and Real-World Limits: Collaborative Regional Planning

Demographic change affects rural regions all over Europe in terms of providing basic public services. The current participatory and collaborative paradigm in planning asks for the public involvement on regional level, to find pathways to the related questions and tackle the necessary regional transformation. However, particularly in rural regions, collaborative planning approaches are confronted with specific challenges regarding form and level of involvement.

This research aims to investigate, if and how, collaborative processes exceeding mere participatory tokenism, can support regional planning practice. The study is based on qualitative and comparative analysis of case studies across different planning cultures, on different levels and a broad spectrum of challenges. Initially the respective processes in two metropolitan areas in the US (CALFED) and Switzerland (ELBA) identified common success factors and shortcomings. With recurrent analysis between two rural counties in Germany (Birkenfeld and Coburg) the specific circumstances for rural regions could be incorporated in the positive and negative outcome factors. The review of guidelines on public involvement delivers transferability of those factors.

Since regional collaboration is a highly place-based process, even within similar cultural backgrounds, following general guidelines and tacit knowledge cannot guarantee a more successful process. The analysis revealed key factors for the application of collaborative processes on regional level that justify the consumption of aligned resources: They can be used to prepare a collaborative SWOT-analysis as basis for future planning strategies and policy decisions or to mitigate the opposition on highly controversial planning projects at an early stage of the development process. Even in a thorough application, collaboration processes proved to be very time-consuming and are strongly dependent of political support. Overall, the analysis showed that regional collaboration can support regional development planning, but within very narrow boundaries. Successful regional collaboration particularly depends on the perseverance of (political) actors and financial support.

1041 | Sabrina Fredin, Therese Aldinge

Navigating Uncertainty in Regional Soft Planning: The Interpretive Dynamics of Emerging Planning Practices

Regional soft planning—emphasizing dialogue, persuasion, and voluntary collaboration rather than statutory control—has received growing scholarly attention over the past two decades. Research focuses on how such forms of planning gain legitimacy (Mattila and Heinilä 2022, Purkarthofer 2018), how they suffer from legitimacy deficits (e.g. Nadin et al. 2018, Allmendinger and Haughton 2009), how new scales and governance arrangements emerge (e.g. Purkarthofer et al. 2022) and how they coexist with traditional "hard" planning systems (e.g. Zimmerbauer and Paasi 2020, Metzger and Schmitt 2012, Olesen 2012). While we know how regional soft planning can foster flexibility and innovation, we know less about how new and experimental soft planning practices are actually understood and enacted by different participants, and how uncertainty concerning planning content and process shapes both their engagement and the outcomes achieved.

This paper addresses these gaps by examining a recent regional soft planning practice: the development of a joint Spatial Strategy in Region Östergötland, Sweden. Drawing on qualitative interviews with municipal and regional planners in spring 2025, we analyze how actors navigated the introduction of a new soft planning tool within the region's established collaboration structure. Our study highlights uncertainty as a constitutive and persistent feature—rather than a temporary obstacle—within the regional soft planning process.

We find that uncertainty shaped participation at three levels: first, as foundational uncertainty about objectives and expected outcomes from the start; second, as relational uncertainty, with larger municipalities better positioned to interpret and influence the process, thus potentially reinforcing existing asymmetries; and third, as temporal uncertainty, with ambiguities persisting even after official adoption of the strategy. By foregrounding these dynamics, our analysis contributes to understanding regional soft planning as a continuous process of negotiation and meaning-making, with uncertainty both enabling and constraining regional soft planning.

1108 | Francesca Blanc, Juan E. Cabrera, Giancarlo Cotella

Extending comparative spatial governance and planning studies to Latin America. Tinkering with concepts and methods

The contribution explores the potential of extending comparative spatial governance and planning studies beyond Europe and the Global North. Building on the notion of spatial governance and planning systems as 'institutional technologies' (Janin Rivolin, 2012), it critically examines the dynamics that shape the Latin America planning landscape, where high degrees of informality, colonial legacies and transnational influences challenge established analytical categories (Cabrera et al., 2025). It identifies four entry points to complement comparative approaches: (i) the persistent influence of colonial institutional frameworks and the tensions with postcolonial constitutional reforms; (ii) the role of international organisations in shaping national discourses and policies; (iii) the importance of informal institutional configurations in shaping urban development; (iv) the value of interpreting local practices as 'repeated planning instances' that reveal globally shared challenges. These perspectives are used to compile a comparative analysis of spatial governance and planning systems across ten Latin American countries. The collected evidence reveals a complex interplay between formal and informal institutional systems, where spatial planning often unfolds through hybrid mechanisms and 'other institutionalities' that challenge conventional understandings of state-led governance (Blanc et al., 2022). The authors argue that acknowledging these dynamics allows for a more grounded, inclusive, and theoretically plural approach to comparative planning. Rather than reproducing Northern epistemologies, it proposes a process of conceptual 'tinkering' that betters reflect the realities of the Global South.

Blanc, F., Cabrera, J.E., Cotella, G., García, A., Sandoval, J.C. (2022a). Does planning keep its promises?

Latin American spatial governance and planning as an ex-post regularisation activity. Planning Practice & Research, 37(6): 699-720.

Cabrera, J.E., Blanc, F., Cotella, G. (eds) (2025) Spatial Governance and Planning in Latin America. A comparative account. London: Routledge

Janin Rivolin, U. (2012). Planning Systems as Institutional Technologies: a Proposed Conceptualization and the Implications for Comparison. Planning Practice and Research, 27(1): 63-85.

Borders and cross-border planning

Thu 2.7.14:00-15:30, Governance A, U356 ALMA MEDIA | Session chair(s): Shenjing He

2294 | Theresia Morandell

Divergent city-regional perspectives? Using NLP to map how core cities and surrounding municipalities frame urban-rural linkages in local planning

Contemporary city-regions are characterized by thick functional and spatial ties between cities and their surrounding suburban and rural municipalities. These so-called urban-rural linkages create planning challenges that often exceed administrative boundaries and call for policy approaches operating at the cross-jurisdictional spatial scale of the broader city-region. Although planning research has increasingly acknowledged the importance of such cross-jurisdictional coordination, comparatively little is known about how both core cities and their neighboring municipalities articulate urban-rural linkages within

their own planning frameworks. Existing studies tend to prioritize city-centered perspectives, leaving the viewpoints of smaller suburban and rural municipalities within city-regions comparatively underexplored.

This study investigates how urban-rural interdependencies are addressed in German and Italian city-regions. We analyze the contents of statutory and non-statutory spatial plans issued not only by core cities but also by surrounding municipalities within their functional urban areas. We employ Natural Language Processing (NLP) methods for automated content analysis to systematically examine how different municipalities frame physical, socio-economic, and infrastructural linkages within the broader city-region. This methodological approach enables the comparison of a wide set of planning documents and the identification of thematic patterns across municipalities of varying sizes and institutional capacities.

By mapping how different parts of city-regions engage with urban-rural linkages, the study contributes to a more nuanced understanding of planning dynamics across urban, suburban, and rural municipalities. In particular, it highlights whether and how smaller municipalities frame interdependencies differently from their core cities, thereby broadening current debates on city-regional planning beyond a predominant core city lens.

1683 | María Verónica Elías

Neoliberal Border Security and Activist Counter-Narratives: The Politics of Encounter at the Edge

In recent decades the U.S.–Mexico border has been transformed under neoliberal rationales into a highly securitised zone, where migration, labour, and humanitarian impulses intersect (and collide) with state imperatives of control. Against this backdrop, this paper investigates how activist networks intervene in these politico-economic border processes by generating counter-narratives, solidarities, and material practices of care. Based on qualitative research conducted among volunteer human-rights organisations, migrant caravans, and border-aid collectives, the paper analyses how activism mobilises within and against neoliberal border infrastructures — for example by offering legal aid, documenting encounters, mobilising social media, and staging memorials. I argue that these activist practices enact a form of "governance from below" which unsettles the dominant logic of border security, produces alternative imaginaries of mobility and belonging, and challenges the neutrality of administrative discretion. The paper also draws on Foucauldian understandings of governmentality and neoliberal administration to show how activists become co-producers of border governance (rather than mere oppositional actors). In doing so, this work contributes to the emerging scholarship on border activism by highlighting its dual role: resisting state power and simultaneously enmeshing itself in administrative structures of governance.

2813 | Luca Cestaro, Loris Servillo, Marco Del Fiore, Raffaella Coletti

Institutions and Borders: Potentials and Challenges of EGTCs from an Italian Perspective

Nearly two decades after the introduction of EC Regulation 1082/2006, European Groupings of Territorial Cooperation (EGTCs) represent a dynamic yet insufficiently analyzed instrument of European territorial

governance. This paper examines the 14 EGTCs with Italian participants to analyze their organizational configurations, operational challenges, and governance innovations across different types of cross-border, transnational, and interregional cooperation.

The research adopts a multidimensional analytical framework articulated across four key dimensions: internal organization, financing models, external relations, and administrative issues. Through questionnaires and semi-structured interviews conducted with local stakeholders, we develop a typology revealing heterogeneous configurations: from EGTCs characterised by strong top-down political connotations, to "generalist" EGTCs conceived as institutional platforms for exchange and negotiation, to sectoral EGTCs focused on specific thematic areas such as sustainable tourism or joint management of protected natural areas.

The analysis identifies three cross-cutting operational challenges. First, financial sustainability: numerous EGTCs oscillate between structurally inadequate self-financing and the procedural complexity of participating in Interreg programs. Second, institutional visibility and citizen engagement: only a minority have developed formalised communication strategies, limiting their capacity to build territorial legitimacy. Third, administrative-regulatory complexity: difficulties persist due to the plurality of legal systems and obligations stemming from their public law nature.

Our findings highlight what Ocskay (2020) termed the representation paradox: while cross-border cooperation has progressively generated stable and formally legitimate institutions characterised by high autonomy over the past sixty years, these structures have simultaneously eroded their social base, losing informality and spontaneity. EGTCs thus tend to represent the administrative territory covered by their constituent members rather than the communities inhabiting it. Some EGTCs have addressed this deficit through innovative participatory governance models, introducing consultative bodies for municipalities and citizens.

1670 | Lukasz Damurski, Katarzyna Piskorek, Klaudia Klaudia Owczarek, Maciej Skulimowski

City-twinning, intermunicipal cooperation and sister-cities. In the search for conceptual integrity

Managing urban complexity in the times of digitalization, climate change and geopolitical tensions poses multiple challenges to public authorities across Europe. In the search for effective, trusted solutions, municipalities are cooperating to find a common approach to addressing these challenges in relation to specific infrastructure, policies and resources.

The EU promotes multiple frameworks of cooperation. By joining various partnership schemes, municipalities can create platforms for exchanging best practices and developing shared knowledge on selected topics. However, there is a visible lack of conceptual integrity between the existing approaches. Ctity-twinning, intermunicipal cooperation, sister cities and other terms try to describe the current developments in policy making, but none of them is broad enough to grasp the evolving local partnership landscape.

The presented research provides a comprehensive overview of current intermunicipal cooperation models and highlights the value of developing close city-to-city relationships.

Based on an in-depth literature review, followed by a thorough overview of EU initiatives (also those involving external partners such as Ukraine), the paper demonstrates the importance of collaboration and knowledge exchange at the local level. The typology of the current city-twinning practices enables a systematic analysis of the methods and defining the terminology used across Europe.

The presentation contributes to the state-of-the-art with an up-to-date knowledge on city-twinning initiatives including both scientific and practical approaches. It offers a solid conceptual framework for empirical research and provides guidance for urban governance.

2355 | Mátyás Jaschitz, Kitti Dubniczki

Planning for cross-border functional regions - A case (and experience) study from the borders of Hungary

This study is an experiment in planning methodology that seeks to provide useful tools for planning practice, specifically for cross-border regions. The research draws on several sources: it builds on the authors' decade and a half of experience in cross-border strategic planning and their exceptional experience in Interreg A and B programme planning and evaluation; it makes comprehensive use of the relevant European bibliography; and it tests its findings in practice through a specific case study.

The first section presents a comprehensive, experience-based methodology for cross-border planning. It integrates financing and multi-level governance, bridging official planning nomenclatures across borders. The result is a non-classical spatial development plan or a cross-border cooperation roadmap for regional stakeholders. This roadmap is based on a cohesion-focused, spatial reinterpretation of the border region's situation, emphasizing field-based, qualitative planning methods that AI solutions cannot replace.

In the second phase, the authors test the comprehensive methodological presentation in practice and demonstrate its effectiveness. Their sample is the Bodrogköz region along the Hungarian-Slovak border, which is culturally and geographically unified but divided into two peripheries by the state border. The reason for this testing is the strategic planning process of BOTILA EGTC, registered in the region in 2025, which offers an institutional and governance framework for a mutually beneficial rearrangement of the region.

Through all this, the study contributes to the relevant European professional and policy discourse at both theoretical and applied levels. Through its unique place-based approach, it offers both a methodology that has been tried and tested through experience and provides a tangible regional development tool for local actors, as well as a spatial perspective for strengthening the functional and governance cohesion of border regions.

2488 | Barbara Demeter-Wenzl, Alexandra Pintilie, Franziska Sielker, Tobias Chilla, Elias Günther, Stefan Hippe, Matyas Jaschitz, Roland Hesz

Spatial reconfiguration of governance landscapes in the Irish-Northern and Irish border region

This study investigates the governance landscapes and structural dynamics of cross-border cooperation across the Irish-Northern Irish border, with a specific focus on the Belfast-Newry-Dundalk-Dublin cross-border corridor. This functional border-region provides a critical lens through which to examine the evolving nature of European cross-border cooperation in a context marked by both historical division and policy interdependence.

Using a policy and institutional mapping approach, the study critically assesses strategic documents in combination with input from regional key-actors, obtained through conducting a regional workshop and stakeholder interviews, to analyse how planning competences, administrative structures, and cooperative initiatives interact within and beyond national frameworks. Particular attention is given to the interplay between legally defined national planning competences and the more flexible, overlapping governance instruments that arise from inter- and intraregional strategies, European territorial cooperation frameworks as well as more localised, institutional post-Brexit adjustments.

By situating the Newry–Dundalk case within broader European debates on territorial governance and spatial reconfigurations, the study demonstrates in what ways cross-border cooperations emerge, re-emerge and shift their foci spatially and content-wise, or simultaneously, while others remain stable features and backbones of the institutional governance frameworks. In analysing these dynamics, the paper questions what role EU territorial cooperation frameworks play in these cross-border governance settings as stabilising cooperation throughout times of political upheaval. Building on the ESPON CROSSGOV project, the case study will be discussed around its specificities as a post-Brexit region in comparison to other EU border regions, and the role EU territorial cooperation frameworks have in these.

Thereby, the study contributes to wider discussions on European territorial and place-based governance, conceptualising functional border-regions as dynamic spaces of coordination, where policy integration and spatial strategy-making are challenged and evolve through ongoing multi-scalar processes and localised governance practices.

Policy integration

Thu 2.7.14:00-15:30, Governance B, U358 | Session chair(s): Helka Kalliomäki

2318 | Mochamad Nurhestitunggal, Aysin Dedekorkut-Howes, Paul Burton

From Meta-Instrument to Meta-Governance by Design: Planning for Policy Integration in Indonesia's Thematic–Holistic–Integrative–Spatial Framework

Policy integration remains one of the most persistent challenges in public administration: widely endorsed but rarely sustained in practice. Building on two systematic reviews (anonymised for review) that conceptualised planning as a boundary-spanning meta-instrument for policy integration and examined its conditions of success, this study advances that line of inquiry by exploring how integration is institutionalised procedurally through meta-governance by design, tracing how sequential reforms and

digital enforcement gradually produce a procedurally integrated regime. Using a qualitative, mechanism-tracing design, it investigates Indonesia's Thematic–Holistic–Integrative–Spatial framework (THIS)—a rule-based architecture that links law, deliberative forum, and digital platform—drawing on statutory documents, planning guidelines, regulatory artefacts of the digital system, and semi-structured interviews across national, provincial, and local levels.

Findings reveal that integration operates through an assurance chain: a sequenced cycle of Gate, Package, and Learn–Correct that structures validation, adoption, and feedback across legal, deliberative, and digital domains, making coherence a property of procedural design rather than an outcome claim. Spatial and digital validation make alignment a condition of legality, transforming coordination from aspiration into compliance by design.

Empirically, the study demonstrates how a large, decentralised state institutionalised coherence through procedural design. Theoretically, it traces the transition from meta-instrumental coordination to hard procedural meta-governance, where legality, deliberation, and code jointly sustain coherence through recursive enforcement. Practically, it offers a transferable model for multilevel governance: a rule-bound design that aligns planning, budgeting, and oversight through law, deliberation, and code without reverting to hierarchy.

988 | Tomoko Miyagawa, Noriko Otsuka, Hirokazu Abe

Research on policy integration in Urban Planning Master Plans for promoting health in urban environments: in the case of Japan's SDGs Future Cities in the Kansai Metropolitan Region

Toward the realization of the SDGs and improving people's well-being, policies and case studies for creating healthy cities are being developed worldwide, and urban regeneration and urban (re)development based on health promotion are attracting attention. This paper focuses on the 'SDG Future Cities' in Japan selected by the Cabinet Office in the Kansai region, where integrated policy application toward achieving the SDGs is progressing based on the efforts to collaborate relevant government departments to pursue health promotion within urban planning master plans (UPMPs) in each city. The research question is how the integration of policies for urban environments and health has contributed to the creation of diverse urban environments that enable health promotion. The research method is to review the UPMP policy documents of each of the 29 'SDG Future Cities' selected in the Kansai region from the perspective of health promotion. The results showed that most cities except one have formulated UPMPs, and most cities except three have formulated health promotion policies within UPMPs. In terms of city classifications and sizes, it is found that medium-sized cities (populations of 100,000 or more) and designated cities (populations of 500,000 or more) tend to have several health and welfare related initiatives, while small cities (populations of less than 100,000) tend to have fewer health promotion policies. Many UPMPs listed the opportunities of using public facilities such as sports and recreation, parks and natural environments, as key drivers for walking and cycling, and education and welfare in relation to health promotion. Core cities (population over 200,000) tend to have limited initiatives for health promotion due to prioritizing other specific issues such as heritage conservation or

disaster prevention. In conclusion, our review has revealed that integrating policies in UPMPs have the potential for creating opportunities to utilize public spaces for health promotion.

1756 | Maaike A. Buser, Samira Ramezani, Dominic Stead, Jos Arts

From Local to National: The Vertical Dynamics of Policy Packages in Integrated Land-use and Transport Planning

The integration of land-use and transport (LUTI) policy is increasingly highlighted as an important policy ambition in the development of liveable and sustainable cities. Yet, the actual implementation remains difficult. Traditionally, land-use and transport planning have been treated as separate sectors, each governed at different administrative levels. Land-use development typically occurs at the local scale, shaping new urban areas, neighbourhoods, streets, and plots, while transport systems operate at a regional scale, connecting these land uses and ensuring their accessibility. The ambition behind LUTI therefore calls for a multi-level governance perspective to effectively coordinate and evaluate sustainable land use and transport policies.

Previous research on the use of LUTI policy instruments in practice has shown that uneven access to, and availability of, necessary resources constitute major barriers to implementation. Imbalances in land-use and transport resources at the local level, combined with limited funding at the sub-national level, highlight the importance of multi-level collaboration among national, regional, and local governments. Literature suggests that policy packaging can help address multi-sectoral objectives across governance levels, serving both as a tool and a process for integrating land use and transport planning. However, without a clear understanding of how policy instruments authorized by different government levels interact, policy packages risk undermining LUTI implementation and producing unintended or counterproductive outcomes. Given the limited empirical evidence on the actual implementation of policy packaging for LUTI across governance levels, this study examines the vertical dimension of LUTI policy packages in four case studies in Finland and the Netherlands. A qualitative methodology including policy document analysis and semi-structured interviews with policymakers is applied. By applying a multilevel governance lens to explore the relationships between policy instruments introduced by different tiers of government, the study contributes to a better understanding of how integrated policy packaging can enhance urban liveability and sustainability.

2497 | Juulia Aliide Salulaid, Jenni Vilhelmiina Partanen, Irena Atkovska

Land use modalities for urban production in Tallinn, Estonia.

Urban agriculture and production have lately gained visibility as important systems in discussions about cities' resilience. However, physical production and manufacturing might develop outside of established institutional planning practices, possibly shaped by informal or collaborative as well as opportunistic land uses. While this kind of urban production may contribute to the local economy and offer some social value, it can be overlooked by formal planning practices due to its emergent and bottom-up nature. This raises questions about how contemporary planning models can govern and encourage productive land use. The study aims to explore land ownership and tenure modalities of urban agriculture and small-scale

production in Tallinn, Estonia and determine the spatial and regulatory conditions behind their productive activity to inform how planning practices can support localized production. Using mixed methods, this study would draw from spatial analysis and available land use and ownership data to supplement qualitative inquiries based on case studies of Tallinn's small-scale food production and urban agriculture (community gardens, allotments, greenhouses, etc). GIS and spatial analyses of cadastral data and land use, zoning and functions, available knowledge on production sites as well as documentary analyses may give a formal and regulatory context, which contrasted with case-based analyses, participatory mapping of local production and interviews with practitioners could inform about productive land uses in practice. Insights can foster discussions about the fit of production systems in contemporary planning models and how to reimagine urban planning and design towards more adaptive approaches, in encouragement of bottom-up, self-organized and place-based initiatives for urban productivity and resilience.

2338 | Busen Özgür, Osman Balaban

An Integrated Governance and Planning Framework for Türkiye: Advancing the Water-Food-Energy Nexus Approach

Numerous crisis drivers -including rapid population growth, climate change, and imbalances between supply and demand- are exerting significant pressures on the water–food–energy (WFE) resource system. In this context, planning and policy documents developed for the WFE systems serve as crucial instruments for institutionalizing efforts to enhance resource efficiency. The increasing frequency of droughts, sudden floods, extreme weather events, and growing water scarcity and stress – all exacerbated by the ongoing climate crisis – are placing substantial pressure on WFE resources. Addressing these interlinked crises necessitates the strengthening of synergies and the minimisation of trade-offs among planning and policy frameworks. This is imperative for achieving integrated planning and effective governance. The objective of this research is to evaluate the correlation between varied plans and policy documents formulated at national, basin, and regional levels across various sectors and scales with regard to the risks confronted by Türkiye due to the deleterious impacts of the climate crisis. These approaches, at varying levels, underscore the imperative for integrated methodologies to enhance adaptation processes for enhancing resource efficiency. This research evaluates selected planning and policy documents at different levels (national, basin, and region) and across different sectors (water, food, and energy) in Türkiye within the framework of the nexus approach. The distinctive contribution of this research lies in its systematic analysis of planning and policy documents in Türkiye through the lens of the WFE Nexus framework. Using a structured data collection system, the study identifies key gaps, potential synergies and trade-offs across multiple governance levels and sectors. The study posits that the integration of the WFE nexus perspective into planning and policy processes is a prerequisite for enhancing the efficiency and sustainability of resource management; moreover, the interrelationship between planning and governance may be critically analysed.

Peripheral Regions

Thu 2.7.16:00-17:30, Governance A, U356 ALMA MEDIA | Session chair(s): Shenjing He

1955 | Rainer Danielzyk

Successfull peripheral regions - case studies from Germany

Peripheral regions are usually considered structurally weak, sparsely populated, shrinking, and possibly even stigmatized. It is said that they are losing young and highly qualified persons in particular. In contrast to these assumptions there has been growing attention for (surprisingly) dynamic and "successful" peripheral regions in recent years. They have a growing population, a well performing economy, low unemployment and are home to "hidden champions."

An empirical study is presented that examines two "successful" regions in Germany that are located far from metropolitan areas and therefore can be considered peripheral: first, the County of Emsland in northwestern Germany on the border with the Netherlands and second, the Lake Constance-Upper Swabia region in southern Germany on the border with Austria. Historical developments are traced, the significance of identities and cultures is discussed as well as the role of actors like political leaders. Furthermore, the role of regional policy and subsidies is examined. The study identifies reasons for the specific and unusual developments and raises the question whether "spatial planning" has played an active and crucial role in these developments.

Finally, there is a critical discussion of the extent to which these are "successes" – only in a traditional growth-oriented economic sense or whether the developments are sustainable in a broader sense. Is there any ability for innovation to answer acute and changing challenges? Are there any „lessons learned" from these regions for regional strategies in other peripheral regions?

1850 | Antje Matern, Sandra Huning

Falling short: Skills shortage in planning institutions as fundamental challenge for socio-environmental transformation in Germany

Spatial planning plays a crucial role in addressing socio-ecological change, climate adaptation and sustainability. In Germany's multi-level planning system, the legal and institutional framework is becoming more and more complex, expanding the areas in which public planners need to have expertise and knowledge (e.g. for the heat transition or grid expansion). However, these growing demands contrast sharply with declining institutional capacities. Local and regional planning authorities in peripheral areas suffer from a persistent shortage of qualified personnel and lag behind in digitalisation, which limits their ability to achieve transformative goals. At the same time, there is often a lack of awareness of the problem at higher governance levels, because the shortage of skilled workers in public planning has hardly been studied to date.

This paper argues that staff shortage and digitalisation gaps are among the most important challenges that limit the contribution of spatial planning to socio-ecological transformation. Therefore, it is crucial to get better insights in current challenges, the areas affected, and the coping strategies already in place to counter these limitations. Based on a literature and document analysis as well as debates with stakeholders, the paper provides an overview of current research on the shortage of qualified planners in

German local and regional institutions, outlines important theoretical perspectives for understanding these challenges, and identifies areas that require further investigation, particularly with regard to institutional reforms, core competencies, and the potential role of digital tools and artificial intelligence in strengthening planning capacities.

2182 | Stefan Lazarevski

Planning Without a Center: Governance, Compliance, and Political Volatility in European Peripheries

European fringe territories have long experienced institutional detachment and fragmented governance, but in recent years this condition has evolved into a structural and systemic rather than a geographical one. Additionally, these challenges have intensified by a socio-political climate manifested by rising populism and anti-institutional sentiment. Within this context, spatial integration efforts are increasingly failing due to a persistent Policy Drift: gradual shift from capacity-building regional development approaches toward an overreliance on legal-technical harmonization, compliance-driven procedures, and recently, a renewed nation-centric orientation.

This paper argues that this “fit-for-all” paradigm is fundamentally inadequate for asymmetrical political and socio-economic landscapes. Although earlier regional initiatives were nominally place-based, in practice they became administratively burdensome and output-oriented, prioritizing legal alignment and project delivery over long-term institutional outcomes such as trust, shared routines, and collaborative capacity. These, centralized compliance models have contributed to deepening multi-speed development and to the emergence of political discontent, not only in the poorest regions but also in territories facing economic decline and high interpersonal inequality where funds fail to generate sustainable, systemic advancement.

In response, the paper introduces the concept of “Planning Without a Center”, a theoretical lens that captures the realities of fragmented authority, decentralized legitimacy, and institutional fragility in Europe’s peripheries. By integrating the Territorial Capital perspective with the Input-Output-Outcome-Process framework, the study provides a diagnostic tool for assessing how spatial governance systems in asymmetrical regions drift toward formalized outputs at expense of meaningful outcomes.

The outcome of this research demonstrates that functional resilience depends critically on developing Relational Capital, rooted in informal institutions and cultivated within soft spaces of flexible, non-statutory collaboration. The paper concludes by proposing a place-based alternative to the centralized compliance model, arguing that strengthening local relational capacity is a necessary strategic shift to achieve legitimate integration and build resilient spatial order amid cascading multi-crises.

1535 | Jiseul Yang, Saehoon Kim

The Rise of Global Cities and the Urban Affordability Gap: Implications for National Urban Systems

Many regions in Korea are facing a complex crisis driven by population decline, industrial and employment contraction, weakened public services, fiscal deterioration, and the erosion of spatial and social connectivity. Despite substantial government financial support—amounting to approximately one trillion KRW annually—many areas continue to follow a trajectory of "managed decline" or "graceful shrinkage," revealing the limited effectiveness of current regional regeneration policies. Particularly in provincial cities, both physical and functional deterioration are undermining urban vitality and competitiveness, reducing local self-sufficiency and deepening dependence on the central government.

This study proposes an alternative strategy for survival through inter-municipal connectivity, rather than isolated regeneration by individual local governments. Recognizing the difficulty for each locality to independently sustain all urban functions, the study suggests a polycentric governance model in which neighboring small cities and counties are functionally interconnected to jointly produce, share, and maintain essential services and facilities. The research proceeds in four steps: (1) diagnosing population, function, and connectivity; (2) extracting operational mechanisms from domestic and international polycentric urban regions; (3) developing transferability guidelines tailored to Korea's population-declining belt; and (4) designing and evaluating regional network scenarios.

The findings present a paradigm shift from "isolated growth" to "functional resilience through connectivity." By specifying regional-level operational rules—such as shared financing schemes, operational protocols, and phased governance frameworks—this study enhances the feasibility of applying the model in Korea. Ultimately, it offers a polycentric governance approach for sustaining and revitalizing regional functions under persistent demographic decline through coordination and cooperation.

2416 | Jesse Fox, Nathan Marom

Urban renewal, material and social transformations, and the changing commons in peripheral neighborhoods in the Tel Aviv metropolitan region

In cities around the world, urban renewal is seen as a key component in governing urban change. It is the policy of choice for upgrading older neighborhoods, providing new housing, greening public spaces, and advancing the "ecological transition." While in many contexts these schemes attempt to balance preservation of buildings with modest additions and renovations, in Israel they are dominated by radical raze-rebuild approaches that attempt to dramatically transform the physical and social fabric of communities wholesale.

In this paper, we aim to examine these transformations through a novel approach that positions them as part of a wider and multi-dimensional "urban metabolism." We thus focus on three processes: material rebuilding and its environmental impacts, social reorganization and its displacements, and the transformation of shared spaces and resources that make up the neighborhood-level commons.

We examine four cases studies of neighborhood-level urban renewal in the periphery of the Tel Aviv metropolitan region that are slated to undergo massive processes of upzoning and densification. We examine how these urban renewal plans would transform the neighborhoods' material footprints, social composition, and the neighborhood-level urban commons. We do so through an analysis of planning and policy documents, as well as interviews with planners and residents and a survey of media and social media publications.

In all four cases, we find significant transformations on all three fronts. However, these cases also offer different variations of how such multi-dimensional urban metabolic processes unfold at the local level, with varying implications for material footprints, social cohesion, and commons at the urban and metropolitan scale. We thus posit that framing urban renewal as a "triple metabolism" offers an innovative and important approach for urban governance.

982 | Mengyu Wu

Authorised Memory: Procedural Pathways, Mechanisms and the State Entrepreneurial Coalition in Industrial Heritage Regeneration

The adaptive use of industrial heritage in China reflects the broader shift from an expansive urban sprawl to smart growth and the effective utilisation of existing urban stock land. In the context of constrained incremental land supply and economic restructuring, regeneration has drawn increasing scholarly and policy attention, particularly under urban expansion controls, land use efficiency requirements and cultural economy development. Industrial heritage has emerged as a controversial but significant element in urban planning and governance. Local governments have repositioned former industrial sites from obligations to urban development potential, aligning reuse with objectives such as compact development, environmental remediation, and place-based economic upgrading. However, heritage discourse overlaps with conservation and cultural economy agendas, intensifying debates over authenticity, public value, and outcomes. This paper analyses the procedural pathway through how industrial sites become heritage and then urban assets, showing how procedure determines which values count. This research demonstrates that Authorised Heritage Discourse are promoted across policy narrative, media publicity and expert assessment, while sites are financialised through planning, implementation, and operation. This study proposes an actor-mechanism-outcome framework that identifies a state entrepreneurial coalition, including local states, SOEs, consultants, and operators and traces four mechanisms of agenda setting, assetization, coordinated governance, and market shaping. These mechanisms institutionalise exchange value (financialisation, fiscal, branding) while marginalising others (everyday use, social, cultural). Empirically, the paper maps the key actors and the mechanisms that translate mandates into project choices. Analytically, it shows which values are constructed in practice that authorised discourse and exchange value beyond everyday uses.

Sustainability

Thu 2.7.16:00-17:30, Governance B, U358 | Session chair(s): Wiwandari Handayani

2191 | Shanmathi Rajkumar, Swati Kulashri, Paul Raphael Stadelhofer

Ukraine Towards Carbon Neutrality - Mapping the Partnership Methodologies

As Ukrainian cities pursue climate neutrality amid the broader demands of post-war recovery, distinctive partnership methodologies have begun to shape how climate-related actions are organised, interpreted, and implemented. The EU Horizon funded U_CAN - Ukraine Towards Carbon Neutrality project (2024–2028) provides a multi-city setting through which these developments can be observed in real time. Drawing on the activities from the project's first two years (May 2024 - April 2026), distinctive patterns have emerged across thematic domains – solar energy, positive energy districts, sustainable mobility and nature-based solutions - revealing how municipalities facilitate new collaborative arrangements under conditions of institutional strain.

Analysis of cross-city documentation, technical exchanges, stakeholder mapping, and shared workflows indicates that these configurations align with three partnership pathways guiding U_CAN's implementation. The first centres on city-to-city partnerships, which furnish the conceptual orientation, technical anchoring, and organisational grounding needed to initiate climate-neutrality work. The second involves the contextualised adaptation of strategies and standardisation, wherein external models and planning approaches are selectively re-worked to fit local administrative, regulatory, and socio-economic realities. The third pathway, locally empowered capacity-building, is visible in early efforts to stabilise new routines, strengthen municipal competencies, and distribute responsibilities across local actors within Ukraine.

This study conceptualises these partnership pathways as emergent governance configurations - transitional arrangements through which cities experiment with new modes of coordination, knowledge exchange, and institutional learning. By reframing partnerships as methodological infrastructures for governance-in-the-making, the analysis advances understanding of how post-crisis cities begin assembling the conditions for climate governance capacity through collaborative experimentation. These partnership pathways, observed in their formative stages, offer transferable insights into how transnational cooperation can support adaptive, context-sensitive governance development during the early phases of climate-neutral transition processes. They support a broader trajectory in which Ukrainian municipalities move from peripheral involvement toward meaningful partnership in climate-neutral transitions.

2696 | Ava Soroudi, Agatino Rizzo, Jing Ma

Identifying Gaps in Arctic Urban SDG Implementation Through Municipal Planning Document Analysis

Global Sustainable Development Goals (SDGs) require local adaptation, yet how Arctic municipalities integrate urban-relevant SDGs into planning frameworks remains underexplored. This study investigates current SDG implementation in a few Swedish Arctic municipalities through systematic analysis of municipal, regional, and national planning documents.

Using a theoretically-informed coding framework, we analyze approximately 16-20 documents including comprehensive plans, climate strategies, housing programs, and transport plans. Drawing on multi-level governance theory, place-based sustainability, and participatory governance principles, we assess three dimensions: (1) vertical coordination between governance levels and horizontal coordination across municipal sectors, (2) acknowledgment versus operationalization of Arctic-specific conditions in SDG targets and indicators, and (3) documented stakeholder participation processes and citizen inclusion.

We anticipate identifying three gap categories. First, municipal plans will reference national SDG frameworks but demonstrate weak vertical alignment and sectoral fragmentation, with planning, climate, and housing departments operating in silos. Second, Arctic-specific conditions (extreme climate, permafrost, remoteness, indigenous presence) will be widely acknowledged but rarely translated into adapted targets or indicators, generic frameworks will persist despite recognized contextual differences. Third, participation will concentrate at consultation levels, with limited evidence of co-production or meaningful citizens involvement.

The comparative analysis identifies whether observed gaps in SDG integration are systemic across Swedish Arctic municipalities or context specific. These findings establish a baseline of current practices, revealing how municipalities reference and prioritize global goals, which indicators are adopted, and where critical elements are missing. This evidence provides a foundation for future steps in downscaling SDGs for Arctic contexts, informing the design of co-created frameworks that address local conditions and governance realities.

2403 | Philip Krassnitzer

No Net Land Take: Is Regional Planning The Answer?

Austria has one of the highest rates of land take per capita in the European Union. This issue is particularly pressing in peri-urban areas, where competing demands for agricultural and natural land, as well as for housing, businesses, and infrastructure, converge, increasing the potential for land use conflicts. The implementation of sustainable spatial policies is hindered by horizontally and vertically fragmented governance structures, as well as the absence of quantitative targets for land take. Regional planning, a multilevel governance task in Austria, links national objectives with local land-use planning and coordinates intermunicipal actions. However, there is a tendency for strategic instruments, such as regional programmes and concepts, to lose significance, even though they remain crucial for aligning regulatory measures and developing effective policy mixes.

This dissertation project aims to provide a deeper understanding of peri-urban landscapes and their inherent development dynamics and resulting land-use conflicts, and risks and potentials for sustainable spatial development. For a sustainable land policy, interaction beetween different planning levels, instruments, and stakeholders is essential, so cooperative intermunicipal planning actions are therefore required. Given that each region is unique, with its own set of potentials and challenges, planning instruments must be tailored accordingly, and the design of planning processes should be understood as a creative task. This research examines how strategic regional planning instruments can reduce land take by using case studies to illustrate different approaches to soil protection and spatial transformation. By analysing the potentials and limitations of these instruments, the project identifies key insights and

outlines an integrated framework for designing task-specific planning processes to achieving no net land take.

2509 | Birgit Trik, Evelin Jürgenson

Land use change and carbon dynamics in the context of spatial planning

Land-use change is one of the main drivers influencing carbon balance and greenhouse gas (GHG) dynamics in terrestrial ecosystems. In Estonia and across Europe, spatial planning and land management processes have yet to fully integrate carbon accounting into decision-making frameworks. At the same time, the need for coherent land-use monitoring systems and consistent datasets has been highlighted as a prerequisite for sustainable land management. In the European Union, the transition toward climate neutrality requires a better understanding of how land-use decisions alter carbon stocks and how these impacts can be systematically incorporated into planning and governance frameworks. Although key EU policy instruments such as the European Green Deal, the LULUCF Regulation and the EU Soil Strategy highlight the need for sustainable and climate-responsive land management, spatial planning frameworks still rarely incorporate systematic or quantifiable assessments of how specific land-use changes influence carbon stocks and greenhouse gas dynamics. This presentation shows how land-use change and carbon dynamics are addressed in current scientific literature and discusses how these insights can inform spatial planning and climate-related land-use governance. The analysis is based on a systematic review and bibliometric study of 149 peer-reviewed European publications examining the relationships between land-use change, carbon stocks and GHG fluxes. The results indicate that processes such as urbanisation, agricultural land abandonment, afforestation and the conversion of semi-natural areas have consistently measurable impacts on soil organic carbon and overall carbon balance. The review also shows gaps in both geographical coverage and methodological approaches. By consolidating these scientific insights, the presentation contributes to strengthening the knowledge base necessary for integrating carbon-related land-use assessments into spatial planning and governance processes. The findings offer an initial conceptual foundation for future work aimed at developing analytical tools and decision-support mechanisms that can help planning systems better align land-use decisions with climate mitigation objectives.

2374 | Chiara Di Dato, Nasim Sadraei Tabatabaei, Lorena Fiorini

Integrating planning with ecological connectivity. Promotion of voluntary agreements within the LIFE IMAGINE in Umbria region

Ecological connectivity is a key factor in planning practices. The Umbria region (Italy) is an example of a region with a structured ecological network that has worked on connectivity and habitat protection in the context of a quite high urbanized area, at the core of the central Italian road network. The regional authority has worked for years on the integration of Natura 2000 Network inside the planning policy for a coherent management of resources due to LIFE projects.

LIFE IMAGINE (2020-2027) is an ambitious project that aims to effectively manage protected areas in the Natura 2000 Network. The project aims to involve different stakeholders (public and/or private) and to

influence multiple levels. In doing so, the research focuses on recognition of different kinds of landscapes, assessing habitat degradation and habitat quality indicators as well as working on actions to disseminate the acquired knowledge.

From the territorial planning perspective, the research also focuses on establishing agreements to protect critical natural areas through a commitment for non-transformability. Specifically, the Gate Agreement addresses selected municipalities with at least one priority gateway for ecological flows at the intersection with road infrastructure that could compromise ecological connection between protected areas. This is one among five types of agreements that LIFE IMAGINE Umbria project aims to create and sign with the local administrations. The goal is to enhance a cross-sector and transdisciplinary intersection with different managerial expertise to promote protocols for ensuring the environmental continuity. In this context, it is crucial to activate participatory planning processes that actively involve the different stakeholders, allowing them to participate in defining operative objectives and increasing their awareness of these issues. The contribution aims to highlight the relevance of voluntary agreements, with all relevant stakeholders, as both technical and administrative tool for safeguarding ecological connections from the planning perspective.

1340 | Samuel Agyekum, Deniz Ay, Jean-David Gerber

From Spatial planning to Land Policy: towards a sustainable urban development in Africa

Land policy is a growing research field in planning focusing on the interactions between spatial planning policies and property regimes to explore spatial development outcomes. This presentation examines how a better understanding of the interaction between these two contributes to a more sustainable urban development in African urban contexts. Space-related institutions in Sub-Saharan Africa (SSA) add to common property systems supported by customary institutions. While customary land tenure has been critiqued by urban development theorists and international organisations (Home, 2004), recent research from African scholarship highlights its crucial function in achieving social and ecological sustainability (Amoako & Adom-Asamoah, 2019; Obeng-Odoom, 2024). Customary property systems contend with rapid urbanization pressures due to diverse, complex and conflicting demands in the last decades. Land use planning policies introduced in the 1990s (Acheampong, 2019) have neglected issues of ownership in research and practice. This oversight has led to fragmented land reforms, contributing to institutional pluralism, venue shopping, and stalemates. This paper addresses the question: How can the interplay between planning institutions and customary or private property systems foster sustainable urban development outcomes? Using urban green spaces in Ghana, we conduct case studies in the cities of Accra and Wa. We theorise urban spatial development as the result of localised regulatory arrangements, the characteristics of which explain their contribution – or not – to urban social sustainability beyond local governance.

Narratives and imaginaries

Thu 2.7.17:45-19:15, Governance A, U356 ALMA MEDIA | Session chair(s): Shenjing He

1764 | Matthew Carmona, Jingyi Zhu

Urban beauty: Governing the ungovernable?

The research explores to what extent the governance of urban beauty is possible and desirable. The immediate context for this research is UK's policy experiment with codifying urban beauty that took place between 2018 and 2024, but the politicisation of urban beauty finds resonance in many other contexts around the global. Drawing on data from evidence review of hundreds of global studies, a new Layered Visual Preference Methodology for testing public preferences, and six focus groups with local authority planning officers and built environment professionals and experts, the project interrogates three main questions: 1) Why is the pursuit of urban beauty important yet highly contested and challenging? 2) Can public preferences about beautiful urban places be routinely, robustly, and impartially gauged? 3) Can the governance of place and design quality be inspired by the pursuit of urban beauty? We argue that both arguments of 'Beauty is in the eye of the beholder' and 'We know it when we see it' have elements of truth, that although beauty is deeply personal, intangible and at times highly contestable, we can engage with urban beauty with better governance, refined tools, and careful processes. While urban beauty can be usefully pursued as a high-level inspiration that can be powerful in elevating design quality, strengthening public engagement, and bringing together efforts to make functional, sustainable and beautiful places, governing beauty requires discretion, nuance and debate. Different visions of beauty need to be seriously considered without crudely defined metrics and parameters, and different knowledge and preferences need to be balanced to achieve aesthetic justice.

1456 | Shenjing He, Creighton Connolly

A TPSN approach to (re)imagining and governing the post-pandemic city

While the world has moved on to embracing a post-pandemic era, there remains a wealth of experience worth exploring that can provide insights for urban research. This paper reflects on the politico-economic, social, and geographic factors that converged to explain the uneven diffusion of and responses to the COVID-19 pandemic at multiple scales. Conceptually, we introduce how the territory, place, scale, network (TPSN) framework proposed by Bob Jessop and colleagues may be useful in reimagining, planning, and governing the post-pandemic city. Ultimately, we argue that the TPSN schema helps to: i) address key concerns of urban and regional governance unfolding along the T-P-S-N dimensions (e.g. mobilities, social wellbeing and infrastructures) in a more coordinated and inclusive manner and, ii) establish a framework for (meta)governance in the post-pandemic era by addressing the multi-scalar and multi-sectoral dynamics of contemporary socio-ecological crises (analogous to COVID).

1427 | Olivier Sykes, Richard Dunning, Tatiana Moreira de Souza, Alexander Petrov

Exploring the application of a global agenda for planning – from conformance to performance?

The rise of global urbanisation has been accompanied by a greater emphasis on the urban in international development agendas. This exemplified by the inclusion of an explicitly urban development

goal within the UN's 2030 Sustainable Development Goals (SDGs). UN SDG 11 with its focus on sustainable and inclusive cities and human settlements is frequently seen as the most planning-related of the SDGs, though the intersectional nature of the goals means, there is a clear planning dimension to most of the other goals too. The SDGs and other agreements and 'statements of intent' such as the New Urban Agenda and International Guidelines on Urban and Territorial Planning, sketch out a global agenda, or 'doctrine', for planning. Yet whilst indicators, such as those gathered for SDG monitoring provide some inferential evidence of the 'conformity' of urban conditions and planning outcomes with the latter, there is currently little direct evidence on how the global agenda is 'performing' in shaping planning systems and practice in different places. Informed by this context, this paper explores if and how the global agenda for planning is influencing planning practice in selected regions across the globe. The focus is on getting at the 'real story' about how the global agenda for planning is percolating down into and 'performing' (or not) in planning systems and practice in different places. The paper draws on a project completed with Arup. This was based on literature reviews, global survey data from Arup's international planning network, interviews with planning professionals and institutes in 15 countries, and a panel discussion with the presidents of three planning institutes held at the RTPI Planning Conference, 2025. The paper concludes that while global goals are increasingly shaping planning practice around the world, context dependency means that their influence varies significantly across regions, sectors, and levels of government.

1672 | Gonçalo Santinha, Maria Francisca Mineiro, Jéssica Tavares, Marija Bockarjova

From policy rhetoric to territorial practice: Social Determinants of Health and Governance arrangements in National Spatial Planning

Although the historical and conceptual connections between spatial planning and public health are widely recognised, there is no comparative evidence on whether and how Social Determinants of Health (SDH) are incorporated into National Spatial Plans (NSPs) in Europe. This gap is particularly relevant as the effectiveness of SDH integration depends not only on their textual presence in planning instruments but also on the governance arrangements that enable intersectoral coordination, stakeholder participation and territorial coherence. Without such arrangements, the inclusion of health risks remaining rhetorical rather than operational. This study examines the extent to which SDH are integrated into NSPs in four European countries - Portugal, Ireland, Estonia and Lithuania - and assesses whether the governance arrangements required to support such integration are explicitly recognised within the plans. A systematic content analysis was conducted using MAXQDA. The documents were coded in two dimensions: (1) the presence of SDH across diagnostic, strategic and operational sections, classified as explicit, implicit or absent; and (2) the types of governance arrangements referenced, including multilevel coordination, intersectoral collaboration, public participation and EU-level cooperation. The results reveal distinct national patterns. Portugal shows the highest level of health-related references, mostly explicit and concentrated in the action programme, whereas Ireland presents fewer references but distributes them consistently across all planning stages. Estonia and Lithuania display minimal and mostly implicit consideration of health. Governance arrangements are referenced primarily at a strategic level. In turn, intersectoral coordination remains weak across all cases. The findings suggest that the marginal presence of health in NSPs is not merely a matter of discursive omission but of institutional capacity. Strengthening governance arrangements, particularly intersectoral coordination and

operational forms of collaboration, appears crucial for shifting SDH integration from rhetoric to actionable planning practice.

1473 | Simon De Boeck, Maarten Van Acker, Thomas Vanoutrive, Jorge Pérez Jaramillo

From the Medellín Miracle to the Postponed City: Unfolding the Multiple Narratives and Urban Planning Concepts of Social Urbanism in Medellín.

Medellín has transformed from one of the world's most violent cities into a highly debated example of transformative urbanism and social inclusion. Yet, despite its celebration as an iconic concept, Medellín's Social Urbanism remains underexplored as a long-term and evolving planning paradigm shift rather than a fixed blueprint. Addressing this gap, the article examines Social Urbanism as an adaptive and fragmented concept that has accommodated shifting narratives impacting its transformative ambitions. Using a mixed-method discourse analysis – combining site observation, project mapping, and expert interviews – the study traces the concept's elasticity and continuity across three decades of planning policies. Findings show that Social Urbanism is an adaptive synthesis of recurring tensions between social inclusion and securitisation policy. Four successive eras are identified: (1) Precursors of Social Urbanism, (2) Politically Branded High-Social Urbanism, (3) Metropolitan and Ecological Social Urbanism, and (4) Post-Social Urbanism. The analysis reveals a gradual expansion from neighbourhood-scale urban projects toward metropolitan and ecological agendas, and recent developments signalling a regression to narratives of control, undermining earlier transformative ambitions of the paradigm. While highlighting Medellín's role as a travelling concept, this article equally emphasises its unique geographical and sociopolitical context, and distils key insights for transferability beyond replication. Ultimately, this work contributes to the broader discourse on transformative urbanism and policy mobility, demonstrating how paradigm shifts are maintained, or diluted, through discursive elasticity, providing a nuanced understanding of how paradigm shifts can redefine urban futures even in agile and contested environments.

2853 | Ngoc Thao Linh Dang, Vangelis Pitidis

From Global Imaginaries to Planning Culture: Making (and Unmaking) Public Space on Danang's Waterfront

Waterfronts are points where the aspirations of global cities collide with everyday claims to space. This article provides a theoretical examination of how urban imaginaries influence planning cultures and public space outcomes, using Danang, Vietnam, as a case study. Through document and media analysis, site observations, and semi-structured interviews with local authorities, investors, planners and residents, we trace the DHC-Marina project from initial public acceptance to late-stage contestation. We demonstrate that a West-coded "global city" imaginary, co-produced by municipal authorities and private investors, operated as an upstream epistemology that defined problems, identified legitimate users, and established acceptable design solutions, producing an exclusionary waterfront oriented to elite tourism and city branding. Everyday residents' claims emerged as conceptually and institutionally peripheral, prompting pushback only once restricted access and blocked river views became material and visible. A

late addition of public space did not address the fundamental design exclusions; the marina ultimately fell short as both tourism infrastructure and civic space.

Conceptually, we expand work on urban imaginaries by arguing that global imaginaries act as an upstream design practice. They do not simply narrate future scenarios; instead, they guide how planners define issues, preconfigure pathways for participation, and delimit which actions are considered valid, radical or unthinkable. This perspective reframes planning culture as an active field of competing imaginaries, and highlights how planning thought oriented towards achieving "global city" status can marginalize everyday urban life in post-colonial urban settings. We develop this argument from a case study in Danang, a rapidly urbanizing secondary city in Global South that is often overlooked in mainstream discussions of waterfront regeneration and planning theory. By examining such "peripheral" cases, we show how they can both translate and test planning theories in practice and, in turn, inform and contribute back to planning theories rooted in Western experiences.

Planning Practices

Thu 2.7.17:45-19:15, Governance B, U358 | Session chair(s): Helka Kalliomäki

2852 | Marco Pütz

Alpine Spatial Planning: Distinct Planning Culture or Mosaic of Practices?

This paper examines whether Alpine spatial planning constitutes a distinct planning culture within Europe or is merely a mosaic of diverse practices shaped by national contexts. While a definitive answer remains elusive, exploring this question enriches the transnational discourse on planning cultures and highlights the unique challenges and methodologies of the Alpine region.

Alpine spatial planning is defined by its singular geography: extreme altitude variations, steep slopes, and valleys demand specialized construction and planning. Limited settlement areas intensify competition for space, while fragile ecosystems and natural hazards—such as avalanches, mudslides, and floods—pose constant risks. Cross-border coordination among eight countries, rural village structures, and rich cultural diversity further complicate planning. The Alps serve as habitats, economic hubs (agriculture, industry, energy), recreational spaces (tourism), and transit routes, creating multifunctional landscapes and inevitable conflicts. Structural weaknesses and youth outmigration add to the complexity, requiring planners to balance competing demands and ensure equitable living conditions in peripheral areas.

Though these challenges echo those in maritime or urban regions, the Alps' unique physical, ownership, and usage characteristics necessitate tailored solutions. Key instruments include hazard zone mapping, open space preservation, priority area designation, and tourism management. Transnational institutions, such as the Alpine Convention's spatial planning protocol and the EU Strategy for the Alpine Region (EUSALP), underscore planning's cross-cutting role in addressing climate change, sustainable development, and regional networking.

In conclusion, the Alps' specific legal frameworks, planning tools, and objectives—rooted in managing natural hazards, land scarcity, and cooperation—support the existence of a distinct Alpine planning culture, shaped by region-specific practices and traditions. To be further discussed.

2927 | Loris Servillo, Mauro Fontana

area-based interventions and fragile territories: laboratories of innovation

The contribution interrogates the recent proliferation of “priority geographies” and area-based interventions as a revealing vantage point on the contradictions of contemporary spatial planning. Over the last decades, policies increasingly operate through circumscribed territories – often straddling multiple administrative units – within which targeted agendas and dedicated financial resources mobilise a plurality of actors. Frequently conceptualised as area-based policies and “tailored territories”, these interventions have been associated with soft planning and fuzzy boundaries, foregrounding flexible, negotiated and non-statutory spaces of action. At the same time, the notion of priority geographies has travelled across national contexts and policy domains, from marginalised urban neighbourhoods and regeneration programmes to cohesion policies and territorial rebalancing strategies in rural and mountain areas.

The paper argues that this debate has increasingly intersected – and could do so more explicitly – with the growing discussion on “left-behind places” and the search for a renewed policy agenda for fragile and less urbanised areas. These are contexts where long-term processes of economic restructuring, demographic decline, shrinking welfare infrastructures and institutional fragility condense, and where promises of spatially balanced development have often failed to materialise. By combining these two dimensions, the paper highlights how area-based and place-based interventions can become arenas for experimenting with alternative forms of development, recognition and representation.

On this basis, the contribution proposes to reframe priority geographies, fragile territories and less urbanised areas not as residual policy objects, but as strategic laboratories for rethinking developing new approaches to local development and contemporary planning. It suggests that engaging seriously with these territories requires integrating distributive concerns with questions of social and institutional capacity-building, and aligning the design of “tailored” policy spaces with a longer-term, value-explicit agenda for territorial justice and resilience.

The paper draws on various Italian cases and reflects on innovations and challenges.

2492 | Ilona Šavraka, Gunta Lukstiņa, Rūdolfs Cimdiņš, Gundars Zadovskis

Making Suburbia: Planning Practices in the Riga Metropolitan Area

Metropolitan peripheries in post-socialist Europe have emerged as weakly coordinated planning spaces, characterised by increasingly rapid and intense urbanisation processes. In Latvia, the Riga Metropolitan Area represents a particularly illustrative case, where suburbanisation has unfolded alongside demographic decline in the country, fragmented planning arrangements and an evolving planning culture shaped by post-1990s institutional change. This positions the metropolitan fringe of Riga City as a valuable empirical setting for examining how spatial planning and governance practices shape planning outcomes.

Drawing on a case study of three suburban municipalities around the Riga City, the research combines analysis of planning documents, qualitative interviews with municipal planners, and survey data on residents' experiences of everyday life and qualities of built environments in suburban villages. The study focuses on how formal planning instruments are developed and operationalised in practice within existing institutional arrangements, and how past and present decisions and expectations of actors influence urbanisation patterns.

Rather than appearing as coherent planned environments, these peripheral areas evolve as internally inconsistent landscapes through piecemeal processes, shaped by fragmented local interventions, regulatory constraints and institutional capacity. The research shows how spatial planning and governance practices gradually become embedded in the spatial form of settlements through low-density monofunctional housing patterns, fragmented street networks, and limited services and infrastructure provision.

Particular case shows how post-socialist metropolitan peripheries function as spaces where planning aspirations and implementation capacities remain misaligned, producing long-term challenges for sustainable urbanisation and offering insights relevant to broader discussions on the governance and planning of metropolitan regions in Central and Eastern Europe.

2119 | Oleksandr Anisimov, Liliia Vakhnyak, Edwin Buitelaar

Capacity in Municipal Land Policy: Addressing a Gap in Spatial Governance Debate

Much research on local land governance focuses on understanding the drivers and practices of local land policies, primarily in light of the housing, climate, and energy crises. However, we know very little about how local governments develop capacity for land policy, how we can measure or strengthen it. In this paper, we apply the concept of capacity/capability index in the public sector to investigate local land policy.

With a newly acquired land management and spatial planning autonomy as a result of the land and administrative reforms in 2019-2021, Ukrainian municipalities are now the key authorities responsible for land use. We use the Ukrainian case to explore the common and differing aspects of institutional context compared to the EU-27 countries. We developed a specialised land policy-focused questionnaire for assessing capacity (resources, knowledge, technologies) and capabilities (routines, performance, effectiveness) and distributed it to the executives in the local authorities. Follow-up interviews explained the reasons for the relative performance of municipalities and the correlations within the index. While some municipalities are struggling to perform even at the basic level, many are stuck at the core administrative position, with many redundancies and inefficiencies, as well as a lack of strategic focus. Learning from high performers, who expand capability by supporting organizational learning and leveraging necessary capacity, can help small and medium-sized governments. Nevertheless, major fiscal and structural institutional aspects constrain local capacity, especially in rural and remote areas, and need to be addressed on the national level.

We advocate for the development of this method through the triangulation of results, such as expert evaluation or policy achievement evidence, to create a robust analytical tool. Findings on municipal

capacity/capability in land policy can significantly strengthen comparative analysis and support studies on benchmarking local land policy or investigating the ability to reach pan-European land use goals.

2656 | Samuel Agyekum

From Spatial planning to Land Policy: towards sustainable spatial development in sub-Saharan Africa

Land policy is a growing research field in planning focusing on the interactions between spatial planning policies and property regimes to explore spatial development outcomes. This presentation examines how a better understanding of the interaction between these two contributes to a more sustainable urban development in African urban contexts. Space-related institutions in Sub-Saharan Africa (SSA) add to common property systems supported by customary institutions. While customary land tenure has been critiqued by urban development theorists and international organisations, critical scholarship highlights its crucial function in achieving social and ecological sustainability (Amoako & Adom-Asamoah, 2019; Obeng-Odoom, 2024). However, customary property systems contend with rapid urbanization pressures due to diverse, complex and conflicting demands in the last decades. Land use planning policies introduced in the 1990s (Acheampong, 2019) have neglected issues of ownership in research and practice. This oversight has led to fragmented land reforms, contributing to institutional pluralism, venue shopping, and stalemates. This paper examines the interplay between planning institutions and collective and private property systems, exploring how it can foster sustainable urban development outcomes. Using urban green spaces in Ghana, we conduct case studies in the cities of Accra and Wa. We theorise urban spatial development as the result of localised regulatory arrangements, the characteristics of which explain their contribution – or not – to urban social sustainability beyond local governance.

1095 | Andrea Restrepo-Mieth

When Innovation and Hierarchy Collide: The decentralization mirage and the challenge of institutionalizing progressive planning practices

Recent literature on Latin America highlights the power and autonomy afforded to mayors through decentralization. These decentralization dynamics created opportunities for local governments to experiment with more progressive approaches to urban planning; however, I argue that when national policies are unaligned with local preferences, national policies are likely to dominate and undermine the institutionalization of nascent progressive practices due to conflicting local interests. On the one hand, making use of their newly acquired powers, local governments experiment with new ways to tackle old problems, thus breaking with the ideological status quo. On the other hand, these same governments continue to desire access to national discretionary transfers, thus hoping to maintain elements of the fiscal status quo. In the battle between ideology and discretionary transfers, the institutionalization of more progressive practices succumbs to the prospects of increased revenue. Based on interviews and document analysis, and using housing provision in Medellín, Colombia as a case study, I illustrate these local-national dynamics and their consequences for the institutionalization of progressive planning practices. I argue that decentralization gave the local government the ability to pilot more progressive

approaches to housing provision such as in-situ redevelopment. However, national housing programs tied access to national subsidies to a prioritization of greenfield construction, creating a conflict for the local government which was ultimately solved by embarking, despite its shortcomings, in large-scale multi-story greenfield construction in the city's outskirts. A "decentralization mirage" emerges from this conflicting dynamic, with local governments capable of breaking ideological path dependence by piloting new policies but incapable of breaking fiscal path dependence as local revenues generated are seen as fixed while access to national subsidies is seen as the only way to boost local spending power.

Local Governance

Fri 3.7.09:00-10:30, Governance A, U356 ALMA MEDIA | Session chair(s): Wiwandari Handayani

2548 | Naja Marot, Erblin Berisha, Julika Jarosch, Katharina Gasteiger

Local governance for better quality of life – insights from the Alps

Quality of life (QoL) has been among the societal concepts without a clear and standardised definition. Thus, each research grasps the concept differently: either it undertakes a comprehensive approach and investigates all QoL aspects, or it looks into the specific elements, one of them being the governance. The Interreg GOVQoL project aims to elaborate on the local governance of quality of life in five selected Alpine countries (Austria, France, Germany, Italy and Slovenia). For this purpose, the QoL concept from the 10th Report on the State of the Alps was adapted to the local level, including the data and information collected for the local level. This was done by performing 50 interviews altogether, 10 for each country, with the representatives of the municipal administration and other forms of local organisations like local action groups, union of municipalities, associations and regional parks. The questions focused on the existing policies to support (good) quality of life, identification of stakeholders engaged in policy making, measures municipalities implement for better QoL, on monitoring systems, and other governance-related questions. Results show that territories, either implicitly or explicitly, activate measures (projects, policies, strategies) aimed at improving QoL. However, the ways in which QoL is addressed vary according to the different institutional arrangements, geographical conditions, the distribution of responsibilities, and local capacities - particularly economic and human resources. The study also highlights that, across the Alpine region, several challenges to govern QoL are shared, as are potential solutions. At the end, a comparative overview of lessons learned and identified governance gaps at the local level are elaborated.

1945 | Jiaxin Gu, Qifeng Yuan, Geoff Vigar

Local Spatial Governance in the Desakota of the Pearl River Delta: Based on three township-level case studies

Over the past forty years of reform and regional development in Southern China, a distinct type of mixed urban–rural space has emerged, which have been shaped by the national dual land system and produced through the intertwined dynamics of top-down governmental initiatives and bottom-up actions of rural collectives. They are commonly conceptualized as Desakota, a term introduced by T. G. McGee (1991) to describe settlement patterns in rapidly urbanizing Asian regions.

To uncover the negotiations embedded in spatial governance in these areas, this research adopts a sociological institutionalist perspective, which combing Giddens's structuration theory, to build a "structural relations–specific episodes–discursive practices" analytical framework.

Firstly, a historical analysis of the evolution of spatial control and property-rights configurations is conducted, examining structural relations among agents, especially the power dynamics rooted in formal and informal property-rights regimes and authority structures. Secondly, systematic analysis is conducted in three case studies-ShiJie town, Lishui town and Liaobu town, to reveal how township-level governments respond to the top-down mandates through strategic discourse construction, embedding intentions and building action coalitions with local actors. The analysis employs participant observation and interview, focusing on how different actors and coalitions create, construct, and institutionalize these discursive formations in specific episodes, including planning making, negotiation, propaganda and meeting. Thirdly, local institutional capacities are critically reconsidered, with attention to the local strategies of discourse construction under overarching institutional constraints in local spatial governance.

By analyzing multi-actor interactions and discourse constructions process, the research reflects on how historicity, locality, discursive constructions, planning embedding and collaborative planning vividly enact in very local governance of Southern China.

2238 | Paavo Monkkonen

Losing control: State preemption of local planning powers in California

Conflict over housing densification between different levels of government is increasingly common--localities often want to preserve their existing built environment in the face of higher levels of government pushing for densification or an increasing share of social housing. In the United States, state governments have taken two primary approaches to this issue: some states can give local governments growth targets and allow them to decide how to accommodate them, and others have set quotas or directly changed zoning rules based on parcel characteristics like proximity to transit or existing land use classification. Since 2021, California has employed both these approaches. A statewide planning process in 2021-2022 forced over 100 municipalities to rezone enough land to accommodate over one million new units of housing, and a law passed in 2025 (SB 79) effectively rezoned all parcels near transit thereby creating new capacity for roughly 1.5 million new units. Local control over rezoning has inherent political advantages, but may result in new capacity for housing in already dense neighborhoods rather than in affluent or high-amenity parts of cities. In this paper, therefore, we ask, and answer, a simple question. Where did these two top-down approaches to rezoning create capacity for housing? That is, how do neighborhoods with new capacity differ from those left unchanged in terms of socioeconomic, environmental, and other characteristics under the two initiatives? We do this using two new databases--one created from over 100 municipal rezoning plans, and the other from an analysis of the land near transit stations rezoned by SB 79. The analysis provides insight for policymakers in other cities and countries considering rezoning through the two approaches.

942 | Michael Hooper

What is the value of urban local government? Perspectives on scales of governance, efficiency and local autonomy from Bermuda's effort to abolish municipal elections

What is the value of urban local government? This question has often been raised in debates over how best to deliver urban services and respond to residents' needs. These debates reach back centuries but have persisted in the form of disputes over municipal amalgamation, decentralization and subsidiarity. This project specifically examines Bermuda's efforts to abolish elected municipal government. The case provides a window onto longstanding questions about the merits and demerits of municipal government and the value of urban autonomy. Bermuda's effort to limit municipal government seeks to replace locally elected councillors with central-government appointees and diminish local governments as sites of decision making.

In the Bermuda case, advocates on different sides of the municipal reform debate have expressed their positions in the media, legislative chambers and court proceedings. This project builds on those public sentiments by interviewing 15 key individuals familiar with the Municipal Amendment Act 2019 and its impacts. The research makes a contribution by using this case as a window onto the tension between decentralization and centralization which, while heightened in Bermuda, lies under the surface of many planning and policy debates around the world.

The results indicate that interviewees and members of the public do not support ending local elections. Most view Bermuda's municipalities as centres of competent and responsive governance and service delivery. Four key differences of opinion regarding the planned reforms were identified across the interviewees. These are competing interpretations of how "efficiency" relates to municipal governance, divergent perspectives on the value of local autonomy, different beliefs regarding how best to respond to historic inequities in governance, and differences in opinion concerning whether incremental revisions to democratic institutions are preferable to more sweeping changes. The paper concludes by drawing lessons for Bermuda and other places engaged in debates over urban governance.

1833 | Rob Richardson, Professor James White, Gareth James

Placemaking in post-devolution Scotland: From aspiration to implementation

This presentation investigates the framing and implementation of a distinct placemaking agenda that emerged in Scotland after the devolution of planning. Developed over a period of twenty-five years, Scotland's placemaking agenda is often upheld for its ambitious commitment to 'design value' and pursuit of social and environmental policy goals. Reflecting on a paper under consideration by the journal Progress in Planning, which is based on extensive primary interview data, archival research and direct observations of the built environment, this presentation highlights the evolution of Scotland's post-devolution urban design policies and their relative divergence from those in the other nations of the UK. It then examines the implementation of this placemaking agenda on-the-ground in a series of housing development case studies. This analysis finds a distinct and progressive commitment to placemaking has emerged in Scotland post-devolution but reveals that implementation has struggled to keep up. Through a fine-grained focus on the cultures of 'design governance' practice that facilitate delivery, the conclusions suggest that these deeply engrained barriers cannot be addressed by policy change alone,

and instead require a more substantial rethink of Scotland's placemaking practice. This raises wider theoretical and practical questions over cultures of implementation in design and placemaking, and for how policy change translates into outcomes in a discretionary planning context.

1845 | Daniels Saakjans, Anna M. Hersperger

Discretion in land-use planning: How regulations and planning culture shape efficient and equitable development across Europe

Local land-use regulations play a central role in shaping efficient and equitable development outcomes, yet the real impact of regulations depends heavily on how planners interpret them, weigh evidence, and navigate competing pressures. Discretion – conceptualised as an informal mediator between formal regulatory objectives and outcomes – describes the freedom planners have to make professional judgments. It provides flexibility when regulations lag behind societal needs and can promote public benefit or reproduce inequalities depending on how it is used.

Understanding discretion is therefore essential for practitioners seeking to steer development towards efficient and equitable outcomes, and for scholars aiming to explain how such outcomes emerge. In order to understand how the use of discretion shapes the pursuit of efficiency and equity within land-use planning, this study examines how and where discretion is used within different planning systems, its scope, and which contextual factors shape its use.

Drawing on semi-structured interviews with senior planners, planning consultants, and policy advisers in England, Ireland, and Switzerland, the analysis investigates how discretionary judgements are formed and applied within contrasting institutional and cultural settings.

Preliminary findings show distinct patterns in both where planners have scope to exercise discretion and what it is used for. In England, discretion is exercised across the planning process – shaped heavily by national housing targets and politically sensitive decisions – to balance evidence with political expectations. In Ireland, discretion is concentrated in development management and is used to reconcile national policy requirements with local political influence and development viability constraints. In Switzerland, discretion is exercised mainly during plan-making to interpret regulatory intent within participatory procedures and a highly legalised framework. Across all three systems, the pursuit of efficiency and equity depends on the extent of discretionary space and the political, market, and organisational pressures shaping its use.

Land Value/Policy

Fri 3.7.09:00-10:30, Governance B, U358 | Session chair(s): Tuulia Puustinen

2846 | Yue You, Ozge Yenigun, Richard Waldron

Constructing Land Value Capture (LVC) Legitimacy: Discourse, Discretion, and Local Planning Practice

Originating from Henry George's (1879) "single tax," Land Value Capture (LVC) has evolved into a hybrid policy for urban finance and governance, with research now shifting from technical questions to context-

based inquiries on how state actors establish its legitimacy through laws and procedures (Alexander 2012; Hengstermann et al. 2025). While LVC's legitimacy is often framed nationally, local practices demonstrate that LVC outcomes are shaped not only by formal procedures but also by power relations (McAllister 2017; Shepherd 2023; Bloom 2024). Existing research focuses primarily on the national framing of LVC legitimacy (Gielen et al., 2017), overlooking how legitimacy is produced, negotiated, or contested within local planning processes.

We situate the construction of LVC's legitimacy within the post-neoliberal co-constitution of state and land markets, focusing on how it is discursively generated locally. We argue that LVC's legitimacy is not solely granted from above, but also co-constructed through discursive interactions and discretionary negotiations among the state, private sector, and public, with planners serving as key mediators. The questions are: (1) What interactions and discourses constitute LVC legitimacy across national and local scales? (2) How do public and private sector planners localize and contextualize national LVC narratives in practice? (3) What consensus and tensions emerge, and how do they shape legitimacy in return?

This study adopts a multi-level qualitative case study using institutional and discourse analysis within the context of Ireland's Land Value Sharing Bill. It first examines national legitimacy frameworks through policy analysis and interviews with government officials, and then investigates a selected project through interviews with public-sector planners, private-sector planners, and community actors. This study develops a discursive framework for LVC legitimacy, enriching planning theory's conceptualization of value distribution. It also offers insights into how the state employs LVC as a mechanism to deeply integrate land financing and planning policy making.

2709 | Damla Erenler, Fatma Şenol

New Spatial Strategies for Planning Industrial Areas: The Case of Torbalı and Karabağlar, Turkiye

The planning of industrial areas is changing with economic restructuring, technological innovations, and spatial imaginaries. The rezoning and redistribution of industrial land in inner-city areas has been driven by the transition to service-oriented economies, rising land values, and policies aimed at intensifying land use and increasing housing supply. Advances in production technologies, the rise of hybrid firms that combine manufacturing with service or retail functions, and changing workforce needs have altered the physical and operational requirements of the industry. The "new" planning approaches to industrial areas that have emerged as a result of these changes do not reject zoning. While zoning, used as a tool to separate industry from incompatible land uses, is recognized for its role in preserving affordable production areas, it is also criticized for its rigidity, its failure to reflect the functional hybridity of production, and its tendency to facilitate speculative land ownership or industrial displacement through zoning changes. These criticisms reflect the shift from static models of industrial land planning to dynamic approaches.

This research aims to reveal the points of overlap, conflict, and tension between the planning imaginaries for the Karabağlar-Aşık Veysel and Torbalı-Yazıbaşı industrial zones, located in the inner city and urban growth corridor of İzmir, Turkiye's third-largest city, and the spatial future visions of the producer actors operating in these areas. The research will compare planning documents and land use decisions in the

Karabağlar and Torbalı industrial areas with field observations and interviews with producers. It will critically assess the success and limitations of the zoning regime in managing the transformation of production areas, how mixed-use trends are shaped by actor strategies, and how unplanned production patterns challenge the planning system.

1166 | Yescha Nuradisa Ekarachmi Danandjojo, Samira Ramezani, Johan Woltjer

Rights Holders and Governance Complexity in Layered Land Rights: The Case of Land Value Capture Implementation for Urban Infrastructure Development in Indonesia

The realization and funding of urban infrastructures represent an increasingly urgent problem for many cities. Interactions among public agencies and private parties to negotiate contributions and land value capture can be challenging in many countries as they face layered land rights and multi-level governance arrangements. Infrastructure-development cases typically struggle with the concurrent emergence of a variety of partially overlapping and potentially conflicting land rights. This paper uses the Jakarta Mass Rapid Transit (MRT) development project to clarify the case. The data for this study were collected qualitatively through semi-structured interviews and from secondary sources, including legal policies and regulations. Findings show that land value capture implementation requires coordination across multiple levels of government, as well as engagement and collaboration with private parties. However, fragmented land ownership and the lack of clear contribution procedures continue to pose challenges in implementing land value capture. While MRT Jakarta refers to planning instruments for the technical direction of development, the land value capture mechanism remains excluded from these planning instruments. Overlapping land rights and the disconnection of planning instruments within the multi-level governance system further create uncertainty for private parties and undermine trust in public-land management. These findings reveal institutional and regulatory gaps that must be addressed. It also offers guidelines to make land-right layering more transparent, at least involving ownership (private, public, and customary), management rights, and action (development and use).

2507 | Evelin Jürgenson, Kärt Metsoja, Birgit Trik

Governing the land take hierarchy: developing a brownfield concept and nationwide mapping methodology in Estonia

The EU Soil Strategy for 2030 and the objective of no net land take by 2050 place brownfield regeneration and the land take hierarchy (avoid–reuse–compensate) at the centre of European spatial development agendas. In practice, however, the governance of this hierarchy is constrained where brownfields are not clearly defined and spatially documented. Estonia is such a case: underused and contaminated land is recognised as a policy concern but remains weakly integrated into planning and monitoring systems.

This presentation reports from an ongoing national scientific project that develops a context-specific brownfield concept and a nationwide mapping methodology for Estonia. The core question is how a legally and institutionally usable brownfield definition and dataset can support the governance of the land take hierarchy, turning brownfields from a residual planning problem into a strategic governance instrument.

Methodologically, the project combines GIS-based integration of cadastral, planning, environmental and remote-sensing datasets with document analysis and stakeholder engagement. Ministries, national agencies, municipalities, NGOs and private developers are involved through workshops and expert consultations. The process is designed as a governance experiment that co-produces: (1) an operational brownfield definition and classification aligned with soil and land-take objectives; and (2) a reproducible mapping workflow and a reusable national brownfield dataset.

The presentation discusses emerging tensions between EU-level soil and land-take targets, national regulatory frameworks and local development interests, as well as issues of data governance, institutional capacity and property rights. It argues that a robust brownfield concept and nationwide mapping are crucial preconditions for implementing the land take hierarchy in Estonia and for strengthening the role of spatial planning as a place-based governance instrument.

1447 | Hanna Kuivalainen, Heidi Falkenbach, Pauliina Krigsholm, Tuulia Puustinen

How do governments strategically apply information to steer land-use subject to direct democracy?

Governments worldwide are increasingly incorporating elements of direct democracy into land-use governance to improve policy representativeness. However, one of the trade-offs (for governments) of direct democracy is a weakened control over the outcomes of land-use decision-making processes. To manage this risk and pursue their land-use objectives, governments apply, among other things, policy instruments transmitting information to influence target behavior. These information-based instruments – such as customized guidance, direct contacting of landowners, or stakeholder events – have received only little attention in land policy research, their role remaining ambiguous and implementation mostly unstandardized. This study examines which information-based land policy instruments are strategically applied, and how, by governments to achieve their land policy objectives in the context of direct democracy. To that end, we conducted a case study of a high-profile Swiss land-use case subjected to a direct democracy process – the Vevey marketplace redevelopment project. The primary data collection method were semi-structured interviews of people occupying key roles in the case study project: municipal and cantonal land use planners, communications officers, and representatives of opposing organizations. The interview data was complemented with, among other sources, press releases by the Vevey municipality and the official project website. Firstly, the results show that a wide range of information-based instruments were applied, varying from highly regulated (e.g. voting brochure) to non-regulated (e.g. social media posts). Secondly, an emphasis can be observed on targeting specific key audiences, such as active project opposants, instead of targeting the whole electorate in general. And thirdly, the results highlight that direct democracy presents a governance framework where information-based land policy instruments – often accused of lacking in transparency – are applied with notable consistence and transparency. Thus, the case offers a good example of strategic use of information-based land policy instruments for policy actors to learn from.

2962 | Malachy Buck, Linda McElduff, Gavan Rafferty, Matthew Kearney

Capturing Value in a New Planning System: The Early Implementation of Developer Contributions in Northern Ireland.

The practice of land value capture is a common and varied practice worldwide to extract uplifts in land value, often connected to the granting of planning permissions, to fund a wide range of infrastructure and public goods. This study focuses upon negotiated Developer Contribution (DCs), examining the practice within Northern Ireland, due to its significant institutional change following major local government reforms in 2015. These reforms provided local governments with planning powers for the first time, providing an opportunity to implement DCs within planning practice. Despite the extensive use of DCs elsewhere within the United Kingdom since the 1990s, their use had been very limited within Northern Ireland prior to 2015.

This study provides the first comprehensive analysis of the development and implementation of DCs within Northern Ireland. Through mixed methods approach, encompassing policy analysis, questionnaires, and semi-structured interviews the research provides an analysis of their use to date and the perceptions of public, private and civil society stakeholders regarding the purpose DCs.

The results reveal significant tensions and competing narratives surrounding the core purpose of DCs. Stakeholder debate contrasts two views: the first sees the tool strictly for mitigating the immediate impacts of new development and thereby enabling it. The contrasting view, sees them as a mechanism to deliver wider public benefits through a new and evolving planning system, meeting a variety of strategic objectives. The unique context of planning in Northern Ireland illustrates how the nascent 'planning culture' creates the conditions for power struggles and reinforces the ambiguous role of the DCs. This connects to wider debates surrounding governance and local-centre relations in the nation and the role of new planning system. The paper offers reflections beyond Northern Ireland regarding on the challenges inherent in introducing and implementing new planning policy instruments in evolving institutional landscapes.

Spatial Justice

Fri 3.7.11:00-12:30, Governance A, U356 ALMA MEDIA | Session chair(s): Cathy Liu

1383 | Melissa Leimkühler, Thomas Weith

Spatial Justice in Urban–Rural Relationships: An Empirical Pilot Study

Knowledge of urban–rural interrelations is vital for governing regions often labeled peripheral. This paper advances an empirically grounded turn toward spatial justice by examining how "just" urban–rural relations are debated in local public discourse and how these claims map onto places.

We analyze two comparable monocentric cities, Schwerin (eastern Germany) and Siegen (western Germany). Using a consolidated spatial justice framework, we classify stakeholder perspectives across distributive, procedural, recognition, opportunity, inter- and intragenerational, outcome, and commutative dimensions. Our corpus comprises 377 relevant articles for Schwerin and 202 for Siegen, coded in MAXQDA with a mixed deductive–inductive approach. Quote-linked mapping connects claims to specific locations.

Findings show a clear dominance of procedural and distributive justice in both cities, calls for equal treatment of urban and rural areas, transparent decision-making, and fair access to infrastructure and resources. Commutative justice appears only sporadically. Mapping reveals spatial tensions, for example the uneven siting of renewable energy facilities in rural areas versus consumption benefits in urban centers.

We suggest three planning responses: (1) adopt spatially sensitive indicators that reflect experienced (in)justice; (2) use cartographic visualizations to make visible who benefits, who bears costs, and where; and (3) strengthen municipal capacity and inclusion of underrepresented groups to close procedural gaps. While limited to media content, a defined period, and two medium-sized cases, the study shows that spatial justice is empirically measurable and place-specific, offering a practical evidence base and a replicable method for fairer urban–rural planning.

1780 | Pei Chen Lee, Tzuyuan Stessa Chao

Urban Public Cemeteries Governance and Policy Transition through the Lens of Spatial Justice：A Case Study of Tainan City, Taiwan

Urban public cemeteries, as NIMBY facilities, have always faced challenges in utilizing these peripheral spaces to enhance the cityscape. In Taiwan, with the advocacy of compact cities and changes in traditional funeral culture, the multi-functionality of public cemeteries has become an emerging concept since the late 1980s.

Although the central government officially designated renewal of public cemeteries as an important strategy for improving urban–rural landscapes and promoting land reuse (Ministry of the Interior, R.O.C., Taiwan, 2022), local implementation has encountered serious setbacks, such as the difficulties of re-interments and repeated tender failures. This resulted in most public cemeteries remaining stagnant, withholding the potential regeneration of surrounding areas. Therefore, a key issue regarding these exclusionary spaces is whether renewal can truly ease the NIMBY stigma and ensure that the benefits are returned to the communities that have long borne these externalities.

Through the lens of spatial justice, this study adopts Soja's (1996) socio-spatial dialectic and the concept of Thirdspace as its analytical framework. It proceeds from governance policies and construction practices (Firstspace/ the perceived space), to the cultural reconstruction of public cemetery renewal (Secondspace/ the conceived space), and ultimately to the social practices of de-NIMBYization (Thirdspace/ the lived space). Applying housing price analysis as a Firstspace indicator of spatial inequality and combining GIS-based spatial overlay to identify the extent and severity of delayed development, the study also conducts policy document analysis to reveal transitions in public cemetery renewal strategies and the factors contributing to stalled implementation.

Focusing on Tainan City, which has the largest total area of public cemetery land among all municipalities in Taiwan, this research examines the dilemmas of NIMBY facility renewal. It identifies long-standing socio-economic inequities in affected areas and underscores the potential impact of policy and planning interventions on marginalized NIMBY areas.

2056 | Ozge Yenigun

Just Transition in Action: Examining the Impacts of Just Transition Initiatives in Ireland's Midlands

This paper investigates the impacts of just transition policies in Ireland's Midlands, focusing on communities affected by peat power plant closures. These regions face the dual challenge of transitioning to a low-carbon economy while addressing long-term disinvestment and limited capacity to develop new green pathways (Tödtling & Trippl, 2018; Grillitsch & Hansen, 2019). Despite initiatives such as the National and EU Just Transition Funds, early studies point to insufficient re-employment options, limited community engagement, and poor alignment with local needs (Bresnihan & Brodie, 2021; Banerjee & Schuitema, 2022).

This paper presents preliminary findings from a mixed-methods study examining how funded projects align with community socio-economic and skill needs, and how current programs support community resilience and economic diversification. Quantitative analysis of employment, income, demographics, and project outcomes is combined with interviews with community groups, workers, and local officials to assess policy effectiveness in meeting immediate needs and advancing longer-term economic and goals.

The findings contribute to just transition scholarship by highlighting gaps between policy objectives and implementation. The paper concludes with recommendations to better align funded initiatives with local priorities.

References

Banerjee, A. and Schuitema, G. (2023) 'Spatial justice as a prerequisite for a just transition in rural areas? The case study from the Irish peatlands', Environment and Planning C: Politics and Space, 41(6), pp. 1096–1112. https://doi.org/10.1177/23996544231173210.

Bresnihan, P. and Brodie, P. (2021) 'New extractive frontiers in Ireland and the moebius strip of wind/data', Environment and Planning E: Nature and Space, 4(4), pp. 1645–1664. https://doi.org/10.1177/2514848620970121.

Grillitsch, M. and Hansen, T. (2019) 'Green industry development in different types of regions', European Planning Studies, 27(11), pp. 2163–2183. https://doi.org/10.1080/09654313.2019.1648385.

Tödtling, F. and Trippl, M. (2018) 'Regional innovation policies for new path development – beyond neo-liberal and traditional systemic views', European Planning Studies, 26(9), pp. 1779–1795. https://doi.org/10.1080/09654313.2018.1457140.

939 | Yahya Shaker

The EU Just Green Transitions from a Pan-European Perspective

The European Green Deal aims to guide the European continent towards carbon neutrality while ensuring that no region is left behind. Key to achieving its goals by 2050 is a cohesive conceptualisation and operationalisation across the 27 Member States. However, justice involves more than just financial and technical support for regions that are negatively impacted; it requires a fundamental change in the

governance frameworks. Lacking a clear blueprint and with varying objectives, targets, and unsynchronised horizontal, vertical, and transversal coordination among the Member States, the expected transitions might risk augmenting rather than resolving existing socio-territorial challenges. This contribution examines how Member States' national and regional levels conceptualise and operationalise the JGT through a pan-European analytical framework featuring the Territorial Just Transition Plans. Thus, exploring the role of the multi-level governance in harmonising socio-territorial transitions at a Pan-European level within the broader context of EU governance.

1314 | Cathy Liu

Planning for Immigrant Inclusion: Welcoming Cities and Nonprofits

The continuous growth of immigrants in the United States and their residential dispersion into different communities have given rise to various local responses to the immigrant population across policy domains. Local government and civil society leaders have already started to join efforts, share best practices, and form partnerships to effectively integrate immigrants (De Graauw and Bloemraad, 2017). Several networks have emerged that serve as convening organizations of these local efforts, and Welcoming America is one case in point (Rodriguez et al 2019). Launched in 2009, it has over 200 members from both local governments and nonprofits joining its immigrant-welcoming initiatives by now.

The Welcoming America network presents a unique angle through which we examine the multi-sector governance of immigrant inclusion. Recent inquiries on this new initiative has focused on welcoming cities only, not welcoming nonprofits (Huang and Liu, 2018; McDaniel et al 2019). We conducted in-depth interviews with over 20 leaders of local governments and nonprofits and collected survey questionnaires from over 100 welcoming members. Specifically, we answer three research questions.

First, what are motivations for joining Welcoming America and are their differences between local governments and nonprofits? These include both internal determinants and external contexts.

Second, how is the adoption and participation process shaped by policy learning and diffusion by the adoption of other local governments and nonprofit organizations? We will pay particular attention to within-sector and cross-sector dynamics.

Third, what is the role of the network of Welcoming America in facilitating the adoption of these initiatives among public and nonprofit agencies?

Our research results will contribute to our knowledge of multi-sector planning efforts towards immigrant-integration and enrich theories on policy innovation diffusion among and between local governments and nonprofits through a network organization in face of rapid immigrant changes.

Climate adaptation, circularity and wellbeing

Fri 3.7.11:00-12:30, Governance B, U358 | Session chair(s): Wiwandari Handayani

1289 | Hsuan-Man Hsu, Hsueh-Sheng Chang

Revealing the Invisible Geography of Global Net-Zero Knowledge: Knowledge Structures and Spatial Imaginaries in a Cross-National Comparative Analysis

As cities and regions worldwide pursue net-zero goals, spatial planning has become an increasingly pivotal point where technological innovation, governance, and social change intersect. However, the global conversation on net-zero is primarily driven by technocratic approaches—focusing on measurable aspects such as energy efficiency, renewable energy deployment, and carbon accounting—often neglecting local governance strength, social fairness, and spatial integration. A clear understanding of how these biases are created and perpetuated within academic knowledge remains limited.

This study examines how regional and institutional differences shape the knowledge structures of net-zero research across three major contexts: China, the United States, and the European Union. Using bibliometric analysis and Natural Language Processing (NLP) on Web of Science data, it traces the structural and semantic role of “technology” in different knowledge networks. The research employs a three-stage design—structural analysis, semantic analysis, and theoretical interpretation—to compare epistemological orientations embedded in distinct geopolitical and institutional settings.

Results show that China’s research network is centralized around energy systems and industrial upgrading, while the U.S. focuses on innovation and market mechanisms. In contrast, the EU exhibits higher centrality in social, equity, and governance issues. These differences indicate that the formation of net-zero knowledge is not neutral but profoundly shaped by institutional and geopolitical contexts. By constructing a cross-regional comparative framework, this study helps identify the strengths and limitations of different national models. It establishes a shared basis for understanding, providing theoretical and practical insights for integrating technological innovation, social justice, and spatial governance in climate transition planning.

1750 | Nataliia Yehorchenkova, Oleksii Yehorchenkov

Rethinking Wellbeing in Times of Crisis: Ukrainian Reality vs. Global Concepts

This paper investigates how the wellbeing concept is reflected in contemporary Ukrainian policies in governance, business and education under conditions of ongoing war and systemic crisis. While global frameworks (OECD wellbeing indicators, SDGs, EU “economy of wellbeing” agendas) emphasise multidimensional quality of life, Ukrainian policy practice still navigates between emergency survival, security imperatives and aspirations for European integration.

The study is based on a qualitative analysis of national and sectoral strategies, legislative acts, corporate responsibility frameworks and education policies, complemented by illustrative cases from municipalities, businesses and universities. Policy documents are mapped against key wellbeing dimensions (material conditions, health and safety, social relations, participation, future prospects) to identify how wellbeing is defined, prioritised and operationalised.

Preliminary results show, first, a strong dominance of economic recovery, physical security and basic infrastructure in the policy agenda, with wellbeing often treated as an implicit or secondary outcome. Second, the language of wellbeing, mental health and quality of life is gradually entering business and education policies (CSR, ESG, student wellbeing, staff support), but remains fragmented and weakly connected to formal governance and planning instruments. Third, bottom-up initiatives—volunteering networks, business-led support programmes, university-based psychosocial and inclusion services—are experimenting with more holistic understandings of wellbeing than those visible in formal national strategies.

The paper argues that Ukraine's crisis context exposes both the limits of global wellbeing concepts and the gaps in current Ukrainian policy design. It proposes an integrated, crisis-aware wellbeing framework connecting governance, business and education as mutually reinforcing arenas for post-war recovery and long-term societal resilience.

1554 | Wiriya Puntub, Stefan Greiving, Wolfgang Scholz, Ali Jamshed

Navigating Governance Frameworks for Integrated Urban Climate Resilience: Comparative Insights from Asia

Asian cities face a paradoxical reality and trajectory - rapid urbanisation and economic growth, alongside escalating climate risks. Integrated planning is recognised as both a goal and a strategic instrument for achieving sustainable urban climate resilience. Yet, empirical insights of how national frameworks translate into coherent actions across governance levels remain limited. This study presents a comparative analysis of governance frameworks shaping integrated urban climate resilience in India, the Philippines, and Thailand, examining how multi-level governance structures, legal regimes, and policy instruments interact to embed climate resilience within urban development processes.

The research employs a dual analytical framework: (1) assessing legal and policy conditions through social-ecological system (SES) resilience dimensions - Adaptiveness, Distributive Justice, Broad Participation, and Cross-Scale Interactions; and (2) analysing integrated planning via Polity (formal frameworks), Politics (informal processes), and Policy & Provisions (strategic contents and resources) across horizontal and vertical directions. Methods combine document analysis with expert insights from cross-sectoral workshops.

Findings show that all three countries established robust legal foundations that foster inclusiveness and participation, but lack mechanisms to enhance adaptability or to rapidly respond to harms (losses) arising from unsustainable interventions. Horizontally strong institutional setups contrast with weak inter-sectoral coordination; vertically decentralised structures remain dominated by top-down control. Limited upward feedback, poor coordination across levels, persistent capacity gaps, uneven resource distribution, politicised decision-making, and restricted data-sharing hinder integration at sub-national levels. Despite these constraints, distinct innovations emerge: participatory decentralisation fosters inclusivity in the Philippines; incentive-based schemes drive local action in India; cross-sector coordination balances adaptation and mitigation efforts in Thailand. By identifying shared challenges and learning opportunities across contexts, this study offers insights into strengthening multi-level governance towards transformative urban climate resilience.

1482 | Minalies Rezikalla, Karel Van den Berghe, Willem Korthals Altes

Entangling the Territory: Understanding urban structures and spatial principles for flourishing circular manufacturing networks

After decades of de-industrialisation guided by the globalisation of manufacturing, many European cities used urban planning to operationalise the post-industrial city, by transforming (former) industrial spaces into commercial, residential, leisure, or logistical land-uses. As the concept of circular economy (CE) takes a stronger hold as an alternate paradigm, what CE means for cities is becoming an increasingly central discussion. CE has been translated to the concept of circular cities, which strives to achieve a circular economy as locally as possible. While ambitious, what circular cities entail in relation to urban planning still remains unclear.

This paper therefore addresses the operationalisation of circular cities, taking the textile and clothing (T&C) sector and the city of Rotterdam as cases. The T&C sector is representative as one of the most linear economic sectors, with various consequences on social and environmental levels. Meanwhile, Rotterdam's urban policymaking is one that embraces post-industrial planning, while simultaneously having high ambitions for becoming a circular city. The central research question is "What spatial principles and facilitating measures can guide the localisation of circular manufacturing?" To answer this question, this paper categorises the spatial qualities present in the clusters of T&C actor in the neighbourhoods of Zwaanshals and Feijenoord, and other neighbourhoods they temporarily occupy. The spatial qualities are logged using a series of photographs and categorised based on the elements that make up the spaces and structures, and how these have been used by local actors. Combining the findings of a workshop with local actors on 'the ideal Rotterdam for T&C+', this paper collates the results into an urban planning framework. The framework identifies the key infrastructural, network, and spatial requirements towards a local circular T&C sector in Rotterdam, forming an action list for planners and reflecting on the outcomes of a prior cross-scalar policy study.

1986 | Yi Sun

A Move towards Regulation Flexibility and Pragmatism? Revisiting State Entrepreneurialism in China's Pilot Development Zone

This paper examines the evolving dynamics of state entrepreneurialism (SE) amid the ongoing restructuring of urban governance in China, focusing on the Shenzhen Qianhai Pilot Zone—a flagship area exemplifying China's latest advances in financial innovation and territorial development. Existing literature has yet to sufficiently address the interconnections between SE, land financialization, and the polymorphous nature of statehood within such development contexts. Notably, Qianhai's experience with financialization, particularly through equity-based instrument such as Real Estate Investment Trusts (REITs), remains underexplored. Drawing on on-site observations and interviews with 13 senior officials from the Qianhai Authority and key enterprises involved in the zone's development, this study reveals how the local state strategically leverages regulatory flexibility and pragmatism in land governance. Specifically, it has pioneered a unique BOT-based land lease model, subsequently transforming it into a REIT product. By bypassing traditional land-use-right transfer and introducing an innovative eight-year flexible lease, the Authority enables private developers to independently construct, operate, and profit from lease income during the initial development phase. These pragmatic regulatory approaches

facilitate market-rate transactions, establish profit-sharing mechanisms, set reasonable income targets, and ensure smooth project transitions. Beyond the planning centrality, the case illustrates how the polymorphous Chinese statehood integrates neoliberal principles to foster both market functionality and effective intervention. Ultimately, the Chinese statecraft is not solely about territoriality and power, but a network of social-technical-financial practices to achieve multifaceted goals within city-regionalism.

Coastal Planning

Fri 3.7.14:00-15:30, Governance A, U356 ALMA MEDIA | Session chair(s): Sofia Morgado

2433 | Synne Movik, Knut Bjørn Stokke

Coastal futures in northern Norway: Tracing imaginaries, trends, and tensions in coastal planning practices in eastern Finnmark

Norway has a rich coastal history, and coastal livelihoods form an important part of the country's cultural heritage, not least in the northern regions. In recent years, coastal communities in the north are experiencing increasing pressures and challenges related to balancing new 'blue' economic opportunities, particularly marine aquaculture, with environmental and cultural heritage considerations in the context of increasing climate change uncertainties. In this article, we explore how these challenges are dealt with through tracing two intermunicipal planning processes. The research involved field visits to all the eight municipalities that participated in the collaborative planning efforts, and our empirical material was gathered through participant observation, interviews with key informants from the municipalities, the county councils and interest group representatives such as fishers and environmental interests groups, as well as document analysis. In particular, we were interested in understanding how these processes unfold at the intersection of national, regional and local planning and regulatory practices, giving rise to particular imaginaries and tensions that local planners and communities have to navigate. Drawing on theories of environmental governance in conjunction with theories of place/space, we trace the choices and dilemmas facing these different municipalities, and highlight how their choices are shaped by geography, cultural concerns and particular visions for the future. The study brings to the fore diverse perspectives and understandings of what constitutes robustness and resilience in a coastal context, and also shows how cultural heritage play a role in shaping perspectives and planning practices. We conclude with some reflections on what the implications are for prospects of collaborative coastal planning.

1809 | Mandy Paauw, Patrick Witte, Ann Crabbe

Navigating the water transition – Barriers and opportunities for integrating spatial planning and water management in the Netherlands and Flanders

European regions are increasingly confronted with complex water governance challenges. Climate change amplifies both flooding and drought, requiring a fundamental shift in how water is governed – a process often referred to as the water transition. Traditionally, water management focused on technical solutions to prevent flooding, but increasing risks of drought demand strategies that also retain and reuse water in the landscape. Such strategies inherently affect spatial organisation and therefore require alignment between water managers and spatial planners. Spatial planning can support the water

transition by integrating water into the landscape, and due to its focus on shaping desirable, long-term developments, the domain can contribute to building a more climate-robust water future.

Previous research has underlined the importance of integrating water management and spatial planning for tackling water challenges and the ways in which this could be achieved. However, much of this work focused on coordination in the context of flooding, with less attention to the dual challenge of drought and flooding. Moreover, despite a recognition at the strategic level that collaboration and coordination between the domains is crucial, it remains unclear which barriers hinder integration in practice across different levels and dimensions of governance. This paper examines these obstacles by focusing on the institutional level, where integration ambitions are translated into practice. Drawing on policy analysis and semi-structured interviews in the Netherlands and Flanders – two low-lying delta regions facing similar water challenges – we identify institutional, legal, and epistemic factors that can hinder or enable integration. This contributes to broader debates on how spatial planning can act as a connecting governance practice and support structural transformations needed for resilient water systems.

1397 | Suhyun An, Aysin Dedekorkut-Howes, Margaret Cook, Michael Howes

Adapting to Rising Seas: Comparing Australia and South Korea

When faced with sea level rise challenges, why do some coastal cities develop more policies and respond more actively than others? Addressing this key question, this study examines the differences in climate adaptation policies and planning processes through a comparative case study approach between Australia and South Korea. Both countries have significant coastlines with concentrated populations and infrastructure vulnerable to sea level rise impacts. Australia has the 8th longest coastline globally extends approximately 34,000 kilometres, with more than 87% of its population living within 50 kilometres of the coast. South Korea is situated on a peninsular with a coastline of around 2,413 kilometres with densely populated coastal regions. Despite its shorter coastline, South Korea faces high exposure to coastal hazards due to its population density and infrastructure along the coast. The research employs a mixed-methods approach including policy review, and semi-structured stakeholder interviews to identify key barriers, enablers and drivers that influence adaptation. The policy review involves analysis of federal/national, state/provincial, and local plans, strategies, and projects related to sea level rise adaptation in both countries. Australia's decentralised governance approach, where state and local governments play significant roles in climate adaptation, contrasts with South Korea's centralised model where national policies guide local implementation. By identifying similarities and differences in policy frameworks and assessing the adequacy of existing adaptation policies, this research contributes to an understanding of why varying levels of adaptation occur across different contexts. This research will inform the development of evidence-based strategies to enhance adaptive capacity and strengthen resilience to sea level rise impacts in coastal cities worldwide, moving beyond regional differences to suggest practical solutions.

2669 | Steven Forrest

Social Cascades, Disasters and Inequity in Urban Crises

Disasters pose both immediate shocks and longer-term challenges for cities, reshaping socio-spatial contexts long after visible impacts fade. Repeated events risk accumulating into social cascades that continuously shape, reproduce or reorganise urban inequality. This presentation develops the concept of social disaster cascades to examine how crises activate and redirect pre-existing vulnerabilities, tracing how disadvantage or opportunity moves across services, places and time as political, economic, infrastructural and governance systems intersect.

The paper combines theory and empirical evidence by focusing on flooding as a recurring disaster using Hull and Sheffield as comparative cases. The analysis includes other crises (in addition to flooding) that have affected each case, with an emphasis on stresses and shocks that have affected both at the same time, such as COVID-19. Both cities have experienced repeated crises but differ in socio-spatial structure, governance and economic trajectory, enabling analysis of how similar hazards generate divergent social outcomes. For example, Hull reflects repeated tidal and surface water flooding alongside long-term disadvantage, while Sheffield's topography and diversified economy produce different configurations of risk and recovery.

A mixed-methods approach combines semi-structured interviews with councils, community organisations and consultancies, secondary survey and database analysis, and policy document review, including Section 19 Post-Flood Investigation reports. These materials are examined across multiple neighbourhoods to identify cascading patterns of damage, service disruption and inequity.

Preliminary findings indicate downward cascades of vulnerability in parts of Hull under repeated floods and economic pressure, while Sheffield shows more uneven, network-dependent recovery. Both cities also reveal instances where civic partnerships redirected cascades toward resilience. The paper argues that understanding disasters through social cascades can inform interventions that not only respond to recurrent disaster impacts, but in addressing them, also steer trajectories toward more equitable and resilient urban futures.

1553 | Ante Ivcevic, Elisa Privitera, Giulia Motta Zanin

Unjust coastal governance: how Catania remains disconnected from the sea

Ensuring that diverse local communities' voices are meaningfully heard in the management of coastal zones requires effective coastal governance. "Just governance" not only questions who decides, when and how, but also what kind of participation is enabled and how responsibilities are distributed.

Despite the widespread emphasis on participatory approaches, coastal management often lacks the political will and institutional mechanisms to turn participation into genuine co-decision-making.

The city of Catania, on the eastern coast of Sicily (Italy) offers a paradigmatic case of how unjust governance leads to failure of coastal management. The coast of Catania, like other Mediterranean coastal areas, faces huge challenges due to the anthropogenic pressures and activities present in such

territories (residential, industrial, touristic, fishing, agricultural, etc.), further exacerbated by climate change impacts such as erosion, flooding, and medicanes.

Based on twenty-seven semi-structured interviews conducted between November 2022 and March 2023 with scientists, policymakers, and civil society actors, our research identifies persistent governance failures: fragmentation of responsibilities, weak coordination, and limited stakeholder engagement. Citizens, even when mobilized through grassroots movements, struggle to be heard and involved.

We argue that only through just governance, grounded in transparency, accountability, and meaningful participation, can coastal cities like Catania achieve just sustainability. Reconnecting Catania with its coastline requires rethinking governance as a process of collective learning, shared responsibility, and co-creation of resilient futures.

2670 | Eunsoo Hyun

Adapting on our terms: Institutionalizing devolved decision-making through locally led climate change adaptation

In recent years, locally led adaptation (LLA) has been gaining prominence in global spheres of climate change adaptation as a response to critiques of community-based adaptation (CBA). While the original intent of CBA was to be “led” by the communities involved, this has proved to be difficult and, therefore, rare in practice. In response, the alternative allied concept of LLA set its core principle as “devolving decision-making to the lowest appropriate level.” While aspirational and ambitious, it is yet unclear whether LLA’s principles of devolving power and patient funding can be successfully integrated into the multi-scalar institutional structures of climate adaptation governance, both in program design and practice. Empirical evidence of how these principles manifest, or fail to take form, on the ground is especially dire in under-resourced communities of the Global South, where most of these practices are directed. To inquire how LLA and non-LLA initiatives differ in terms of program processes, implementation outcomes, and impacts on policy and planning, I am conducting a comparative case study of six urban climate adaptation programs in the Philippines. While many cities in the Philippines face the challenges of intensifying climate risk and housing shortages, several have become sites of LLA implementation driven by pro-poor NGOs in partnership with local governments. Utilizing document analysis, semi-structured interviews, participant observation, and household surveys, I am comparing two non-LLA programs, two LLA programs, and two autonomous grassroots initiatives. By shedding light on the inner workings of institutionalizing community self-determination into adaptation initiatives, the study will provide takeaways for practitioners and leaders who plan to implement LLA in their communities. It will also form an empirical basis upon which to theorize the possibilities and limitations of adaptation as a mode of civic empowerment that can contribute toward transformative adaptation through fair, inclusive, and consequential participation.

Energy Governance

Fri 3.7.14:00-15:30, Governance B, U358 | Session chair(s): Wiwandari Handayani

2556 | Agnieszka Szumilas, Magdalena Belof, Katarzyna Piskorek

Evolution of Energy-Focused Measures in Urban Regeneration in Poland

European cities have been implementing regeneration programmes for decades, with the scope and effectiveness of these programmes varying significantly depending on national financial and legal frameworks. Despite this diversity, local authorities face similar challenges, particularly the need to restore value to degraded areas. EU urban policies [1–4] have shaped regeneration approaches, seen in climate goals in strategies [5–7] and rising support for energy-efficiency interventions.

This paper explores the connections between energy-related interventions and urban regeneration processes in Poland. The research sample comprises selected cities in the Lower Silesian region that have extensive experience of regeneration activities, including the regional capital, Wrocław. The primary research methods involve analysing strategic and programme documents on regeneration and energy transition, as well as conducting interviews with key stakeholders. Adopting a multi-level governance perspective, the research examines how mechanisms at EU, national, regional and municipal levels interact, and how energy policies are integrated into urban regeneration. The analytical framework follows PED-JUST philosophy under the UDT [8]

Preliminary findings indicate that urban regeneration in Poland is moving from technical and social interventions toward environmental and energy goals. Energy efficiency programmes show this priority, yet interventions remain fragmented and poorly aligned with regeneration strategies. Limited spatial integration and uncoordinated initiatives hinder coherent, long-term regeneration and energy transition planning

1. Ministers for Urban Matters (2020) The New Leipzig Charter.
2. EU Urban Ministers (2016) Pact of Amsterdam: Urban Agenda for the EU.
3. Ministers for Spatial Planning (2020) Territorial Agenda 2030.
4. EU Com. (2019) The European Green Deal, COM(2019).
5. EU Com. (2020) A Renovation Wave for Europe, COM(2020).
6. EU Com. (2021) 100 CNSC by 2030 – Mission Implementation Plan.
7. JPI Urban Europe & SET-Plan (2020) Reference Framework for Positive Energy Districts.
8. DUT/2023/100/PED-JUST/2024, PED-oriented urban regeneration for JUST energy transition.

2679 | Paulo Silva, Mehrnaz Zargarzadeh, José Carlos da Mota, Nathália Rosa Franco Siqueira; Fernanda Rodrigues

European Governance and Policy Evolution in Positive Energy Districts (PEDs) and Social Housing

The European Union (EU) is grappling with the challenge of balancing affordable housing with climate and energy goals. Housing costs have surged by more than 50% since 2015, placing significant strain on low- and middle-income households, many of whom live in energy-inefficient homes that result in high heating and cooling expenses. This issue is particularly acute in social housing, where energy poverty is widespread. Tackling the intertwined challenges of housing affordability, energy poverty, and climate action requires integrated, urgent solutions that promote both sustainability and equity.

One potential solution is the concept of Positive Energy Districts (PEDs). These urban areas are designed to produce more energy than they consume, offering a model for sustainable urban development and affordable housing. By improving energy efficiency and incorporating renewable energy sources, PEDs can reduce long-term energy costs, especially for residents of social housing, while also helping the EU meet its climate goals. However, the implementation of PEDs faces several challenges, including fragmented policies, diverse local conditions, and the risk of green gentrification, which complicate efforts to scale these solutions across the EU.

This paper explores the evolution of EU policies on energy transition and affordable housing from 2015 to 2025, with a focus on the role of PEDs in addressing energy poverty and sustainability. It analyzes key regulations and governance models, such as the Renovation Wave and the Energy Performance of Buildings Directive (EPBD), to assess their potential for accelerating PED adoption. The paper also identifies strategies to overcome barriers to equitable implementation and emphasizes the importance of governance structures and urban planning practices in ensuring that these solutions are both sustainable and inclusive. The research underscores the need for collaborative, multi-level governance and integrated planning to effectively deploy PEDs in diverse local contexts.

1462 | Mara Liepa-Zemesa, Martins Auders

Balancing the Common Good in Planning: Conflicts in Renewable Energy Developments in Latvia

The pursuit of the common good in urban planning and energy development is becoming increasingly relevant in Europe, given financial crises, the scarcity of public resources, and the growing impacts of climate change. These challenges are further emphasized by the democratization of governance and citizens' rights to participate in territorial development. Over the past decade, a strong shift toward renewable energy has emerged as a strategic response to climate change and the need to reduce greenhouse gas emissions. While climate neutrality and sustainability are recognized as shared goals, public resistance to wind farms, solar parks, and power lines reveals differing perceptions of what constitutes the "common good."

The study explored how the concept of the common good is interpreted and implemented in Latvian municipal planning documents and renewable energy projects, identifying factors that influence the

emergence and mitigation of related conflicts. A qualitative approach was applied, including content and comparative analysis of policy documents, regulatory frameworks, municipal spatial plans, and case studies of renewable energy projects.

The analysis focused on how public goods are defined, when and how communities are involved, and how mediation between stakeholders occurs. The timing of public participation and the quality of mediation were identified as key factors in reducing conflicts. Importantly, this raises a critical question: are existing public participation procedures merely formal, and would granting citizens a real influence on decisions help reduce these conflicts?

Ultimately, the resolution of such conflicts depends on building trust, ensuring meaningful participation, and acknowledging that the common good must be co-created through dialogue between planners, policymakers, and local communities.

1748 | Fabian Michael Imbusch, Swantje Grotheer, Kirsten Mangels

The Regional Planning "Offensive": A governance approach towards faster regional planning for the energy transition in Baden-Württemberg

The German planning system is traditionally characterized by complex multilevel governance structures and lengthy planning procedures, particularly for designating areas for wind energy. For example, updates to regional plans (planning level between state plans and municipal planning) sometimes take more than five years.

However, in the wake of Russia's invasion of Ukraine in 2022 and the ensuing energy crisis, Germany has for the first time formulated a legally binding goal: 2% of Germany's land area must be allocated to wind energy by 2032. This marks a significant paradigm shift in spatial planning, as land allocation is being determined by law at the national level for the first time rather than by planning considerations at a regional level.

In the federal state of Baden-Württemberg, tasked with securing 1.8% of its land for wind energy, the state government and the twelve regional associations agreed in spring 2022 to achieve this target by end of 2025 instead of 2032. To achieve this ambitious goal, a simultaneous approach by all twelve regional associations and the creation of a stable framework by the responsible state ministry were agreed upon and subsequently implemented as a so-called "regional planning offensive".

This contribution will display how the consensus-oriented approach of the two planning levels (state and regions) and the focus on accelerating planning have changed governance structures. It is based on a study conducted at the end of 2024 and beginning of 2025, which included expert interviews as well as a survey with the regional planning associations. In addition, the changes in the procedures will be illustrated in comparison with previous planning procedures. Also, the impact of accelerated planning on procedure duration, public participation and conservation assessment grid will be critically discussed.

The case illustrates one effort to accelerate planning in Germany and which governance changes this entails.

2297 | Martin Westin, Camilo Calderon, Alexander Hellquist

Deliberative Systems and Democratic Deficits in Local Decision-Making on Wind Energy Projects: Insights from Sweden

As Sweden seeks to rapidly expand its onshore wind power capacity to meet national climate and energy targets, local planning processes have become increasingly contentious. Despite strong policy commitments to public participation, consultations surrounding wind energy projects (WEPs) often fail to generate meaningful dialogue or legitimate outcomes. This paper examines how Sweden's fragmented, multi-level planning system shapes participation, influence, and conflict in WEP development, focusing on the gap between participatory ideals and on-the-ground practices.

Building on deliberative systems theory, the study analyses how formal and informal arenas of participation—including mandatory consultations, municipal planning processes, the municipal veto, political lobbying, and community mobilization—interact to shape decision-making on wind power. Drawing on interviews with developers, municipal officials, county authorities, civil society actors, and residents involved in two contested WEP cases, the paper explores how actors perceive (1) the most significant sites of participation, (2) the interconnections and power dynamics among these sites, and (3) the actual influence they attribute to their engagement.

The findings reveal a system characterized by procedural inconsistencies, institutional ambiguity, and limited reciprocity across decision-making levels. While consultations are formally positioned as the central participatory arena, key decisions are frequently shaped elsewhere—particularly through municipal veto processes detached from deliberative engagement. This fragmentation undermines public trust, fuels opposition, and restricts the transformative potential of dialogue.

1230 | Sarah Friese, Thomas Weith, Martin Faulstich

Rethinking Planning in Times of Transition: Lessons from Regional Energy Governance in Germany

The energy transition is a long running processlinking technological innovations with socioeconomic changes and political decisions (Laborgne 2023). Effective governance that coordinates actors and policies across different levels and sectors is crucial for its successful implementation. The presenta-tion shows how different control logics, actor constellations, and forms of governance (Gailing 2018) vary spatially and what role they play in this context.

Using a policy screening of 199 strategic and spatial planning documents in three regions in Germany (Ruhr area, Vorpommern, Upper Rhine), instruments used for the designation of renewable energies were systematically analysed. Based on this, the characteristics and variants of regional governance in the context of the energy transition were valuated.

The results show clear regional differences: while the Ruhr region has a strategic, conceptual, re-gionally oriented, but weakly binding governance profile, Vorpommern is legally strong, top-down, conflict-ridden, and not very participatory. The Upper Rhine is characterized by a model that is marked by informal cooperation, participatory processes, and a thematic focus on renewable energies. The analysis illustrates that energy transition governance in Germany varies greatly from region to region and that the

different governance profiles each have specific strengths but also weaknesses. These differences are based less on formal institutional structures and more on different combinations of informal coordination mechanisms, stakeholder constellations, and regional knowledge practices.

This presentation shows that there is no universal best practice model, instead greater attention must be paid to regional path dependency and the context-specific nature of governance. This aligns with the concept of “hybrid governance structures” (Klijn und Koppenjan 2012), in which ele-ments of hierarchy, market, and network coexist and are weighted differently across regional con-text. The analysis also reveals potential synergies between regions: combining their respective strengths could yield a balanced governance model ensuring both effectiveness and legitimacy.

Track 7: Histories

Track chairs: Laura Kolbe, Eduardo A. C. Nobre, Panu Savolainen, Lan Wang

Culture, Society and Education

Tue 30.6.14:00-15:30, Histories, Y347 | Session chair(s): Laura Kolbe

1382 | Nicola Pullan, Robert Freestone

Challenging orthodoxy: Dissidents and innovators in Australian planning education 1960-2000

In 1968 Denis Winston, Australia's first Professor of Planning, acknowledged that the complexities of cities could not be managed by land-use planners and designers alone. He stated that 'the older amongst us learnt our planning lessons for conditions of much greater stability and much slower growth ... and we have largely failed to adapt ourselves to the new circumstances...Planning means politics and economics, law and administration before it means architecture and engineering'. He advocated broadening planning education to meet a newly imagined future. In the antipodes, as globally, the pace and complexity of urbanization with its economic, social and environmental reverberations challenged planning's continued relevance and traditional planning education from the 1960s. From the 1970s, a succession of new directions would leave their mark on pedagogy through the incorporation of new and often competing perspectives from cognate disciplines and fields. Coming in waves, sociology, systems analysis, public administration, social and political theory, political economy, environmental studies, urban studies and urban design, among others, brought new perspectives and an inevitable fragmentation and specialisation in planning education. By the 1990s, while the inherited British-influenced built environment focus remained very visible, it was supplemented and challenged by diverse viewpoints considered more in tune with the changing times. Planning educators also commenced organizing themselves more formally rather than continuing to rely on the Royal Australian Planning Institute, allotted a key institutional role from the early 1950s. Drawing on personal archives and interviews, this paper sketches that transformation through biographical vignettes of planners, professionals and students in order to capture the shifting content and trajectory of planning education in late 20th century Australia. These individuals, either as singular innovators or representatively, captured larger trends and incorporated new content and teaching approaches demanded by the changing times, almost universally influenced, directly or indirectly, by international experience.

2563 | Ahmed Ades

Planning in Moments of Rupture: Civic mobilisation and planning beyond public institutions

Moments of rupture are periods in which institutional routines are destabilized, public authority proves insufficient, and alternative forms of spatial practice become possible. These moments are approached as historically situated openings that make planning visible in new ways, revealing both limits and evolving capacities within institutional systems. By examining the relations between civic actors and

public institutions, the study seeks to understand how planning is enacted, adapted, and redefined when the established order is disrupted.

The research positions moments and their historical conditions as a lens for understanding how planning transforms. Conceptually, it draws on critical urban theory, radical planning theory, the right to the city, and Sewell's logics of history. Tentatively, the project employs a qualitative and interpretive methodology that draws on temporal and relational mapping.

Through interviews, document analysis, and participant observation, the research traces how moments of rupture and transformation materialize in practice and how actors mobilize to shape space when institutional routines falter. This historical–analytical perspective contributes to rethinking planning as a distributed, adaptive, and temporal practice.

Tracing the emergence of bottom-up initiatives in the context of urban planning in relation to specific moments or events shows how historical ruptures highlight institutional limitations while also revealing emerging forms of spatial agency. They also raise the question of how civic actors can develop forms of preparedness that enable them to intervene when institutional systems fail, maintaining capacities that stay dormant until the conditions for action emerge.

Understanding planning through rupture rather than continuity clarifies how historical inflection points reshape relationships between civic and institutional actors. Analyzing these temporal openings deepens understanding of how planning cultures evolve and how alternative modes of spatial intervention take root within broader urban histories.

2720 | Katie OConnell, Jaime Lopez

Cities are burning, so let's go watch some movies

Contemporary planning practice faces a crisis of imagination. As perpetual crises dominate public discourse—from climate disasters to social upheaval—our collective capacity to envision alternative urban futures has diminished considerably. This paper argues that examining 'past futures' through both professional planning documents and popular cinema offers essential insights for rebuilding planning's imaginative capacities.

This historical analysis compares how planners and filmmakers from the mid-twentieth century to the present have envisioned urban futures, revealing parallel and divergent trajectories in professional and popular imaginaries. We examine visionary planning documents alongside science fiction films depicting future cities, analyzing how each medium constructed narratives of technological progress, social transformation, and urban possibility.

Our analysis reveals a striking divergence: while planning documents increasingly retreated from utopian thinking following critiques of modernist failures, cinema continued exploring radical urban possibilities—both utopian and dystopian. Films preserved space for imagining alternative urban worlds that planning's pragmatic turn had abandoned. Yet both mediums share assumptions about technological determinism and vertical urbanism warranting critical examination.

Drawing on experiential futures methodology and research demonstrating fiction's capacity to shape thinking through narrative transportation, we argue that structured engagement with cinematic 'past futures' can help planners develop 'narrative foresight'—the ability to imagine urban futures rooted in human values rather than technological determinism. By placing historical planning visions in dialogue with their cinematic contemporaries, planners can understand how professional and popular imaginaries shaped present realities while identifying suppressed possibilities worth recovering.

This comparative approach offers planning practice new tools for public engagement and democratic deliberation, potentially transforming how communities conceptualize and debate urban futures beyond crisis-dominated narratives.

2918 | John Sturzaker, Susan Parham, David Mountain

Futureproof new towns: International lessons on how to build flexible and adaptable new towns

This paper presents findings from new research, commissioned by the Royal Town Planning Institute (UK), on flexibility and indeterminacy in new town planning around the world. It is the result of a partnership between the RTPI Research and International.

Britain's new towns delivered around 1945-1985 were internationally recognised, but the country has very little contemporary domestic expertise in recent decades. The RTPI research project was conceived in the spirit of bringing learning from more recent non-UK expertise. In 2024 the UK government set up a task force to investigate the delivery of a new generation of new towns in England.

The research covers six case studies from Europe, Asia and North America, dating 1960s-present. It concludes with a set of cross-case themes and findings, from which two sets recommendations are derived, which promote best practice in the planning of future new towns. One set of recommendations contain specific asks of UK policymakers, and one set contains of internationally-applicable suggestions.

2957 | Marlon J. Brownsword, Adam Jasper

Red Planning Theory. A Brief Convergence of Cybernetics and Marxism in 1960s–70s Germany

In the concluding chapter of Architecture and Utopia (1973), Marxist theorist Manfredo Tafuri warned that architecture risked being subsumed under capitalist realism and losing its capacity to intervene in social conditions – a diagnosis often read as announcing the 'end' of architecture as a social agent. Yet in the same pages, Tafuri reflects on emerging ideas of "self-programming cybernetic systems" and the insertion of decision theory into planning. Referencing Horst Rittel and Max Bense, he notes that this level of rationalization still amounted to an "utopian model", whose promise exceeded its technical and political conditions. Recognising these limits opens space to rethink planning theory, past futures, and histories of rationalisation from their supposed closure. It was within this brief historical window that planning began to take form beyond reflecting a static moment of development and systemic stabilisation, moving toward a new political institution. While the postwar trend of cybernetics is often

understood as managerial, technocratic, or an "art of bureaucracy", more peripheral and radical adopters pursued Marxist readings of cybernetic planning theory. In West Germany of the 1960s and 1970s, the countercultural climate and communist critique – inspired by developments in the USSR and Marxist-cyberneticians like Georg Klaus – reached newly founded institutes of planning theory in the Federal Republic. Here, cybernetic management and politicised modelling techniques intersected in curious intellectual kitbashing. Cybernetics, a formal and abstract language, became not only descriptive but a medium for articulating competing political positions, including in the diagrams that structured planning logics. This contribution examines these politicised planning media and their diagrammatic techniques, arguing that the convergence of Marxist and cybernetic rationalities constitutes a past future that can inform planning theory today. Revisiting this constellation from the infancy of data processing may clarify whether its ambitions were irrational, utopian, or futures ultimately left untaken.

History, Heritage and Preservation

Tue 30.6.16:00-17:30, Histories, Y347 | Session chair(s): Laura Kolbe

1298 | Bernard Momer

Choreographic Governance: ANT, Legibility, and Civic Ritual from Renaissance Florence to Today

This paper treats history not as a static backdrop but as an active device within planning; something that choreographs behavior, orders space, and travels into present visions. Bridging Actor–Network Theory with Kevin Lynch's urban legibility, I develop "performative legibility," a framework that reads thresholds, ritual scripts, sensory governance, and inscriptions as mechanisms through which past spaces act in the present. Using two Florentine piazzas—Signoria and Santissima Annunziata—as comparative cases, I mobilize archival process-tracing, threshold mapping, and episode coding to reconstruct how proclamations from elevated platforms, bell cadences, processional axes, and stone plaques co-produced civic order, deliberately staging material/immaterial arrangements designed to pre-shape conduct.

The contribution to this track is threefold. First, it demonstrates how interpretations of the past, both disciplinary histories and popular histories, are translated into contemporary planning instruments. Second, it offers a transparent method for converting historical traces into analyzable public-space mechanisms, yielding a planner's toolkit: map thresholds; trace scripts across time; audit sound/light as forms of governance; read inscriptions and wayfinding as policy; align (or disrupt) axes of visibility to support inclusion. Third, it challenges nostalgic and static uses of heritage by foregrounding contested "counter-choreographies" (appropriations, dissent, informal use) and the ethical stakes of who gets scripted into, or written out of, public space.

By reframing piazzas as "ritual infrastructures," the paper shows how histories are made and remade in planning practice; how they guide contemporary decisions about participation, safety, and equity, and how planners can deploy (or unsettle) inherited scripts to cultivate more democratic, resilient public spaces.

1491 | June Komisar

Reshaping Brazil in the nineteen thirties and forties: Heritage preservation and Modernity during the Vargas Regime

Ouro Preto, a tourist city and colonial capital of Minas Gerais, Brazil is a deliberately curated historic city. Recently, historians have traced the removal or transformation of significant buildings in the city to forge a reconstructed image of this 18th-century mining town. Many factors contributed to this heritagization. This paper will examine some of the people, movements, and other forces that led to the transformations that occurred in Ouro Preto.

In the first decades of the 20th century, there was a movement to forge a Brazilian identity through a uniquely Brazilian modernism while at the same time there was an influx of European influences. The Semana de Arte Moderna (Week of Modern Art) in 1922 was a place to express such ideas. Shortly before, after traveling to Minas Gerais, one of the Arte Moderna organizers – the poet/historian Mário de Andrade – wrote about Brazil's eighteenth-century heritage in Ouro Preto, elsewhere in Minas Gerais, and beyond. Lucio Costa, the modernist architect, and others, then retraced Andrade's trips to historic Minas Gerais.

In 1937, Andrade wrote preparatory documents for the founding of SPHAN, a preservation agency that would help to define the national identity of the Getulio Vargas regime (1930 – 1945). Significantly, Lucio Costa then worked for this preservation agency. This paper will explore the possible relationships between ideas about Brazilian modernism that were in play by these two actors (and others) and the understanding of the colonial past as a symbol of national identity. How these factors may have affect the particular decisions that transformed Ouro Preto by the SPHAN architects and policy makers is a central question explored here.

1257 | Gernot Grabher

Innovation contra heritage? Tradition as selection environment in the radicalization of novelty

"Architecture has to blaze", proclaimed the founders of a young Viennese studio at the close of the 1960s - and blaze it did. What began with ethereal allusions to drifting clouds (and a studio name that already alluded to dissolution, i.e. "Coop Himmelb(l)au") escalated in the 1970s into open revolt. All the aesthetic conventions that had petrified into the Viennese architectural heritage of appeasing Biedermeier façades, in their view, had to be shattered in order to make space for an architecture that "bleeds". And from the passionate appeals for destruction it only took a small semantic leap to "deconstruction" - which turned into the signature design principle of an emerging global architectural avantgarde that swiftly admitted this studio into their ranks.

The bellicose denunciation of the archaic Viennese tradition by Coop Himmelb(l)au seemed to suggest just this: tradition is nothing other than obstacle, calcified by the stubborn defense of the status quo. And in an era fixated on speed, acceleration and the imperative to "think outside the box," this default perception of "tradition-as-constraint" appears even more incontrovertible: established practices and perspectives seem designed to stifle novelty before it can take root.

The proposed paper, however, invites a different reading of the interrelation between tradition and innovation. Rather than merely obstructive, robust traditions can constitute a harsh but productive selection environment: one that forces the purification, radicalization and toughening of emerging movements as they struggle against inherited forms. The trajectory of deconstructivism, as the empirical analysis shall elucidate, turned the field of architecture into a veritable battlefield on which the insurgency against antiquated conventions unfolded across four arenas: 1. AREAS (the anchoring force of place); 2. ACCOUNTS (the discursive labor of justification); 3. AFFECTS (the mobilization of passion); and 4. ARTIFACTS (the recoding of material expression).

2833 | Zeynep Gunay

Heritage Disembodied: From Glory to Dust

The paper position itself critically to reclaim heritage within the multi-crisis politics of oppression through the alternative imagery of the “dust". Dust, as "matter and metaphor" (Nassar, 2022), is the welcoming and exposing element of competitive urbanities and their peripheral contexts by encapsulating the stories of construction and destruction, after and before, material and immaterial, temporary and permanent, fiction and non-fiction in a way to disembody the "aesthetics and ethics of dust" (Otero-Pailos, 2022) in approaching the heritage politics and praxis. Breeding dust retrospectively in line with Istanbul’s trajectory of heritage politicisation upon manipulations by the power of contested state ideologies, the paper questions how might we, as urbanists and planners, tell the stories of the heritage from and within dust, while Istanbul’s heritage is under construction by “exploitation, marginalization, powerlessness, cultural imperialism, and violence” - borrowed from Young (1990).

Circulation of ideas in planning

Tue 30.6.17:45-19:15, Histories, Y347 | Session chair(s): Tiina Männistö-Funk

2035 | Maria Cristina da Silva Leme

Urban and agrarian reform in Latin American countries during the tumultuous years from 1950 to 1970.

Since the end of World War II, with the intensification of the Cold War, we have seen the creation of US and inter-American institutions to operate in Latin American countries.

I am referring in particular to institutions created with the support of the OAS, Organization of American States, such as the Inter-American Society for Planning (SIAP) and the Inter-American Center for Housing and Planning (CINVA), which operated in the field of urban and regional planning and housing policy.

Our research addresses how these inter-American institutions and institutions created in each country were structured and enabled the formation of networks of professionals and researchers around issues that bring together principles of urban reform and agrarian reform.

Between the 1950s and 1970s, reform initiatives in various fields of institutional action combined elements specific to each national reality and also between Latin American countries, including urban and land reform. The urban reform in Bolivia in 1954, the Cuban urban reform implemented in 1960 a year

after the victory of the Revolution, the inclusion of urban reform among the Reformas de Base undertaken by the government of President João Goulart in Brazil between 1961 and 1963, and the numerous attempts of urban reform in Colombia since 1961 are evidence of the emergence, relevance, and singularities of the processes of urbanization and social demands at that time.

The hypothesis of this research is that local political circumstances may have an impact on and influence the actions of networks of institutions, professionals and researchers in the formulation of urban and agrarian reform. As a method, the research seeks to explore the networks as contact zones, as proposed by Pratt (1992) , adjusting asymmetries and recognising areas of dispute and dialogue. The research, conducted in various collections, compares and complements information from institutional archives and newspaper collections.

2144 | Sofia Morgado

Costa do Sol: vision and collateral effects

This work explores the urbanisation of the Costa do Sol by structuring its narrative around three moments of most significant political impetus that drove territorial transformations. These three defining political periods are: the Constitutional Monarchy (1868-1908), the Estado Novo (1933-1961), and Democracy (1976-1994), up to the period of adaptation to the European Economic Community.

The methodology employed is based on a review of the literature, legislation, and historical documents, with particular focus on the digital municipal archives of Oeiras and Cascais. These archives provided essential documentation, including cartography, iconography, and urban planning materials, which enabled data correlation and confirmation of observations recurring in academia. Utilising a narrative review approach, the research also contextualised the process within the national and European political and economic contexts.

During the Estado Novo, starting in the 1930s, significant actions were taken to establish an institutional and legal framework for urbanism. This resulted in the Costa do Sol Plan (PUCS), which aimed to promote tourism and urban development from Lisbon to Cascais. While retaining the 1800s seaside spirit, the region was transformed by the introduction of modern railway infrastructure. The coastal geography favoured the creation of infrastructures and settlements that successfully blended the rustic and the urban, resulting in a suburban area of great social and economic importance. The region became associated in the collective imagination with a cosmopolitan, sophisticated seaside area featuring exclusive hotels and second homes.

Scholarly reflections, such as those by Souza Lôbo and Pereira, are crucial for understanding these urban plans, particularly those implemented during the Duarte Pacheco period. Their work highlights the fundamental role of political and economic influence in shaping urbanisation processes. However, intense development from the end of the 20th century onwards transformed the Costa do Sol into a diverse metropolitan front.

1048 | David Nichols

‘I have never seen anything as beautiful anywhere’: the international influence of Tapiola in the 1960s and 70s

The Finnish ‘garden city’ of Tapiola, 10 km west of Helsinki in Espoo, made its name early as a best-practice planned residential environment. Its progenitor, Heikki von Hertzen, was an adept publicist and advocate, not only for Tapiola but for his version of a postwar ‘garden city movement’. The message of Tapiola – that modern architecture and design utilising sympathetic, human-scaled natural space and amenities could produce ideal urban living conditions – was embraced around the world. Those inspired included not only architects and planners, but also politicians, journalists and students, and the praise extended beyond not only Finnish planning practice and the merits of the Tapiola project into praise for Finnish culture and social policy.

Visitors to Tapiola included two of mid-century Australia's best-known architects, Robin Boyd and Harry Seidler, but also amateurs such as Mrs. H. Hurst, a Viennese-born history teacher, and planning bureaucrats such as members of the National Capital Development Corporation in Australia's capital, Canberra.

This paper uses close examination of the Tapiola archives in KAMU, the Espoo City Museum, to explore the influence Tapiola exercised on the Anglosphere in particular, focusing largely on Australian visitors in the context of visits and enquiries from the USA, Canada and the UK. It looks at the impressions relayed by Australian visitors in the Australian press; the communications between von Hertzen and various Australian professionals; and the ways in which Tapioloa, and other elements of Finnish social and urban planning were reported. As well as the Tapiola archives it uses newspaper reportage, documents and photographs from visitors, and 1960s-70s plans and planning advocacy.

1732 | Jannik Noeske, Victoria Grau

Comprehensive Planning and (Inner) Peripherisation in Albert Speer’s General Master Plan for Berlin, 1937–1945 – and its Long Afterlives

Research and public discussion of Albert Speer’s work as "Generalbauinspektor" (GBI) for Berlin have long concentrated on the monumental schemes for the city’s centre, especially the North–South Axis. Much less attention has been paid to planning and construction at Berlin’s urban margins during the same period. This imbalance is striking: while the grandiose visions for the inner city largely remained unrealised projections of the Reich’s megalomania, the peripheral areas experienced extensive and lasting transformation.

My contribution links planning and building activities across both (geographical) centre and periphery. It first examines the outer Autobahn ring and the effective integration of Berlin into the expanding national highway network. It then situates contemporary settlement projects within broader urban and regional planning schemes. Finally, it analyses the "Lagerbauaktion"—the large-scale construction of temporary housing for forced labourers—framing it as an urban-planning task carried out by the GBI. Although most camps were built on the city’s outskirts, those inserted into the inner city exemplify a process that shaped Berlin more profoundly than the high-profile monumental plans: a process I propose to call "inner

peripherisation". Wartime demolitions, air-raid destruction, and the proliferation of barracks and temporary structures reshaped long-term urban development, yet remain scarcely acknowledged in Berlin's commemorative landscape.

To explore the entanglement of centre and (inner) periphery in Nazi-era planning, I focus on two sites: today's Kulturforum in central Berlin, and the region around Rangsdorf near the present BER airport. Both areas were intended to be linked by the extended North–South Axis and embody planning challenges that continue to trouble Berlin—legacies of the city's transformation under National Socialism.

2874 | Birgit Hausleitner, Alexander Wandl, Aleksandra Kurkierewicz, Anouck van 't Schip and Romane Sanchez Cornillot

Imagining Metropolitan Futures: How Past Strategic Plans Confront Today's Multiple Transitions

Cities worldwide are confronted by an accelerating set of complex and interrelated crises. Over the last 30 years, sustainability challenges in metropolitan development have shifted from a relatively singular focus on CO2 reduction and climate mitigation towards multiple transitions, including biodiversity loss, the circularity transition, housing crises, and the erosion of the public realm. Each of these has a strong spatial dimension, and their "solutions" often create conflicting spatial demands as well as possible synergies.

This paper investigates how past strategic spatial plans have imagined futures for European metropolitan regions, and how these "past futures" relate to today's multi-crisis context. We compare twelve metropolitan regions (Helsinki, Stockholm, Öresund, Hamburg, Amsterdam, London, Antwerp, Brussels, Lille, Frankfurt, Paris, Vienna and Lyon) through their last three strategic spatial plans. We analyse both the textual parts and the key maps and legends, focusing on planning ideas, visions and scenarios of metropolitan form, and the instruments proposed to realise them.

The results show that only a few metropolitan areas have developed integrated strategies that explicitly address multiple transitions, and most of these plans are from the 2020s. Earlier plans tend to focus on a future centred on international competitiveness, with climate policy mainly framed as CO2 reduction. More recent plans gradually incorporate biodiversity, circularity, housing, and public space, but often treat the energy and circularity transitions separately, and only weakly link climate adaptation with biodiversity restoration.

At the same time, we observe a "human turn": a shift from a dominant concern with global competitiveness towards greener and more equitable growth models, stronger attention to adequate and affordable housing, and more diverse forms of participation.

The study was commissioned by the Municipality of Amsterdam, which influenced the selection of metropolitan regions.

Insitutions, frameworks and professionals

Fri 3.7.09:00-10:30, Histories, Y347 | Session chair(s): Eduardo Nobre

2153 | Oliver Frayne

Reorienting Planning Practice Through Human-scale Design

As Canadian cities are mandated to build more, planners continued to be dogged by (intensifying) environmental, societal, and economic challenges. As a key profession that influences the physical, physiological, and psychological human experience of the built environment, it is useful to consider if planning-as-practiced has the creative capacity to address rising inequality, social isolation, food insecurity, sedentary lifestyles, increased traffic, and limited affordable housing options, for example.

I propose that a renewed centering of design in planning practice is a necessary reorientation of the planning profession that links two scales of city-making in Canada: broad, normative policy; and the grounded, material everyday human scale. I suggest that there is a persistent friction in the translation of planning policy into sensed, and lived, urban spaces that are generous, inclusive, and increase community and individual well-being. In the face of the numerous urban challenges, we cannot afford to plan and build spaces that neglect the human experience at a material micro-scale.

As an entry into understanding the historical relationship between planning and design in Canada, I examine a non-binding, but often present planning tool: the urban design guidelines. I investigate the origins of this document and use it as a proxy to better situate the human experience in planned Canadian urban life. Through a collation of urban design guideline image locations, I map the radii of precedents: how near or far do Canadian cities look for innovation in urban design? And what implications does this have for creative problem-solving in the urban Canadian planning context?

Insitutions, frameworks and professionals

Fri 3.7.09:00-10:30, Histories, Y347 | Session chair(s): Eduardo Nobre

2434 | Mattias Qviström

Rethinking integrated landscape approaches through its planning history: tracing conflicting landscape legacies of the National Spatial Planning in Sweden (1960s – 2020s)

Landscape and planning scholars alike have claimed the importance of integrated landscape approaches to manage complex socio-environmental challenges of today. However, these models tend to overlook the troubled legacies of past planning, including previous landscape approaches. By marginalizing this history, the landscape can be interpreted as a clean slate in terms of landscape planning and thus open for novel planning interventions. Yet, after decades of planning we are left with an intricate policyscape partly shaped by previous landscape interventions. If landscape is brought in to make a difference, to complement or contest the current administration and ways of thinking, it becomes the more important to tease out engrained scalar politics, jurisdictional frameworks, land-use patterns, and methodological approaches as a legacy that must be recognized and perhaps challenged. As an illustration, the paper teases out landscape legacies of the Swedish National Physical Planning, initiated in the 1960s, institutionalized in environmental and planning law in 1987, and subsequently challenged in several State reports. The study captures a heterogeneous legacy, a contested landscape with constructed absences,

and reveal how landscape approaches are coloured by politics and planning ideologies. The paper concludes with a discussion on how to rethink integrated landscape approaches through its lingering policyscape.

2941 | Yanchen Sun, Yan Chen, Xingyi Liu, Boyang Liu

From Imperial Legacy to Regulatory Modernity: The Institutional Evolution of Construction Governance in Modern Beijing (1900–1949)

The modernization of Beijing (1900–1949) presents a crucial case study in state-led institutional transformation, where the dissolution of China's millennia-old imperial spatial order necessitated a radical reconstruction of urban governance and the planned environment. This research traces the genealogy of construction management in the former capital, focusing on the dynamic interplay between internal political upheavals (the fall of the Qing and the rise of the Republic) and the profound influence of international planning movements, particularly those concerned with public health, infrastructure, and technical standards.

Drawing on extensive primary archival sources—including municipal gazettes, regulatory texts, and administrative records—the study demonstrates a distinct, three-stage evolutionary trajectory. The process began with rudimentary, security-oriented interventions under the late Qing police system (1900–1912), rapidly transitioning to a specialized, professional municipal administration (1914–1928). This culminated in the establishment of comprehensive technical codes, notably modern zoning, setback regulations, and building classifications, during the National Government period (1928–1937).

The analysis highlights how these statutory frameworks served as the primary, yet often contested, mechanism for restructuring the city's physical morphology. Ultimately, this paper argues that Beijing's modernization was fundamentally a shift in legal rationality: an attempt to establish a complex, hybrid governance model that struggled to reconcile the symbolic rigidity and monumental scale of the imperial tradition with the fluid, technical exigencies of modern urban functionality. This historical inquiry offers a valuable perspective on the unique challenges and outcomes of state-led institutional reforms within a non-colonial Asian metropolis under profound political and ideological transition.

1867 | Jonas Hallberg

From Urban Planning to Urban Design: The Fragmentation of the Swedish City

This research examines the historical development of urban planning in Sweden – from a holistic practice aimed at shaping the city as a coherent whole, to today's fragmented system of urban design. Using Stockholm as an example, it analyses how changes in Swedish legislation from the 17th century onwards – particularly the 1874 Building Decree, the 1931 Town Planning Act, and the 1987 Planning and Building Act – have gradually redefined or reinforced the purpose, content, and scope of planning.

Historically, urban planning emerged as a synthesis of technical, artistic, and social knowledge, seeking to integrate the morphological, aesthetic, and infrastructural dimensions of the city. Over time, however,

this holistic perspective was replaced by a more technical and functionally oriented form of regulation – urban design – in which the city is treated as a collection of separate, project-based parts.

The research argues that this conceptual and legal transformation has contributed to the contemporary fragmentation of the city, making it increasingly difficult to plan for the city as an integrated whole. Through a historical analysis that considers both incremental adjustments in legislation and planning practice as well as more fundamental shifts, the research demonstrates how planning instruments intended to promote sustainable development – today exemplified by the detailed development plan – often risk undermining this goal in practice by prioritising procedural efficiency over spatial coherence.

Finally, the research raises the question of whether it is at all possible to achieve the sustainable city using the planning tools provided by current legislation. By reconnecting with the historical understanding of urban planning as a holistic practice, we may better understand how the cities of the future can be shaped as coherent and sustainable entities.

1840 | Marina de Castro Teixeira Maia

How to Talk About Plans: Urban Plan-Making as an Epistemic Practice in Porto Alegre, Brazil

Scholarship has pointed out that the planning historiography in Brazil is markedly empiricist, often flattening heterogeneous epistemic practices and artefacts under the broad umbrellas of “planning” and “urban plans”. This gap guides the study, which focuses on answering the question: How can one produce an epistemic description within a historical account of urban plans and their making? A historical-analytical methodology is therefore proposed that treats urban plans as epistemic artefacts by revisiting two emblematic episodes in the history of Porto Alegre, Brazil: the production of the 1914 Plano Geral de Melhoramentos e Embellezamento (PGME) and the 1979 Plano Diretor de Desenvolvimento Urbano (PDDU). The history of these moments is approached through the mobilization of two frameworks: models and “model-thinking”, from the philosophy of science tradition, and the sociotechnical imaginaries (STIs) concept from the field of science and technology studies (STS). This configuration examines the epistemic practices embedded in the construction of each artefact, while situating those operations in the co-produced technological, cultural, and institutional arrangements of each historical time. The analysis shows how the PGME environment – projecting a hygienist, physicalist imaginary – issued a design-based scale model for circulation, sanitation, and “beautification” single-purpose interventions, while the PDDU produced a governance framework heavily influenced by systems thinking and technocratic values, which sought to translate urban life into manageable and quantifiable regulatory units. This reading demonstrates how plans should not be solely understood and historicized as self-evident technical devices, but rather as historically situated epistemic constructions. More broadly, the study underscores the contributions that STS can offer to planning theory and historiography and, more specifically, offers a situated analytical lens for describing plan-making practices epistemically, paying closer attention to the knowledge regimes within which such practices are forged.

Planning theories and models

Fri 3.7.11:00-12:30, Histories, Y347 | Session chair(s): Panu Savolainen

2397 | Gianni Talamini

Organic urbanism: Alvar Aalto's forgotten lesson

Alvar Aalto, Finland's most renowned architect and designer, has long been celebrated for his organic approach to architecture; however, his contribution as an urbanist has hitherto been neglected in planning historiographies. Aalto's biographer and close friend, Göran Schildt, suggested that planning was Aalto's primary task as he conceived buildings as components of the Finnish natural landscape. Nevertheless, as of today, no significant attempts have been made to systematically investigate the Aaltian urban planning corpus and draw a contemporary lesson from it.

This research relies on archival materials, writings, speeches, and planning schemes, aiming to reposition the work of Aalto between the mid-1930s and the mid-1950s as the historical moment in which the first coherent conception of organic urbanism was proposed within modern planning. Moreover, this research traces the transnational migration of planning ideas, which occurred during Aalto's time at MIT in the 1940s; analyses the morphology of the constitutional elements (buildings and related open spaces, lots, and streets) of plans and urban design projects drafted between 1934 and 1956 to individuate generative patterns at different scales (building/lot, street/block, city, region) and proves the hypothesis of their being homothetic; and, demonstrates Aalto's organic planning proposition resulted from the spatial integration of the built environments with the forest at multiple scales.

This research provides robust evidence on how Aalto scaled up the conception of organic urbanism from the architectural to the planning realm, approaching territorial development from a spatial and material perspective. The significance of this research does not lie solely in rehabilitating Alvar Aalto as an urbanist; the findings, when applied to current planning approaches, can provide an alternative to the haphazard suburban development that produces alienating living and working conditions.

2409 | Maria Käpyvaara, Veera Moll, Tiina Männistö-Funk

The institutionalization of zoning for parking policy in Finland from the 1950s to the 1970s

This presentation studies the establishment and institutionalization of zoning for parking policy in Finland through the perspective of historical institutionalism. Zoning for parking is a policy where parking space requirements are set for various types of land-uses such as housing or offices and regulated using land-use plans. Various archive materials were used to identify key actors, their aims and processes of arriving to the policy. The study shows that The Union of Finnish Towns was the key actor in the adoption of the policy during the 1950s. It was able to exert a strong influence on the new Building Act passed in 1958. While adopting national parking policy was not a central goal for the Union, it championed the zoning policy as an additional technical issue. The rationale behind this was not to promote automobilization but to ensure effective planning instruments for the cities to react to new urban technologies. This core logic and mindset is observable also in the eventual devolution of the policy into cities' minimum parking standards in the 1970s in the case of Helsinki where the first local parking standards were passed in 1974. While some critical perspectives to automobility had emerged in Finland by the 1970s, ensuring

parking facilities with generous minimum requirements was justified in Helsinki by the idea of avoiding undesirable general impacts to the city of unplanned increase of cars.

1836 | Tiina Männistö-Funk

Of cars and ducks

Parking facilities are at the core of the transport system based on private motorization and have been a major question of urban planning for the last hundred years. However, parking has remained understudied, in comparison to other large-scale infrastructure of automobility, such as roads and highways. In this presentation, I study the history of one parking facility, a massive underground cave that was to be placed under Töölönlahti, a central seawater bay in Helsinki, Finland, and would have fitted up to 20 000 cars.

Between 1963 and 1971, plans to build this cave circulated in media and in the governing bodies of the city. Although the cave was in the end not constructed, it sparked plans and public discussion that offer a possibility to study the thinking and argumentation around parking infrastructure in the time period of rapid motorization and urbanization. It offers a perspective into the past future that was envisioned around a certain type of technocratic automobility that soon came to be replaced by a more fractioned, market-based automobility solutions, some of them also hidden underground.

Using Brian Larkin's concept of "political aesthetics of infrastructure" and combining it with Wiebe E. Bijker's concept of "technological frame" I study which technological assumptions, expectations and promises were aesthetically envisioned and mediated in the plans and discussions, and with what kinds of results. By demonstrating the collision of the planned solution with another political aesthetics, that of ducks, the actual users of Töölönlahti bay, I argue that local histories of planned parking offer new, illuminating perspectives into the transnational history and present day of automobility and its urban infrastructures.

2516 | Jason Finch

Crossing out the Tracks: Harland Bartholomew and the Lack of Urban Rail Transport Planning in 1950s America

Post-World-War-Two American city planning texts do not address rail transport planning so much as they evade it. Understanding this aids the development of alternative mobility narratives in the twenty-first century, contributing to sustainable transport planning. In the 1950s, the American industrial and port cities of New Orleans and St Louis faced population decline and disinvestment driven by stagnating tax revenue. They also had access to Federal funds as never before. My paper uses techniques from the urban and mobility humanities to examine two cartographic representations of these city regions, one published in 1950 in the St. Louis Post-Dispatch newspaper and the other appearing in the 1959 "General Plan, New Orleans East". The analysis builds on planning and archaeological perspectives on the two urban areas developed in research by Joseph Heathcott, Máire Agnes Murphy, Colin Gordon and D. Ryan Gray. Both maps derive from the ideas on planning of Harland Bartholomew (1889–1989), whose private practice grew from his position as chief planner and city engineer of St Louis from 1917 until the mid-

1950s, the business lasting well into the 1970s. In the paper, following research in the archives of Bartholomew's firm, I contextualise these representations by putting them into separate but linked discussions: of each city region's mid-twentieth century and longue-durée histories; of the representations as exemplifying Bartholomew's thinking on planning, developed in his civic governmental role, which in his private practice he was able to sell in to city governments and broader agencies throughout the United States. Rail, especially freight rail, was vital to the economies of both cities, yet it is emphasized in neither representation. Work on Bartholomew has tended to concentrate on his role in exacerbating residential segregation on racializing grounds; my paper instead traces the presences and absences of rail transport in these planning texts.

2330 | Sanaz Alian, Stephen Wood, Jesse Dick

From Grids to Growth: Mapping, history, and planning transformations in Armidale, Australia

Planning in regional towns is often deeply intertwined with the production, interpretation, and mobilisation of history. The regional town of Armidale in NSW, Australia is long recognised for its heritage architecture, educational institutions, and layered cultural narrative. This paper critically examines how competing histories are invoked, contested, and embedded in planning processes by tracing the evolution of Armidale's mapped landscapes, subdivision patterns, and land-use transformations over time.

The study focuses on how historical and contemporary maps reveal shifting priorities in the allocation, fragmentation, and consolidation of land. While the focus is on the main street in Armidale (as the first pedestrian mall in NSW), this project also looks at the residential lots and pre-urban areas. These cartographic changes illustrate how colonial land claims, early township grids, pastoral subdivisions, and more recent planning interventions have cumulatively shaped the spatial form of Armidale. By analysing the changing delineation of lots, reserve boundaries, and civic precincts, the paper highlights how maps function not only as technical planning tools but also as instruments that embed particular historical narratives while obscuring others.

Drawing on document analysis and cadastral maps, the research investigates how heritage narratives, Indigenous histories, and local memory intersect with planning agendas that seek to repurpose or intensify land. It identifies moments where historical mapping has been selectively mobilised to justify redevelopment or preservation, as well as instances where alternative historical understandings challenge dominant spatial logics.

In short, the paper demonstrates how creation, omission, and reinterpretation of mapped histories materially shape planning outcomes in Armidale. It argues that critically engaging with the historical geography of towns is essential for developing more inclusive, equitable, and contextually grounded planning practice in regional towns navigating tensions between preservation, growth, and diverse communal histories.

Track 8: Ethics and Values

Track chairs: Stefano Cozzolino, Binita Mahato, Hanna Mattila, Päivi Kymäläinen

Inclusion and equality

Tue 30.6.14:00-15:30, Ethics and Values, U405a | Session chair(s): Hanna Mattila, Stefano Cozzolino

2364 | Arianna Brestuglia

Making urban regeneration just: Integrating social impact evaluation into decision-making

Urban regeneration has increasingly been framed as a key strategy to address contemporary urban challenges (including climate pressures, socio-economic inequalities), yet its capacity to generate socially just outcomes remains unequal. While regeneration projects often prioritise physical redesign and economic returns, their social impacts are rarely assessed during decision-making, resulting in risks of exclusion, privatization, and the marginalisation of existing communities. This contribution argues for the integration of social impact evaluation as an ex-ante and in-process device capable of reorienting urban transformations toward justice, inclusivity, and the production of collective value. Building on recent literature and ongoing research, the paper proposes a combined methodological approach that brings together the quantitative orientation of Social Return on Investment (SROI) and the qualitative, multi-actor perspective of Community Impact Evaluation (CIE). The former provides a communicable and comparable assessment of the social value generated by interventions, while the latter captures the complexity of processes, stakeholder perceptions, distributive effects, and the situated knowledge of local communities. When embedded within participatory pathways, these tools allow planners and institutions to anticipate risks and opportunities, co-define priorities, and make visible both the tangible and intangible effects of urban change.

Positioning social impact evaluation as a political and ethical practice, rather than a purely technical measurement, helps establish a shared language through which institutions, practitioners, and citizens can discuss alternative scenarios, negotiate conflicts of value, and collectively envision desired futures. In this sense, evaluation becomes a mechanism of learning, recognition, and redistribution. The paper contends that integrating SROI and CIE in early design phases strengthens the capacity of planning to address questions of equity, inclusion, and value redistribution, contributing to an impact-oriented approach to urban regeneration. By foregrounding social impacts, the contribution advances a planning perspective that prioritises well-being, equity, and the co-production of more just urban futures.

1741 | Rylan Graham, Ryan Walker

Revitalization without Displacement? An assessment of justice, equity, diversity and inclusion in downtown plans in Canada

Across Canada, planners have long focussed their efforts on downtown revitalization – aiming to reverse disinvestment and decline. Downtown revitalization strategies frequently champion market-oriented approaches, aiming to attract private investment. While these strategies can stimulate economic

development, they also run the risk of exacerbating social inequities. Neil Smith's rent gap theory (1979) provides a framework to understand this process, explaining how reinvestment trickles into neighbourhoods where the potential ground rent exceeds current returns - to the detriment of lower-income populations and small businesses.

Given this, it is important to evaluate whether downtown plans consider social equity and inclusion. This study uses Susan Fainstein's Just City framework (2014) to critically examine whether downtown revitalization plans in mid-sized and large Canadian cities incorporate principles of justice, equity, diversity, and inclusion (JEDI). In particular, it assesses whether planning positions the future of downtown in a way that aligns with the ideals of a Just City.

To do so, this research employs a comparative case study approach, using content analysis to assess the presence and framing of equity-related policies and initiatives within downtown planning documents. By examining multiple urban contexts, the study identifies patterns, gaps, and variations in how social equity is folded into official planning documents.

These findings contribute to a deeper understanding of how Canadian cities envision the future of their downtowns - not just as centers of economic activity, but as socially inclusive environments. The research highlights opportunities for integrating JEDI principles into urban planning practice, offering guidance for planners seeking to balance economic development with social justice.

Work Cited

Fainstein, S. S. (2014). The just city. International journal of urban Sciences, 18(1), 1-18.

Smith, N. (1979). Toward a theory of gentrification a back to the city movement by capital, not people. Journal of the American planning association, 45(4), 538-548.

2215 | Naka Matsumoto

Local Schools as Safe and Trusted Space in the face of Crisis: A Case from Baltimore City, U.S.A.

Schools are fundamental institutions within neighborhoods, serving not only their traditional roles in education but also as critical support hubs for immigrant families and low-income populations(Forrester et al., 2020; Vincent, 2006). In diverse urban areas such as Baltimore City's Southeast district, public schools have provided trusted spaces where families can access vital information and services in addition to education. For many immigrant families, schools are essential entry points into the broader community, offering support that extends far beyond the classroom (Bierbaum et al., 2023).

This study examines the role of public community schools—and their collaboration with nonprofit and faith-based organizations—during two recent crises: the COVID-19 pandemic and the sociopolitical turmoil triggered by a new federal administration's anti-immigrant policies in the United States. While Southeast Baltimore is home to a highly diverse population, crises such as these exacerbate existing challenges, including fear, misinformation, and discrimination, increasing the vulnerability of minority

and immigrant communities. Understanding how public schools and other organizations respond in these contexts is critical for ongoing and future events.

Based on qualitative interviews conducted between 2023 and 2025 with representatives from schools and NPOs, this research explores how these institutions addressed the crises. Findings reveal that although social divisions between various groups became more pronounced, partnerships between schools and other organizations deepened. They worked collaboratively to implement holistic, coordinated responses that addressed residents' urgent needs.

This case highlights the evolving role of public schools and other organizations as central pillars of social infrastructure in diverse urban neighborhoods. Their ability to foster trust and act as reliable, culturally responsive sources of support underscores their essential function during times of crisis. However, the findings also suggest that without sustained collaboration among a broad range of organizations and more powerful institutional protection, these efforts risk losing their effectiveness.

2452 | Jacob Bjerre Toft Mikkelsen, Ida Sofie Gøtzsche Lange, Greta Samulionyté

Enhancing social inclusion in common space design in social housing areas

This presentation explores unfulfilled potentials of common spaces in social housing areas. It is argued that these common spaces have potential to enhance social sustainability and propose to unfold these potentials through inclusive interventions. Social housing areas are to various extents socially and culturally isolated neighborhoods in the city questioning ethics and justice in relation to accessibility, mobility, public amenities etc. Social housing areas have a larger share of socially disadvantaged and marginalized groups (including vulnerable citizens, disabled, refugees as well as children and senior citizens in a broader sense) and are therefore interesting cases for researching ethics and values in design of public domains, where different social groups interact.

Focusing on a specific common space in a social housing area in Aarhus, Denmark the presentation evaluates previous interventions based on data collection through surveys and interviews on site. This space is chosen for its potential to connect places and people locally but also acting as a link between the city and the social housing area. Using these preliminary results a framework for further research and interventions is put forward. Theoretically the work draws on theories of public space, mobility justice, universal design and inclusive and participatory design. This approach entails an interdisciplinary mix of methodologies from social science, anthropology and urban design. The analysis and mappings of this proposed phase are then activated through co-creation workshops with inhabitants to explore new ways of designing common spaces. This part of the presentation will draw upon reference cases from other social housing areas in Denmark. This future work will result in design principles applicable in other social housing areas across Europe.

1432 | Tzu Hsuan Huang, I Hsuan CHEN

Adolescents' Perceptions of School-Adjacent Leisure Spaces and Their Relationship with Well-being and Social-Emotional Learning

With contemporary lifestyle changes, the time and spatial opportunities for outdoor leisure have decreased for adolescents, despite it being a crucial stage for their cognitive and emotional development. The frequency of outdoor leisure activities, spatial accessibility, and space quality are closely related to adolescents' well-being. Although Taiwan's spatial planning regulations specify the total area and location of public leisure spaces, such as parks and sports facilities, they do not necessarily reflect the subjective needs of adolescents. Considering the prolonged school hours, the prevalence of after-school tutoring, and the age restrictions on driving licenses—all limiting autonomy—it is uncertain whether adolescents truly have sufficient leisure time and accessible leisure spaces.

Therefore, this study adopts a user-centred subjective perspective to address this planning gap. We adopt cognitive mapping with junior high school students in Taiwan to identify discrepancies between students' perceived distribution of leisure spaces around their schools and the formally planned areas, thereby capturing their lived experiences and imagination of their environment. Subsequently, a questionnaire is administered to assess students' perception of spatial accessibility, leisure time sufficiency, and satisfaction. We then analyse the relationship between their subjective perceptions of leisure opportunity and quality, subjective well-being, and social-emotional learning.

The study aims to reveal how structural inequality inherent in current spatial planning, particularly discrepancies between planned provision and effective access, affects students' psychological development and well-being. Academically, this study offers an interdisciplinary perspective bridging spatial planning, education, and psychology. Practically, it aims to foster cross-sectoral dialogue for future leisure space planning, using a user-centric lens to promote planning ethics and ensure equitable access to leisure benefits, ultimately enhancing adolescents' mental health and social welfare.

1646 | Tirtha Rasaili, Katarina Andersson

Peripheralization of older people's voices in the municipal planning process: Is just planning justly arrived?

The inclusion of marginalized groups in the co-production of planning policies and the built environment has been a key challenge for planning theory and practice for decades. Despite significant transformation, institutional limitations and the persistent peripheralization of marginalized voices continue to undermine the procedural justice dimensions of planning. With the neo-liberal turn of planning ideals and the new landscapes of demography with its ageing population, addressing the intersecting voices of older people, as marginalized others, has emerged as a new frontier of spatial justice. In the Swedish context, where one-fourth of the population is above 65 years old, their participation and influence in the co-production of planning policies and the built environment have become critical planning concerns.

In this context, this paper aims to assess the extent to which older people participate in and influence the municipal planning process and outcome. The study draws on policy analysis of comprehensive plans,

qualitative surveys, and follow-up interviews with municipal planners and representatives of senior citizens' councils across eight Swedish municipalities. A conceptual condensation of the procedural dimension of spatial justice, drawing on Sherry Arnstein's ladder of participation, Susan Fainstein's 'just city' concept (participation), and Nancy Fraser's 3R (representation), is used to critically assess how the voices of older people with intersectional identities are acknowledged/recognized.

The study tends to show that older people participate through symbolic consultation delegated through senior citizens councils. It appears that older people are invited and consulted, but they do not have a meaningful influence on the planning process and outcomes, whereas planners have limited discretion and resources to promote meaningful participation. Such unjust participatory practices seem to be embedded within institutionally asymmetric power structures. The paper highlights the urgency of rethinking institutional structures and suggests ways to ensure the equitable participation of marginalized groups, i.e., older people.

Values and co-existence

Tue 30.6.16:00-17:30, Ethics and Values, U405a | Session chair(s): Stefano Cozzolino, Stefano Moroni

2759 | Emma Regina Morales

Rethinking the planning paradigm in the face of urban exclusion in Mexican Metropolises

Institutional Planning is relatively new in Mexico; the first urban comprehensive Planning effort emerged in the heart of the "Habitat I" agenda in 1976. The Planning paradigm, following trends from the Global North, required new legislation and the creation of government agencies. Professionals led the process with very high expectations of what Planning would bring to the nation during the process of urbanisation. Their vision had a social component that would later change significantly during the transition to a more neoliberal and technocratic approach in the 1980s and early 1990s. This paper emerges in the process of evaluating institutional planning in Mexico on its 50th anniversary. The discussion is based on the preliminary findings of the research project "Rethinking planning in contexts of urban exclusion" in which two Mexican metropolises are analysed to identify how the "good" and "orderly" planning proposals not only created a more chaotic urban environment but also facilitated a more unequal urban environment.

2878 | Ashton R. Rohmer

Against Car Supremacy: Reclaiming Shared Streets through Quotidian Care

Car-centric planning practices have had a profound impact on modern life, restructuring urban environments, reshaping social norms, and reinforcing widely normalized harms - from public health and environmental impacts to neighborhood disruption and resource conflicts. Existing explanations for car dominance focus primarily on macro-level forces such as a globalized political economy, technological 'progress,' and state-imposed regulatory regimes. While important, these accounts overlook the micro-level mechanisms by which car culture is socially constructed: everyday beliefs, behaviors, and narratives that perpetuate a modal hierarchy prioritizing private vehicles over other modes of movement.

This research develops the ideology of car supremacy as a critical theory to account for the sustained dominance of cars in contemporary society. Drawing on critical discourse analysis of public witness testimonies in Washington, DC, I examine how individuals use discursive power in public forums to maintain a mobility status quo that privileges driving, assert social dominance to marginalize other road users, and leverage ideology to influence both policy and social norms. Complementing this, my findings from ethnographic observation of volunteer-led "bike buses" - community rides that provide safe, caregiver-led routes for children - demonstrate how everyday mobility practices can enact alternative pro-social futures. These grassroots practices reclaim streets as sites of connection, care, and civic life, offering a new moral imagination for the appropriate uses - and users - of our streets.

By foregrounding relationality, care, and civic stewardship, this project highlights the ethical stakes of urban planning: streets are not only sites of movement but also spaces where collective action can foster community wellbeing, social inclusion, and democratic engagement. This work contributes both theoretically and empirically to planning scholarship by showing how ordinary mobility practices illuminate what streets could become - safe, accessible, socially generative, and aligned with the values of a more just and peaceful urban future.

2533 | Dr Karen Ray

"It's All Subjective": Why We Should Care About Landscape Values

In 2017, one of Ireland's most beloved journalists and artists, Michael Viney, in one of his compelling articles in The Irish Times, asserted how "We're all lost without a national landscape map of Ireland", and that "the lack of such a map is to the detriment of good planning and landscape policy". As was the case for many European countries, signing up to the European Landscape Convention 2000 brought new meaning to landscape, not least in terms of its spatial inclusivity, and yet Viney's views remain relevant. We may not necessarily be 'lost' all the time, insofar as we have many good planners and other professionals on the ground making good decisions every day about landscape change. Where landscape change centres on everything we can see on a map, the process can be quite smooth, especially if good clear planning policy can be drawn upon, and when more obvious values and designations around typically scenic topography and recreational amenity are present.

But Viney, like many landscape writers, expressed an understanding of landscape that embraced deep subjectivity and often complex relationships with our surroundings. When less traditional values, often absent from maps but enduring beneath the surface, are contested then the true effectiveness of planning policy and planning judgement is tested. In the face of mounting needs for co-existing with strategic projects and accelerated development in Ireland, the issues that emerge when complex landscape values are not engaged with are being re-realised at local, regional and national levels. This paper reflects on a range of planning cases where landscape values, in their most subjective form, have had a substantial bearing on decision-making. It offers insights for Ireland's next steps following the failures of the now expiring National Landscape Strategy 2015-2025.

2700 | Büşra İnce

Religion-based intentional communities as value-driven entities: a socio-ontological framework for territorial decoding

Religion-based intentional communities are strongly value-driven entities. Cosmological positions shape both their internal communal order and their external relations. By adopting or rejecting multilayered value systems, these communities may be distinguished based on how they position the sacred (i.e., immanent or transcendent), how they determine their central dominant values (i.e., anthropocentric, theocentric, ecocentric), and how they commit to sacred epistemes (i.e., covenantal, charismatic, rational–ethical). This study offers a socio-ontological framework to systematize these characteristics and to investigate how different religious traditions (i.e., Christianity, Judaism, Islam, and Buddhism) inform the constitution of intentional communities. The research relies on a critical inquiry into the literature on "religion-based" and "intentional" communities, complemented by a systematic review of cases and a mixed-methods analysis. The mixed-methods approach further examines how these typologies translate into territorial expressions and multilayered modes of material production. By decoding value-driven formations, the study identifies both the peculiar elements that distinguish religion-based intentional communities and the generalizable ontological patterns, as well as their locational and territorial strategies across varied community models.

1359 | Karl Kim

Rethinking Resilience, Recovery and Restorative Justice

Reviewing recent disasters across the planet, driven by climate and extreme stressor, this presentation challenges us to rethink resilience and crisis response. In addition to structural inequities, the need for place-based approaches for planning and managing disruptions and extreme events require new approaches to collaboration and building transdisciplinary bridges and pathways. Resilience requires both effective assessment of hazards and risks but also support of planning, deliberation, decision-support and adaptive behaviors. The need to promote continuous learning and adaptation in both formal educational settings but also in agencies, businesses, and communities relies not just effective communications but also deeper ways of knowing, understanding and integrating place based knowledge and pathways for achieving and measuring progress. While disasters overwhelm local capacity and there is need for mutual aid and outside assistance, we need mutual aid agreements not just for response but for recovery planning and restoration of places harmed by extreme events. The challenges for island and remote rural communities mean that there are unique lessons and practices informed by isolation and limited connectivity which are relevant to rethinking of resilience. The goal of this presentation is to not only understand and highlight the practices and experiences of remote, rural and island communities but to translate the values, behaviors, practices and policies into resilience for other at-risk communities. In addition to managing supply chains and the efficient movement of goods and services necessary for survival and sustainability, renewed resilience requires commitment to learning, justice and truly building back better after disasters and disruptions.

2148 | Giovanna Marconi

From Neutrality to (In)Justice: The Ethical Implications of Politicized Planning Tools Used to Hinder Minorities' Access to Places of Worship

Across Europe, the rise of religious diversity linked to increasing migration has intensified ethical debates on justice and recognition in local policies and planning. In Italy, unexpected and rapidly growing religious pluralism is tied to the migration flows the country experienced since the 1990s and the opening of new places of worship has become a highly contested issue.

Although the Italian Constitution guarantees religious freedom and the right to assemble to exercise it, the widespread politicization and mediatization of migration—framed as a permanent emergency rather than a structural component of society—have enabled some regional governments and local administrations to deploy urban planning instruments as tools of exclusion. Zoning regulations, change-of-use procedures and "security" requirements are often mobilized in response to pervasive Islamophobia, xenophobia, and anti-immigration narratives. Yet their restrictive effects extend to all religious minority groups.

This paper examines how planning regulations can produce structural injustice when technical tools are politicized to limit the right to the city. Drawing on policy analysis and case study of the multicultural neighbourhood Arcella in Padua, the paper shows how discriminatory regulations and administrative barriers can push religious minorities into invisibility, forcing them to operate in semi-informal conditions under the guise of cultural associations. In Arcella, the concentration of worship spaces within a secluded former industrial compound—later physically walled off from the surrounding neighbourhood by the municipality—illustrates how planning decisions can generate socio-spatial fragmentation, undermine recognition, and erode publicness.

Integrating insights from planning ethics, spatial justice theory, and empirical fieldwork, the paper argues that urban planning cannot and must not legitimize exclusionary socio-political stances. Instead, it calls for an ethical and justice-oriented approach that recognizes religious diversity—and the right to collective spaces to practice it—as a legitimate public need, ensuring that planning instruments promote inclusivity rather than being exploited as covert mechanisms of discrimination.

AI

Thu 2.7.11:00-12:30, Ethics and Values, U405a | Session chair(s): Paulo Nascimento, Busra Ince

1723 | Theodore Lim, Kristi Currans

Planning ethics and AI: Moving beyond a 'problems with the technology' framing

Generative artificial intelligence (genAI)—referring to the artificial intelligence models with capacities to mimic products of human creative thinking processes, such as writing and image production—poses ethical issues for planners. Based on a review of planning literature and an inventory of municipal-level genAI policies, however, emphasis on the ethics of AI in planning has primarily been framed as a "problems with the technology" issue. For example, that genAI reproduces human biases, is trained on data that are non-representative of societal diversity, produces high water and energy demands, and may produce inaccuracies for which society does not currently have the accountability structures to manage.

In this paper, our focus is on understanding the landscape of planning ethics—a much broader field than that defined by problems with genAI technology—and determining how generative AI fits into this landscape. We intentionally use the term "planning ethics," after Martin Wachs' characterization, that planning ethics reflects that our actions as planners reflect human values, representing what we see as right versus wrong, or society's priorities. We characterize major normative planning frameworks by broader orientations of ethical philosophy, including: teleological, deontological, and relational and value ethics, and show how the planning literature and municipal genAI ethics guidelines map onto a very small portion of the landscape of planning ethics. We use our map of the planning ethics landscape to consider key ethical tradeoffs that planners may face in relation to genAI, and to suggest how planners can identify easily overlooked ethical implications of genAI use in practice.

2205 | Brett Allen Slack, Viola Schiaffonati

AI-enhanced Support in Urban Homelessness Services: The Role of Privacy

Homeless service agencies in cities across the Western world are beginning to turn to AI-enhanced algorithms and models to help optimally match clients with their scarce housing resources. Though many of these technologies are implemented merely as decision aids for case managers, they have significant operational consequences. These include the way that such agencies in-take clients and allocate various government housing resources, especially permanent supportive housing, shelter, and rapid-rehousing. This research builds on previous work in AI urbanism to understand how the use of AI in the allocation of spatial resources can affect privacy. More specifically, the research probes the ways new technologies can affect the privacy of the homeless as they seek housing support from local government infrastructures.

To examine this question in greater detail, this research engages proponents, creators and practitioners of these AI-enhanced algorithms and models. Case managers, city officials, developers, and researchers are interviewed to understand how they conceive of and deal with several issues: 1) the privacy rights of the unhoused; 2) the kinds of changes to privacy for the homeless that these professionals foresee; 3) what they perceive as the value of these technologies; and 4) how they measure that value against any privacy drawbacks. Interviewees are chosen from a pool of those working on AI-enhanced algorithms and models for homelessness services in two example cities – one small city in Canada and one large city in the US.

An analysis is subsequently made – based on interview insights, as well as an analysis of the socio-spatial conditions of homelessness, the governance frameworks, and supportive housing resources in these two cities – of how privacy for the homeless is currently dealt with when utilizing AI-enhanced technologies in homelessness services. In addition, further areas of inquiry for privacy policy in this setting are also explored.

2568 | Erica Ventura, Davide Vettore

Synthetic Data in AI-Driven Cartography: Reflections, Ethics, and Open Issues

The growing integration of artificial intelligence into modern cartography is transforming how spatial knowledge is created, verified, and used in planning practices. Synthetic data—statistically generated samples designed to mimic real-world conditions—now play a strategic role in filling informational gaps and supporting applications such as land-cover mapping, 3D reconstruction, and automated recognition of built heritage. However, their increasing use raises a fundamental ethical concern: when plausible information becomes operational within planning systems, how can fairness, transparency, and epistemic justice be maintained?

Building on debates from critical and communicative cartography, this contribution examines the ethical implications of the reality gap—the divergence between observed phenomena and representations generated algorithmically. While synthetic datasets can enhance equity by reducing territorial disparities in data availability, they also risk reinforcing opacity, bias, and "model collapse" when used without clear validation protocols. These dynamics are particularly relevant in planning contexts where decisions produce uneven externalities across different communities and territories, raising questions of recognition, inclusivity, and responsibility.

The paper proposes to reframe synthetic data as informed hypotheses rather than substitutes for empirical evidence. Through a discussion of recent advances in synthetic data generation, domain randomization, and explainable AI, it argues for minimum ethical standards in cartographic production: explicit traceability of data sources, transparent documentation of modeling processes, and the combined use of synthetic and real data to avoid recursive distortions. Such practices can help ensure that AI-assisted cartography remains accountable, scientifically grounded, and aligned with principles of justice.

By situating cartographic innovation within the broader debate on ethics and values in planning, the contribution highlights how emerging geospatial technologies can either exacerbate or mitigate inequalities. The challenge is to develop mapping practices that support equitable decision-making while acknowledging the cultural, social, and political dimensions of spatial representation.

1635 | Anthony Vanky, Timothy Small, Matthew Bui

Ethnoburbs and Invisible Enclaves: Describing Ethnic Place-making through Artificial Intelligence

The formation of ethnic enclaves in the United States often followed larger patterns of urban development. Whereas early communities such as the coastal Chinatowns were often dense, legible neighborhoods, groups arriving in the late 20th and early 21st centuries followed patterns of American suburbanization. These "ethnoburbs" embody similar complex social relationships as older or coastal enclaves but often lack clear spatial and territorial boundaries that make them legible. Despite containing businesses, community spaces, and resources for minoritized (sub)communities, these spatial enclaves may be rendered invisible due to the dispersive physical character of these suburbs and peripheral landscapes.

This paper discusses efforts to use artificial intelligence to enumerate the degree to which ethnic communities have claimed and marked physical space. Specifically, this project attempts to use computational tools to analyze characteristics of text and signage in physical space in current and historic Google Street View to reveal patterns of ethnic place-making in metropolitan Detroit and Atlanta and the US National Capital Region, with a focus on the particularities of pan-Asian and newly-formed ethnic communities in the region, over time. We discuss opportunities with this approach in mapping ethnic communities and compare these efforts to the difficulties in using official records, such as the US Census or business records, and the challenges concerning the biases and difficulties in using such technologies.

Climate and Nature

Thu 2.7.14:00-15:30, Ethics and Values, U405a | Session chair(s): Paulo Nascimento, Brett Slack

2033 | Divyali Mehrotra

The Ethics of Financialising Nature: Natural Capital Narratives in the Scottish Biodiversity Strategy

The integration of natural capital narratives into environmental policy through the concepts of nature-based solutions and ecosystem services has become the norm in policymaking. This paper argues that the instrumentalisation of natural commons is problematic as it reduces nature to a functional unit of the human economy, rather than a system that supports life. This instrumental rationality risks reducing planning to market-driven objectives and transforming land-use into tools for an extractive global economy. Using an interpretive policy analysis of the Scottish Biodiversity Strategy, this research paper critically examines how financialising nature is operationalised in policymaking in the Global North. Subsequently, the paper questions the ethics of instrumental rationality that defines the human-nature relationship and argues that this leads to planning practices which extract from nature beyond planetary boundaries and prioritise fragmented, quantifiable targets over the ethical treatment of all living things. Drawing upon the conceptualisations of reversibility and dharma, the analysis recommends an ethics of self-restraint in policymaking, grounded in a deep respect for the interconnectedness of all living things, as a necessary foundation for non-extractive and ecologically robust planning. This paper, therefore, rethinks the planning agenda to assert the centrality of ethics through a proposed shift from financial valuation to a holistic planning practice.

2798 | Misagh Mottaghi, Kes McCormick

Can nature-based solutions for climate adaptation promote multispecies justice?

Previous research underscores the importance of addressing biodiversity loss within the framework of environmental justice. Some scholars introduce the concept of multi-species justice (MSJ) to recognize the needs and rights of non-human species and their agency. However, the concept remains largely theoretical, and practical entry points and approaches for its implementation are still underexplored. This paper focuses on how to operationalize the concept of MSJ within the climate adaptation context and explores practical barriers to addressing justice beyond humans in the governance and planning of nature-based solutions (NbS). Through focus group interviews with policymakers and practitioners across

five European regions, this research investigates what justice means to them, how they relate it to NbS, and the extent to which nature and its stakeholders are perceived to be cared for and integrated into their decisions from a relational justice perspective. To enable and operationalize MSJ, several steps are needed. First, considering NbS as relations (and not technological structures) and as an infrastructure of care, treating climate adaptation processes as a response to heterogeneous concerns. This conceptual shift positions NbS as a bridge between human and nature, recognising and responding to their common (often integrated) needs, values, and capacities. Second, identifying and scrutinizing the critical junctures where decisions are made in the absence of the multiplicity of NbS. Third, our findings indicate that shifts in views, structures, and practices can begin with small, incremental changes that provide opportunities for gradual adjustments and lead to larger, more effective changes over time. Fourth, to repair the human-nonhuman system of relations, climate adaptation policymaking can evolve through finding entry points to incremental changes in routines and relations, following a never-ending cycle of re-thinking, re-framing, re-generating, and re-learning.

2281 | Mark Scherner, Thomas Thaler

Disintegration of Justice: Vienna's Social Housing Legacy Taming Future Green Gentrification Risks

Climate adaptation is increasingly becoming a coordination challenge in European cities. Low ambitions in urban greening can tame growing local climate impacts, such as the increase in hot days in densely built-up urban environments. In turn, overly ambitious greening agendas can conflict with housing affordability. One example is green gentrification, where plans for green and blue infrastructure (un)intentionally contribute to displacement in private housing markets. When it comes to such justice trade-offs, urban policymakers in the fields of greening and housing rarely coordinate with each other.

This paper aims to assess how policy disintegration may result in the risk of displacement. Specifically, it examines the relationship between past and current climate change adaptations and risk perceptions of future green gentrification. This single-case study focuses on Vienna, a city known for its ambitious historical social democratic housing program and its recent climate adaptation agendas. We conducted 43 semi-structured interviews with public and private actors in greening and housing silos. The questions focused on their present/future problem/risk perception, coordination, goals, and instrument implementation regarding to green gentrification. Then, a qualitative content analysis was carried out.

The results show (1) inter-sectoral interaction of social housing and greening till the 1990s, (2) autonomous goal setting of housing deregulation and climate protection (1990s-2000s), and (3) silo governance of housing financialization and climate adaptation since 2008. Further, we show that past's just solutions, such as social housing, contribute to taming risk perceptions about the future—namely when it comes to substantial instruments embedded in all silos to regulate justice trade-offs at the private housing market in the face of climate-appropriate greening agendas.

923 | Luna Khirfan

Deep Inclusion for Climate Justice: Bridging Ethics and Values in Adaptation Planning

This paper advances a justice-oriented framework for climate adaptation planning that foregrounds ethics and values through the lens of deep inclusion. Drawing on empirical evidence from three diverse contexts—Tobago, Negril, and Charlottetown—this research demonstrates how participatory charrette methodologies can bridge the experiential knowledge of marginalized communities with expert knowledge to achieve epistemic justice. Epistemic justice, understood as the equitable sharing and legitimization of knowledge, serves as the nexus that binds the distributive (spatial), procedural (political), and recognitional (socio-cultural) pillars of climate justice.

The paper argues that deep inclusion—anchored in ethical engagement, just deliberation, and empathy—is essential for addressing the complex realities of climate-induced hazards and the socio-spatial inequities they exacerbate. Ethical engagement fosters long-term, meaningful relationships beyond formal planning processes, while just deliberation facilitates mutual learning through dialogue that integrates local ecological knowledge (LEK) and lived experiences. Empathy, as a cultural and moral imperative, shifts planning paradigms from technocratic efficiency toward human-centric sufficiency and wellbeing.

Through structured "combined charrettes," the research reveals that communities overwhelmingly identify nature-based solutions (NbS) as the preferred path toward equitable climate adaptation. These solutions not only reflect local values and ecological knowledge but also challenge dominant planning discourses that marginalize vulnerable populations. The findings underscore the importance of recognizing pluralistic voices and embedding ethics into planning processes to ensure fairness, inclusivity, and justice.

This contribution responds directly to the Track 8 call by offering a theoretically grounded and empirically rich exploration of how ethical planning practices can reconcile conflicting values and promote justice in urban and regional contexts. It proposes deep inclusion as a transformative planning ethos that redefines the role of ethics and values in climate adaptation.

2361 | Ian Woodcock, Hülya Gilbert

Institutionalised maladaptation: the ethics of planning's culture of path dependence, or where is the teleology in planning history?

Historians of planning have argued convincingly for a planning history research agenda that moves away from stories about localised case studies and a-theoretical anecdotalism towards more systematic frameworks for analysing how planning works. Under this rubric, several key concepts provide the primary building blocks for historicising planning's dynamics, trajectories, vicissitudes and in particular, planning's inertia. These core concepts include: institutions, path dependence, critical junctures and punctuated equilibrium, incremental and endogenous change.

While this work has enormous potential for opening up the body of planning's operations to more structured theorisation, we argue that in order to make a more meaningful contribution that allows

understandings of the past to inform action in the future, additional framing is required to provide ethical orientation.

All planning is directed at future objectives, it is always teleological. While objectives can change, like facts and technologies can, we argue that in order to fully appreciate the ethical dimensions at stake in any subject of planning historicising or futuring, some kind of teleology must be applied.

The period we are now living into and purportedly planning for, the term 'adaptation' has become commonplace. Teleologically, adaptation is primarily aimed at beneficial responses to climate change, a highly intentional activity rather than the random mutations evolutionary theory uses the term for. This kind of adaptation relies on culture rather than biology, social learning and conscious intent rather than genetic transmission. Its opposite is maladaptation, equally conscious cultural processes acting against the purported teleological aim. We argue that planning tends to institutionalise maladaptation through naturalising path dependence and forgetting the critical junctures when maladaptive trajectories were set in motion, often despite significant resistance and evidence of potential ill-effects. The case of car dependence in Australia is offered as an exemplar.

1125 | Danielle Maranhão de Castro, Angélica Alvim

Racialization of Socio-Environmental Vulnerability: A Study on Climate Injustice in a Brazilian Northeast Metropolis

Urban and regional inequalities in Brazil have deep roots in its colonial history, marked by slavery, racial hierarchization, and exclusionary urbanization. In Fortaleza, Northeast Brazil, these legacies manifest in uneven environmental risks and differential adaptive capacities to climate change. Hygienist planning paradigms, gentrification of central areas, and housing policies throughout the 20th and 21st centuries systematically displaced vulnerable populations (directly or indirectly) to peripheral areas, particularly along riverbanks and streams, exposing them to compounded socio-environmental vulnerabilities. As Brazilian peripheries are predominantly inhabited by Black populations, these patterns constitute environmental racism, in which structural inequalities disproportionately affect racialized groups.

This study examines environmental racism and climate (in)justice in Fortaleza by analyzing intersections of racial distribution, socioeconomic conditions, and climate risks identified in the Local Climate Action Plan: high temperatures, prolonged droughts, extreme rainfall, and sea-level rise. Methodologically, a mixed-methods approach integrates cartographic and statistical analyses with a critical reading of urban and environmental policies. Triangulating racial, socioeconomic, and climatic indicators reveals overlapping risk zones, forming a "vulnerability belt" around the city, concentrating populations with the lowest human development indices.

Results indicate that areas with higher Black populations coincide with those most exposed to climate hazards, totaling 103,692 individuals in high-risk zones. The study argues that the apparent technical neutrality of urban planning conceals ethical and politicized dimensions, perpetuating environmental racism through outdated public policies. In Brazil, segregation is often understood mainly in socio-environmental terms. However, in a context of historical racial inequalities, being Black or Brown significantly limits access to protection and adaptive resources, showing that urban vulnerability is not

only socioeconomic but also racialized. Incorporating race as both an analytical and normative category is essential for climate adaptation strategies, fostering environmental justice and enabling an equitable urban transition with viable solutions to complex socio-environmental challenges.

Cases and institutions

Thu 2.7.16:00-17:30, Ethics and Values, U405a | Session chair(s): Anita De Franco, Mark Scherner

1614 | Petja Peltoranta, Heidi Falkenbach

Social sustainability in municipal land policy formulation

As cities grow due to urbanization, the risks of social problems, such as segregation, increase without policy responses at different governance levels. Land policy instruments are one medium which municipalities can use to steer urban development and enhance social sustainability, by, for example, promoting affordable housing and accessibility. Land policy consists of policy actions in the land market which municipalities take to guide or obligate land development. However, the concept of social sustainability remains ambiguous in the context of land policy. This can affect the effectiveness of these policies if the ultimate goals remain vague or non-defined. In this paper, we examine which aspects and goals of social sustainability municipalities address in their land policies, and how these are implemented in practice through policy instruments. We explore this in the context of the six biggest Finnish municipalities. The empirical data consists of interviews with both housing and land policy experts and planning officials. The analysis allows us to form a comprehensive picture of municipalities' priorities and instruments regarding social sustainability in land policies and possible conflicts with other municipal policy goals. Thus, this study contributes towards a deeper understanding of land policies related to social sustainability and motives behind policy instruments.

1300 | Rachel Berney, Jennifer Davison

Co-Creating Urban Solutions: Bridging Knowledge and Impact through Urban@UW's Research to Action Collaboratory

Urban challenges are increasingly complex, diverse, and urgent, raising critical questions about urban justice, ethics, and inclusivity in planning. Universities can play a pivotal role by integrating multiple forms of knowledge and engaging directly with communities. This paper presents Urban@UW's Research to Action Collaboratory (RAC) (2023–2025), a pilot initiative designed to advance transdisciplinary research and community engagement in urban problem-solving, both academically rigorous and socially responsive. The RAC combines structured facilitation, seed funding, and collaborative digital tools to convene faculty, students, community organizations, and public agencies in co-creating research projects addressing pressing urban issues. Drawing on program documents, participant reflections, and early project outputs, we examine how the initiative navigated disciplinary silos, institutional constraints, and resource limitations. Lessons include strategies for aligning academic research with community priorities, building teams, and evaluating impacts on both scholarly knowledge and public good. This paper situates the RAC as a model for ethical, justice-oriented, and inclusive urban planning. By emphasizing fairness, recognition, and participatory decision-making, it demonstrates practical

approaches to operationalizing ethics in planning and fostering publicly engaged scholarship. The RAC also highlights how universities can leverage research capacity to produce socially meaningful outcomes while strengthening institutional readiness for cross-boundary collaboration. Ultimately, the RAC exemplifies a replicable model for fostering community-centered solutions that advance urban justice, inclusivity, and the public good, offering actionable insights for higher education institutions and urban practitioners.

2007 | Paulo Nascimento Neto

FROM RULE-BASED TO DEAL-MAKING CITIES: spatial justice in contemporary Brazilian planning

Planning in Latin America is marked by a persistent paradox where planning institutions are discursively committed to socio-spatial justice while embedded in longstanding processes of unequal urbanisation dominated by private actors. These tensions intensify amid the growing shift towards deal-making cities, in which planning no longer operates primarily through rule-based codes, but through discretionary, project-led negotiation. In this emerging paradigm, regulations increasingly organise bargaining procedures rather than protect substantive parameters for land use and or socially just access to the city. This scenario raises pressing questions: which notions of justice are mobilised and how are conflicts of value negotiated when decisions are shaped by negotiated interests rather than normative commitments? To address these challenges, this paper investigates how narratives of spatial justice are incorporated into Brazil's contemporary planning system. Brazil offers a particularly relevant case, given the existence of a robust national legal framework over the past 25 years, explicitly oriented towards democratising access to urban land and frequently referenced across Latin America. Through a critical examination of recent experiences, the analysis reveals how ethical claims are mobilised to legitimise negotiated planning instruments, reshaping the distributive aims historically embedded in Brazilian urban legislation. The findings expose a mismatch between ethical narratives and institutional practices, where values are reinterpreted to support arrangements that may reproduce or exacerbate socio-spatial inequalities. By interrogating how spatial justice claims are ethically repositioned in systems driven by negotiation, the paper contributes to debates on ethics in planning, questioning whether contemporary planning can uphold redistributive commitments while navigating competing values and market-led decision-making.

2889 | Suyash Shérékar, Vedant Vyas

Three Classes, One Neighbourhood: Imagining Just futures under conflicting co-existence in Nagpur, India

As a result of accelerated urbanization, Neighbourhoods in rapidly transforming Indian cities are increasingly shaped by unequal social classes coexisting in shared yet segregated spaces. This study examines one such neighbourhood of Tatya Tope Nagar in Nagpur, India, which consists of three distinct social-class zones: an informal settlement, a redeveloped dense housing cluster, and a plotted housing cooperative. Although spatially segregated, these groups inhibit divergent class and caste backgrounds, economic conditions and patterns of land ownership, resulting in everyday conflicting coexistence. As

this neighbourhood undergoes transitions driven by densification, infrastructure pressures, and diminishing open spaces, these differences become increasingly consequential for its residents to negotiate the present and imagine a shared future. The paper asks two principal questions - 1) How do different social-class groups negotiate everyday interactions, tensions, and conflicts as the neighbourhood transitions, and how do their unequal resources shape influence over current development? and 2) How do these unequal negotiations and power asymmetries influence the neighbourhood's capacity to imagine and pursue a shared just and sustainable future? This study adopts a qualitative approach by conducting 11 semi-structured interviews representing members from all the three social-class groups based on a pre-decided template of questions. Combining this with on-site observations, the study reveals how residents with unequal capacities differently perceive current transitions and future possibilities. The findings reflect that the idea for the neighbourhood's common future is not merely a technical planning question, but a deeply ethical negotiation shaped by everyday power dynamics, exclusion, and diverse imaginations of what 'development' or a 'sustainable future' should look like. The paper argues that achieving just futures in such heterogeneous contexts requires recognising conflicting coexistence as a structural condition created by the existent formalized planning processes.

2176 | José Ricardo Vargas de Faria, Angela Seixas Pilotto, Patrícia Schipitoski Monteiro, Michael Alisson Cruz de Freitas

Extending Mobility Justice: Insights from Brazil's Peripheral Capitalism

This research project, "Political Economy of Transport and Mobility Justice", analyzes the links between urban transport public policies in Brazil and the reproduction or resistance of mobility injustice stemming from the transport crisis and its effects on social reproduction, particularly in metropolitan peripheries. Data reveal a high share of household income dedicated to transportation, excessive commuting times, poor quality and limited coverage mass transit, and, over the last two decades, declining public transport ridership alongside growing individual motorization. These dynamics deepen socio-spatial inequalities intersecting gender, income, race, transport mode, and place of residence, and are further shaped by increasing precariousness of work, setbacks in social policies, and ongoing reconfiguration of capital accumulation patterns.

Building on prior research, five central aspects emerge. The predominance of individual and private mobility solutions paradoxically relies on public space and funding. Expansion of mass public transport networks tends to reinforce socio-spatial differentiation. Commuting times burdens, shaped by spatial differentiation, income, and health disparities among the poorest, reconfigure the super-exploitation of "life fund". Fare policies neglect rising transport costs, exacerbating resource depletion for users. Furthermore, legal frameworks and mobility policies focus primarily on the economic and financial sustainability of public transport systems, without ensuring mobility justice demands.

Grounded in an interdisciplinary framework integrating political economy, critical transport geography, dependency theory, and the mobility turn, this study proposes an expanded interpretation of just mobility. It hypothesizes that dependent urbanization functions as a key explanatory category for understanding the reproduction of unjust mobility in capitalist periphery.

2161 | Mariana Costa Campos

Deterrent Planning: the increasingly persuasive and financially oriented policies and practices of bordering the poor and undesirable behaviours from public spaces, as the long desired and intricate gentrification plot gains political momentum in São Paul

The city of São Paulo was established in the early 16th century, at an ancient crossroads, as an outpost for captured indigenous people before the steep 800-meter descent to the Atlantic, where they were sent to the sugar plantations of the Northeast. In the mid-19th century, English restrictions on slave trade by Portugal, eventually led to official slavery abolition in 1888 and a massive migration from the Northeast to the coffee plantations of the Southeast, with another 2 million immigrants brought in so farmers would not be left without a workforce. By the 1960s, the city became the major Brazilian hubspot. Currently, it is the most populous city in the Americas and the Southern Hemisphere, with almost 12 million people. Its deterrent planning has escalated from primitive stockades to overlapping security layers upon remnants that can date back to arrow slits. Its sidewalks have turned into minefields, featuring trivialized blurs and aberrations. Concertina wire, garbage cages, surveillance cameras and spiky plants are widespread, as skirts of spears emerge on poles to protect against theft of cameras, circuit boards and overhead wiring (whose copper can be easily sold). Public spaces of former common use are enclosed, in a tacit social agreement forged through a dehumanizing propaganda that morally justifies the aggressiveness of corporate architecture and the violence of financially oriented planning policies and practices. In this scenario, City and State have joined forces, and this is the plot we address: the displacement of the poor and undesirable behaviors, raising the tone of a long-declared war, with the announcement of the construction of the State Government headquarters in the epicenter of an area known as Cracolândia (the land of crack). That is, yet another institutional block in the Centre of evermore deep dark nights.

Democracy and justice

Fri 3.7.09:00-10:30, Ethics and Values, U405a | Session chair(s): Päivi Kymäläinen, Mark Scherner

2210 | Wendy Tan

Micro-Care in Motion: Commoning Kindness as Ethical Planning Practice

Urban planning increasingly grapples with questions of justice, yet dominant approaches to mobility justice still focus on formal infrastructures and institutionalised processes. Feminist geographers, however, draw attention to the small, often invisible acts of care that sustain mobility. This paper examines how micro-care practices support movement in everyday life.

We conceptualise mobility micro-care practices – such as free bike-repair corners at stations and informal lift-sharing, neighbours walking each other to the bus stop, helping with bags - as small, situational acts through which people use their own time, bodies, and resources to ease others' movements, waits, and vulnerabilities. We argue that these practices are neither incidental nor individual virtues, but rather 'situated actions of compassion' whose clustering constitutes an overlooked 'care infrastructure'. These practices challenge the individual-versus-government dialectic through feminist ethics of care and care-full justice frameworks.

We compile a comparative desk-based inventory of micro-care practices in the Netherlands, Norway, and the UK. We use local and national media coverage, online material from community groups and NGOs, and planning documents that mention informal care or citizen initiatives around streets and transport. We analyse how practices are described, where and when they occur, who initiates and maintains them, whom they benefit, and the institutional friction, support, or indifference they face. We identify four recurring dimensions of micro-care in mobility: recognition of injustice or inequality, reciprocity between initiator and recipient, redistribution of resources and attention, and repair or maintenance in response to injustices.

Our findings reveal how these practices embody ethical values of recognition, inclusivity, and fairness through everyday actions, contributing to a hopeful transport geography that values slow, relational, and reparative practices over dominant discourses of technology and efficiency. The research offers insights for balancing grassroots micro-care with formal design, planning, and public space management processes.

2023 | Gabriele D'Adda, Jonne Silonsaari

Deliberating mobility justice. Tackling misrecognition and misrepresentation in advocacy for just streets

The mobility justice research agenda has sparked a rich diversity of insights in recent years and keeps expanding. Urban transport and mobility planning remains central to these debates. As far as ‘’just streets’’ result from questioning established knowledge regimes, expertise and processes of planning, they demand decentralising the role of the ‘’expert planner’’ and highlighting diverse actors situated and contextual knowledges on how justice ‘’happens’’ in everyday mobilities.

Advocacy and activism are subject to increasing interest by policymakers and researchers. The diversity of voices is perceived to remedy ‘recognitional injustices’ by offering representatives of marginalised groups a seat at the table. But this is not without problems, raising questions such as who can recognise the mobility needs for certain groups in certain places or represent them in consultations and planning processes.

Sheller refers to these issues as deliberative justice. However, very little research has grasped the concept of deliberation in these terms: deliberation as a verb and action, as something that actors do together has been neglected. Little is known on how actors representing marginalised groups could find their voice and become active players in mobility planning and, on the other hand, how established advocates could better recognise the diverse needs of different street users. The aim of deliberation is to help various actors politicising mobility justice in appropriate ways, avoiding misrecognition and misrepresentation.

Our contribution presents the findings from an action research project where - through a focus group and a workshop - we mobilised deliberative justice by offering diverse advocacy organisations a space to reflect and negotiate various aspects of mobility justice.

The findings prompt reflection on the limitations of mobility policies in recognizing the variety of needs of different road users, especially those who are typically marginalized, and suggest avenues for more knowledgeable policies.

2320 | Claudia Basta

On moral individualism, diversity and nonviolence in planning theory: The City of Capability

The programme Space for the Life of Every Day recently launched at the Netherlands Environmental Assessment Agency PBL tackles spatial policy questions ranging from spatial design and urban mobility and densification up to the incorporation of different concepts of justice in planning processes. The programme explores different theoretical perspectives beyond mainstream planning theories and translates them into evaluative frameworks applicable to different scales of the national planning policies. By so doing, the programme offers a 'laboratorium' of translation of complex theories into impactful practices whose relevance goes well beyond the Dutch borders.

One of the perspectives explored consists of the perspective of human development and capabilities. Whilst such perspective is not new in planning theory, its application in the programme led to the identification of a novel research agenda, namely, The City of Capabilities. The present contribution will discuss its theoretical foundations by focusing, in particular, on the relevance of moral individualism and diversity for fostering nonviolent practices of city planning. Whilst this agenda is fruit of the research conducted for establishing the theoretical foundations of the programme Space for the Life of Every Day, its methodological design and the recommendations for further research reflect the autonomous elaborations of the Authors.

1247 | Mustafa Dikec

Everyday democracy

The aim in this paper is to develop a notion of "everyday democracy" and to propose a research agenda for studying it, especially in urban contexts. Everyday democracy is about attentiveness to everyday practices of equality, agency, and political capacity. It is not conceived as a threshold concept, an all-or-nothing affair, but rather as a continuous dynamic in political life, occurring to various extent and degrees in particular times and particular places. In this understanding of everyday democracy, the power of democracy – the power to bring about change – derives from people's capacity to act. Everyday democracy is about where, when and how this capacity turns into action, what forms action takes, and how action is entangled with the practices, dynamics, and conventions of everyday life. It does not, however, put a premium on the magnitude, spectacularity, rarity, or effectiveness of action. Everyday democracy is also about understanding instances where action is stifled, sidelined, or rendered futile.

Everyday democracy is not centred on formal institutions and procedures, but on embodied practices in specific sites around specific issues. This is not to deny the importance of formal political institutions and processes; as Arendt recognised, democratic politics needs the security and stability granted by them, but it is not limited to them. The emphasis here is on practices that are outside the formalized and

institutionalised settings, though not necessarily unrelated to them. The focus is on practices that foster inclusion, empower citizens in their political capacities, and allow them to engage with one another through practices oriented towards, but not necessarily resulting in, collective agenda-setting, will formation or decision making.

2705 | Eveliina Harsia-Mikkola

Polyphony in Urban Planning: Rethinking the Planner's Role and Shared Authorship

Growing cultural and socio-economic diversity raises questions about whose experiences, values and everyday realities are taken into account in urban planning. Planners face the challenge of working with multiple, often conflicting perspectives. This presentation examines that challenge through the concept of polyphony and considers how adopting a polyphonic orientation reshapes the role of the planner.

Polyphony, following Mikhail Bakhtin, refers to a mode of expression in which different voices and perspectives are present simultaneously, remain distinct and interact dialogically. In urban planning, it offers a way to examine how diverse experiences can become visible both in planning processes and in the representations that planning produces. The presentation draws on my doctoral research, in which I operationalised polyphony for planning through three elements: ambivalence, dialogue and representations.

The research followed abductive reasoning, with conceptual understanding and empirical observations developing in parallel. The empirical material consisted of three planning cases from the Helsinki metropolitan area, each offering situations where the relationship between participation, interaction and the content of plans became visible and informed the development of the polyphonic framework.

Polyphony emphasises that every actor is both a participant in and a contributor to the descriptions produced in planning. This does not mean that everyone has equal power to shape the content of plans, but that justice requires opportunities to participate in constructing shared narratives about one's living environment. The planner holds a particular responsibility: they have more power than other actors to determine which perspectives become visible and how they are presented. In the presentation, I consider how this authorial responsibility can be shared and how planners might support the visibility of multiple perspectives through practices that strengthen polyphony.

Justice and recognition

Fri 3.7.11:00-12:30, Ethics and Values, U405a | Session chair(s): Onni Hirvonen

1762 | Petra van der Kooij, Anet Weterings

Recognition justice in the spatial context

In planning theory, the focus on justice primarily centres on distributive and procedural aspects. The third form of justice - recognition justice - receives much less attention. However, choices in the design of spaces and regulations governing their use, may be affected by the recognition of differences among people in their identities, lifestyles and values and reflect those differences. As a consequence, there is

still limited knowledge on how to interpret and understand recognition in relation to the spatial context, both theoretically and empirically.

The aim of this research is to make a first step in filling this gap by providing (conceptual) clarity about how recognition justice can be understood in relation to the spatial context. To do so, we combine theory about recognition justice and spatial justice. For recognition justice we draw on Fraser's status model theory on recognition and Honneth's psychological theory on justice laying out a multiple theory of (recognition) justice. For spatial justice we draw on the work of Moroni and De Franco in which they identify five ways in which space is involved in justice issues, as a 'factor', 'target', '(private) asset', '(public) domain', and 'precinct'. Building on place attachment literature, we add space as a 'value' as a sixth form in which space is involved in justice issues, and 'quality of the lived environment' as a seventh. By combining the theories on recognition justice and spatial justice, we provide a framework for policy makers and researchers to reflect on how recognition justice manifests in a specific spatial context.

We use three examples to illustrate the application of the framework in practice and show the added value of looking at spatial issues through the lens of recognition justice: large-scale housing of migrant workers in rural areas; woman and safety in public space; and gentrification.

2404 | Hanna Mattila

Universal rights or recognition of individual needs? Redefining "justice" in communicative planning theory

Communicative planning theory (CPT) that emerged in 1980s and 1990s claimed to advance justice in planning and cities, but has been later criticized for not delivering what it promised. Especially the theorists of "Just City" have argued that CPT failed to promote urban justice because it 1) rejected traditional universalizing theories of justice and turned to such conceptions of justice that prioritize values and needs of particular people or communities, and 2) focused on the process of planning at the expense of justness of the outcomes of planning.

Originally, CTP drew especially on Habermas's theory of justice – a universalizing theory – highlighting just decision-making processes in planning. Soon, however, CPT grew apart from its universalizing roots that did not seem to offer guidance for planning that always takes place in local contexts where planners need to recognize local needs and values. This paper suggests that the concept of recognition that has been traditionally associated with particularity-oriented approaches can restore the connection between CPT and universalistic approaches to justice; "recognition justice" can help CPT to avoid the caveats of relativism while making space for particularity in planning. In this, especially Axel Honneth's concept of recognition proves helpful, a concept that revises certain important elements in Habermas's work.

Furthermore, the paper argues that Honnethian recognition theory can help CPT to extend beyond planning processes to the "substantive" approaches to just planning, given that material environments can be argued to shape recognition relations or even be parties of these relations. As such, it is possible to approach just cities not only in terms of generic economic distributions, but also as environments of healthy recognition relations – an extension of Habermasian communicative relations – where both universal rights and particular needs have their place.

2528 | Tiina-Riitta Lappi

Considering justice in urban development and mobility planning

This paper discusses different aspects of justice in urban development through a case study on the planning of a light rail connection and the related land-uses in Vantaa, Finland. The planning institution justifies the new rail connection, among other things, by the assumption that the tracks attract investment, leading to the emergence of new jobs in the eastern Vantaa where many neighborhoods are facing the risk of segregation. Furthermore, the tracks connect eastern Vantaa to the Helsinki-Vantaa airport that is a major concentration of jobs and a gateway to the rest of the world.

Ethnographic methods – especially interviews – are applied to explore how planners understand justice in their daily work related to Vantaa light rail project. The interviews are complemented by the analysis of planning documents. The theoretical framework consists of distributive justice and recognitive justice, the two conceptions that are oftentimes juxtaposed in philosophical and planning-theoretical discourse. In distributive justice, at issue are typically economic distributions in urban areas. In recognitive justice, at issue are typically the cultural aspects of justice and the differences between groups of people in the city.

The paper explores, on one hand, the ways in which planners recognize the differing needs of stakeholders in the context of participatory planning: who expresses the need for the rail connection, and why? On the other hand, it investigates, for instance, how the tradition of utilitarian thinking in transportation planning directs planners' attention to more generic distributions that aim at the production of overall good for the greatest number of people over time, something that might not seem relevant for the current stakeholders. Finally, the paper elaborates on the conflicts between these conceptions of justice in practice asking how planners manage different ideals of justice in their work.

1648 | Simon Thompson

Towards a tripartite theory of spatial justice

Nancy Fraser's theory of social justice is centred on a notion of parity of participation. According to her, social justice is achieved to the extent to which systems of recognition, redistribution and representation enable all individuals to enjoy such parity. An element of spatial justice is already incorporated into Fraser's theory, since the drawing of political boundaries is one way in which representational justice or injustice is enacted. In this paper, I sketch the outlines of what a more comprehensively spatialised version of this theory might look like. In order to make this task manageable, I focus at the level of the city and the experiences of the denizens of that city. Yet more specifically, I shall illustrate my argument with examples drawn from my home city of Bristol.

First, if recognition is understood in terms of equality of status, I ask what this would imply for the denizens of a city like Bristol. Here I focus on the recent case of the toppling of the statue of Edward Colston, and consider whether this object was a source of recognitive injustice. Second, if redistributive justice is achieved so far as resources are shared out in a way that underpins participatory parity, I ask what resources the city needs to supply to its denizens and how these need to be distributed between them. Here I touch on issues of education, healthcare and housing. Third, if just representation is

achieved to the extent to which city-wide political systems provide adequate voice for all denizens, I ask if Bristol's city council, and its various consultative bodies, are adequate to this task. My conclusion is that a spatialised version of Fraser's theory of social justice can provide a robust and illuminating framework in which to analyse matters of spatial justice and injustice.

1680 | Tino Buchholz

Self-critical Planning and co-productive urban Design: A recognition-theoretical outline to distributional justice

This paper comes with epistemological, analytical and empirical insights for multiple crisis, agonist conflict, and urban co-production: no longer approaching justice as the other of injustice but a positive account of what we want from life (i.e. social, legal, emotional recognition). This requires a standpoint planners often think they can do without. After the communicative turn in planning the recognition paradigm gradually unfolds to set „Habermas back on his feet" (Honneth 2003). Epistemologically (a) critical insights target social will formations for distributive justice, and norms before forms of meaningful self-realization, while the shared moment and scales of relevance are in question. Confronted with multiple conflicts planners tend to lose themselves in polyrationality and essential injustice (Davy 1997, 2023). Benjamin Davy highlights individual, utilitarian and fatalist rationalities, where planners serve as architects of social inequality, while egalitarian rationality and social justice is far away. Here, the recognition paradigm opens self-critical pathways for social and institutional formations: confronting the egalitarian trap and disqualifying individual self-formation as atomistic, narcissistic trap. Analytically (b) recognition theory is helpful providing systematic foundational arguments for agency in constellations of conflict and power that are interpersonal in the end. Emphasizing agency for structural change the philosophy of recognition interlinks communicative, advocacy and insurgent planning: highlighting pressing conflicts in cities (i.e. inheritance, multiple ownership, gentrification) which can be overcome with relations-to-self (i.e. self-control, self-use, self-achievement, self-help). Ethical relations-to-self are crucial to any abstraction of planners balancing integration vs diversification of given needs, and the greater good. What is needed is a standpoint. Rethinking planners as spatial agents of struggles for recognition my empirical work (c) targets housing insecurity in Germany and the Netherlands, where social rent erodes, substandards flourish and Dutch property guardianship serves as affordable model, where users are invisible and housing is a job.

Patterns and segregation

Fri 3.7.14:00-15:30, Ethics and Values, U405a | Session chair(s): Busra Ince, Mark Scherner

1665 | Yang Luqiao, Li Haoran

The Divider or Unifier? Examining Metro's Role in Park Use Segregation in Shanghai

As a vital component of green infrastructure, urban parks play an essential role in enhancing residents' well-being but often mirror and reinforce socio-spatial inequalities. However, the causal relationship between rail transit system and park use segregation remains inadequately understood. Rail transit may either exacerbate segregation in park use across income groups through gentrification along transit corridors or help mitigate disparities by improving accessibility.

This study uses the phased opening of Shanghai Metro Line 15 in 2021 as a pseudo-experiment to assess the causal effects of metro accessibility on urban park usage behavior across income groups and income-based park use segregation. Using a large-scale anonymous mobile signal dataset, we identify visit patterns to all major public parks in Shanghai, China. Income-based segregation is quantified through the "Income Group Mixing Index (Sα)", which measures the deviation from an ideal state of equal access across different income groups. We apply a difference-in-differences (DID) modelling framework by comparing park usage patterns before and after metro opening between residents living within 500 meters of new stations (treatment) and those in the 500-1000-meter buffer zone (control). Furthermore, we apply a causal mediation analysis to examine two potential behavioral pathways underlying the metro effect: time elasticity of park visits and spatial expansion of activity range.

The results reveal differentiated impacts of metro accessibility across socioeconomic groups: highest-income residents exhibit significantly increased off-peak park usage, suggesting greater utilization of reduced temporal constraints. Mid-low-income groups show moderate gains in spatial mobility and park choice diversity. Notably, Relative disparities persist due to varying capacities to capitalize on new transportation infrastructure.

These findings provide robust evidence for targeted planning interventions to enhance social equity and integration. The study also expands methodological approaches for assessing the outcome equity of infrastructure while offering practical strategies to promote cognitive justice.

2647 | Fabio Bayro Kaiser

Interpreting intra-urban variability through a complexity lens on uneven urban outcomes

Cities take shape through the ongoing actions and interactions of many people pursuing different aims and interpreting situations in their own ways. These decentralised dynamics overlap and adjust to one another, producing spatial configurations that no single actor can fully anticipate or control. Seen from this perspective, the city is an artificial construct: it originates in human purpose yet evolves through processes that extend far beyond any singular intention. It is within this evolving landscape that uneven urban change becomes apparent, and the ethical implications of how such variability emerges—and whom it benefits or disadvantages—remain insufficiently conceptualised.

This paper develops an interpretive framework that connects emergent urban processes with a complexity-informed understanding of causality. Instead of relying on linear explanations, it draws on pattern-based diagnostics—such as expansion pressures, saturation tendencies, fragmentation, vertical densification, and shifting centres—as behavioural proxies for underlying system dynamics. Used conceptually, these patterns help reveal how minor adjustments, asynchronous developments, and cumulative side effects generate divergent trajectories within the same urban system. This provides a basis for examining how advantages and pressures become unevenly distributed across different parts of the city.

Interpreting these spatial behaviours through a causal lens enables a clearer account of why large-scale transitions, such as ecological shifts, take markedly different forms in central versus peripheral areas. Processes that allow some districts to adapt or gain new opportunities may impose limits or add

exposure elsewhere. By combining complexity-informed pattern interpretation with an analysis of dispersed causality, the paper offers a way to understand how intra-urban variability arises and to identify where ethical questions concerning uneven outcomes and differential capacities to respond become most pronounced.

1177 | Mansi Garg, Tommy Lindgren, Venla Bernelius

An alternative planning perspective to reduce effects of school segregation in a Finnish suburb.

Schools in segregated neighborhoods often face stigmatization and school rejection leading to an imbalance between the student base in the neighborhood and school composition. This phenomenon of school segregation has increased within the last decade in Finland coinciding with increased immigration in suburban neighborhoods (Ramos Lobato & Bernelius, 2023, p. 227). Research indicates that school segregation is driven by socio-spatial segregation, which is a neighborhood planning outcome (Bernelius et. al. 2023, Bernelius & Vilkama 2019). Schools, thus face challenges concerning the size of school, and lack of space in the neighborhoods for integration activities for parents of foreign speaking pupils in the community. Also, the effects of school segregation and residential segregation pose a huge challenge to pupils' daily lives in terms of availability and connection to educational, cultural, and social services. A more holistic planning perspective is required to tackle the problems rather than the band-aid solution to make schools attractive or adding more youth work (Sorri & Aaltonen, 2023). Planners have acknowledged interrelation between residential and school segregation, however, the segregation perspective in planning has not been implemented at a larger scale. There is a need for a systematic tool to consider segregation in local-detailed planning, service, and school network planning. Havukoski in Vantaa was selected as a case study due its high level of school segregation and neighborhood composition. A mixed method approach was applied using data mapping, site visits and interviews. Key priority areas for future service and urban planning were identified by highlighting connected themes from the findings. The result and process provide a base for developing alternative approaches to services and urban planning in segregated neighborhoods.

1294 | Helena Schuch

Measuring Spatial Injustices: A Systematic Review of Topics, Metrics, and Normative Foundations in Applied Geography and Spatial Research

Recently, there has been a growing academic interest in the concept of spatial justice within geography, spatial planning, and urban studies. Next to renewed theoretical debates about justice, this interest led to numerous applied studies focused on measuring spatial injustices. These papers capture different forms of inequitable spatial distributions, ranging from accessibility of essential services to disparities of environmental burdens. In this paper, we systematically review this strain of applied literature to evaluate the most prominent themes and topics, common metrics and their normative foundations. Using topic modelling with BERTopic, an unsupervised machine learning technique, 1,448 peer-reviewed journal articles were analysed. Furthermore, key papers were coded qualitatively to assess the metrics used to capture injustices in space. Comparing these metrics to justice theories, we show that some metrics lack

explicit normative foundations and could lead to problematic implications for planning. We close with strategies on how to avoid common pitfalls in measuring normative concepts and provide recommendations for more coherent terminology in applied research on spatial justice.

Track 9: Law

Track chairs: Rachelle Alterman, Aleksi Heinilä, Sylvie Paré, Miriam Tedeschi

Expropriation, Property Rights, and State Power

Tue 30.6.14:00-15:30, Law, U410b | Session chair(s): Rachelle Alterman

2074 | Deniz Ay

Between Public Interest and Dispossession: Turkey's Urgent Expropriation Instrument

Expropriation is a standard land policy instrument that public authorities use to acquire land for projects justified by strong public interests, yet it remains politically and legally challenging (Alterman, 2010; Azuela and Herrera-Martin, 2009). Infrastructure expansion and large-scale development projects are typical conditions under which governments expropriate land from other public entities or private owners. Expropriation is entangled with issues around fair compensation, dispossession of small landowners, and private actors' co-optation of public interests. Beyond practical challenges of implementation, expropriation also raises fundamental theoretical and political questions about the institution of private property, land valuation, and the sovereign power of the State over land.

This presentation draws from the national context of Turkey to explore these practical and theoretical questions over land, which sits at the core of the tension between planning and property. Planning of Turkey's large-scale urban redevelopment projects in the context of disaster risk mitigation constitutes a rich empirical context for the study of an extreme land taking instrument called urgent expropriation. Using documentary evidence (legal articles, bylaws, strategy documents, newsarticles) and expert interviews, this paper explores how an exceptional wartime measure transformed into a routine instrument for remaking property regimes, redistributing urban land, and consolidating central state power over land policy and planning.

The main argument of this paper that expropriation is reasserted as a strategic instrument of state power entangled in political centralization, informal land tenure conflicts, and eroding social protections for cash poor small land owners. Findings of this study contributes to the research on re-emergence of expropriation. As a ubiquitous land governance strategy amid rising authoritarianism after several decades of political reluctance, expropriation intensifies tensions around land rights, compensation, and displacement.

1286 | B. Ayça Ataç-Studt

Property rights and land governance after the 2021 floods in Türkiye and Germany

Disaster recovery is more than rebuilding or responding to an emergency. It is a governance process that reallocates land, redefines property rights, and reshapes long-term development. Yet, existing research rarely examines how land policy approaches and instruments influence recovery outcomes. Drawing on the 2021 floods in the Western Black Sea Region of Turkey and the Ahr Valley in Germany, this paper explores how differing land policy priorities and property rights protections shape post-disaster

reconstruction. Although both countries experienced similar levels of flood damage, their recovery paths reveal contrasting approaches to property rights and land-use decisions. By showing what happens when land allocation (how land is used) and land distribution (who owns it) are not well aligned, the paper contributes to current land policy debates.

Using a qualitative comparative case study approach, legal and policy analysis is combined with expert interviews. Through this analysis, the interactions between formal and informal rules, actors, and planning instruments in reallocating land after disasters are explored. A tailored analytical framework developed through this research operationalizes the allocational-distributional distinction to assess how planning decisions, legal frameworks, and compensation mechanisms shape recovery outcomes.

Findings show that Turkey's centralized decision-making system, relying on emergency declarations and "urgent expropriation," enabled rapid reconstruction, rebuilding the flooded district in less than three years, but at the expense of legitimacy, transparency, and distributive fairness. In contrast, Germany's decentralized, legality-driven framework, with its strong protection of private property rights, led to reconstruction largely in the same flood-prone locations. This raises questions about the long-term rationality of rebuilding in place versus Turkey's mandatory resettlement approach.

The paper develops an integrated allocational–distributional framework bridging land policy and disaster governance. By showing how these dimensions interact across different institutional regimes, it advances a comparative understanding of legitimacy, property rights, and institutional effectiveness in post-disaster land policy.

2873 | Rachelle Alterman, Farha Jubran Miller

When expropriation law confronts urban dynamic: Comparative research on legal responses to changes in the public purpose over time

Although planners and policymakers use land expropriation only as a "last resort," it is sometimes necessary to achieve certain urban or regional goals. While legal discussions address justifications and limitations of expropriation powers, insufficient attention is paid to built-in tensions between expropriation law—requiring legal stability in defining specific public purposes—and dynamic urban needs. These tensions are exacerbated by lengthy, rigid legal procedures.

Conventionally, expropriation entails permanent ownership transfer from private owners to public bodies. Once compensation is paid, reversal is blocked by legal and financial constraints. Since land law and planning regulations are jurisdiction-specific, significant differences exist across legal systems. Literature searches indicate a dearth of systematic comparative legal research.

We identify four scenarios where expropriation law encounters time-related disruptions:

1. Government commenced expropriation procedures that were not completed, with no formal cancellation. A heavy legal and financial shadow is cast on the property and owners' lives, caused by unforeseen financial crises, political changes, etc.

2. Expropriation is completed and property transferred, but many years pass before the government implements the public purpose.

3. After operating for several years, the public service becomes too expensive or obsolete. This scenario could be stimulated by shifting goals (climate change needs) or demographic changes (reduced need for schools).

4. Time has rendered the original purpose obsolete. Government implements a newly defined purpose differing significantly from the original—probably not rare in current urban dynamics.

The research offers systematic legal analysis of ten jurisdictions globally. Beyond legislation, it analyzes court decisions and their evolution, examining findings within specific public and planning contexts of each dispute.

The findings enhance understanding of legal complexities in their interaction with urban planning dynamics.

1192 | Bersu Aktaş Taban, B. Ayça Ataç-Studt

The Limits of Expropriation: Property Rights and Delays in Large-Scale Transportation Projects in Türkiye

In rapidly urbanizing Turkish metropolises, the implementation of large-scale transportation projects, such as regional railway systems, frequently encounters legal and institutional barriers rooted in property rights and land acquisition procedures.

This study critically examines how compulsory land acquisition and private property rights influence the speed and cost of national transportation projects in Turkey, focusing on the Bandırma-Bursa-Yenişehir-Osmaneli Railway Project. Initiated in 2012, this project remains one of Turkey's slowest-progressing transport investments. In 2022, a Presidential Decree authorized urgent expropriation to accelerate its implementation.

The study employs a qualitative methodology combining three methods: legal-policy analysis (Expropriation Law and Zoning Law), institutional-documentary analysis (project reports and administrative decisions), and case law analysis (court rulings). It investigates how the balance between public interest and private property rights shapes the project's progress and legitimacy.

Findings suggest that the initial acceleration gained through urgent expropriation often results in higher costs and significant delays at later stages. Furthermore, potential financing problems may trigger cases of de facto or legal appropriation, undermining property rights and weakening the overall implementation process of transportation projects. Rather than treating property rights as a secondary concern, the analysis highlights the ongoing tension between national transportation goals and the protection of individual ownership.

To improve the legitimacy and effectiveness of large-scale transportation projects, land acquisition processes should be recognized as a critical prerequisite for overcoming implementation failures and achieving planning objectives.

1696 | Sina Shahab, Deniz Ay, Thomas Hartmann

Understanding Contemporary Land Questions across the Globe: Property Rights, Public Interest, and Land Policy

Land constitutes one of the most fundamental yet contested resources underpinning economic development, social justice, and environmental sustainability. Despite its centrality to human settlement and livelihood, the governance of land continues to generate profound political, institutional, and ethical challenges – phrased as land questions. The land question has been discussed widely during times of industrialisation. Now there are contemporary and new land questions. This paper investigates the land questions of contemporary societies across 30 countries from all continents. Land questions ultimately express the specific interpretations of the relation between private property rights and the public interest in land allocation and distribution. Through a comparative and thematic analysis, the study examines how different land policies shape national and local responses to challenges such as tenure insecurity, urban sprawl, environmental degradation, land inequality, and the recognition of indigenous rights.

The analysis employs Knoepfel et al.'s (2007) triangle of policy actors to conceptualise land governance as a dynamic process of negotiation among political-administrative authorities, affected target groups, and end beneficiaries. This framework provides a systematic means of comparing how land-related conflicts are defined and managed, revealing how power asymmetries, institutional design, and policy instruments interact to determine outcomes. The cross-continental comparison demonstrates that, while land questions are context-specific, they share structural features rooted in the distribution of rights, responsibilities, and benefits.

By integrating insights from diverse national cases, the study advances existing debates in land policy, planning, and governance. It argues that the land question should be understood not as a static or regionally confined problem, but as an evolving global process through which societies continually renegotiate the balance between market forces, state authority, and collective interests. The findings underscore the importance of land policies that recognise the social and ecological functions of land, while promoting equity, sustainability, and accountability in its governance.

Land Governance, Urban Growth, and Territorial Regulation

Tue 30.6.16:00-17:30, Law, U410b | Session chair(s): Aleksi Heinilä

2767 | Luke Juday

Who controls urban expansion: a comparative study of growth management under differing property regimes

For decades, limiting low-density growth at the edge of urbanized areas has been a key goal for planners in much of the western world. Yet spatial outcomes vary markedly between different countries. Why is there so much variance in spatial patterns across countries when plans and planners all seem to be seeking similar goals – perhaps even attending the same conferences?

This paper is based on a broader comparative study of 5 small- to mid-sized urban areas in different nations: Charlottesville, Virginia (USA); Reading (United Kingdom); Salzburg (Austria); Groningen (the Netherlands); and Leuven (Flanders, Belgium). Each of these urban areas is home to 200-400.000

residents, has significant ongoing economic and population growth creating new development pressure, and has some political support for progressive planning policies, particularly land preservation and growth management. By tracking and comparing decision-making processes at the urban fringe across different planning systems, the study aims to identify the role and implications of the system itself, including where the authority to expand the urban area lies.

The analysis starts from the hypothesis that differences in spatial patterns stem in part from distinct legal conceptions of private property embedded in each nation's legal system. Following Cozzolino and Moroni (2025), property is understood as a set of powers of action or control over an urban object. These powers differ by country, especially regarding rights to develop land or change its use. They may be entrenched in case law as in the United States, or explicitly withheld from property owners as in the United Kingdom. Supplemented by interviews with practitioners in the case study cities, this paper presents a comparative framework for understanding these conceptions of property and a baseline for future attempts to limit land take.

2525 | Evelin Jürgenson, Kärt Metsoja

Towards an integrated legal and governance framework for land and soil use, including land take, in Estonia

The EU Soil Strategy, the directive on Soil Monitoring and Resilience, and the objective of no net land take by 2050 place new demands on how land and soil use are regulated and governed. Meeting these obligations requires integrated legal and governance frameworks that connect land and soil policies, spatial planning, sectoral regulations and monitoring systems. Estonia provides a valuable case for examining how such a framework can be constructed in a context of fragmented legislation, dispersed settlement patterns and limited administrative capacity.

This presentation synthesises the findings of a national study that compiled an integrated overview of land and soil use governance in Estonia to support the establishment of a new land- and land-take management and decision-support system. The study combined a systematic analysis of 49 EU- and 64 Estonia-level strategies, legislative acts, and policy documents, along with comparative examples from Latvia and the United Kingdom. We examined how land-related objectives are framed across sectors, how key concepts (land take, soil sealing, brownfields) are defined, and how responsibilities and monitoring obligations are allocated between the state and municipalities.

The results reveal four core gaps: (1) the absence of a coherent national land policy framework; (2) unclear vertical and horizontal division of responsibilities for implementing land- and soil-related objectives; (3) abstract, non-spatialised targets are weakly connected to actual land parcels, land-use types and actors; and (4) underdeveloped, fragmented monitoring systems that cannot track progress towards EU and national goals. Building on these findings, the presentation proposes elements of an integrated legal and governance framework for land and soil use in Estonia, including: operationalising the EU land-take hierarchy in national law, linking it to a soil-use hierarchy, clarifying planning and environmental law mandates, and developing an indicator-based monitoring and decision-support system that connects spatial data with legal obligations and policy objectives.

934 | Sweta Byahut, Jay Mittal

Volumetric Bylaws: Liberalizing Regulations to Achieve Redevelopment Objectives in the Ahmedabad CBD

Development Control Regulations (DCR) of Indian cities are notoriously complicated and require considerable iterative problem solving. They are difficult for non-technical people to understand, are indifferent to location of the building resulting in unpredictable outcomes, and over-regulation restricts designs options and results in a haphazard urban form. Ahmedabad city is implementing Volumetric Bylaws within its CBD Local Area Plan to ensure orderly and optimal redevelopment, with the goal of liberalizing planning through deregulation in order to promote economic productivity in a rapidly growing city. Volumetric Byelaws are simplified DCR that enable predictable development pattern. Similar to Form Based Codes they have an enhanced focus on the built form, defining a building envelop for each lot using a few parameters (permissible height, margins, ground coverage, floor area, and build-to-line).

This case study examines the redevelopment challenges faced by Indian cities for achieving desired redevelopment objectives in central areas. Volumetric Bylaws, Gujarat Urban Planning and Urban Development Act of 1976, Local Area Plans, Town Planning Schemes, urban design and planning studies, and relevant reports are examined. Building permit data was collected from the Ahmedabad Municipal Corporation, and semi-structured stakeholder interviews were conducted with planning consultants, government staff, and urban development experts. Initial analysis shows that implementation of Volumetric Bylaws has been slow, since only 23 buildings have been redeveloped in the CBD in the past decade despite substantial FAR incentives offered. Ad hoc modifications have significantly diluted the urban design and walkability objectives. Landowners' reluctance to contribute private streets and spaces to the public domain have resulted in sporadic public spaces and an incoherent public realm. Authorities are also reluctant to promote high-density, high-rise development in the city center. Flawed and incoherent development policies are resulting in new development being pushed to the city's periphery driven by developer and consumer preferences.

1681 | Jinshuo Wang, Rachelle Alterman

Challenges in Redevelopment of China's massive stock of Condominium Housing: What can be Learned from Other Countries' Experiences

Condominium is one of the most prevalent forms of housing tenure globally. Yet, there is little recognition that prevalent instruments for urban renewal are destined to fail in most countries. The reason is that condominium legislation did not foresee the need to terminate the condominium's legal life, unless all unit owners agree unanimously. Since condominium buildings have multiple owners, consensus is very unlikely. This decision-making situation falls under the anti-commons concept.

Is there a way out, aside from government expropriation? The obvious alternative is to reduce required unanimous consent to less than 100%. Additionally, the law must stipulate appropriate legal and economic paths that encourage voluntary consent. However, there is very little published research on this topic globally. The first phase of this research searched for condominium laws internationally and identified a few countries that enable a special majority. Among these, only a handful have accumulated real experience (Alterman and Or, in preparation).

This paper reports on the second phase of a broad comparative project, focusing on urban China, which has one of the world's largest condominium housing stocks. Much of this stock, although not very old, already needs regeneration, and the need will escalate. The research investigates how condominium tenure in China interacts with governance mechanisms and institutional incentives to influence redevelopment, and what challenges arise. China has relatively short experience with condominium law—only since 2007. Although the legislation allows for a special majority (varying across cities), it falls short of providing the minority with fair procedures. We compare China's legal and governance context with the few countries identified in phase one with condominium regeneration experience. The empirical study focuses on selected cases across cities with different legal provisions, aiming to identify successful institutional innovations and derive policy lessons for China's condominium governance in urban regeneration contexts.

Planning Reform, Legal Methodologies, and Urban Justice

Thu 2.7.16:00-17:30, Law, U410b | Session chair(s): Miriam Tedeschi

1341 | Maciej Nowak

The Law of Spatial Planning in Poland: The Struggle Between Planning and the Market

The law of spatial planning requires a comprehensive analysis that integrates both theoretical and practical approaches. One of the key issues in any spatial planning system is the balance between the public interest (including socially significant planning objectives) and the private interest (including the interests of private property owners and investors). Neither perspective should be allowed to dominate.

In this respect, the Polish spatial planning system presents a particularly intriguing case. In the literature (e.g., Berisha et al., 2020), it is identified as one of the few systems that, on the one hand, provides for strong legal instruments of planning intervention, while on the other hand, allows market forces to exert a decisive influence on the shaping of space.

The aim of the presentation is to highlight key examples in which legal solutions that are theoretically beneficial from the perspective of the public interest are ultimately undermined by market pressures, resulting in spatial disorder. The paper will also take into account the most recent developments in this field, particularly those related to the reform of the Polish spatial planning system implemented since 2023. During the presentation, the key Polish legal instruments in the field of spatial planning law will be outlined in a manner accessible to an international audience. Subsequently, the reasons why these legal regulations have not been sufficiently effective in advancing public interest objectives will be explained. On this basis, broader and more universal conclusions will be drawn regarding the relationship between the public interest and the perspective of private property owners and investors in spatial planning.

2242 | Georgia Gemenetzi, Anestis Gourgiotis

From rigidity to flexibility: the need for the readaptation of spatial planning in Greece

The current social, economic, technological and environmental shifts (such as climate change geopolitical tensions, digitalization and demographic shifts) - entail increasing complexity in planning and

development issues. These emergent challenges raise new concerns about the role of spatial planning, in particular in countries where the system of spatial planning lacks adequate maturity. The current paper discusses the need to adapt the spatial planning system at all levels (local, metropolitan, regional) in order to perform as a co-evolution development factor and not as an exogenous regulator. This is particularly urgent in planning systems that are mostly regulatory and rigid. The theoretical discussion draws empirical evidence from the case of Greece.

Spatial planning, as developed in the 20th century, has lost its coherence. Its core "pillars" - structural, ideological, and spatial- have either been abandoned or significantly weakened. It is widely accepted that, up to the present day in Greece, spatial planning has mainly served to legitimize state policies and individual practices within a framework of compromise and consensus between the state and society. At the same time, 'exceptional' planning appears to be as the dominant alternative to address specific, targeted needs. This shift is due to the failure of general urban planning to respond to emerging challenges and fulfill its developmental role.

The paper critically reviews the Greek spatial planning system in Greece, identifying the key weaknesses and examining the methods, structure and conditions for its restructuring. The goal is to contribute to the broader academic discussion for reorientation and modernization of planning towards greater flexibility. The paper seeks to offer a renewed framework of spatial planning, that combines scientific evidence, institutional consistency, and adaptability in the face of constant transformations and shifting spatial dynamics.

1190 | Lars Sievers, Johanna Schoppengerd, Kerstin Meyer

Court decision analysis as a method in urban planning using the example of noise in land-use conflicts

Planning and law are two disciplines that are intertwined in practice: Legal norms have a decisive influence on planning and the interpretation of law changes planning practice (Salet 2002). The correct application of law plays a central role in planning practice for the success of development projects. At the same time, a wide range of requirements and specifications must be met to support healthy environments (Baumgart 2020). For example, dealing with noise conflicts is currently a key challenge for urban development and densification in Germany, as noise-polluted locations are under increasing pressure to allow the construction of urgently needed housing and to protect urban manufacturing from displacement at once (Hellriegel & Artmann 2024; Meyer et al. 2025). Noise is a major problem in planning that can lead to the failure of planning procedures (Dillmann et al. 2018). It must be noted that employees of planning authorities ensure the implementation of legal requirements, whereby different scopes of judgement and discretion arise. The legal framework for considering and managing noise in Germany is often described as confusing, which makes it difficult to analyse and resolve those conflicts; that leads to uncertainty (Kment 2022; Lamker et al. 2017).

The research question is which legal and planning-related aspects lead to planning procedures failing in practice due to noise requirements. Therefore, the presentation addresses the application of law and discusses the systematic analysis of court decisions as planning science method. An analysis of judicial reviews is used to explain how sources of error can be identified that contribute to the failure of plans due

to noise conflicts. Principles can be derived that promote the successful design of planning processes for integrating residential and productive areas. Consequently, the analysis of court decisions can promote a sustainable and healthy urban development.

2713 | Alexia Kaori Matubara, Giuliano Salvatore Magnelli

The Legal Impasse of Informal Settlements and Infrastructure Provision in São Paulo, Brazil

The exponential population growth in São Paulo, Brazil, from the 1950s to the 1970s was marked by the unregulated expansion of informal settlements, frequently in environmentally vulnerable areas. Driven by a neoliberal and colonial logic of primitive accumulation based on migrant labor (Deák, 1999), this process solidified the city's status as the most populous in the Americas, yet also one of the most profoundly unequal. Considering that background, this study investigates if the municipal urban legislation and the public policies related to the formal city comprehends the urgency for land regularization.

A stark territorial division persists, with centrally located areas developed under formal models, also inspired by European standards such as the garden cities, while the periphery is characterized by vast informal settlements on public and private land, often undocumented and systematically deprived of public services (Maricato, 2000). The legal framework for formalizing the public road system establishes its incorporation into official Parcel Plans or historical city maps as a statutory prerequisite. This creates a critical impasse, as infrastructure investment is legally contingent upon prior formalization. Consequently, a fundamental governance dilemma emerges: the urgent socio-spatial demand for equitable service provision conflicts with the procedural rigidity of the planning system, perpetuating the exclusion of informal settlements (Santos, 1990).

This research therefore aims to analyze this contradiction between the formal, regulated city, and the informal city's impediment to infrastructure. It ultimately addresses the challenge of public budget allocation and intersectoral policy coordination required to overcome this deep-seated territorial division and its enduring socio-spatial inequalities.

Property Rights, Value Capture, and Institutional Legitimacy

Thu 2.7.17:45-19:15, Law, U410b | Session chair(s): Maciej Nowak

1326 | Marcio Rodrigo da Silva Pereira

The Master Plan, Zoning Law, and Land Conflicts in the Cajueiro Community: Port Expansion and Territorial Disputes in São Luís – MA, Brazil

The Cajueiro community, located in the rural zone of São Luís – MA, Brazil, exemplifies the tensions between urban laws and the territorial rights of traditional communities. Following revisions to the Master Plan and the Zoning Law, Cajueiro's territory was reclassified as a port expansion area, losing its previous designation as a rural zone. This reclassification enabled the establishment of major logistical enterprises, such as the creation of a new Private Use Terminal (TUP) financed by Chinese capital and the expansion of the public port of Itaqui.

The Master Plan of São Luís, established under Federal Law nº. 10.257/2001 (City Statute), defines the guidelines for land use and occupation based on the social function of property and of the city, mediating interests between the public and private sectors. The Zoning, land use, and occupation law of São Luís operationalizes the Master Plan by setting construction parameters, urban indices, and permitted uses within the city's zones.

This article analyzes the State's actions based on the Master Plan and the Zoning Law of São Luís, considering urban regulations, mechanisms of social participation, and the implementation of land value capture instruments. As a case study, it examines the land conflict in the traditional community of Cajueiro and the consequences of international capital expansion combined with the fragility of territorial protection. This analysis allows us to understand how urban laws, when captured by economic interests, fail to fulfill their social function, thereby reproducing spatial inequalities and socio-environmental injustices.

Ultimately, this study aims to contribute to the broader discussion on the ways in which urban legislation may distort the balance between individual property rights and the collective interest in territorial governance, particularly in contexts of urban expansion, environmental protection, and territories inhabited by traditional communities.

2784 | Maya Ashkenazi

Not All That Glitters: The Hidden Weaknesses of Israel's Betterment Levy

Land-use law mediates tensions between property rights, distributive justice, and state authority. Israel's nationwide betterment levy - imposed since 1981 whenever a statutory planning decision increases land value - offers a distinctive lens for examining these dynamics. Although several unitary states employ mandatory LVC tools, Israel's version is notable for its uniform national 50% rate, automatic statutory triggering, and highly litigation-intensive environment. At first glance, the mechanism appears simple and equitable; Yet beneath this apparent clarity lie significant legal and institutional vulnerabilities.

The goal of this research is to critically evaluate the gap between statutory design and institutional reality, examining how the legal architecture of the betterment levy shapes planning practice, affects property rights, and influences the perceived legitimacy of statutory interventions. The paper assesses both the doctrinal foundations and the real-world implementation of the levy, identifying structural sources of legal uncertainty and distributive tension.

Methodologically, the study combines:

(1) doctrinal legal analysis of statutory provisions and their legislative evolution;

(2) a systematic review of case law addressing taxation triggers and valuation disputes;

(3) institutional analysis of the ways the levy affects development and planning processes.

The findings reveal three persistent legal challenges. First, the taxation event remains doctrinally ambiguous, producing unpredictable liabilities and shaping strategic behavior around development. Second, valuation disputes and conflicting rulings raise questions about procedural fairness and prolong

uncertainty, as many issues await eventual clarification by the Supreme Court. Third, although grounded in distributive justice, the levy's uniform structure generates uneven municipal and social impacts, highlighting tensions between formal equality, spatial justice, and the differentiated institutional capacities of local authorities.

The paper also reviews current reform proposals to Israel's betterment levy. It assesses the extent to which these changes can improve the mechanism's certainty, fairness, and functionality, or whether more substantial legal reconsideration may be required.

1612 | Claire Aragau, Sonia Guelton

Local public policies and a new model of property rights proposed by OFS/ BRS: from spatial diversity to competition issues

With the rise in housing prices during the 2000s, policies aimed at supporting affordable home ownership in France were put in place, but their limitations in terms of effectiveness quickly became apparent. These properties, purchased at low price thanks to public subsidies, were often quickly resold at market prices. In response to this problem, and in a context of the international spread of alternative housing models, local authorities, social housing organizations, and activists sought to adapt the Community Land Trust model to the French legal framework. This was achieved in 2014–2015 with the creation of organismes fonciers solidaires (solidarity-based land organizations, OFS) and baux réels solidaires (solidarity-based real leases, BRS). Land ownership remains with the OFS, which grants limited-income households real rights to use these affordable homes as their main residences. The BRS contract binding them stipulates a resale price cap over time, thus guaranteeing the long-term affordability of the housing stock.

Based on an analysis of local regulations and interviews conducted in the Île-de-France region (which is characterized by a diversity of local policies), the presentation examines the flexibility of the regulatory framework of the scheme—which stems from the contractual characteristics of BRSs and the autonomous governance of OFSs—enabling it to adapt to specific political and economic contexts. This flexibility is a new and original dimension in the range of affordable housing schemes.

The presentation begins by identifying the various public policy instruments with which the OFS-BRS program interacts. It then focuses on areas where the number of BRS-contracted housing units is high in order to understand local adaptations of the model. Finally, it examines the objectives underlying these instruments and their implementation, analyzing possible contradictory effects and highlighting the evolution of the BRS legislative framework, whose principles are being consolidated in light of these first years of practice.

1883 | Tomasz Zaborowski, Oscar Perez-Moreno

Are Colombian detailed land-use plans an effective planning instrument? Assessment of three detailed land-use plans in Medellín

The territorial ordering [ordenamiento del territorio] in Colombia consists of three components: land use planning [planificación], management [gestión] and financing [financiación]. On the one hand, this

comprehensive approach potentially makes it an effective system of providing for high quality urban development while simultaneously enabling fair compensation of related benefits and burdens. On the other hand, that comprehensive structure makes it easy to decompose and analyse. Colombian detailed land-use plans [planes parciales] are considered the main instrument that implements all mentioned aspects of territorial ordering.

The first aim of this research is to describe three elements of the territorial ordering in Colombia – planning, management and financing along with identifying their implementation instruments. The second aim is to analyse provisions and assess execution of three detailed land-use plans from the city of Medellín: 'La Asomadera', 'Renovación Urbana de Naranjal' and 'Redesarrollo de la Gran Manzana de Simesa'. The conducted assessment will be a basis to the evaluation of the effectiveness of the three components of Colombian territorial ordering: planning, management and financing.

The planning part may be evaluated as successful and featuring high excellence. Theoretically, management instruments enable implementation of ambitious urban planning projects while facilitating fair distribution of benefits and burdens between urban development stakeholders. However, in practice, they may turn out to be ineffective or insufficient to fully execute plans. Financing instruments are capable to finance comprehensive urban (re)development, ensuring the profits of landowners and developers as well as private financing of public urban infrastructure and facilities.

1251 | Pauliina Krigsholm, Tuulia Puustinen

Legitimacy-building in land policy: Clashing of two identities?

Municipalities act – with varying frequency – both as regulators and participants in the land market. The dual role can cause tensions for legitimation of land policy as the legitimacy of the planning authority role rests primarily upon policy representativeness and procedural quality, while the operative land market participant role upon outcome performance. However, land policy studies rarely break down legitimacy by source and consider how municipalities balance the two legitimacy identities in practice. This study examines how land policy officials, who as administrators have a central role in formulating and implementing land policies at municipal level, interpret and approach legitimacy-building of land policy. Guided by the tripartite framework of input, output and throughput legitimacy, we address this question in the context of Finland where municipalities commonly hold the dual role of planning authority and landowner-developer. Drawing on interview data from 30 Finnish municipalities, we identify (de)legitimizing mechanisms claimed by the officials and show that they stress neither the problem and goal-setting (input) nor the outcome performance (output) of policies in legitimacy-building. They instead emphasise the throughput dimension of legitimacy and particularly the fairness and transparency of policy processes. The officials furthermore recognise more legitimacy challenges in applying flexible, negotiable policy instruments than coercive instruments. The findings highlight how administrators perceive the legitimacy of land policy is built by advancing values and goals shared by both legitimacy identities.

Track 10: Politics

Track chairs: Anna Geppert, Delik Hudalah, Helena Leino, Juho Luukkonen

Politics of concepts and ideas

Tue 30.6.17:45-19:15, Politics, U119 DELOITTE | Session chair(s): Helena Leino

1645 | Sonia GUELTON, Małgorzata Barbara HAVEL, Andreas HENGSTERMANN, Nikos KARADIMITRIOU

A turn towards a right-libertarian understanding of property rights

The late 20th century witnessed the emergence of neoliberalism (Harvey, 2006) - a theory of political-economic practice characterized by promoting entrepreneurial freedoms, private property rights, and free markets. Neoliberalism favors deregulation, privatization, and market liberalization, marking a departure from previous social welfare paradigms. The paper examines how property rights regimes across Europe have been reshaped by the neoliberal shift. Implications for land policies and planning are significant, and well demonstrated in the use, or not, of land value capture (LVC) instruments for the purpose of funding urban infrastructure.

The 'neoliberal' approach to public policy differs significantly from the classical liberal principles that historically underpinned property rights regimes in many European countries. While classical liberalism recognized the need for state intervention to balance property rights with social welfare, neoliberalism aligns closely with right-libertarian political philosophy, which advocates minimal state interference and emphasizes individual liberty and strong property rights (Alexander and Peñalver, 2012). In this context, 'neoliberalism' can be understood as the political-economic expression of right-libertarianism: they justify strong, minimally restricted property rights, and neoliberal policies operationalize this principle by privileging the unhindered operation of market actors over public mechanisms. The paper highlights how right-libertarian political philosophy has driven reforms shaping European property rights regimes over recent decades, as 'neoliberalisation' expanded across the continent.

Analysis of transformations of property rights regimes in 24 European countries, based on an expert survey, reveals a trend to prioritise individual property rights over collective claims and the weakened social function of property, long embedded in several European liberal legal traditions.

The study underscores how the legal and institutional landscape of property rights is influenced by ideological shifts, shaping property's economic and social functions within contemporary capitalism. Understanding these foundations fosters more nuanced debates on pressing issues such as climate change and resource management.

1679 | Hubert Wulbach

Theoretical approach to shaping the housing environment: linking policy, space, and quality

The quality of the housing environment has become a concern within contemporary urban theory, reflecting the intersection of demographic change, environmental degradation, and socio-spatial inequality. Current phenomena such as intensified migration flows, the climate crisis, and the depletion of natural resources expose the limits of established paradigms of urban development and re-evaluate of what constitutes "quality" in housing. These transformations raise a fundamental question for planners and policymakers: not only how to build, but whether to build – and, if so, how to make the housing environment futureproof in the face of uncertainty.

The presentation develops a theoretical approach to understanding how the housing environment is shaped through the interplay of policy frameworks, spatial configurations, and qualitative attributes of everyday living. It problematises the dominance of market-driven decision-making and the emphasis on quantitative supply targets and economic growth, often pursued at the expense of liveability, social equity, and long-term sustainability. Contemporary debates increasingly call for a shift from a narrow growth-oriented perspective toward one grounded in economic development, where social and environmental dimensions are integral rather than peripheral. Such reorientation demands recognising housing as a multidimensional public good rather than merely a market commodity.

By linking policy, space, and quality, speech proposes an integrative framework that explains how institutional settings and planning instruments shape residential conditions. It highlights how discourses of efficiency marginalise qualitative aspects – such as accessibility and adaptability – that define the everyday value of the housing environment.

Grounded in comparative reflections from Warsaw and Berlin, the presentation situates these theoretical considerations within distinct institutional contexts, illustrating how divergent policy logics produce varied material and social outcomes. The aim is to contribute to the broader rethinking of housing policy as a vehicle for equitable, adaptive, and sustainable urban development, rather than a by-product of market expansion.

2706 | DOUAILLY Sacha, DALMAS Laurent

The "Urban Project" concept as a Tool to Renew Urban Planning Models and Urban Development Scenarios within a Multidimensional Justice Framework

In a context marked by social, economic and ecological crises, and with the aim of balancing economic development, quality of life and environmental preservation, contemporary cities are faced with complex challenges in terms of governance and planning (Masboungi et al., 2012).

The urban project has taken central place in urban production, appearing as an ambiguous instrument. In France, it is characterized both by a conceptual polysemy that allows for its quick implementation, and by a legal vagueness that hinders a full understanding of its boundaries.

Here, we offer a critical examination of how this tool, based on a resolutely operational approach of urban planning (Merlin & Choay, 2015; Pumain et al., 2006), could help us to address the challenges of contemporary urban life. The urban model is still largely guided by the requirements of economic growth and the merchandising of the city, which often conflicts with the underlying principles of social and environmental justice. Through the urban project, we explore ways to rethink governance and design from a truly sustainable perspective, coherently integrating economic, ecological and social dimensions.

An economic reading of the issue provides us with a framework that highlights the tension between the political and financial logics of urban development (Guironnet & Halbert, 2023; Harvey, 2015), the notion of well-being and wealth (Bourdeau-Lepage, 2022; Gadrey & Jany-Catrice, 2016; Jany-Catrice, 2016), and the challenges of spatial, social and environmental justice and their scales (Fanning & Raworth, 2025).

Drawing on an analytical and comparative approach (France-Morocco), our work aims to identify both the risks (political instrumentalization, fragmentation of actors, etc.) and the opportunities (systemic approaches, citizen participation, economic incentive mechanisms based on total cost assessment, etc.) associated with the use of urban projects, particularly in the field of planning economics.

1345 | Wesley Regan

Are Current Planning Theories and Practices Adequate to Withstand Democratic Backsliding and Authoritarian Populism

This session posits that planning theories and practices may stand at a critical juncture as the political norms and values underpinning the world order in which they were established are challenged today by the rise of fundamentally un-democratic political cultures which hold serious implications for planners. For successive generations much planning theory and practice has sought to widen the profession's scope of inclusion and diversify perspectives, to conceive of better processes in the hopes of more sustainable, just, and equitable outcomes. This evolution of theory and practice flourished within a political context defined by a stable and at times expanding liberal democratic world order after the second world war and the unfolding of globalization, neoliberalism, and global digital connectivity. Amidst ongoing societal tensions regarding inequality, affordability, migration, and other issues, populist-authoritarian regimes have been elected in democracies around the world in the 21st century, reshaping institutions, norms and cultures in a trend of 'democratic backsliding'. Bound up in this trend is the role of disruptive digital communications technologies seen undermining the epistemic foundations of public discourse and democratic citizenship while privileging emotionally charged and divisive content contributing to polarization and extremism. The implications of this backsliding arguably extend beyond these regimes alone as the political cultures associated with it can manifest in otherwise strong democracies. Data from dissertation field work undertaken in 2023-2024 in Canada and England informs this presentation as it examines recent public backlashes against planning work in both countries which were rooted in mis/disinformation, 'conspiracist' beliefs about planning concepts and related paranoias about the intentions of democratic governments and the influence of international urban policy focused organizations on them. How are planners responding to challenges posed by such trends today as various aspects of planning theory and practice regarding public participation, communication and conflict are being strained?

2974 | Sami Moisio

Geopolitics of economic ideas: The evolution of human capital approach and its recent challengers

This paper examines the "human capital approach" as an ideational framework that has significantly contributed to the consolidation of technology-based economies into powerful governmental—and consequently geopolitical—systems over the past few decades in the context of both cities and nation-states. It begins by situating this framework within the so-called critical geopolitical economy approach. Second, the paper analyses the origins and evolution of the human capital approach since the late 1950s, with particular attention to its combined "statization" and "urbanization" from the 1990s onward. A specific, productivistic variant of human capital theory, originally developed within the mainstream of economics since the late 19th century, began functioning geopolitically in the 1980s as a broader human capital approach. The productivistic approach to human capital – which took a separate capital-centred path from the more humanistic path that resulted in the creation of the Human Development Index – played a key role in shaping technology-based economies as social and political ideals as well as governmental systems within both national and urban contexts. The transformation of a concept of human capital in economics into a broader human capital approach—adopted by numerous governments—has had significant implications, particularly in relation to wage inequality and the intensification of wealth polarization within and between nation-states and cities in contemporary techno-capitalist economies. Third, the paper identifies three extra-economic processes that challenge the form of the human capital approach that became dominant during the previous round of neoliberal globalization: social polarization and the rise of authoritarianism, anti-university politics, and all-

encompassing militarization. These developments have the potential to reshape the human capital approach, redirecting it toward today's dominant sovereigntist revival, increasingly shaped by militarized, nationalist, elitist, and anti-democratic forms.

Political transformations

Thu 2.7.11:00-12:30, Politics, U119 DELOITTE | Session chair(s): Sami Moisio

1046 | Joanna Kocsis

Multi-Scalar Urban Transformation: Global geo-politics in the streets of Old Havana

A time capsule of Cold War tensions, Cuba represents an important opportunity to explore the impacts of economic and political transitions on urban space. This paper explores how Cuba's fluctuating political alignment is impacting urban form at the neighbourhood scale, documenting changes in land use, built form, the movement of people and resources, neighbourhood character, and tracing the multi-scalar catalysts of these changes through the municipal, national, and global scales.

From Obama's efforts to normalize diplomatic relations between the USA and Cuba in 2017, to the global impacts of the Russian invasion of Ukraine in 2022, and the rapid growth of the Cuban migration crisis in anticipation of Trump's re-election in 2024, this paper connects decisions made in faraway places to tangible changes one can observe walking down any street in Old Havana. It traces the 'explosion of spaces' (Lefebvre, 1979), the multi-scalar flows of money, materials, people, and ideas that are changing the urban form of Old Havana, a neighbourhood which is exposed to such territorial redifferentiation (Lefebvre, 1979).

Inspired by Miraftab's (2021) attention to how forgotten places are "intensely nestled in global processes" and call for attention to "the socio-spatial dynamics of globalization" (139), this paper highlights how Cuba's post-socialist transition creates the conditions for unplanned urban development driven by multi-scalar actors beyond the city and state scales, and has undermined the power of urban planning authorities to direct urban change. This critical case study contributes valuable insights into the force of economic change on the face of the city, documenting how the speed and opacity with which economic reforms are being tested on the island have created a de facto urban policy vacuum in which the form and function of space in the city is rapidly changing in response to both domestic financial and global geo-political factors.

1853 | Bárbara Frutuoso, Luciana Travassos

Assessment of Public Policies for Urban Rivers in the Municipality of São Paulo through the Lens of Environmental Justice

Urban development in São Paulo, Brazil, has historically been shaped by the construction of valley-floor avenues and by the occupation of river margins by socially vulnerable populations. In recent decades, however, the recovery and conservation of urban waterways has gained growing international relevance, especially in the context of climate change. Yet, in cities of the Global South, river restoration initiatives often coexist with urban expansion, risk mitigation and real-estate pressures, generating complex trade-offs.

In São Paulo, recent policy efforts have sought to integrate ecological restoration with urban development. However, their implementation frequently reveals tensions between environmental objectives, infrastructural demands, and socio-spatial inequalities.

This research examines how interventions in urban rivers may reproduce historical patterns of inequality and foster new environmental injustices. The case study focuses on the Pinheirinho Stream, located in

the southern region of São Paulo, a territory marked by the coexistence of informal settlements and areas of increasing real-estate valuation.

Environmental justice is used as an analytical framework, based on four dimensions:

(i) distribution of benefits and burdens,

(ii) recognition of affected populations,

(iii) procedural justice in decision-making, and

(iv) capabilities and conditions for agency.

Based on documentation and grey literature, preliminary findings indicate significant trade-offs in policy implementation. These include tensions between drainage-oriented infrastructure, ecological restoration, and limited social participation, especially for residents of precarious settlements. Future steps include spatial analysis and interviews to deepen understanding of governance dynamics.

This research is funded by the São Paulo Research Foundation (FAPESP), Brazil, under Process Numbers #2024/10614-0 and #2023/10072-0

1180 | Aleksi Heinilä, Aino Hirvola, Hanna Mattila

Should Finns have standing? Neo-illiberal planning and judicial review

Finnish planning culture and law have been touted as progressive in terms of participation, transparency, and accountability. However, particularly for the past decade, the direction of planning law in Finland has in many aspects been the opposite. The goal has been to hasten development projects and streamline administrative processes - to get things done. This has taken the form of, e.g., dismantling the legal control of planning decisions by authorities, thus burdening the civil society with this task (Heinilä, 2017, 177; ESPON, 2018). A recently publicised draft proposal for new Finnish planning legislation would, however, startlingly also limit the rights of appeal in detailed planning for most residents in Finnish cities. Only individuals whose rights or interests are immediately affected could appeal if there is already a general plan in force. Consequently, this would shape the kinds of questions considered in judicial review - private rights more often than public, e.g., environmental, interests.

Such developments in planning institutions signal a more general shift towards neo-illiberalism, a symbiosis between illiberal politics and neoliberal governance (Sparke 2020, Hendrikse 2021, Kurt-Özman & Tasan-Kok 2025, Fearn & Davoudi 2021). Hendrikse (2018, 170) notes that "both neoliberals and populists effectively take power away from liberal democracies, arguing that 'there is no alternative' to either technocratic rule or the unrestrained will of the people."

This case also warrants a theoretical examination of the role of judicial review in (communicative) planning. It has been recognised as an avenue for voices that have felt excluded in (post-political) planning processes (Allmendinger & Haughton 2012), and can be understood as another, somewhat different kind of arena of participation and active citizenship (Owen, 2009; Heinilä, 2025). It is, however, infrequently discussed in planning literature.

2324 | Efsun Toğrul, Ferhan Gezici Korten

The Political Construction of Regional Inequalities: The Case of Turkey

Following the Second World War, the development discourse shaped by the Truman Doctrine became a global intervention targeting “underdeveloped” countries, yet it neither achieved modernization nor reduced the development gap (Bennett, 2012). This raised questions about whom the discourse serves. Escobar (2011) interprets development as a strategy for social and cultural domination, pointing to its colonial logic. Escobar (1995), Foucault (1970) and Said (1978) argue that development discourse produces and legitimizes “underdevelopment” (Bennett, 2012). The positioning of the West as

"developed" and the Third World as "underdeveloped" is viewed as part of a hierarchical and exploitative order (Slatter, 2006). Despite claims that nation-states have lost influence under capitalist development, they continue to shape regional inequalities (Stiglitz, 2013, cited in Silva, 2021).

Development discourse has also shaped how countries address internal regional disparities, generating debates on how its colonial logic informs inequality and how political choices deepen it. As a late and semi-capitalist country, Turkey adopted the developmental model dominant in capitalist contexts; however, despite efforts since the 1960s to reduce disparities, inequalities remain pronounced. A 2025 study identifies six development tiers in Turkey, with the highest scoring above 4.4 and the lowest below –1.8.The concentration of provinces in Eastern and Southeastern Anatolia in the lowest tier reflects economic as well as historical and socio-political dynamics. Since the 19th century, these regions have been excluded from national institutional structures and legal frameworks on the basis of security concerns and labelled "underdeveloped/left behind," constituting a manifestation of internal colonialism.

Guided by the question of how developmental planning discourse has produced the internal colonial positioning of Eastern and Southeastern Anatolia and through which mechanisms it reproduces regional inequalities, this study qualitatively examines state-produced development plans and policy documents and analyses historical institutional mechanisms to reveal the role of planning in sustaining regional inequalities.

Spatial planning

Thu 2.7.14:00-15:30, Politics, U119 DELOITTE | Session chair(s): Sami Moisio

1281 | Antti Mäenpää

Regional effects of energy transitions: Mapping the future of spatial power play

Energy transitions are happening globally and they have lots of implications into the future of land-use. At the same time energy transitions are aligning with global political power play, which adds new aspects into local development perspectives. Recent initiatives to reinstate new industrial policy development, as well as development of AI technologies rely on increasing energy production, sometimes exponentially. Since a lot of new power production in EU relies on increasing renewable energy production, this often means new infrastructure and thus, increasing pressure for effective land-use. Not only that, but strategic resources (like raw materials) are seen in new light due to global uncertainty. This offers both opportunities, but also risks for local planning. Indeed, it seems clear that land itself has become increasingly important resource for attracting new global material flows and economic opportunities. In the STRAIND-project, we have been studying these connections between strategic spatial development, new industrialisation policies and uncertain political times. In the presentation we look at how energy transitions have an effect in regional development and explore how local planning is nowadays much more than local activity. This shifting dynamic between local and global adds pressure to both policies and practises alike and forces us to look at land-use from a more strategic point of view. This also means that coordination between various types and levels of actors becomes more important, since there are several interests that need to align in order to maximise the potential of future spatial planning.

1441 | Patricia Feiertag

Local political decisions influencing land take and density

The European Union has set the aim to reduce net land take to zero by 2050. Local governments are significant agents for implementing land use policies because of their discretion for political decision-making on zoning. While much is known about the perspectives of planners, the impact of political factors such as the political majority, goals of political parties and interests are less researched. We assume that political decisions are driven by demands of interest groups and voters supporting the party,

shaping for whom a party would provide building land. In addition, quantitative studies for Sweden and Germany suggest that a stronger political majority favours land take.

This qualitative study investigates political party positions and local decisions about the provision of additional building land in four medium-sized cities in German city-regions. The aim is to study the impact of local political decision making by identifying justifications, consensus and controversial issues in the negotiations about land use change in municipal councils and planning committees, both between the political parties and between politicians and administration. The results are based on interviews with politicians of three parties (conservatives, social democrats, greens) and planners, document analysis (council meetings, statements from political parties, explanations in land use plans) as well as data on land use change and size and typology of development areas in new binding land use plans. The findings indicate that all political parties agree on the necessity of continuously providing additional building land both for companies and households as a way to secure the future prosperity of their city. For whom and what to build it more contested, such as the building typologies and share of multifamily housing in residential areas. The accepted density has an impact of the additional land take needed to satisfy demands for new building activities.

2315 | Tom Coppens

Deregulating in the Name of No Net Land Take: how NNLT shaped discursive and political opportunities for neoliberal reforms in Flemish planning

No Net Land Take (NNLT) has rapidly emerged as a flagship objective in European territorial governance, reshaping planning paradigms across multiple spatial scales (Lacoere, 2025). While primarily motivated by concerns over soil sealing, biodiversity loss, and landscape fragmentation, the operationalisation of NNLT may entail unintended consequences for environmental protection, spatial quality, and democratic safeguards. This paper critically examines how the NNLT agenda in Flanders has been strategically mobilised within policy discourse to enable deregulatory shifts in spatial planning, sustaining a neoliberal agenda.

Drawing on a qualitative policy analysis of legislative debates, lobbying activities, and regulatory reforms, the study demonstrates how NNLT has functioned as a discursive and political opportunity structure for growth-oriented coalitions, particularly within the construction and real estate sectors. Under the banner of densification, efficiency, and housing delivery, these actors have successfully promoted reforms that weaken strategic planning frameworks, streamline permitting procedures, and expand exemptions from existing planning instruments. These developments signal a broader transformation from plan-led to project-driven spatial governance.

The paper further assesses the emerging implications of these reforms for environmental quality and democratic participation. It argues that, when implemented as a narrowly framed land-use target, NNLT risks being instrumentalised as a single-issue policy, facilitating a trade-off that undermines other environmental objectives and erodes participatory and deliberative dimensions of spatial decision-making.

The paper concludes by highlighting the need for more integrated governance frameworks that embed NNLT within broader agendas. By positioning NNLT as a relational, rather than isolable, objective, this study contributes to current debates on the implementation of NNLT in Europe.

1245 | Michael Wicki, Stefan Wittwer, David Kaufmann

What Drives Ballot Support of Spatial Planning Policies in Swiss Cities?

Following the 2014 revision of the Spatial Planning Act, inward development has become a key objective in Swiss spatial policy. While this shift enjoys broad political support, implementation at the municipal

level often faces resistance, especially when planning measures are subject to a public vote. This paper examines the conditions under which spatial planning proposals are accepted or rejected in local ballots.

The analysis is based on a hand-coded dataset of 1,881 spatial planning ballots held between 2008 and 2020 in all Swiss statistical cities. Each case is coded by instrument type, planning content, and policy design features, and linked with contextual variables such as political orientation, housing pressure, and municipality type. Instruments include zoning plan changes, project and planning loans, land policy measures, and strategic frameworks. Voting formats range from mandatory and financial referendums to optional referendums and initiatives.

Multilevel linear and logistic regression models are used to estimate the influence of both ballot-specific and municipal-level characteristics. Results show that optional referendums have significantly lower approval rates, while ballots tied to legal thresholds or routine procedures tend to pass. Urban context and political leaning also matter, particularly for measures involving regulatory or behavioral change.

To interpret mechanisms beyond the statistical findings, selected contested ballots are used illustratively. These highlight how concerns over local identity, distrust in motives, and narrative framings shape voter behavior. The findings help clarify under which conditions spatial planning gains democratic legitimacy, offering insight into the politics of densification in a direct democratic context.

1930 | Tubagus Furqon Sofhani, Suhirman, Teti Armiati Argo, Haryo Winarso

Theological Audits in the Periphery: Nahdlatul Ulama and the Re-Politicization of Spatial Planning in Indonesia

As global pressures for economic competitiveness render formal spatial planning increasingly "peripheral" to market forces, the search for administrative legitimacy requires looking beyond the state. In West Java, Indonesia, the "technocratic void" left by top-down megaprojects—such as the Rebana Metropolitan—is being filled by a powerful non-state actor: Nahdlatul Ulama (NU). This paper interrogates the Congress's question regarding the "administrative legitimacy and democratic justification" of planning by analyzing how NU, through its subsidiary bodies Lakpesdam and Lembaga Bahtsul Masail (LBM), effectively operates as a "Local Regime" that negotiates the terms of development.

We argue that NU engages in a form of "Theological Auditing" that challenges the "algorithmic knowledge domination" of state planning. By subjecting National Strategic Projects to Bahtsul Masail (Islamic legal deliberation), NU evaluates spatial plans not through Big Data, but through Fiqh (jurisprudence), conditioning the "Halal" status of industrial expansion on strict distributive justice and environmental preservation. This process transforms the "peripheral" voice of the Jama'ah (congregation) into a central veto player, forcing the "growth machine" to confront local definitions of the "good life."

Furthermore, we contrast the failure of state-mandated participation (Musrenbang) with Lakpesdam's structural interventions in local budgeting (e.g., in Sumedang). By institutionalizing participatory mechanisms that bypass elite capture, NU demonstrates a capacity to manage the "spillover effects" of sustainability policies that the formal state lacks. This research suggests that "Rethinking Planning" in the Global South requires recognizing these socio-religious infrastructures not as traditional impediments, but as essential vehicles for "radical inclusivity" and spatial justice in an era of extractive global economy.

Planning politics: who benefits?

Thu 2.7.16:00-17:30, Politics, U119 DELOITTE | Session chair(s): Juho Luukkonen

1307 | Marcio Rodrigo da Silva Pereira

Urban planning and large-scale projects in the State of Maranhão, Brazil

In the 1950s, the Brazilian context was marked by the developmentalist policy of Juscelino Kubitscheck's government, which aimed to accelerate the industrialization process and overcome the country's underdevelopment.

Developmentalism would later be resumed as an economic model by the military governments after 1964. In the following years, the National Development Plans (PNDs) were implemented in an attempt to create areas of economic dynamism and to integrate the national territory (FURTADO, 1961; IPEA, 2015).

In the State of Maranhão, beginning in the 1970s, major projects planned under the PNDs were established, among which stand out: the Port of Itaqui, the Carajás Railway Project, and the Alcântara Launch Center. Therefore, it is important to discuss, within the academic field, the dynamics of the mineral and agricultural productive sectors in Maranhão, which serve the interests of international capital from countries such as the United States and China.

This article analyzes planning policies in the State of Maranhão, highlighting the tensions arising from the implementation of major projects since the 1970s, from the perspective of both local and global geopolitical dynamics. It discusses intensification of territorial inequality, displacement of traditional communities, land speculation, and agrarian conflicts.

The research is defined as exploratory, with a qualitative approach and application of a case study, interpreted through historical materialism and the dialectical method.

The study aims to demonstrate the unequal and contradictory process through which region became urbanized, recognizing severe territorial conflicts and growth of social contradictions. In summary, the influence of international policies and investments has accentuated economic dependence and social vulnerability in the state of Maranhão, resulting from the major projects that have been built in the region.

1351 | Geraldo Magela Costa

Urban planning as politics: theory, practice and education from the Global South perspective.

Miguel Abensour (1998), reflecting on true democracy, writes: "The enigma we face is that of the democratic institution of the social," which, to decipher it, requires delving into the contradictions of the State as a political sphere under capitalism. In Brazil, since the 1960s, this institution has been sought through an urban reform project that involved, and continues to involve, a significant set of sociopolitical actors: professional and civil society organizations, parliamentarians, popular movements, and universities, among others. The result, after more than 50 years of intense engagement with the issue, a City Statute was approved in 2001. This represented a sociopolitical gain, but more than twenty years after its inception, there are obstacles to its implementation regarding its main focus: the social function of urban property. The Statute has proven fragile in the face of market forces, especially in the real estate market. It was in the face of these challenges that the Federal University of Minas Gerais, Brazil, assumed responsibility, before the state government, for developing plans (from 2009 to 2019) – initially for the Metropolitan Region of Belo Horizonte and later for eleven municipalities in this region. The sociopolitical and sociolegal orientation remained the same: democratic institution of the social. Approximately 200 students and faculty members were involved in the process of developing the plans. The methodology was developed throughout the process, collectively and participatively, inspired by John Friedman's (1987) writings on "the politics of planning theory," especially his proposal to move from knowledge to

action (towards social transformation) through the processes of "social learning" and "social mobilization." Henri Lefebvre's "possible utopia" also served as a fundamental inspiration throughout the process. The experience also represented an innovative process of education for planning. In my paper, I explore aspects of these experiences in their theoretical and practical dimensions.

1577 | Yudi Liu

Explaining Asymmetric Urbanism: Contingent Infrastructure, Conjunctural Space, and Ideational Hegemony in Tokyo

Planners and urban geographers increasingly adopt conjunctural analysis to understand how overlapping political, economic, and social processes come together at a historical moment to profoundly shape the current cities, regions, and spatial planning practices (Hart, 2023; Inch & Shepherd, 2020; Sheppard et al., 2024). Recently, methodologies developed a non-normative strand of conjunctural analysis and have begun drawing on analytical concepts related to historical institutionalism (HI) (Davidson & Ward, 2024; Sorensen, 2023; Yeung, 2024).

This paper engages with this progress to elaborate on a conjunctural-institutional approach. It argues for combining the spatial and ideational focus of conjunctural analysis with the temporal and institutional focus of HI, emphasizing their shared ground of understanding political power through historical turning points (Kipfer, 2013; Mahoney, 2021; Pierson, 2016).

This approach is illustrated by a five-step critical juncture analysis that explains the asymmetric urbanism in greater Tokyo after the railway reform from 1982 to 1987. This analysis finds that path dependence on an early 20th-century institution led to the reform of allowing and expecting railway entities nationwide to be financially self-sufficient through profit from non-transport businesses. This idea became hegemonic and intersected with neoliberal reforms in planning regulations over building standards, land uses, and retail spaces. Their intersection induced asymmetric urbanism, comprising physically polarized yet institutionally bound skyscraper complexes and automobile suburbs, alongside sporadically planned inner-ring cores.

This finding reveals that transport shapes urban space as a socio-political process rather than simply as a physical function. It then advances asymmetric urbanism as a mid-level concept for interpreting metropolitan conditions shaped by contingent transport infrastructure. The empirical evidence illustrates that the conjunctural-institutional approach bridges HI's analytical concepts, such as path dependence and contingency, and methodological techniques, such as critical juncture analysis, to planners' interest in understanding spaces and ideas through conjunctural analysis.

2539 | Wanlin Huang, Daniël Bossuyt, Abigail Friendly

The politics of public housing: policy, residential alienation, and populist orientations in Singapore

This paper examines how public housing policy shapes populist orientations through the lens of residential alienation. Since the financialization of housing in the 1980s (Ryan-Collins, 2021), research on housing and populism has primarily focused on the relationship between housing wealth and voting outcomes (Adler & Ansell, 2020; Ansell et al., 2022). Yet this narrow emphasis on wealth effects—and the reduction of populism to electoral behaviour—offers limited insight into the everyday mechanisms through which housing policy generates hardships that translate into populist orientations. As a result, existing approaches struggle to inform policy responses that are capable of addressing housing-related grievances and social fractures. Responding to this gap, we analyse how public housing policy produces tenants' residential alienation (Marcuse, 1975; Marcuse & Madden, 2016) and how this, in turn, fuels populist orientations. Residential alienation provides a lens for understanding the everyday divisions

between tenants and the broader population. Drawing on a qualitative case study of Singapore, we demonstrate that public housing policy gives rise to three interconnected forms of residential alienation. Physically, estate redevelopment displaces tenants to less desirable locations and smaller units. Socially, ethnic quotas disperse co-ethnic networks and weaken social support, while a homeownership-dominated housing regime and the residualization of rental housing position tenants outside the societal norm. Politically, limited consultation, restricted relocation options, and opaque administrative procedures create a profound loss of autonomy. Together, these dynamics distance tenants from a homeownership-dominated mainstream and reinforce a deep sense of 'us' and 'others'. The analysis contributes to debates on housing and urban politics by demonstrating that populist orientations can be understood through micro-level housing experiences; these orientations may manifest in the normalization and individualization of hardships; and populist orientations can emerge not only from the financialization of private housing but also directly from the design of public housing policy itself.

1112 | Igal Charney

State-sponsored real estate entrepreneurism: The financialization of decommissioned land in central Israel

This paper explores the role of the military in the redevelopment of decommissioned military bases in Israel. Leading state agencies have been actively engaged in the remaking of decommissioned military sites in prime locations into large-scale real estate projects. While the military has a long record of influence on the Israeli space, it did not, until recently, engage in steering new development that is entirely extraneous to the military scope. Decommissioned land became a desirable financial asset and state agencies warmly embraced it as a new source of income. With the advent of the neoliberal project, the deepening housing crisis, and the concern of possible cuts in the defense budget, the Ministry of Defense (MoD) became closely involved in seeking to extract the maximum-possible value from its state-landed assets. To make the most of the land, the MoD has assumed a dual role: shadow planner and de-facto developer thus blurring the boundaries between military and civilian spheres. State-assisted financialization has made the MoD a privileged, and perhaps the most powerful real estate speculator in the center of the country. Financialization of military land reveals the unchallenged supremacy of neoliberal principles while making the military the ultimate capitalist.

Democratic challenges and contestations

Thu 2.7.17:45-19:15, Politics, U119 DELOITTE | Session chair(s): Juho Luukkonen

1202 | Serena Mombelli, Jerònia Cubells, Pablo Villar-Abeijón, Oriol Marquet

Media framing and political discourse of Barcelona's urban transformations (2016–2024)

Urban planning is never neutral; it is shaped by ideological struggles and competing visions of what the city should be. Barcelona's superblocks have become emblematic of climate-oriented urbanism; however, their implementation has reignited debates surrounding democracy, legitimacy, and the right to the city. This paper examines how the politics of urban planning unfold through media discourse, showing how urban transformations are mediated, contested, and reframed in public debate. We analysed 896 news articles published between 2016 and 2024, using natural language processing (NLP) techniques to track the evolution of media sentiment and emotion surrounding superblocks. Our findings reveal a persistent negative bias, with emotions such as anger and fear coexisting with anticipation and joy, signalling a highly polarised debate. Peaks in negative coverage align with periods of protest, legal disputes, and electoral campaigns, indicating that the media both mirror and amplify political conflict. By foregrounding risks such as gentrification, participation deficits, and traffic disruption, the media have contributed to shaping the political stakes of superblocks. Yet the analysis also suggests that such

criticisms (where legitimate) prompted municipal responses aimed at addressing concerns. The study also reveals a dissonance between media framings and other indicators, pointing to a potential gap between journalists' accounts and lived urban realities. These findings highlight the importance of acknowledging the political role of the media in shaping public acceptability and urban transformations.

1744 | Lidia Mara Floriani, Clara Elena Irazábal Zurita

Self-Built Urban Settlements in Global South Cities: A study of Lived Spaces through Social Media

Social, cultural, and political forces often reinforce inequalities and stigmatization in urban spaces in the Global South. For example, traditional media narratives frequently portray self-built urban settlements as places of violence, scarcity, and insecurity, influencing public perception and policy agendas. In contrast, Lefebvre's Lived Space concept invites us to appreciate the symbolic and experiential dimensions of space, highlighting the meanings and identities that residents construct. This research examines how residents portray self-built urban settlements in Latin America through social media, with a focus on the extent to which these representations diverge from hegemonic narratives. We employ a comparative case study of Paraisópolis (São Paulo, Brazil) and Barrio Mugica (Buenos Aires, Argentina), analyzing posts on Twitter (now X) from 2015 to 2021. Using NVivo, we combined word frequency and sentiment analysis to examine thematic categories and emotional expressions. The findings show that, opposite to stigmatizing media portrayals, tweets emphasize business, culture, infrastructure, and everyday life topics, with positive sentiments substantially outweighing negative ones. By comparing mainstream and social media self-representations, this study demonstrates how residents in self-built settlements produce alternative narratives, offering insights into lived urban experiences and reshaping collective imaginaries in the Global South. Through this analysis, this study demonstrates that digital media plays a crucial role in reshaping urban imaginaries, contesting stigmas, and affirming local identity, thus contributing to the construction of more inclusive cities.

2112 | Efrat Eizenberg

Living Together Under Deep Conflict: Social Mixing and Urban Coexistence in Haifa

This paper examines the consequences of social mixing between Arabs and Jews living together under conditions of deep ethnonational conflict, focusing on residential large urban developments in Haifa, Israel. While segregation has long structured Israel's socio-spatial landscape, new housing developments increasingly bring members of these historically divided groups into shared domestic environments. Haifa, often celebrated as an "oasis of coexistence," provides a complex setting where historical segregation, everyday proximity, and emerging urban diversity converge. Adopting a spatially grounded micro-phenomenological approach, the research traces how lived residential experiences shape both relational constructs (recognition, mutual care, shared visions) and spatial constructs (management, negotiation, co-production). The paper argues that everyday spatial practices within these spaces generate new relational forms—beyond the binary of coexistence versus hostility—where urban settings operate as mediating infrastructures for recognition, familiarity, and even solidarity. By illuminating how built environments mediate relations between groups in conflict, this study contributes to ongoing geographic debates on urban diversity, transformation, and planning for coexistence. It offers an empirically grounded perspective on how cities might sustain social resilience amidst deep differences.

2243 | Eynat Mendelson-Shwartz

Where can we 'listen' to the public and who do we hear? a look into street art regulation and the democratisation of public spaces

This paper investigates the democratic nature of public space by examining street art as a site of political struggle, where power, control, and competing claims to the city are constantly negotiated. While public conflicts and tensions may appear destabilizing, they have an important role in revealing underlying power relations and providing openings for marginalized groups to assert their right to the city. Furthermore, they ca catalyst urban and social change. Conflicts surrounding street art make visible the uneven distribution of power within the urban landscape, exposing whose voices are amplified, whose messages are suppressed, and which visions of the city are legitimized.

Drawing on the notion that democracy depends on both the right to speak and the right to be heard, the paper argues that "listening" is a precondition for democratic deliberation in public space. Applied to street art, listening requires that artworks remain visible long enough to provoke engagement, contestation, or debate. Selective removal or erasure of street art can function as a form of silencing, narrowing the democratic arena and obscuring struggles over meaning, ownership, and belonging in the city.

By examining which artworks remain and which are erased, the paper offers an insight into the governance of public spaces, highlighting how municipalities exercise power through the governance of visibility. While governing agents often frame their interventions as neutral regulation or protection of public order, such actions frequently operate as de facto censorship, reinforcing hegemonic narratives while constraining dissent. These practices delineate moral geographies that privilege certain voices and values over others. The governance of street art reveals broader political tensions between control and autonomy, consensus and conflict, and regulation and democratic plurality. Understanding these dynamics illuminates how public spaces become battlegrounds for competing imaginaries and how urban governance shapes the possibilities for democratic expression.

1835 | Francesca Bragaglia

Walls of contestation: graffiti slogans, urban governance and the politics of dissent in Turin (Italy)

This contribution aims to shed light on the post-political dimension of contemporary cities and the resulting forms of re-politicisation through dissent. To do so, it focuses on the case of Porta Palazzo in Turin (Italy), a poor and multi-ethnic neighbourhood of the city, which, however, has been undergoing significant pressure for transformation in recent years. The work, which is based on two years of field research and observations repeated over time, interprets the graffiti slogans on the walls as situated forms of political expression that confront the de-politicising rationalities of urban planning and governance practices in the neighbourhood.

In recent years, Turin's municipal agenda has combined narratives of security, urban decorum and new images to guide the transition to a post-industrial city in order to legitimise essentially market-driven processes of transformation in Porta Palazzo. The urban transformation of the area has taken place and is still ongoing in pieces, and through selective storytelling that tends to marginalise the space for dissent. However, the walls of Porta Palazzo tell another story. Slogans such as "Stop gentrification" or "Via i ricchi dal quartiere" (rich people get out of the neighbourhood) disrupt the symbolic order of urban governance, demanding visibility for those excluded from the official narrative of urban transformation. Their appearance, erasure and reappearance show the ongoing battle between what Jacques Rancière (1999) defines as 'police order' and 'politics', in other words, between attempts to silence conflict and everyday practices that re-politicise urban space.

Interpreting graffiti slogans not as an ‘aesthetic disturbance’ but as political interventions in space, this contribution offers a broader reflection on how urban space remains a deeply political arena, in which marginal voices claim their right to the city using another sign on the wall.

Track 11: Practices and Actors

Track chairs: Cyria Emelianoff, Markus Laine, Juho Rajaniemi, Wendy Steele

Community power and grassroots urban planning

Tue 30.6.14:00-15:30, Practices and Actors A, Y228a | Session chair(s): Markus Laine

1487 | Hannah Jeanne Baghuis

Community Power in the Preservation of Historic Garden Suburbs

Early-20th-century garden suburbs, once established as spacious, healthy, and socially inclusive neighbourhoods, are increasingly challenged by urban expansion, physical deterioration, and social change. Once built on the urban edge, these historic planned communities have now been absorbed into the metropolitan fabric, turning many into 'urban islands' with the city extending well beyond them. This shift has eroded their original character, yet their endurance reveals deep-seated resilience in both design and community life. This research explores how the survival of garden suburbs is deeply tied to community agency. While thoughtful planning and visionary design laid their foundation, it is the residents' collective sense of value, activism, and stewardship that has most effectively sustained these neighbourhoods. Across international examples, residents' initiatives have frequently driven protection, often preceding or even substituting formal policies that fail to address local realities. In contrast, top-down preservation and planning frequently neglects the democratic and participatory ideals that originally underpinned garden suburb design. The study highlights a paradox: neighbourhoods founded on principles of participation, inclusivity, and shared responsibility are now often excluded from decision-making in their own preservation. By examining international examples of under-protection and community-led advocacy, the research demonstrates that garden suburb preservation without community engagement rarely succeeds. Moving forward, safeguarding these neighbourhoods must evolve from a defensive act of physical conservation into a proactive and inclusive process that recognises social value and lived experience. Empowering communities as active agents of heritage management can renew the relevance, adaptability, and resilience of these historic garden suburbs. Such an approach can transform both the function and the scope of preservation within today's rapidly changing urban contexts.

1303 | Rachel de Castro Almeida, Viviane Zerlotini da Silva, Maria Elisa Baptista

Between Planning and the Lived: Social Cartographies and Insurgent Practices in the Struggle over the Former Carlos Prates Airport, Belo Horizonte (Brazil)

This paper reflects on the experience of providing technical advisory to community collectives involved in mobilising around the decommissioning and future use of the former Carlos Prates Airport in Belo Horizonte. Framed through the lens of collaborative social cartography, the study positions the city's peripheral communities—historically shaped by self-produced urban space—as central actors in an ongoing negotiation between real estate-driven development and the preservation of local practices, social ties, and territorial uses.

Drawing on urban dérives, workshops with residents and students, and photographic and cartographic documentation, the research highlights everyday practices of resistance and commoning, including community gardens, popular parks, environmental stewardship, and the appropriation of public spaces. These initiatives reveal the political agency of the space's users in imagining alternatives to dominant urban development models.

The analysis further illustrates that, while public policies often operate according to a technocratic and sanitising logic—as evidenced by the BH Vilas Urbanizadas Programme and the creation of Parque Maria do Socorro Moreira—the vibrancy of surrounding neighbourhoods reflects alternative urban rationalities grounded in self-management, solidarity, and a profound sense of belonging.

By offering new modes of reading and representing territorial realities, collaborative social cartography emerges as a powerful instrument for recognising local knowledge and amplifying urban struggles. This study contributes to ongoing debates on agency and participation in city-making, bridging the lived, conceived, and perceived dimensions of urban space.

1594 | Pablo Sendra

Insurgent planning and the collective imagination of utopian futures

In the current context of growing inequalities, the rise of the far right, and a shrinking welfare state, it is hard to take an optimist approach and think about alternative futures where city-making prioritises equity, social connections, and care. Neoliberal forms of planning present themselves as the only way and public authorities just focus on mitigating the effects of this approach. Davoudi (2023), on her paper on 'prefigurative planning', claims for a "collective pursuit of, negating the given, envisioning utopias" (Davoudi, 2023, 2277). In this paper, we explore how bottom-up, citizen-led forms of insurgent planning perform this prefigurative planning role through collectively imagining alternative futures that depart from capitalism. We look at a specific form of insurgent planning, which is the People's Plan (See Sendra & Fitzpatrick, 2024) or Community Plan. These are community-led visions that take the shape of a plan, and which are put together by citizens, particularly when they are threaten by displacement or the erasure of their social infrastructure. These People's Plans are a mechanism for defying and contesting the orders imposed by neoliberal forms of planning (Sendra & Sennett, 2020) and propose a collective vision for a specific place. While they are localised, they have the potential to have a prefigurative function in contributing to imagining future utopias. Building on direct experience of insurgent planning and on various case studies in London, we explore how these collective experiences of plan-making interact with direct action, building agency and social relations, community organising, and in some cases implementation. Using both historical and contemporary cases, we look at the impact that these experiences of insurgent planning have had, and the alternative forms of city-making they have generated.

2789 | Nadia Caruso, Saskia Gribling

Questioning civic actions. Drivers of innovation or substitutes to local governments?

Civic actions are often promoted as innovative, insurgent and able to break traditional processes and procedures. Nevertheless, in the European cities, civic actions have been discussed to offer an alternative to a welfare state in decline (Martinelli 2013) but at the same time, have been pointed as part of a more general withdrawal of the state from certain domains that are consequently transferred also to civil society organizations, giving rise to forms of 'governance beyond the state' (Swyngedouw 2005).

Therefore, civic actions link the domain of the provision of public services, which is facing multiple challenges in Europe, and the scenario of local actors. While the crisis of this provision is well documented in the planning literature, local actions and initiatives, especially in the field of urban regeneration, are more and more left to third and fourth sector, having a self-organised and explorative character. These processes pose severe questions to the sovereignty and to the guiding role of public authorities.

This contribution aims to describe the outcomes of a research project (PRIN20022PNRR-RESISTING) that focused on the innovation of civic actions in the field of planning and their impact on public authorities and institutions. In particular, the research studied Turin, a city in the North-West of Italy, and its urban regeneration programmes and practices, performing actions related to wellbeing, quality of public

spaces, provision of public services (libraries), and public participation. Turin, in the planning literature, has often been acknowledged as a national testing ground of planning innovation, during the 90s and the 2000s, dealing with strategic planning, urban regeneration and local housing policies.

The paper investigates if and how civic actions and local actors are able to trigger innovation in planning practices and local authorities, influencing the agenda of future planning.

2081 | Michael Howcroft, Ellen Bishop

The civic imaginaries of 'two Fromes': negotiating place, belonging and futures in a peripheral English town

A market town in Somerset, South-West England, Frome was once a centre of traditional textile industries and farming. It has in recent years, become both celebrated and contested for its influx of newcomers drawn by its reputation for independence, creativity, and activism. The town's 'do it yourself' political culture (e.g. McFadyen, 2017) forms part of a broader set of civic imaginaries that shape not just self-organisation, but shared visions for community, participation, and belonging. For long-established residents ('old' Frome), recent changes are often experienced as disruptions brought about by new arrivals with their alternative values, resources, and expectations. These tensions are classed and socially coded, becoming markers of belonging or exclusion, and extend to the spatial dynamics of the town: who occupies which spaces, who organises and attends which events. Local debates about development and community priorities are inflected by these underlying logics and visions of what Frome is and could be.

Frome's reputation for pioneering grassroots initiatives and alternative civic organising has garnered attention both nationally and internationally, positioning the town as a model for other communities interested in movements beyond traditional party politics. Yet, while Frome's experience demonstrates the possibilities of transformative local governance, it also exposes some of the challenges faced by smaller and peripheral places as they seek to reshape their civic landscapes and foster more inclusive, participatory approaches. Drawing on interviews, ethnographic observation, and creative workshops, this paper reflects on the intersections and interactions between the civic imaginaries of 'old' and 'new' Frome, and explores some of the implications for future participatory practice.

2951 | Carolina Pacchi

Grassroots initiatives between self organisation and urban governance dynamics

Forms of self-organisation have been at the centre of attention in planning and urban studies in the last years, due to the diffusion and intensification of of local grassroots practices on the one side and on an increasingly pressing push to address emerging needs on the part of state authorities, in the face of severe austerity measures and more in general of neoliberal attitudes towards city governance.

The relationship between forms of self-organisation and effects in the urban realm is nevertheless difficult to grasp, due to the lack of a coherent framework of analysis and interpretation, linked to the intrinsic difficulty of jointly analysing the effects of grassroots self-organisation and of government rules and policies. In the face of widespread diffusion of urban grassroots initiatives across European cities and beyond, it is difficult to assess the impact of such initiatives in terms of contributions to the local political debate and agenda setting on the one side, and their ability to re-orient policy-making, especially in the urban planning field on the other.

Literature is seldom able to go beyond the narrative of individual initiatives and their impacts at very local level, and capable of investigating effects at the interface with institutionalized policy making and agenda setting.Looking at the urban planning domain, local governments are providing at the same time

framework rules, detailed rules and policy actions, which are intermingled in complex ways, difficult to forecast, with forms of societal self-organisation and agency.

The paper will thus explore ways to assess the impacts of grassroots initiatives in the urban realm, looking at their transformative potential, vis-à-vis more traditional or more structured urban transformation tools, and trying to identify which are the structuring elements of the interface between grassroots initiatives and local government action, both in conflictual and collaborative settings.

New methods in planning

Tue 30.6.14:00-15:30, Practices and Actors B, Y228b | Session chair(s): Juho Rajaniemi

2149 | Jorge Batista e Silva, Isabel Loupa Ramos, Lina Hoyos-Rojas, Nuno David

Gaming Towards Biodiversity: Insights from Serious Games in The Planning Context

Serious games are increasingly utilized in multi-actor contexts to promote participatory, learning-oriented decision-making and collaboration toward shared objectives. They may support scenario development, stakeholder interaction, and deliberation. To explore how biodiversity can be integrated into spatial planning, we designed the BioValue Game, developed within the Horizon 2030 project. It fosters interaction among individuals with a collective objective related to biodiversity enhancement, planning instruments, and individual actions.

The game includes physical and digital versions. Both explore the dynamics between players who represent distinct stakeholders/entities. During the gameplay, participants go through two rounds of instrument-card placement and one round of action-card placement. Each player/entity has a personal objective; however, the game remains fundamentally cooperative. All players must work together to overcome the collective challenge, yet the design simulates real-world situations in which different institutions and stakeholders hold diverging interests. In the digital version, players have access to an integrated chat function, ensuring that the deliberation component of the game is preserved. The game needs a first customization step to address the local issues and context.

Applying the game to a real-world case showed that the most frequently applied planning instruments were Protected and Conservation Areas, Information, Consultation, and Engagement, Monitoring and Evaluation, and Tax Relief and Subsidies. The instruments most closely linked to action cards included Best Practice Guidelines for Private Landowners, Information, Consultation, and Engagement, and Enhancement Measures. Human capital actions—based on individual knowledge and skills—were most connected to the frequently used instruments, while physical capital (e.g., infrastructure and materials), was more often related to instruments such as Protected Areas.

This type of serious game has revealed great potential for raising awareness among experts and stakeholders about promoting biodiversity, knowledge of available instruments, understanding the interests at stake, and establishing alliances for future actions.

1268 | Dahae Lee, Celine Janssen

Understanding the dynamics: How capacities and capabilities both enable and emerge from co-production and co-creation

Co-production and co-creation, collectively referred to here as co-concepts, are increasingly prominent in planning theory and practice across the Global North and Global South, with the potential to foster inclusive, effective, and equitable outcomes by including citizens, particularly marginalized groups. While scholars acknowledge that co-concepts both depend on and give rise to specific capacities and capabilities (e.g., communication skills, knowledge), there is limited understanding of how they develop and influence one another over time within co-concept processes. Moreover, while there is substantial

planning literature on institutional capacity in relation to collaborative approaches, far less is known about individual actors' capacities and capabilities in co-concepts. To address these gaps, our study poses three main questions: 1) Which capacities and capabilities are relevant for co-concepts as enabler, outcome, or both?; 2) For whom are these capacities and capabilities particularly relevant and how can they be effectively developed?; and 3) How do these capacities and capabilities influence one another?

The presentation is structured in two parts. First, we provide a comprehensive overview of seven key capacities and capabilities relevant to co-concepts, identifying for whom they matter and how they can be developed. This is based on a systematic literature review supported by comparative analysis. In the second part, we present empirical findings from an urban living lab in Rotterdam, designed to empower youth to engage in higher levels of participation, understood here as co-concepts. Drawing on reflections from a series of training sessions focused on developing communication skills, we demonstrate how these skills can be strengthened and, in the process, how they influence other capacities and capabilities. The study advances understanding of how specific capacities and capabilities both enable and emerge from meaningful co-concepts, offering a conceptual framework and practical insights for fostering more inclusive and effective participatory planning processes in diverse contexts.

2844 | Tuomas Ilmavirta

Soft planning and narratives of urbanity in the planning and development of Kalasatama, Helsinki, Finland

Taking the increased importance of narratives, visuality, and symbolic representations in urban planning and development as starting points, this presentation analyses soft planning practices and urbanity in the regeneration of the Kalasatama area in Helsinki, one of the largest regeneration projects in Europe. In Helsinki, "social space" has been introduced as a new domain of planning, and urbanity is widely accepted as a common planning goal at both the statutory and non-statutory planning levels. By analysing planning and development documents, media articles, and expert interviews with key actors in the regeneration of Kalasatama, this presentation discusses how narratives of urbanity are constructed and employed in the planning and development of Kalasatama. Soft planning practices, such as visioning and facilitating temporary uses of space, have been important for creating and shaping these narratives.

The narratives of urbanity aim to construct a shift from a redevelopment site known for informality and urban activism into a mixed-use upper-middle-class neighbourhood characterised by upscale housing, creative industries, and urban consumption. Here, the contradiction between the aims of development and the content of the narratives used to support planning highlights the contested nature of urbanity. The findings suggest that soft planning primarily aims to create imagery and narratives of urbanity to decrease economic risk for investors and increase the value of new developments. However, the case also shows the potential of soft planning to facilitate urban activism, enrich urbanity, and re-politicise planning debates.

1543 | Karina Landman

Forcing an octopus in a jar or letting it swim? Transdisciplinary planning, agency and collective inquiry in building regenerative public space

Various forms of urbanism, along with interdependent challenges such as equity, climate change, and technological innovation, pose challenges to established planning practices. More traditional planning instruments often struggle to keep pace with rapid transformations, while high levels of uncertainty threaten to erode a sense of stability and control. These uncertainties also impact many people's level of engagement with an alternative future. Addressing these issues requires innovative thinking and planning

to ensure collaboration, as well as inter- and transdisciplinary approaches to tackle complex problems. Wicked problems are caused through interdependent challenges and require a holistic and systems approach to comprehend. These problems are unique and interlinked with many others, often lacking a clear definition or immediate solution. Due to the numerous incomplete aspects and the fact that situations are constantly evolving, a comprehensive understanding of all the influential and related issues and stakeholders involved is required.

In the midst of numerous challenges, future ambassadors are working to change the trajectory. This paper focuses on four public spaces in different parts of the City of Tshwane – the municipal area incorporating Pretoria, the capital city. The paper reports how four actor groups from different communities initiated processes of regenerative development and design. These practices were then celebrated and enhanced through the establishment of a transdisciplinary digital platform, which encouraged further stakeholder involvement in building a broader regenerative community. The discussion illustrates how enabling a digital innovation ecosystem entails acquiring talent, enabling creativity, building agency, and encouraging collective inquiry. Such a process requires innovation in physical and digital worlds through partnerships and collaboration. Igniting potential in people is not about forcing an octopus in a jar, but allowing room for self-organisation and a level of sovereignty.

1724 | Paola Clerici Maestosi, Michela Pirro

From Bottom-Up Actions to Collective Urban Management: The Green Tactics in Ravenna's DARE Project

Urban regeneration in medium-sized European cities increasingly requires practices that can overcome institutional inertia, fragmented responsibilities and a lack of collective vision. Traditional planning tools are struggling to tackle the growing pressures of transition, especially when urban regeneration is intersected with digital transformation, socio-economic vulnerability and environmental justice.

Drawing on the experience of the Transition Arenas developed by DRIFT and tested in the Urban Innovative Actions DARE project in Ravenna, this contribution analyses how transition management was implemented to the case study, focusing on participatory visioning and experimentation to foster an urban transition towards sustainability.

The process combined enabling digital environments, capacity building activities on digital culture and simulation tools, together with pilot actions related to mobility, energy efficiency and neighbourhood well-being. In this context, attention to local environmental quality represents a first operational step towards emerging forms of multispecies justice. The digital tools were not conceived as "smart" in the technological sense, but as true mediators of action: devices for building shared narratives, identifying priority criteria, testing the feasibility of projects and ensuring consistency between project and decision-making cycles.

The successful implementation of the selected "Green tactic" demonstrates how transition areas can reshape planning practices, shifting from consultation to co-production, creating legitimacy for experimentation in areas characterised by socio-spatial vulnerability and fragmented property regimes. The results highlight how transition management allows municipalities to reposition themselves as active administrators and not just regulators, while local actors obtain new capacities for intervention beyond the limits of existing mandates.

The case of Ravenna suggests that the convergence of pluralistic knowledge, digital infrastructure, and bottom-up visions can unlock paths of transformation that cannot be achieved through statutory planning alone. The experience contributes to debates on practices and actors in contemporary planning, highlighting the importance of reflexive, non-linear governance architectures for urban transitions.

Anticipative governance, long-term vision

Tue 30.6.16:00-17:30, Practices and Actors A, Y228a | Session chair(s): Markus Laine

1989 | Teresa Herzmann, Agnes Förster

More than one instrument: Understanding complex and interconnected planning processes for more urban and affordable housing

Many municipalities in Germany only respond to municipal housing issues in the short term and reactively, using isolated instruments. However, there is often a lack of active design using interconnected instruments within the framework of a long-term strategy.

Multi-instrumental process chains and the reasons why they are not established practice have not yet been sufficiently researched. In order to identify the drivers and obstacles to the combined use of instruments at the municipal level, it is particularly interesting to examine the interfaces between the individual instruments within the process chains. This contribution posits that multi-instrumental process chains are subject to tension between four determinants—resource transfer, temporality, stakeholder constellations and space—which require in-depth examination of the individual instruments, their interfaces, and their interdependencies. Effective municipal strategies could be developed on this basis.

The strategic creation of housing requires a high degree of complex and interconnected planning involving the cooperation of multiple actors. However, this requirement runs counter to the current trend of marginalizing planning. In Germany, for example, these trends are evident in the adoption of Section 246e of the Building Code in October 2025. The supplementary paragraph allows for deviations from building planning regulations. At this year's WPSC, the contradiction between the need for complex planning processes for the strategic housing development and the currently discernible marginalization of planning will be discussed in an international context, and potential scope for action will be identified.

On the one hand, this contribution highlights the potential of multi-instrumental process chains for sustainable and needs-based municipal housing development in Germany and presents a research approach developed in this context. On the other hand, it discusses the demand for complex planning processes associated with strategic housing development in contrast to the currently discernible marginalization tendencies of planning.

2547 | Jenni Kuoppa, Helena Leino, Markus Laine, Raine Mäntysalo

Managing the Performativity of Urban Planning Visualisations. A Case from Finland

The performative role of urban planning visualisations has been acknowledged in planning literature. Computer-generated images and photorealistic renderings, in particular, often succeed in capturing public attention and occasionally spark heated debates too. These visuals not only communicate future plans to a wide range of stakeholders but also support specific narratives and storytelling about the envisioned futures. They affect how planning issues are framed, discourses shaped, and the focus of public discussion steered. Thus, the role and impacts of renderings on planning processes must be carefully managed. However, how planners engage with them remains understudied. This paper explores how planners perceive and manage the performative functions of renderings as part of broader storytelling in urban planning. We draw on observational and interview data from a Finnish planning and urban development case and use urban planning renderings as supplementary data. Three key approaches for using and managing the performativity of visualisations are identified: persuasion, avoiding closure, and managing expectations. For planners, the challenge lies not only in using images effectively, but also in navigating and controlling their influence throughout the planning process.

2439 | Jacob Bjerre Toft Mikkelsen

Co-creating vision plans

This presentation explores how urban planners, researchers, politicians and citizens cooperate in making new types of planning addressing the need for planning outside the formal, legally mandated planning system. With point of departure in a specific case; the process of making a vision plan for a larger city in Denmark, this presentation unfolds the entanglement of knowledge, citizen agency, political agendas and designerly thinking in the formation of three images of the future city; the ecological visions for climate adaptation, biodiversity and multispecies incorporation, the mobilities of the future city and the development and transformation of the built environment. In a layered approach these images are superimposed and linked in the ambition to address multiple, interlinked problems and potentials in a coherent vision plan for the city. The vision plan is created through a co-creation process involving multiple public meetings and workshops linking local and scientific knowledge from participating researchers and builts upon a variety of analysis of the existing city.

The case is presented as a way of handling wicked problems in contemporary urban development. This is evident in the multidisciplinary nature of the plan, the co-creation between a wide variety of stakeholders, practitioners and researchers and discussion of their roles and agencies in the process. It also shows in the ambition to address some of the major global challenges on a local scale: the loss of biodiversity, climate adaptation, health of citizens, mobility congestion, urban transformation and migration. The vision plan is an example of what we might term 'strategic urban design', here understood as the co-creation of common images and future scenarios for urban transformation and development. Lastly, the presentation discusses future uses of the plan and role and implementation in related formal planning documents such as the municipal plan and future local plans.

2817 | Saskia Naafs

Re-introducing long term thinking into planning through experiential futuring: the case of NL2100

Spatial planning scholars have long emphasised the need for future-oriented, strategic thinking in planning practice (e.g. Couclelis, 2005). Given the escalating challenges of climate change and the transformations required across multiple sectors to achieve sustainability goals, this future-oriented approach is now more critical than ever (Davoudi, 2023). The urgency is particularly evident in the Netherlands - a densely populated, low-lying delta with a strong tradition of spatial planning and planning acts that look decades ahead (Faludi & Van der Valk, 1994). Yet despite this heritage, Dutch spatial planning has become increasingly myopic in focus, prompting calls for renewed vision and imagination. Our understanding of how imagination actually operates within planning processes remains limited, however. In particular, we lack detailed insight into how design interventions can be effectively staged within these processes.

Drawing on prefigurative planning, I examine how a design-led futuring case study sought to break free from short-termism in planning. The Board of Government Advisors' NL2100 program organised a series of design workshops, called Future Ateliers, between 2021 and 2025. The Board advises the Dutch central government on spatial planning and spatial quality. The Future Ateliers provided a "soft space" in which groups of spatial planners, designers, scientists, policy advisors, and other experts could explore a spectrum of spatial futures. The workshops emphasised the need for experiential approaches to futuring: making speculative futures visible and thus open to discussion (Candy, 2010). Using the lens of techniques of futuring, I analyse how experiential futuring actually "works", paying particular attention to the dramaturgy of futuring (Hajer & Pelzer, 2018). As an external PhD candidate working for the Board of Government Advisors, I analyse this case study as a reflective practitioner (Schön, 1991).

2086 | Fernanda Paz Gómez Sáenz

Territorial regeneration as a circular principle. Community-led practices in Chile and Colombia

Circular processes are gaining prominence in Latin America. Among the leading countries, Chile and Colombia have made notable progress by developing National legislation frameworks for circular transitions, while numerous local initiatives have emerged at the community level. However, significant challenges still exist in integrating circular processes into regional planning.

Territorial regeneration is a process of ecological and urban renewal operating at a regional scale, capable of linking local circular initiatives with national policy frameworks. The article examines how community-led practices contribute to territorial regeneration and explores new forms of stewardship, reciprocity, and collective agency as tools to strengthen circular dynamics.

It conceptualises territorial regeneration through a comprehensive literature review that links regional planning with regenerative approaches. Drawing from a multiscale perspective that includes urban, social, and environmental factors, this study identifies and examines community initiatives in Chile and Colombia focused on territorial regeneration. It is accomplished by qualitatively selecting initiatives through interviews and reviewing existing literature.

By illustrating local regenerative strategies, the article develops a critical framework for rethinking regional planning through the lens of circularity. It argues for viewing the territory not as a passive resource but as an active agent in shaping resilient socio-ecological systems. Ultimately, the article shows how local actions can inform further development of national and regional policies in Latin America.

Planning for multispecies cities

Tue 30.6.16:00-17:30, Practices and Actors B, Y228b | Session chair(s): Juho Rajaniemi

1037 | Nora Fagerholm, Maria Hällfors, Alex Lechner, Michael Christie

Integrating ecological connectivity and place-based social values – towards multispecies valuation of urban green infrastructure

Planning and decision making for a just green transition requires acknowledging both human and ecological values for nature. Thus, sustainable solutions should be balanced across not only humans and the diverse communities they belong to, but also across multiple species and elements of biodiversity. While the topic of multispecies justice (MSJ) is becoming more established, it remains unclear how to integrate it in the planning of urban green infrastructure. A key question is how to create a network of green infrastructure and ensure habitat connectivity that supports multiple species while simultaneously sustaining good quality of life and wellbeing for people. We present a novel approach for multispecies valuation of urban green infrastructure with a case study in Tampere, Finland that is applicable in other urban contexts. Ecological values were derived for species archetypes based on functional trait data of grassland and forest dwelling butterflies and the habitat and movement data for the Siberian flying squirrel to model connectivity of different types of other species. Human values were derived from a PPGIS survey that elicited residents' place-based values on nature following the IPBES nature values typology. We integrate these data to develop a spatial valuation of urban green infrastructure from a multispecies perspective to dissect overlapping valuable urban areas. We also analyse how the distribution of urban nature types in Tampere relate to this multispecies spatial valuation. We discuss how the presented approach addresses MSJ concerns regarding representation, distribution and agency, and how it can support urban planning. This methodologically oriented study places MSJ concerns at the forefront of green infrastructure assessment to ensure that wellbeing needs of both humans and other species are met in urban areas.

2239 | Pooja Kumar

A Roadmap to Posthumanist Planning Ethics

If we want to incorporate multispecies justice into planning processes, we need to start talking about how the bulk of planning scholarship and research is steeped in human exceptionalism, and what sort of practitioner community this orientation has created. As a discipline, we really should engage more actively in transdisciplinary conversations about the specific entities that constitute the more-than-human world. Unless we acknowledge the harm that we cause to this world when we reduce it to notions of environment, species, and protection, we will not be able to turn planning on its head and have an honest conversation about what a posthuman future looks like for our discipline and profession. If not for the lawyers and philosophers from whom I have gleaned priorities, and absent my own reflections on my professional and personal experiences, I would not have been able to identify how narrow and shallow our current conception of planning ethics is. My presentation will include a creative roadmap of the everyday, practitioner, and scholarly influences that have led me to leave planning practice and become a PhD student thinking about planning ethics and nonhuman animals. There are lessons for pedagogy here, and also suggestions: that planning scholars and practitioners alike need to access, apply, and communicate different knowledges, if planning processes are to ever become malleable enough to serve as posthumanist infrastructure.

1428 | Juho Rajaniemi, Minna Chudoba, Alvaro Corredor Ochoa, Hamed Mazaherylaghab, Himansu Mishra, Annuska Rantanen, Elina Sirén, Laura Uimonen

Inclusive urban planning and design for co-liveable cities through multi-species affordances

Urban planning and design within Global North is experiencing discernible epistemic ethical reorientation away from anthropocentric traditions toward more multispecies perspectives. This is a gradual yet profound transition, which our earlier work characterises as “biodiversity turn” in urban planning. While such recognition continues to expand across policies and practice, a substantial knowledge gap remains, making it difficult for planners to advance 'co-liveable cities' where both human and nonhuman species can thrive.

Drawing on a recent integrative review of empirical cases reported in scientific research, we examined how multispecies interaction is mediated within an urban setting. From this analysis, we identified three foundational concepts underpinning multispecies co-liveable city, namely caring, sharing, and not-interfering. Collectively, these concepts offer a compelling foundation for reimagining the urban environment through a normative orientation toward spatial affordances, multispecies recognition, and environmental justice.

To assess the practical relevance of these concepts in planning and their resonance with everyday urban experience, a citizen-science approach is employed adapting a bespoke application developed within a Horizon Europe Project (COEVOLVERS). The NatureNex App gathers stories of human-nonhuman species encounters across built, natural and hybrid urban spaces from students and researchers in the field of built environment at a Finnish university. The stories are operationalised through the caring-sharing–not-interfering framework. The situated narratives provide insight into how specific environments support or constrain multispecies cohabitation and how urban spaces can be designed or adapted to foster multispecies co-liveability.

Anticipated outcomes of this ongoing research include actionable planning strategies and landscape and urban design considerations that substantiate and operationalise the caring, sharing, and not-interfering concepts. In doing so, the research advances the emerging debate on ethical urbanism and equip planners with conceptual tools for envisioning cities as inclusive and multispecies habitats.

2126 | DALMAS Laurent, SAINT-GES Véronique

Agriculture in a Sustainable City: three case study of Rooftop Urban Agriculture Projects in and around Paris using the concepts of sustainability and total wealth.

The literature shows (Gallimard, 2000; Kozyreff, 2023; Liefooghe, 2003) that re-appropriation of sites formerly dedicated to economic or social activities provides opportunities to transform or add new activities such as agriculture, thus contributing to the development of more sustainable cities. Since the 2000s, Rooftop Urban Agriculture (RUA), driven by public and private actors, has expanded within cities by occupying buildings of various functions - old or new, refurbished or not. Based on initial research works inspired by the World Bank's concept of genuine saving taken as a sustainability indicator (Hamilton, 2000) and applied on a smaller territory in order to assess the weak and strong sustainability of urban heritages' projects (Dalmas et al., 2015, Dalmas and Geronimi, 2021), our study aims to measure the local total wealth generated by three very different RUA projects (two above a city of Paris sports complex and administrative building, one above an headquarter of BNP-Paribas Real Estate newly rebuilt on a Renault former factories site close to Paris). Our research is dealing with the assessment of the real economic value and its long-term determinants, considering all the dimensions at stake (economic, environmental, social, and possibly cultural).

Using on one hand an evaluation across each dimension of impacts (mitigation of indoor temperatures, individual wellbeing improvement from agricultural activities) in monetary term (flew values) of these three RUA projects, and on the other hand the construction of an analytical framework, we aim to show how these projects are long run-sustainable, and to identify determinants promoting or threatening this sustainability. This approach may help both private and public actors involved in these projects to better integrate them into the buildings that host them, highlighting the investments (stock values) that should be prioritized, given the fact that each dimension is interconnected with the others (Dalmas et al., 2015).

2391 | Margarida Monteiro, Maria Partidário, Sofia Santos, César Marques

Transition in the Making: Planning for Nature Valuation in a Portuguese Municipality

Despite international and European policies in place to preserve biodiversity, persistent land use and cover change have a major effect on biodiversity loss (e.g., OECD, IPBES) and Europe was not able to achieve its overall target of halting biodiversity loss by 2020. Current realities are thus calling for a transition in spatial planning to decrease biodiversity loss, enhance the recognition of biodiversity value in territorial development, while setting trajectories towards a sustainable desirable future (meeting SDGs). A question emerges: how spatial planning can leverage transformative change for valuing biodiversity? The BioValue project, a three-year Horizon Europe project, sets the challenge of supporting the safeguard and increase biodiversity through transformative change in spatial policymaking and planning practices, upscaling opportunities for valuing biodiversity in support of EU Biodiversity Strategy 2030. Adopts a multi-instrumental approach, focusing on biodiversity transformations in spatial planning and exploring the transformative potential of spatial planning processes for increasing biodiversity values to society. This presentation will share the planning transition process of an arena for transformation (representing an action territory) in a Portuguese Municipality (Mafra, within the Lisbon Metropolitan Area). The formal spatial planning process in Mafra has started in early 2024, following a cyclical process started in 2015) and will lead to a new revision of the Master Plan of Mafra Municipality. BioValue promoted a collaborative planning process and co-created (with local community) a transition planning 'label' of "Spatial Planning for all Mafra Territory". The intention is for Mafra being proactive in both urban and non-urban areas equally for territorial development. The transition process of Mafra will be presented, and lessons shared, as well as opportunities and challenges for the expected transformation in Mafra driven by the urge to protect biodiversity and value natural capital beyond legal requirements.

Planning for transition

Tue 30.6.17:45-19:15, Practices and Actors A, Y228a | Session chair(s): Linda Fox-Rogers

1851 | Eva Purkarthofer, Dominic Stead

How do public planners perceive their scope of action?

Agency and structure are frequently identified as crucial determinants in shaping planning policies, yet in-depth insights into the agency of individuals remain scarce. This article studies how public sector employees in the field of planning perceive their own scope of action, understood as their ability to affect plans and policies. The study builds on empirical data collected through an online survey featuring a Q methodology sorting exercise to which 104 public administrators from Finland responded. The data reveals four clusters of respondents with similar sorting patterns: “collaborative administrators”, “frustrated workers”, “active experts” and “individualist innovators”. These clusters are characterized by differences regarding the perceived importance of individual initiative, collaboration and structure. When contrasting these groups against the planner archetypes defined in the literature, it seems that some characteristics of doers, bureaucrats and entrepreneurs can be found among Finnish planners. However, the results also highlight a rarely addressed dimension: satisfaction. While most respondents are content with their own scope of action and confident about their own contribution, a group of “frustrated workers” is evident: planners who are dissatisfied with their work and impact. Within this group are a significant number of women who are relatively new to the planning profession. The findings suggest that the dimension of satisfaction/frustration among planners, and public servants in general, warrants further investigation, as it might provide new insights into the complex processes of policy development and decision making in planning.

1729 | Teemu Jama

Proxy Metrics as Integrative Tools for Bridging Across Disciplinary Theories in Planning Practice

Urban planning practice draws on rationalist engineering theories, relying heavily on per-capita calculations to assess the sustainability and economic feasibility of infrastructure in urban design for zoning documents. These metrics naturally favour high-density development, as Gross Floor Area (or population estimates derived from it) acts as the divisor for the total material and operational impacts of a facility. This contemporary density-driven planning further links efficiency metrics to lifestyle ideals, assuming that densification enhances sustainable mobility and supports local living with numerous transdisciplinary benefits (Moreno et al., 2021; Vaattovaara, 2023). It is also widely argued that compact development protects nature by limiting sprawl (Berghauser Pont et al., 2021; Bruegmann, 2005). Yet empirical studies show that current dense construction generates substantial material emissions and accelerates consumption, producing indirect impacts that outweigh these anticipated benefits (Ala-Mantila et al., 2014; Heinonen et al., 2013). This tension is also visible in debates on ecosystem services: although these functions are well recognised, they remain poorly integrated into efficiency-oriented planning (Güneralp and Seto, 2013; Hautamäki et al., 2024). The established green perspective approaches urban density from the opposite direction: the EU Restoration Regulation’s canopy cover is now aiming to track openness – the opposite of density (European Commission, 2020).

If planning continues to use metrics that favour density for “the grey infrastructure” but measure openness for “the green”, it may perpetuate current fragmented development, and high-carbon construction may persist. These challenges call for transdisciplinary metrics that seek balance in the overall sustainability direction of growth, rather than disciplinary optimisation for the precise subthemes. This entry examines how scientifically grounded proxy metrics, informed by the Critical Realism concept of causal powers (Bhaskar, 2010), can support such a rebalancing and eventually bring isolated theories together in the transdisciplinary scope of planning and practice.

1299 | Maria Carolina Maziviero, Laura Sobral Rodrigues, Paolo Colosso

Rethinking Climate Planning in Brazil from the Ground Up: Perspectives on Grassroots Partnerships

This paper addresses the challenges faced by local governments in small and medium-sized Brazilian cities in implementing climate policies, particularly regarding access to funding and the prioritization of grassroots solutions. Many municipalities lack the technical capacity to submit competitive project proposals, which limits their ability to act. When funding is secured, community-based and low-cost initiatives, rooted in local knowledge, are often overlooked in favor of market-driven approaches.

We propose to explore models of technical popular advisory services and public–social partnerships as potential strategies to strengthen local climate action. Such approaches can facilitate the integration of grassroots practices, promoting more democratic, context-sensitive approaches. The paper also examines the difficulties in monitoring these processes and outcomes, a crucial issue for evaluating results at the local and peripheral levels.

The research is based on case studies conducted in selected municipalities, including interviews with local officials, technical staff, and community members. We aim to identify both advances and obstacles in the operationalization of these approaches and to propose monitoring mechanisms that make the impacts of grassroots solutions more visible. Ultimately, this study contributes to rethinking climate planning by valuing peripheral perspectives and promoting a more participatory and integrated approach, one that enhances community autonomy and acknowledges their relevance regarding the climate crisis.

2914 | Elisa Privitera

Socio-technological Innovations Advancing Climate Equity and Justice in Cities

Technological innovation is widely promoted as a solution to climate change, yet its potential to advance climate justice remains limited without explicit commitments to equity, inclusivity, and community empowerment. This paper argues that innovation must be understood within broader socio-technological systems shaped by social dynamics, power relations, and cultural contexts—particularly in cities, where climate impacts disproportionately affect vulnerable groups. Traditional urban climate actions often emphasize technical interventions, but these alone cannot address the systemic roots of urban inequity and may unintentionally reinforce existing injustices.

Building on the ongoing interdisciplinary research project Canada Excellence Research Chair Network for Equity in Sustainability Transitions, this paper outlines a developing framework that positions socio-technological innovation as a pathway not only for climate action but also for climate equity and justice in cities, ensuring that solutions are accessible, inclusive, and community-led. The research examines how NGOs, grassroots movements, community hubs, and other community-based organizations contribute to justice-oriented urban sustainability transitions, with particular attention to how their innovations engage distributive, procedural, recognition, restorative, cosmopolitan, intersectional and multiscalar dimensions of justice.

To this end, the paper introduces a methodology that combines a literature review of socio-technological innovation with a comparative analysis of community-led initiatives in Toronto, Los Angeles, and Mexico City.

Reflecting this approach, the paper includes two main sections. The first presents major trends and challenges in the academic debate and scientific literature, and identifies existing gaps and underexplored areas. The second, drawing on the comparative analysis of the three cities, identifies how social innovators co-produce climate knowledge, foster political innovation, and advance intersectional climate equity across sectors and scales. Finally, the paper offers insights and recommendations for both

academic scholarship and urban policy, highlighting lessons that can be learned from ongoing socio-technological innovations emerging within cities.

1589 | Larissa Brandenstein

Planning Practice in Chile: How Planners' Motivational Orientations Shape Disaster Risk Reduction

Around the world, resilience, climate adaptation, and disaster risk reduction have become ubiquitous policy buzzwords. Also in Chile, a country exposed to a wide range of hazards, corresponding discourses are present, though effective prevention or mitigation measures remain rare. While existing research predominantly examines the wider political-economic and institutional dynamics shaping disaster risk governance, little attention is paid to the everyday practices of municipal planners and local bureaucratic realities that determine whether, how and at whose expense disaster risk reduction is actually produced on the ground.

This study examines how municipal employees interpret and enact disaster risk reduction under conditions of institutional ambiguity and resource scarcity, drawing on actor-centred institutionalism (Mayntz & Scharpf 1995; Scharpf 2006) and the concept of Street-Level Bureaucracy (Lipsky 1981, 2010). Based on semi-structured expert interviews in diverse municipalities, the study elaborates (1) the perceived institutional and broader context that stimulates, enables or restricts actions, (2) the types of motivation that orient planners' actions within this frame, and (3) resulting discretionary practices that ultimately represent the locally grounded production of disaster risk reduction.

Findings show that Chilean urban planners' actions are constrained by centralised decision-making, rigid and contradictory legal instruments, and power imbalances with influential private actors, within a broader context of informality, limiting municipalities' ability to implement risk-sensitive spatial planning. Planners cope with these constraints through five types of motivational orientations. These orientations shape how disaster risk reduction is produced, ranging from capacity building in the community, collaboration in the emergency, to efforts to enhance one's own professionalism and that of their immediate administrative environment.

1449 | Stan Majoor, Peter Pelzer

Can planners be connectors between imagination and delivery?

Long-term thinking not only lies at the core of the planning profession, it is also urgently needed in a context of the socio-ecological challenges cities and regions face. However, at the local level, most studies observe planners operating in a pragmatic manner focusing on problem-solving without much reflection on the long term (i.e. strategy). In this paper we interpret the role of a planner as a 'frontline' professional operating at the intersection of imagination and delivery. While the former requires exploratory and futuring capacities, the latter involves actions to ground concepts in concrete planning interventions. It is in the connection between these two aspects that planners and the planning systems they are part of struggle with. Long-term scenario's and visions on the one hand often are detached from day-to-day decision making, thus becoming more escapism than strategy. At the same time, short-term planning actions are dominated by mostly pragmatic concerns, heavily dominated within existing government- and market-oriented logics.

With a case study on three contemporary planning processes in the Dutch city of Amsterdam we analyze how and why imagination and delivery are mostly disconnected. We also explore what is required to create a more integrated future-oriented and rooted practice based on insights from design and organizational studies.

Interstitial planning: tactical urban planning, negotation

Thu 2.7.11:00-12:30, Practices and Actors A, Y228a | Session chair(s): Przemysław Ciesiółka

2276 | Fiona Kauer, Jacob Geuder

Controversial Responsibilities: Negotiating the Socio-Ecological Crisis Through Urban Planning

Urban planning today unfolds under profound uncertainty: decisions made in the present materialize in an unpredictable socio-ecological future. This raises fundamental questions about responsibility—by whom, for whom, and for what—that shape planning practices and policymaking. This article investigates how urban planners, government officials, and civil and private actors in the Swiss cities of Zurich and Geneva negotiate responsibility in the context of socio-ecological pressures in urban planning. Drawing on semi-structured interviews, the article examines which core beliefs and interpretive frames guide decision-makers as they navigate economic, political, and social aspirations embedded in the planning processes. Using policy-framing approaches, the analysis identifies how actors define responsible planning, how this responsibility understanding legitimates their own agency, and how competing visions for urban futures generate frictions in housing and development controversies. Thus, this qualitative study illuminates how institutional and professional actors interpret and enact responsibility in contemporary urban planning. By tracing how core and secondary beliefs shape planning narratives and practices, it provides a nuanced account of how responsibility is constructed, contested, and operationalized in two of Switzerland's major urban contexts. The findings contribute to broader debates on socio-ecological governance and the evolving role of planning institutions in times of planetary crisis.

2395 | Robin A. Chang

Time-Sensitive and Methodological Innovations? TJ-QCA and Responsive Planning in the Canadian Context of Housing Supply

The growing push for timely policy delivery is pressuring local governments and their planners to balance speed, development, and sustainability as a part of imperatives to deliver resilient outcomes embodied in what can be recognized as responsive planning. Planners in parts of Canada are also being subjected to this, particularly in the face of a pervasive housing crisis. As complexities with policy and practice ensure this push, so do questions about how to appropriately evaluate the effectiveness of the responsive planning that proponents seek. This motivates this contribution to ask: How are planners reconciling the pressures from policy with the corresponding need to adapt their own practices? To what extent are the ways they are making sense of evolving policies and practices as time-sensitive as mandated? Or are they comparable depending on context and over time? And finally, do we have the adequate knowledge and tools to evaluate and ensure that we are delivering the resilient and responsive planning that we intend?

At the crux of these questions are essential and methodological needs that are still unmet. These needs require innovations in how we design methodology and integrate methods to better account for the multiplicity and diversity of local pathways being taken to ensure effective and equitable responses to sweeping policies for rapid housing provision. This contribution explores methodological concerns by building on the advantages offered through the comparative, cross-case, and set-theoretic possibilities of Trajectory-based Qualitative Comparative Analyses (TJ-QCA). As a part of early stages of research aiming to understand housing supply-side challenges in the Canadian context, this exploration is also an invitation to consider the time-sensitivity and methodological latitude afforded by TJ-QCA that may be more generative in understanding and assessing the extent of policy implementation and corresponding influences on planners' capacities.

2554 | Ellen Emerich Carulli

Rethinking State Action and Territorial Practices for Climate Justice in peripheral areas in São Paulo

Urban territories located along rivers in Latin America concentrate overlapping socio-environmental vulnerabilities, where climate risks such as floods, landslides and contamination intersect with historic inequalities in infrastructure access, land security and political voice. Despite substantial public investments in flood-control and upgrading programs, many riverside informal settlements experience cycles of reoccupation, renewed precarity and persistent exposure to climate threats. This paper examines why state-led, top-down interventions often fail to generate lasting resilience and climate justice, and how residents' everyday practices and territorial knowledge can reorient planning toward more just and adaptive futures.

Grounded in Milton Santos's concepts of technosphere, understood as the material and technical infrastructures that organize and discipline territory, and psychosphere, understood as the imaginaries, meanings, values and expectations that shape social action, alongside Ana Clara Torres Ribeiro's notion of 'território usado e praticado' and meanings of social action, the paper analyzes cases across São Paulo (Heliópolis and Sapé). This articulation clarifies how planning instruments, engineering rationalities and risk metrics (verticalities) confront residents' practices, social networks and territorial meanings (horizontalities).

The findings show that these tensions shape how crises are produced, interpreted and governed. By making visible the contradictions between space as conceived by the State and space as lived and perceived by residents, the study reframes resilience not as a managerial "bouncing back" but as a territorially grounded political process that depends on which actors are recognized, empowered or marginalized.

By documenting bottom-up strategies, community-led environmental care and hybrid governance arrangements, the paper advances debates on plural knowledge systems, crisis governance and environmental planning under deep socio-spatial inequality. It proposes a planning framework centered on resident protagonism, recognition of local territorialities and multi-scalar responsibility, outlining pathways toward more just and durable riverside urban futures.

2827 | Barbara Mušič

Be Ready: Using Small-Scale Interventions to Foster Adaptive Planning

Recent urbanisation processes today face growing pressures that increasingly reveal the limitations of established, legally mandated planning instruments and approaches, which often struggle to adapt to evolving urban realities. The Be Ready through pilot projects of 10 diverse European cities in the Danube Region offer unique insights how municipalities, planning agencies, cross sectoral actors, residents and other stakeholders are responding on innovative practices and collaborative models.

Based on the "urban acupuncture" approach, the pilots demonstrated targeted, small-scale interventions as green, blue, and white measures that mitigate urban heat island (UHI) risks and enhance climate resilience in vulnerable urban areas. These interventions are co-designed through multidisciplinary coalitions, engaging local authorities, technical experts, NGOs, and community members in participatory workshops and decision-making processes. The pilots demonstrated how knowledge-driven planning, digital tools and bottom-up initiatives can foster and enable innovative modes of participation and shared decision-making.

Stakeholder feedback underscores the importance of early and continuous involvement of residents, whose input shapes both technical effectiveness and social acceptance. The pilots also reveal unresolved questions around multispecies justice and the integration of ecological values into planning.

Lessons learned emphasise the need for flexible, replicable models, robust maintenance strategies, and long-term community stewardship.

Overall, the Be Ready pilots illustrated a shift towards adaptive, inclusive urban planning, where diverse actor groups like planners, politicians, citizens, consultants, property actors, and activists can collaborate to address complex socio-ecological challenges. These practices offer valuable insights for future research and policy, advocating for planning systems that are responsive, participatory, and resilient in the face of accelerating urban change

Acknowledgement: The contribution was developed and financially supported by the international project Be Ready, co-financed by the INTERREG Danube programme (2024-2030) running from 2024 till 2026.

2645 | Hella Hernberg

Modes of intermediation: Advancing temporary uses of vacant spaces as part of transforming planning practices

Intermediaries have been recognized as important actors catalyzing and expediting urban sustainability transformations. Such processes often involve complex dynamics between grassroots actors, incumbents, and governments, as well as strong structural barriers to change, such as rigid regulatory or planning frameworks and sunk investments, which necessitate intermediation. This study examines how “intermediary” actors advance temporary uses of vacant spaces, enabling local actors and communities to shape and activate urban spaces and neighborhoods while adapting them to changing needs. Advancing temporary use is also connected to a broader transformation of planning practices to accommodate change in a flexible and adaptive manner. In this context, different actors, such as architects, NGOs, small companies, and civil servants, can act as intermediaries. Based on empirical data from Finland and four European cities, I illustrate how such intermediaries engage in four modes: "brokering" between different actors, interests, and resources; "configuring" spatial and technical solutions; "structural negotiating" to influence zoning practices, the interpretation of regulations, and incumbent conventions; and "facilitating and capacitating" to create space for collaborative learning and experimentation. The study demonstrates that effective intermediation requires simultaneous engagement in multiple modes, owing to the intermediaries’ differing competencies, remits, and resources. Therefore, the modes are highly relevant for understanding what it takes to effectively intermediate and for preparing support mechanisms for advancing temporary use and other related informal and experimental sustainability initiatives in urban contexts. Moreover, understanding intermediation as an important role in urban transformations, and the different skills and capacities required, challenges the traditional understanding of expert roles in planning-related contexts.

1624 | Federica Scaffidi

Peripheral Power: How Civic Entrepreneurs are regenerating Europe

European urban regeneration is increasingly characterised by actors operating outside traditional state–market binaries. Civic entrepreneurs, cultural organisations, hybrid coalitions, and community-anchored intermediaries are actively reclaiming underused industrial assets and peripheral urban areas, thereby creating new institutional spaces for socially and culturally rooted development (Sacco & Segre, 2009; Mangialardo & Micelli, 2016; Clark & Wise, 2018; Dodd, 2020; Micelli, Ostanel, Lazzarini, 2023). Despite this growing evidence of territorial agency, planning practice, and, consequently, planning education often lags behind in adequately recognising and engaging these vital emerging forms of action.

This contribution rigorously investigates how these civic actors mobilise social innovation, relational governance, and alternative value systems to drive spatial transformation. Building on two recent publications on Cities journal (Scaffidi, 2024; Scaffidi, Micelli & Nash, 2024) and a systematic analysis of

100 European cases, the study uncovers the foundational elements of this success: bottom-linked governance patterns, adaptive resource strategies, and culturally embedded practices that enable long-term stewardship, inclusion, and territorial innovation in both physical and social peripheries.

Cases such as Valle Salado de Añana (Spain), ufaFabrik (Germany), Dolomiti Hub (Italy), and Hämeenlinna Verkatehdas (Finland) powerfully illustrate how non-profit leadership, cooperative land governance, and mission-driven hybrid organisations succeed in producing shared value that transcends conventional economic metrics. The findings highlight the evolving role of planners: from designing for communities to serving as facilitators of collaborative infrastructures, mediators across sectors, and stewards of civic-driven innovation ecosystems.

The contribution outlines essential emerging professional capacities for planners, including cross-sector negotiation, socio-cultural intelligence, and community-economy literacy, necessary to effectively engage with these core agents of sustainable and equitable territorial development. Finally, it will stimulate a discussion on a critical comparison and the transferability of the uncovered governance patterns to non-European contexts posing critical questions about the global applicability of civic-driven regeneration models in various institutional settings.

Art, play and mobilizations

Thu 2.7.16:00-17:30, Practices and Actors A, Y228a | Session chair(s): Robin Chang

1134 | Tore Sager

Artist-activism in Planning: Advancing Resistance, Prefiguration and Conciliation

The purpose of the presentation is to accentuate the significant role played by artists in activist community planning. I stress their considerable impact on resistance against external intervention and on forms of activist planning that are understudied but nevertheless of interest to planning theory, such as prefigurative and conciliatory strategies for change. Artists support counter-planning by seeking to transform the wider society by 'living the change' in prefigurative communities and urban social movements, and even by improving the relationship between contending social groups.

For each of these strategies, cases are studied in which artist-activists insert creative elements into the plan or the planning process. These contributions serve to dramatize, entertain, educate or visualize, and thus to stir emotions and mobilize more activists. The prefigurative cases show how socially engaged artists focusing on the process help to form visions and make imprints of them in present activist planning practice. The presentation is based on a study offering a wide collection, systematization and description of artist-activist planning cases.

The conclusion is that awareness of the relations between art and mobilization is required in many cases for understanding the effects and potential of activist planning.

References:

Buser M, C Bonura, M Fannin and K Boyer (2013): 'Cultural activism and the politics of place-making', City 17(5)606-627.

Hawley, E S (2015): 'Art, activism, and democracy: WochenKlausur's social interventions', Peace and Change 40(1)83-109.

Holston J (2018): 'Art practice and citizenship at PARK LEK, Sundbyberg', pp 99-110 in Wilson M, H Selder, SOMEWHERE and G Zachia (Eds) (2018): Public Enquiries: Park Lek and the Scandinavian Social Turn. London: Black Dog Press.

Isola Art Center (Ed.) (2013): Fight-specific Isola. Art, Architecture and the Future of the City. Milan: Archive Books.

2534 | Irene Bianchi, Maria Vitaller del Olmo, Grazia Concilio

Hacking Practices for Urban Sustainability Transition: Insights from Prototype-Based Experimentations

Urban sustainability challenges are increasingly exposing the limits of technical and procedural planning approaches, calling for perspectives that preserve long-term strategic orientation while opening space for grounded experimentation and learning (Turnheim et al., 2015). Aligned with sustainability transition scholarship (e.g., Loorbach, 2022), this paper argues that experimental approaches integrating design into planning processes can help cities move beyond solutionist framings and cultivate more plural, situated, and collective modes of steering urban transformation (Concilio & Tosoni, 2019, Pettersen 2015). Bringing together insights from urban planning, service systems design, and social studies, the paper focuses specifically on the potential of prototype-based experimentation with practices to re-imagine urban management in the face of complex sustainability challenges. Conceptually, it advances a theoretical contribution by connecting prototyping and social practice theory (Shove et al., 2012), discussing how prototype-based processes can enable diverse actors to co-define problems, hybridise knowledge beyond disciplinary silos, and "hack" the practices through which urban "palimpsests" are continually reproduced (Secchi, 1998). Empirically, the discussion draws on the Horizon Europe New European Bauhaus PALIMPSEST project, which develops art–science co-creation experiments in three urban settings. First, the paper illustrates how prototype-based experimentation supported the hacking of local practices for climate adaptation (in Jerez de la Frontera, Spain) and sustainable water management (in Milan, Italy, and Łódź, Poland), mobilising living heritage and local cultural assets as anchors for innovation. Second, it reflects on conditions for replicability and scalability, discussing how micro-scale prototyping initiatives may scale deep into durable forms of local stewardship or scale up to influence policy action (Riddell and Moore, 2015; Peng et al., 2019). Overall, the contribution positions practice-oriented prototyping as a promising pathway to respond to contemporary sustainability challenges, supporting more equitable, participatory, and nature-sensitive urban transformation.

1593 | Francesca Ranalli, Dahae Lee

Visual Art Methods for Place-based Sense of Community with Children and Adolescents: A Systematic Review

This paper presents a systematic literature review examining how visual art methods are employed across disciplines to explore a place-based sense of community (SoC) among children and adolescents. Drawing on inclusive approaches in participatory planning, this review sheds light on how visual art methods can help include children and adolescents in planning. The framework of SoC that we adopt is a feeling of belonging to a meaningful social and spatial context. During adolescence and childhood, SoC develops through positive interactions with peers and significant adults in various spatial settings, including neighbourhoods, public spaces, and schools. To align with the youth's interests, levels of understanding, and preferred modes of communication, research and interventions increasingly employ socially engaged visual art methods. These methods are valuable for understanding how children and adolescents perceive their surroundings and for promoting interaction among participants. Starting with 398 articles from Web of Science and Scopus (1985-2025), we used ASReview to support the literature screening. We first identified the population groups – children and adolescents – classified not only by age but also by gender, ethnic background, socioeconomic status, and other factors. We also defined the physical settings that serve as the objects of study. We then provided a comprehensive overview of various art methods and how they are combined with both other art-based methods and non-art approaches. Relevant examples of the methods described include drawings, photo-based methods, photovoice, mapping, street art, and digital storytelling. We also examined whether the methods employed differ between children and adolescents. In addition, we identified the specific purposes for

which these methods are applied. Effective participation requires the use of appropriate methods that accommodate the diverse communicative skills of the population. The findings can inform policymaking and participatory planning tools to include different demographics in urban planning, such as children and adolescents.

1687 | Andreas Hengstermann, Mina di Marino

Advancing Climate Adaptation and Facilitating Dialogue Among Planners, Landowners, Communities, and Stakeholders: The Case of Norwegian Forests

Norway's forests play a vital role in protecting residential areas from avalanches and landslides, while also providing timber, biodiversity, and recreational opportunities. Planning and managing forests are crucial for climate adaptation, aligning with the Kunming-Montréal Global Biodiversity Framework (2025), Norway's 2050 Climate Change Committee, and the White Paper on Sustainable Use and Conservation of Biodiversity (2024). However, balancing these diverse functions requires careful prioritization and collaboration among various actors, including private landowners (who own 88% of forests), local communities, and policymakers. The fragmented forest ownership structure further complicates efforts to align timber harvesting, natural hazard mitigation, and ecosystem services.

This paper explores the conflicts and barriers among actors (e.g. official planners, forest owners, stakeholders, and local communities) involved in local and regional land-use planning, framing forests as Nature-Based Solutions (NBS) within the context of current state guidelines that recommend municipalities implement NBS for climate adaptation (Di Marino et al., 2025).

To achieve this, a thematic analysis of policy and planning documents is conducted, examining discourses around the role of forests in selected Norwegian case studies, including Sogndal municipality (in the west of the country) and Stjørdal municipality (near Trondheim). The analysis investigates how forests are integrated into planning at various levels, particularly as NBS. Stakeholder perceptions—specifically of planners, forest owners, and timber industries—on hazard risks in rural areas are assessed through interviews and focus groups in the case study municipalities. Additionally, the study compares its findings with those of an Austrian municipality where forest protection policies are well-regulated. Outcomes are discussed through the lens of Property Rights (Demsetz, 1974) and Institutional Theories (Polski & Ostrom, 1999), which provide a framework (Gerber et al., 2009) for analyzing the influence of formal and informal institutions, policies, and regulations.

2911 | NezHapi-Delle Odeleye, Christopher Maidment, Niamh Murtagh

Achieving Sustainable Urbanism: Timework and Planning Capacities

What role does the so-called fourth dimension play in addressing Planning's spatial preoccupations? Is time merely a processual container for what needs to get done, ordered variously by powerful governance, institutional or economic imperatives? And within all of this, what ability do Planners themselves have to work tactically, within institutional temporal constraints?

Recent contributions to the development of planning theory have started to shed light on the politicisation of time and the power that comes with having control over timescales. Yet the temporal implications for planners and their professional practice have arguably remained semi-invisible, behind all the processual mechanisms and procedural rhythms that govern planners' work and decision-making, such as the UK's 8-week and 13-week application deadlines, as well as those for Local Plan production.

This presentation explores the relationship between the structure of planners' work regimes and the agency they feel able to exert on their high-level objectives and outcomes. It uses Flaherty's concept of 'Timework' as its lens. Timework aims to integrate the literatures on agency and temporality, addressing how individuals and/or groups customise' specific types of temporal experiences by their creative or

restrictive efforts. In turn, drawing on interviews with mid-career and senior public-sector planners, it applies this lens specifically to the questions of whether planners have the capacity and agency to contribute effectively towards achieving sustainable development.

It considers what types of implicit or explicit strategies may exist in planners' approaches to sustainable urbanism; how planners may be using aspects of timework – for example, duration, frequency, sequencing, timing and allocation - to prioritise sustainability? Do their organisational contexts play a role in setting an underlying 'temporal culture'? Ultimately, the presentation considers whether their sense of agentic success or failure may be implicitly linked to opportunities for timework in their professional strategies.

Financialisation of urban planning

Thu 2.7.17:45-19:15, Practices and Actors A, Y228a | Session chair(s): Milan Husar

1852 | Przemysław Ciesiółka

Regeneration as a laboratory: investment conflicts, institutional learning and urban shrinkage – a case study of a post-socialist city

This presentation focuses on urban regeneration in a medium-sized post-socialist city, based on a detailed case study of the city of Leszno in Poland. A public conflict over the construction of suburban shopping centres is presented as a critical juncture that revealed competing planning models: a market-based modernisation programme aimed at attracting significant external investment, and a locally rooted, community-focused approach emphasising the protection of traditional retail, small businesses and social ties in the city centre. Drawing on a mixed set of qualitative data – including policy documents, local press coverage, and in-depth interviews with non-governmental actors, entrepreneurs, property managers, residents, and municipal officials – the analysis reconstructs how these competing visions shaped political debates and practical decisions. Regeneration initially emerged as a pragmatic response to the dispute and later functioned as a laboratory for institutional learning, where actors experimented with management solutions, participatory practices and place-based projects. A significant structural constraint is population decline: since 2012, Leszno has lost over 8% of its residents, concentrated in the historic city centre, which has weakened overall demand, reduced fiscal capacity, and limited the ability of place-based interventions to generate lasting socio-economic renewal. The case of Leszno reflects broader patterns observed in municipalities across Central and Eastern Europe: a hybrid planning culture combining formal regulations with informal practices, dependence on external sources of funding, and a persistent deficit of social trust and civic engagement. I argue that the regeneration of shrinking cities can foster valuable, incremental institutional learning and open up opportunities for collaborative problem-solving. However, its transformative potential remains limited when actions are fragmented, project-based, and lacking an overarching long-term strategic vision.

1480 | Abdi Mehvar, Tom Daamen, Co Verdaas

Identifying Institutionalized Financial Sector Responses to Climate Risk in the Dutch Delta

The physical impacts of climate change are increasingly posing risk to real estate, infrastructure, and urban resource systems. In Europe, this is particularly so in the low-lying and highly urbanized Dutch delta (KNMI, 2023). Although the Dutch water management sector is world-renowned, managing the breadth of climate risks in the Netherlands – from flooding to drought and heat stress – is still fragmented as government bodies and relevant firms operate within their own sectors, mandates and knowledge bases (Biesbroek, 2021). It has been acknowledged that this fragmentation limits the development of coordinated, long-term climate adaptation strategies for the Dutch delta (Red&Blue, 2024). As major adaptation investments in the built environment are co-shaped by public and private actors, it is essential

to understand how Dutch financial institutions assess climate risk and to identify the factors that enable or constrain joint action.

This study introduces an institutionalist understanding (Thornton et al., 2012) of private firm behavior to explore how Dutch banks, pension funds, and insurers perceive and respond to physical climate risks in real estate and infrastructure. Drawing on an AI-assisted analysis of over 120 publicly available documents from 33 organizations, we examine the adaptation challenges and opportunities expressed by these important Dutch financial sector actors, and identify the institutionalized logics and dilemmas apparent in their responses.

Findings show that financial/market, regulatory/compliance, and public value logics currently dominate, while logics related to risk and resilience, insurance, and sustainability surface more selectively. Some logics (e.g., market and compliance) can constrain adaptation, whereas others (e.g., public value, collaboration) help enable it. We conclude that meaningful climate adaptation requires shifting institutionalized logics away from short-term financial and compliance-driven reflexes toward long-term public value, coordinated solidarity, and evidence-based public–private decision-making. This institutional re-orientation can support/inform integrated climate-resilient strategies in the Dutch built environment, and possibly beyond.

987 | Manoela Massuchetto Jazar, Alessandro Lunelli

From “visiting planning” to “resident planning”: why institutionalising municipal capacities matters

In many contexts of the Global South, urban planning has been shaped less by long-term public commitments than by temporary contractual arrangements. This paper conceptualises this dominant model as “visiting planning”: an episodic, consultancy-based practice in which municipalities outsource the production of plans without building internal capacities for implementation, monitoring, or continuity. As a result, planning becomes a bureaucratic requirement rather than a sustained public function, reinforcing institutional fragility and dependency. Drawing on empirical evidence from Brazilian municipalities of different sizes and administrative capacities, the paper analyses how visiting planning contributes to governance discontinuity, weak intersectoral coordination, and low institutional learning. In these cases, urban plans are produced as one-off products, disconnected from budgeting processes and detached from local decision-making cultures. Recent trends intensify this dynamic: algorithmic planning tools and AI-based platforms, increasingly adopted by municipalities with limited technical staff, risk displacing public expertise and relocating sovereign decision-making into private technological infrastructures. As a counterpoint, the paper proposes the notion of “resident planning” as a framework for institutionalising municipal capacities through long-term planning infrastructures. Resident planning is defined by five core conditions: (1) permanent technical teams; (2) contractual transfer of knowledge in outsourced projects; (3) integration between planning and budgeting instruments; (4) intersectoral governance routines; and (5) binding participatory mechanisms. Rather than a managerial reform, this approach recognises planning as a practice of institutional agency and a democratic capacity that shapes territorial justice over time. By re-centering municipalities as actors, and not merely clients, in planning practice, the paper contributes to current debates on agency, planning transformations, and the politics of practice in postcolonial contexts. It argues that institutionalising planning is, beyond an administrative strategy, a political condition for spatial justice.

1252 | Shoshana Goldstein, Mushahid Hussain

Brokered Accumulation and Ecological Change in Dhaka’s Expanding Periphery

This paper investigates how brokerage, informality, and ecological transformation at the city's edges are driving urban expansion in Greater Dhaka, Bangladesh. It focuses on the eastern periphery, specifically,

Kanchan in Narayanganj district, and examines how middle land brokers, or jomir dalals, mediate between state agencies, private developers, and semi-proletarian rural landowners to transform wetlands and floodplains into developable real estate. These actors play a critical intermediary role, translating speculative demand into material change on the ground through the navigation of formal planning institutions on one hand and informal political networks on the other.

Drawing on both ethnographic and archival research conducted between 2018 and 2025, this paper frames such practices as a form of brokered accumulation-a means through which land transformation and the accumulation of capital are made possible through social negotiation, ambiguity in the law, and the reworking of ecological systems. Wetlands are filled in, riverbeds dredged, and fertile soils buried under sand to make land marketable. Such activities facilitate urban development but also contribute to flooding, environmental degradation, and the loss of agrarian livelihoods.

Planning frameworks in Dhaka, such as the DMDP, often grant these practices formal legitimacy, showing the ways in which regulatory instruments can be embedded within speculative and informal dynamics. Instead of just viewing planning as a top-down or technocratic process, the paper underlines how it is co-produced through local alliances, class realignments, and everyday forms of governance.

By reframing Dhaka's periphery as a site of brokered accumulation and ecological change, the paper calls attention to the actors and institutions that shape urban growth beyond official plans. It makes the case for planning approaches that recognize the ecological and social consequences of speculative development and that more directly engage with the intermediaries who make urbanization possible.

1464 | Brian Longobardi

Planners' Blind Spot? Evaluating Planning Practice under Financialisation

Urban planners base their decision-making and everyday practices off disciplinary norms that promotes the common good and supports the public interest. These normative principles provide justification for why planners intervene in the development process and serve as a raison d’être for their work. This paper questions the efficacy of planning practice to deliver its normative agenda under an increasingly financialised built environment. By examining the planning and development of two European financial centres, the researcher considers how planners use their agency from practice to facilitate the growth and development of these spaces for international finance. Drawing from the case cities of Dublin, Ireland and Frankfurt am Main, Germany, the researcher examines how planners use unique and specialised planning instruments in both places to support and encourage the extensive office development required to host these centres. Collecting data from multiple qualitative methods such as semi-structured interviews, focus groups and content discourse analysis, the researcher uses MAXQDA software to develop a coding system that operationalises financialisation theory into this study and unpacks how planners use their agency from practice to transpose components of financialisation into the built environment and new developments. In doing so, this research scrutinises a growing gap in urban planning literature that addresses how planning practice approaches processes of financialisation materialising in the built environment. The paper challenges planning’s practical ethos as evidence from practice demonstrates how financial interests can supplant the public interest through applying processes of financialisation to the planning process. Consequently, the paper warns of financialisation functioning as a blind spot for planners and their practice as the consequences of hosting a financial centre and developing a financialised built environment places stressors on the common good and threatens the public interest.

Multiculturalism, children, and care in planning

Fri 3.7.09:00-10:30, Practices and Actors A, Y228a | Session chair(s): Megha Tyagi

1929 | Lanting Zhang, Kang Cao

Planning Knowledge Transfer: Case study of international students in Chinese universities' urban planning program

The global planning knowledge system, long dominated by the western perspectives, is characterized by a unidirectional flow from the Global North to the Global South. However, China's recent efforts in international planning education are disrupting this situation. First, according to the latest data from the Chinese Ministry of Education, 91 Chinese universities will offer 430 degree and 230 non-degree programs in urban planning by 2026. Second, reports from a few leading institutions indicate a rising enrollment of international students from European nations, such as Germany, Sweden, and Spain.

These data indicate that China is emerging as a new hub in the global planning knowledge flow, as evidenced by two trends. 1) The targeted expansion of undergraduate programs signals that China's appeal is expanding from research-oriented to foundational education. 2) The composition of international students in China is diversifying. These trends indicate that the traditional unidirectional knowledge transfer model is being challenged, while a multi-centred and multi-directional network is taking shape. Within this network, China emerges as a pivotal knowledge hub. Specifically, through degree and non-degree programs, China is conveying its planning ideas and experiences to students worldwide, effectively breaking the traditional one-way model of knowledge flow.

Therefore, this study hypothesizes that international students of urban planning, as a specific actor group, interpret Chinese planning knowledge through diverse culturally filtered perspectives. Employing interviews, natural language processing, and topic modelling techniques, the study examines their understandings of two focal areas, namely the spatial practice of enclosed neighborhoods and the institutional legacy of ancient rituals. Aiming to answer two questions. First, how do students from the Global North and South comprehend Chinese urban issues within their cultural contexts? Second, what novel insights and misinterpretations emerge during this process? The findings hope to offer practical pathways toward inclusive, co-created global planning practice.

1897 | Francesca Bragaglia

Co-Producing the city? Children’s Agency and the University’s Role in Participatory Planning

Planning theory and practice increasingly question how to integrate multiple forms of knowledge and diverse urban imaginaries, invoking what Sandercock (1998) calls 'an epistemology of multiplicity'. This contribution explores the co-production of knowledge for place-making from a specific standpoint: the relationship between universities and children, the latter understood as active agents of urban transformation. In urban planning, the role of children remains largely underexplored, as urban spaces - including those inside and around schools - tend to be planned by adults and for adults.

The empirical discussion draws on the author’s long-term engagement in collaborative processes with primary schools located in complex and socially fragile neighbourhoods of Turin. In 2021, the AuroraLab research-action laboratory at the Politecnico di Torino won European Urban Innovative Actions (UIA) funding and carried out a co-design process involving children, university students and researchers to reimagine the public space in front of a primary school. In 2025, within the EU-funded MAINCODE project (Driving Urban Transitions programme), a second co-design process was launched by another group of researchers of the Politecnico di Torino to transform schoolyards into a urban climate shelters.

The contribution thus positions children as epistemic subjects, capable of interpreting, representing and transforming spaces inside and outside schools through situated and experiential practices. Furthermore, the role of the university is examined as that of a mediator capable of enabling

methodological devices that challenge conventional hierarchies of expertise. Finally, the contribution aims to highlight the process of mutual learning that emerges from intergenerational collaboration between children, universities and local actors.

1722 | Theodore Lim

Distinguishing trauma as condition from trauma as claim: Implications for social justice planning

Planners have long grappled with the emotional and psychological impacts of their work, especially those caused by displacement that accompanies development. Over fifty years ago, for example, Peter Marris documented how slum clearance in places as diverse as Boston Massachusetts in the United States and Lagos, Nigeria resulted in intense feelings of grief for residents. The past two decades have seen the expansion of the concept of 'trauma,' including in contexts related to displacement. In the United States for example, social psychologist Mindy Fullilove has written of 'root shock,' which she defines as the "traumatic stress reaction to the destruction of all or part of one's emotional ecosystem," associated with the period of Urban Renewal. Jocelyn Poe writes of 'communal trauma,' that planners face when engaging Black Americans, who have been exposed to repeated harms from slavery to the present-day. These examples relate to how planners recognize trauma as a condition that they may encounter, and planning scholars have suggested therapeutic planning as one way that emotionally engaged planning might help to address a community's psycho-emotional wounds.

This paper attempts to distinguish between trauma as condition and trauma as a claim. Distinct from trauma as a condition, whose realm of healing is the psyche, trauma as claim is a political act of speech that seeks social change goals, whose realm of action is the public arena. This paper uses examples from a participatory planning case study and current events to illustrate how distinguishing between trauma as condition and claim might serve the goals of social justice planning. In particular, it is important to recognize how using trauma as claim may risk individual retraumatization (for example when such claims are rejected), and how trauma as claim necessitates evaluation of the legitimacy of a social justice claim in the public realm.

1613 | Paola Briata

The Multicultural Gym. People, Places, Practices and Policies in Les Halles, Paris

The paper stems from long-term research on planning and everyday multiculturalism (Briata 2022), and from methodological reflection on urban analysis mixing ethnography 'for designers' (Cranz 2016) with policy analysis. This work aims to contribute to research that looks at life in contemporary cities as 'coexistence among strangers' where living together is seen also as a 'bodily exercise in the space' (Amin 2012).

This positioning has brought an interest in the dynamics of places where very diverse populations live together, sharing the same spaces, taking stock of Anderson's (2011) work on 'cosmopolitan canopies'. Given the differences in race relationships between the EU and the US the new concept of 'multicultural gym' is introduced.

Planning in the multicultural city, has been often characterised by repression (Fincher 2014). In this context, the paper's main argument is that some places represent a sort of 'gym' where people get trained to differences, and that this specific value is often underestimated by planners.

A case-study realised in 2024 also through intensive fieldwork in Les Halles, Paris, is presented. Two 'planning phases' will be described. The first one (1960-1980), characterised by the top-down decision to locate here the most important transport hub of the Île-de-France region. Les Halles' centrality transformed it into a daily place of encounter for commuters, residents, metropolitan populations, and

tourists. The second one (from the 2000s) characterised by very challenging concertation processes, given the plurality of involved populations (Gardesse 2015).

The planning history of the area is reconstructed to show how it led to the presence of an exceptional 'multicultural gym'. Then current practices of everyday life are described to feed a reflection on how the planning culture still builds up negative narratives of the place, denying practices that could be considered specific values in need for recognition by spatial policies.

1311 | Viviane Zerlotini da Silva, Keila Cristina Ramos Domingos, Poliana Morais Gomes, Márlom Geraldo Parreiras Mota

Insurgent Practices of Care: Environmental Activism in Vista Alegre

This summary presents a postcolonial planning experience focused on the environmental and urban rehabilitation of Vista Alegre, a riverside community affected by an environmental crime. The initiative highlights activism and residents' self-organisation, drawing on plural systems of knowledge to address degradation and promote territorial equity. The aim of the project is to strengthen territorial re-existence and foster environmental justice grounded in popular memory and local knowledge. The theoretical framework is based on the ecology and circularity of knowledge, challenging hierarchies by recognising the value of epistemological diversity and the empirical wisdom of residents. The Socio-Spatial Survey (LSE) serves as the main methodological tool, articulating academic knowledge with residents' practical understanding through the method of accompanied walks. Resident Valter Baeça Neves acts as narrator and guide, embodying activism through the stewardship of his own territory. He shares the popular history of native species such as the Macaúba, used by his mother to produce oil and soap, and the Vinhático, employed in the construction of boats on the Paraopeba River. The project's outcomes include community-based environmental management actions: hydrological mapping, identification of native species, the establishment of a seedling nursery, and the planning of ecological trails for the reforestation of springs. These initiatives integrate practices of care and self-management, reaffirming the strength of popular histories and grassroots activism in the ecological and symbolic reconstruction of the territory.

Collective agency

Fri 3.7.09:00-10:30, Practices and Actors B, Y228b | Session chair(s): Markus Laine

2080 | Agnes Förster, Maria Dörter

Beyond Formal Processes: Understanding Planning as a Social Practice

In times of urban transformation, established planning routines are challenged and must be reconsidered and redesigned. This requires an understanding of the multidimensional and dynamic nature of planning activities. This contribution posits that planning is less as a formal (and linear) process and more a multi-level social practice involving various stakeholders.

Focusing on the concept of 'social situations of planning', this work extends existing planning-theoretical perspectives by emphasizing actors, their roles, interactions and contributions. Throughout the planning process, planning activities are performed by changing constellations of actors within different interpersonal contexts. These social situations are embedded in a temporal sequences and broader social, spatial and institutional fields, making them highly context dependent.

Consequently, planning activities in cities should not be viewed as limited to individual programs or projects but rather as part of a mutually connected and dynamic field. Professional planners continuously network with diverse actors ranging from the political entities to external experts and self-organizing participants in urban life. This dynamic requires planners to actively adopt various roles and competencies. Their contributions include navigating complex social situations of planning, creating these contexts, and reflecting on them.

This contribution will outline an initial typology of social situations in selected areas of municipal transformation. The aim is to examine how planning occurs in highly transformation-oriented fields such as urban mobility or inner-city development while identifying factors that enable or obstruct capacity for action. In these fields, planners cannot follow predetermined routines; rather, they participate in a complex interplay involving various actors at multiple scales. These planning situations unfold like scenes from improvisational theater, characterized by significant openness, which explains both the high variance in practices across cities and the considerable personnel and time commitments that often limit effectiveness of planning in these areas.

1755 | Mina Di Marino, Tanu Priya Uteng

Circular Cities and the Sharing Dilemma: Conflicting and Overlapping Visions of Planners, Citizens, Stakeholders, and Developers

Creating a circular economy (CE) has recently sparked debates across institutional and policy levels. While several cities have initiated promising CE initiatives, they face common challenges, including a lack of integrated frameworks (political, planning, and legal), limited public awareness, technological barriers, and conflicting visions among stakeholders, developers and municipalities. Moreover, the interlinkages between social and environmental impacts of consumption and urban planning initiatives remain underexplored. Addressing these challenges is vital to framing CE as an integrated urban planning approach to sustainable living.

This contribution focuses on sharing—one of the core pillars of CE—and its conceptual and empirical understanding in terms of mobility, services, and spaces. Sharing practices are essential for extending resource use yet planning frameworks at all levels (national to local) remain underdeveloped. Engaging residents, institutional stakeholders, and private developers is critical for fostering effective circular practices that promote sustainability.

To investigate this, focus groups and collaborative workshops were conducted with residents and institutional stakeholders, respectively, alongside semi-structured interviews with private developers and informal meetings with municipal planners in the Oslo Region. The analyses were conducted as part of the Reshare Project, funded by the Research Council of Norway (2021–2025). The outcomes were analyzed within an analytical framework encompassing institutional, socio-cultural, and economic features, and further discussed in the context of community planning theories.

On one hand, this study reveals that several challenges and barriers were identified by all key informants, complicating efforts to create circular and shared urban environments. On the other hand, emerging pioneering projects are beginning to implement circular and sharing principles in practice, although these approaches remain largely un institutionalized. By examining the Norwegian context, this study underscores the importance of engaging multiple actors and adopting an institutional approach towards sharing in future planning practices and fostering a collaborative approach to make cities more sustainable

2186 | Florian Faurisson

Co-ownership and architectural renovation of ordinary housing in Paris

Private condominium buildings account for one-third of France’s housing stock. Traditionally concerned only with routine maintenance work, condominiums form heterogeneous ensembles that remain outside the sphere of energy renovation and the enhancement of built heritage. Often deteriorated and lacking financial resources, condominiums today represent 39% of France’s energy-inefficient homes (“passoires énergétiques”), at a time when climate challenges require increasingly high-performing buildings.

In 2020, the French government introduced a policy aimed at helping condominiums combat energy insecurity through subsidies tied to improving the energy performance of buildings. Eager to take advantage of this financial opportunity, condominiums embarked on energy renovation projects, supported by property managers who are often not well trained in architectural project management. The energy renovation market thus expanded to include condominiums, offering new opportunities to enhance the ordinary built heritage of French cities beyond major emblematic urban projects. But can this pressure to meet climate goals be reconciled with preserving the architectural quality of these buildings ?

How can the architectural quality of condominium buildings be enhanced in this context ?

We hypothesize that enhancing the architectural quality of condominiums depends on structuring a network of qualified professionals who address all dimensions of condominium renovation (architectural, technical, financial, social, etc.). First, we will show how this network of public and private actors is being structured and the legislative framework in which it operates. We will then examine, through examples of renovated condominiums in Paris, the design and implementation processes put into place—from diagnosis to renovation—and how the condominium framework reshapes professional practices. Finally, we will examine the outcomes of this renovation policy and the way it paves the way for new architectural practices within the private sector, at a time when public architectural projects are becoming increasingly scarce in France.

2821 | Irem Ceylan, Sevkiye Sence Turk

Public Interest in Urban Planning as a Negotiation Arena: Insights from Multi-Actor Perspectives in Turkey

Contemporary urban planning is a process shaped by decisions made by multiple actors according to their institutional priorities and professional responsibilities. Each actor operates based on their own interpretation of the public interest, which translates into diverse approaches in practice. In Turkey, the concept of public interest, which underpins the legitimacy of the planning profession and its societal responsibilities, presents significant ambiguities in both definition and application. These ambiguities stem from the multiplicity of planning instruments, overlapping distribution of planning authority across institutions, and the unclear hierarchy among plans.

This study examines how actors within Turkey's planning system conceptualize the public interest, how these conceptualizations influence spatial decision-making, under what circumstances conflicts arise, and what strategies actors employ to manage such conflicts. To address these questions, 75 in-depth interviews were conducted with planning-related actors working across five main categories: central and local government, private sector, academia, civil society and elected officials at different levels. A stratified purposive sampling approach was applied, taking into account institutional position, decision-making authority, and professional experience. This approach allowed for comparison of perspectives and practices across sectors and roles.

The findings highlight that actors' approaches to public interest are shaped by organizational culture, professional background, sectoral priorities, and societal expectations. For instance, private sector planners tend to prioritize regulatory compliance and project feasibility, whereas planners in public institutions report that they primarily implement directives from higher authorities rather than their own interpretations of the public interest. Some expressed reluctance to endorse decisions they perceived as conflicting with public interest. These insights demonstrate that planning practice is co-produced through interactions among heterogeneous actors and contextual dynamics. Overall, the study shows that urban planning should not be understood solely as a technical activity, but rather as a multi-actor negotiation arena embedded in ethical, political, and institutional tensions.

2761 | Vivienne Mayer, Anika Slawski, Frank Schwartze

From Framework to Action: WUF12-Inspired Pathways for Localization

Urban planning practices are increasingly challenged by the accelerating pressures of climate change, social inequality and biodiversity loss. At the same time, global agendas emphasise that meaningful transformation depends on the capacity of local actors to adapt, translate and enact global goals within their own socio-spatial realities. This contribution examines how localization unfolds in practice by analysing the German-funded Sustainable Development of Urban Regions (SURE) program and additional transdisciplinary urban research projects through the lens of UN-Habitat's WUF12 Perspectives Framework, which conceptualises localization across implementation, representation and translation.

Drawing on insights from these projects and a cross-case comparison, this contribution asks: How do urban research projects contribute to translating global goals into situated planning and governance practices? Emerging results suggest that many projects already engage with core components of localization. They show that localization is not a linear task but evolves through continuous, co-constitutive interactions among local authorities, researchers, communities, NGOs and private sector actors. Through these interactions, stakeholders jointly set priorities, interpret global sustainability frameworks and adjust them to local political, social and cultural conditions.

Using the WUF12 framework's nine elements—ranging from unlocking finance and deciding at the lowest possible level to meaningful engagement and leveraging local knowledge—we extract localization pathways that illuminate how actors navigate resource gaps, governance arrangements and cultural specificities. Initial findings demonstrate the framework's analytical value for understanding how urban research projects operationalize localization and its potential relevance for wider planning and development contexts.

The presentation shares insights from multiple cases, showing how diverse actor constellations collectively translate global ambitions into grounded action. It offers reflections and aims to stimulate critical discussion on contemporary planning practices and the shifting roles, forms of agency and modes of collaboration that characterize emerging localization processes worldwide.

Participatory planning

Fri 3.7.11:00-12:30, Practices and Actors A, Y228a | Session chair(s): Saana Rossi

2247 | Ana Maria POPA, Diana Andreea ONOSE, Simona R GRADINARU, Ana Maria TODORAN

Assessing Citizen Engagement in Shaping Urban Planning Documents: Tools and Challenges

Urban planning should play a crucial role in advancing sustainable development by addressing the real needs of communities. Effective planning requires participatory approaches that involve diverse stakeholders, including public institutions, citizens, economic actors, and NGOs. Equitable public participation is essential to ensure that planning processes are both relevant and inclusive. To achieve this goal, specific participatory tools are used to gather and utilize citizens' opinions and community-generated data.

This study investigates the tools of public participation referenced in urban planning documents. The research applies a structured content evaluation protocol on three generations of plans from 18 cities in Romania aiming to identify the key tools used by public administrations. The data was supplemented with public information from the websites. We also realized structured interviews with the entities responsible for the elaboration of urban planning documents, both public administrations and consultation agencies. Findings reveal that questionnaires are the predominant tool, primarily utilized to collect data and opinions regarding development visions from citizens. While this method facilitates basic consultation, it reflects a limited approach to participatory planning, suggesting that more interactive and collaborative tools are underutilized.

The study contributes to the development of a methodology for analyzing planning documents from a citizen engagement point of view. Additionally, it highlights significant challenges in integrating citizen science into urban planning processes, particularly in enhancing implementation mechanisms. These findings underscore the need for more comprehensive participatory strategies that move beyond traditional survey-based methods, fostering deeper collaboration between communities and decision-makers. By addressing these gaps, urban planning can better align with sustainable development principles and respond effectively to societal needs.

1811 | Sandra Huning, Stefan Baars, Hanna Seydel

Transformation without emotions? Wicked problems and emotions in urban planning conflicts

The impact of climate and global environmental change becomes visible in cities at an ever-increasing pace and makes it necessary to rethink many policy areas relevant to planning. Planners face major challenges in their efforts to reconcile different land use and climate adaptation requirements, not least because different political objectives at multiple scales of governance are to be met. When they present local solutions for transformation, however, these do not remain uncontested. On the contrary, planning initiatives are more often than not met by resistance from citizens' groups who demand a say, are sceptical or hostile towards changes in their urban environment, or deny the legitimacy of planning processes altogether. Planners, who see themselves as representing the common good and are committed to the factual exchange of arguments, are ill-prepared to deal with emotional, supposedly “irrational” opposition. They are also not used to reflect their own emotions at stake.

Presenting the case of a densely populated city in the Ruhr area, Germany, the paper shows how emotions affect conflicts in the development of residential areas and how emotional dynamics develop over time. Based on interviews, document analyses and participant observation, we present the different perspectives, communication patterns and conflict constellations of planners, citizens' initiatives, and local politicians. It turns out that all sides are sceptical towards each other, claim that their voice is not heard, and feel increasingly frustrated. We ask: What conclusions can be drawn with regard to transformative administrative cultures that are better prepared to take into account the importance of emotions and perceptions of different conflict parties in planning conflicts? Finally, we link our findings with knowledge from local conflict consultation and discussing how their methods can inform local planning in participatory processes.

1825 | Ofri Peretz, Efrat Eizenberg

Who Sits at the Table? Negotiating Participation and Agency in the Renewal of Haifa’s Talpiot Market

Urban markets are increasingly recognized not merely as sites of trade but as complex governance arenas where participation, legitimacy, and agency are continually negotiated. This paper examines Talpiot Market in Haifa, Israel, a historically central yet socially marginalized urban marketplace, to explore how planning practices shape—and are shaped by—the actors, alliances, and imaginaries that define “the public.” Moving beyond outcome-oriented evaluation, the study investigates how distinct planning regimes produced competing notions of participation and authority across two consecutive regeneration strategies.

Drawing on interviews, planning documents, and media sources, the analysis traces the transition from a comprehensive, technocratic planning model under Mayor Yona Yahav to the incremental “urban acupuncture” approach introduced by Mayor Einat Kalisch Rotem. Each strategy articulated different configurations of agency: the former privileging institutional control and long-term spatial visions, the

latter emphasizing tactical interventions and symbolic inclusion. Through these shifts, participation itself was redefined—not as a static procedural step but as a field of negotiation where planners, politicians, vendors, and civic actors contested the very meaning of engagement.

The paper conceptualizes the "negotiation table" as both metaphor and method, capturing how power, recognition, and legitimacy circulate through the practices of planning. It examines who is invited to sit at this table and on what terms; how issues of redevelopment, preservation, and inclusion are prioritized or sidelined; and how informal interactions supplement or subvert formal participation frameworks.

By situating these negotiations within Haifa's broader urban trajectory, Talpiot Market emerges as a microcosm of planning in flux—a site where plural knowledges, institutional logics, and vernacular practices intersect. In doing so, it aims to contribute to a deeper understanding of planning as a lived, negotiated practice, revealing how the politics of participation continually remake both the city and the meaning of the public itself.

1179 | Farzana Ahmed, Michelle Annette Meyer, Katherine Lieberknecht

Mapping Coastal Risk with Communities: An Interview-to-Participatory GIS method for Equitable Planning on the Texas Gulf Coast

Planning not merely as a technical or neutral activity, but as a profoundly ethical as well as political practice influenced by histories, identities, and relationships. Scholarly argument shows how planning can shift from a model of control to one grounded in participatory forms of knowledge production. As each community is different in social structure and climate challenges, gaining a deep understanding of each community's unique requirements is essential to ensure appropriate actions. Often , regions with high risk of disasters, especially those where multiple petrochemical industries are located, are particularly unique and require urgent attention.This study discusses the importance of Participatory Geographic Information Systems (PGIS) in creating locally tailored datasets for better planning. It investigates how PGIS might improve equity and identify social vulnerability(SV) more effectively. The study dives into the issues that marginalized communities confront and compares the efficiency of PGIS as a technique for including SV aspects in planning through participatory mapping that represent community realities. The need to thoroughly understand SV, considering elements such as socioeconomic position, cultural features has been analyzed. This research also analyzes literature, highlighting the uneven impact of environmental hazards on disadvantaged populations and the benefits of participatory approaches. It claims that SV elements should be included in Geographic Information System (GIS) frameworks to improve emergency mapping accuracy. Furthermore, the obstacles and possibilities that come with using PGIS in planning measures are discussed. The absence of comprehensive meteorological and climate data is a significant barrier, and the paper recognizes the complexity of working with various populations confronting multiple dangers. The challenges of guaranteeing continued community engagement, processing PGIS data, and the various responsibilities of facilitators are also explored.Overall, PGIS could be a helpful technique for promoting informed decision-making, aiding hazard mitigation measures, and resolving resource inequities in the planning process.

1474 | Markus Leibenath

Enacting a communicative planning culture of both collaboration and control: Paradoxical practices in the planning of a large urban extension project in Berlin, Germany

Since the inception of communicative planning, analysts have been wary of the tensions between rhetoric and reality. Participatory planning often serves as a technology of power in the hands of politicians, planners and other already influential groups, eager to implement their agendas while

practicing citizen dialogues and other methods of communicative planning. In a kind of paradoxical communication, or 'double bind', citizens are encouraged to participate, but only in regulated, depoliticised ways. These tensions have recently increased, driven by ever-more-comprehensive participatory demands and growing frustration about planning procedures. This has resulted in planning reforms in many countries.

Although Germany's planning system has remained remarkably stable, these tensions are also evident here. This is evident in thriving cities such as Berlin, which are suffering from housing shortages and are therefore attempting to realise large housing projects in suburban areas. One such case is the Elisabeth-Aue project in Berlin's Pankow district, where the construction of over 5,000 residential units is planned. Public sector planners are under considerable political pressure to devise development plans in a democratic and participatory manner. The aim of this paper is threefold: firstly, to elucidate how communicative planning is performed in the context of the Elisabeth-Aue project; secondly, to explore how planners address the aforementioned tensions in their participatory practices; and thirdly, to reveal what these practices say about the current culture of urban planning in Germany.

This study is based on a praxeological understanding of planning culture, which assumes that culture consists of meaningful actions (practices) involving certain artefacts, as well as implicit knowledge, specific roles (subjectivities), and linguistic systems of meaning (discourses). Methodologically, the analysis is based on ethnographic fieldwork in Berlin, including participant observation of public events, semi-structured interviews and informal conversations. This research has been funded by the German Research Foundation (project number 466529662)

Inclusive urban planning

Fri 3.7.11:00-12:30, Practices and Actors B, Y228b | Session chair(s): Juho Rajaniemi

1170 | Mari Jaakonaho, Hossam Hewidy

Building Trust, Bridging Divides: Municipal Leadership and Local Engagement in Effective Segregation Prevention

Segregation in Finland, historically limited by a strong welfare state and social-mixing housing policies, has increased due to rising inequalities, housing marketisation, restricted social housing, and the spatial concentration of income groups (Hyötyläinen & Haila, 2018). In response, the city of Vantaa launched in 2025 a programme to prevent segregation as a part of it’s strategy and to coordinate efforts in neighbourhoods where inequalities—such as youth crime, unemployment, and low educational attainment—reflect deeper socio-economic divisions. This research examines how this anti-segregation agenda is articulated and operationalised locally in Havukoski.

In Havukoski, participatory initiatives strengthen community cohesion and social sustainability by engaging residents—particularly youth and immigrant groups—in urban development. The Our Havukoski project introduced art and co-design activities, complemented by school- and youth center initiatives highlighting neighbourhood identity. Schools act as engagement platforms, offering homework support, leisure activities, meals, volunteer opportunities, and family programmes while fostering intergenerational encounters and informal networking. This grassroots-driven engagement challenges top-down planning paradigms but requires municipal responsiveness to ensure meaningful participation (Hewidy & Harsia, 2025). While social mixing remains a key preventive tool, its effectiveness is debated as structural drivers are often unaddressed (Amcoff, 2021). Moreover, policies attracting middle-class households may overlook local needs, such as immigrant amenities. Findings highlight that trust-building with communities is essential for understanding local needs and improving the built environment, while effective cross-sectoral coordination requires flexible institutional capacity. The study contributes to literature advocating development within segregated areas rather than relying on disruptive displacement strategies.

Amcoff, J. (2021). Searching for new ways to achieve mixed neighbourhoods. Cities, 121, 103496. https://doi.org/10.1016/j.cities.2021.103496

Hewidy, H., & Harsia, E. (2025). Let them speak: Insurgent planning and urban justice. Cities, 162, 105918. https://doi.org/10.1016/j.cities.2025.105918

Hyötyläinen, M., & Haila, A. (2018). Entrepreneurial public real estate policy: The case of Eiranranta, Helsinki. Geoforum, 89, 137–144. https://doi.org/10.1016/j.geoforum.2017.04.001

2378 | Johanna Gassner

Aspects of Social Class in Space: A Socio-Spatial Framework

This research addresses a conceptual gap at the intersection of social class and space. While spatial approaches to social inequality frequently emphasise categories such as social status, milieus, or lifestyles, they tend to pay little attention to class as an analytical dimension. Conversely, much class theory implicitly overlooks the spatial dimension of social structures and the spatial production and reproduction of class relations.

This mutual blindness between class and spatial analysis – the underemphasis of space in class theory and likewise of class in spatial thinking – limits our understanding of how social and spatial inequalities are produced jointly. The study aims to overcome this conceptual separation by systematically examining the theoretical interrelationships between class and space. It focuses on how class relations materialise spatially, in the production, appropriation, and perception of urban environments, and how spatial structures in turn stabilise or transform social hierarchies. A deeper examination is crucial to understanding who participates, who is excluded, and who gains access to transformed urban spaces – questions that are central to equitable planning processes. By developing a socio-spatial analytical approach that is class-sensitive, the aim is to analyse how power relations and class-based structures shape public spaces and planning processes. The contemporary concept of class provides a theoretical basis for analysing these imbalances. Under this assumption, social class is therefore understood as a structural category with spatial effects. This framework lays the foundation for a critical planning perspective that recognises social hierarchies instead of reproducing them, thereby contributing to a more equitable and reflexive urbanism.

Bourdieu, P. (1989). Social Space and Symbolic Power. Sociological Theory, 7(1), 14–25. https://doi.org/10.2307/202060

Harvey, David (1982). The Limits to Capital. London: Basil Blackwell Publisher Limited.

Wright, Erik Olin (2015). Understanding Class. London: Verso.

1709 | Rani Mandelbaum, Shulamit Monsonego

Go Underground: Subterranean Grey Space in Haredi Neighborhoods

Social segregation of Israel's Ultra-Orthodox population (Haredi) manifests physically in the creation of separate Haredi neighborhoods within Israeli cities. The typical Haredi household is characterized by a large family with low income and low motorization levels compared to the national average (Kahaner & Malach, 2023). However, current planning in these neighborhoods has continued to apply standards designed for the general population, with large underground parking lots being planned and built, despite the community's limited car ownership. Nevertheless, reality is stronger than plans on paper, and these underground spaces have developed urban lives of their own. This study seeks to explore the use of this underground "gray space" (Yiftachel, 2009).

The presentation will offer both an outside-in and inside-out perspective on the thriving, hidden underground gray spaces that underlie the contemporary Haredi neighborhoods. The research focuses on

several underground parking lots in Haredi neighborhoods in Jerusalem and Beit Shemesh – two cities with distinct urban characters and significant Haredi populations. The analysis follows various informal uses that emerge within these spaces – residential, commercial and communal – characterizing their functions, the needs they fulfill and the significance of their "hidden presence". In addition, it examines the attitudes of residents, neighbors and users of these alternative spaces. Drawing on the findings, the discussion will reflect on the meaning of an underground gray space, its implications for the city and the challenges of addressing it through planning.

1786 | Silvia Spolaor, António Ferreira

Diverse and Balanced Intervention Spectrum (DIBIS): reflecting on participation in the age of polarisation

Public debate and decision-making are increasingly marked by polarisation, distrust, and institutional fatigue. These conditions pose a challenge to planners and policymakers, who must navigate conflicting values and interests while maintaining legitimacy and transparency. This research examines how participatory planning engages with this emerging polarisation and how it can respond to such conditions by integrating, rather than avoiding, conflict. We introduce the Diverse and Balanced Intervention Spectrum (DIBIS) framework: a conceptual and practical framework designed to promote constructive exposure to conflict as a participation strategy. DIBIS supports planners, facilitators, and decision-makers in structuring participation processes that treat diverse viewpoints and the disagreements they generate as a resource for innovation and collective learning. Drawing on expert interviews and workshops, the study analyses how DIBIS can be operationalised at different moments of decision-making. It provides insights into who should be involved (stakeholder mapping), how participation can be mobilised effectively, how collective problem framing can be achieved, and whether interventions can evolve incrementally or through one-off, comprehensive initiatives. The framework also offers strategies for systematically evaluating participation outcomes to ensure transparency and public trust. Building on concepts such as public interest, agonism, incrementalism and clumsy solutions, the paper demonstrates that exposure to conflicting opinions – when well-structured – can generate more inclusive, adaptive, context-sensitive and sophisticated results. Data collected from literature review, interviews and workshops informed a set of recommendations for successful participation grounded in diversity and balance, including: a history of mobilisation, long-term commitment, creative and adaptive methods, a focus on fundamental collective values and future challenges – such as climate action and public health – rather than narrow, solution-driven sessions. The DIBIS framework thus bridges theory and practice, offering a structured approach to transform polarisation into an opportunity for more balanced and democratic planning.

1505 | Ryan Thomas Devlin

Informal Practice as Communication by Doing

Traditional planning engagement practices in the U.S. often fail to reach vulnerable communities like undocumented immigrants. Standard participatory methods position planners as initiating subjects inviting engagement from community member, and invitation not always taken up by vulnerable groups like undocumented residents. Introducing the concept of communication-by-doing, this paper reframes informality as a conversational act that disrupts the urban order and enables marginalized groups to claim subjectivity, inviting planners to participate in already ongoing processes in urban space. Drawing on the work of Jacques Rancière and on scholarship from the Global South, communication-by-doing calls on planners to listen to what is being said through informal practice and to embrace flexible, provisional approaches operated through logics of informality to coproduce more inclusive spaces. Using an informal vendor market in Queens, New York City as an (imperfect) case of communication-by-doing

in action, the paper demonstrates how informal action can prompt inclusive planning in the Global North, offering a model for scholars and practitioners to reimagine participation.

Track 12: Shelter

Track chairs: Adiwan Aritenang, Johanna Lilius, Paavo Monkkonen, Burcu Ozdemir Sari, Katriina Rosengren

Rental markets

Tue 30.6.14:00-15:30, Shelter A, U270 U8 | Session chair(s): Johanna Lilius

1032 | Joseph Hongsheng Zhao, Yunfan Yu

Are International Students Struggling More? Comparing Housing Challenges of British and International Students in Glasgow

The rapid internationalisation of higher education has intensified demand in urban rental markets, yet the differentiated experiences of international and domestic students remain inadequately understood. This paper examines how financialization and information asymmetries shape student housing inequalities in Glasgow during the 2022 housing crisis. Drawing on 436 survey responses and four focus group discussions with Chinese international and British domestic students, the study reveals that international students face disproportionately higher rents, greater mobility, and heightened vulnerability to unregulated intermediaries in the private rental sector. These disparities stem more from institutional and informational barriers embedded in a fractured, profit-driven housing system dominated by Purpose-Built Student Accommodation (PBSA), than individual choices. The paper argues that student housing operates as a reflection of wider urban pressures under financialised capitalism, where global mobility and local scarcity intersect. This research concludes that addressing these challenges requires universities and local authorities to collaborate in improving transparency, mitigating rent inflation, and ensuring equitable access for transient student populations.

1344 | Julie Mah

Discursive shifts in public debate on rent control in Ontario, Canada (1990-2023)

Rent control has long been a hotly debated topic. Housing activists argue that a strong rent control regime is important to preventing economic evictions and displacement (e.g., Slater 2021; Stein, 2019) and some economists argue that rent control discourages rental housing production (e.g., CMHC, 2025). This paper examines discursive shifts in public debate around rent control in Ontario from 1990 to 2023 and explores the connections between this discourse and legislative policy changes. From the early 1990s to 2018, Ontario saw significant policy changes related to rent control. This paper maps out the dominant discourses for and against rent control during this time period and examines how these arguments connect with debates in Ontario's legislative assembly at key policy moments. In so doing, we can identify what arguments and positions are being amplified or ignored by policymakers and analyze whose argument held most sway and influenced policy changes in the provincial rent control regime. To do this, we conducted a media scan of three mainstream news outlets – Toronto Star, Globe and Mail, and the Financial Post/National Post – to gather and analyze all news articles and opinion pieces (n=549) that mentioned rent control (1990-2023). We then gathered and analyzed Hansard transcripts of legislative assembly debates during key policy moments when significant policy changes were made to rent control

(e.g., 1992 Rent Control, 1997 Tenant Protection Act). We analyzed and coded these transcripts in NViVo to identify the major debates around key policy changes, such as vacancy decontrol, and connected the discourses to these debates to understand how prevailing arguments were reflected in formal debates.

1493 | Birce Karadoğan

Addressing Housing Scarcity in Copenhagen: Opportunities and Challenges for Student Accommodation

Housing scarcity in Copenhagen is projected to reach approximately 30,000 dwellings by 2035, highlighting the growing complexity of urban housing challenges despite continuous municipal plans and investments. While the 2019 municipal plan targets the construction of 100,000 new housing units, including 12,000 for youth housing, the gap between planning and real-world conditions indicates that access to affordable housing—particularly for students—remains unequal. Purpose-built student accommodation (PBSA) has emerged as a response to this challenge, offering strategically located housing that meets students' specific needs. PBSA includes both non-profit and privately owned units, ranging from dormitories and villages to individual units. One notable example is CPH Village, a project that repurposes shipping containers into student housing modules at Refshaleøen. Completed in 2018, CPH Village accommodates 164 students in a relocatable and temporary design, by combining affordable housing, sustainable architecture, and community-driven living. Although projects like CPH Village demonstrate innovative approaches to temporary and affordable student housing,they cannot provide a long-term solution to Copenhagen's growing housing scarcity. Effective interventions require a combination of urban strategies and design solutions, such as developing new sites with innovative housing models and optimizing the use of available urban spaces through the effective use of legislative tools. This study emphasizes that sustainable solutions for housing scarcity depend on aligning planning mechanisms and tools with real-world urban dynamics. By examining the potentials and limitations of youth housing and complementary urban mechanisms in Copenhagen, the research contributes insights for planners, policymakers, and researchers seeking equitable and resilient approaches to urban housing challenges in Copenhagen and similar growing cities.

1517 | Sirat Mahmuda, Dr Chris Martin, Laurence Troy

Rental Vulnerability: investigating its structural and spatial dimensions in New South Wales and Western Australia

The Rental Vulnerability Index (RVI) ranks and maps the vulnerability of renters to problems that may put their housing at risk. Drawing on concepts from 'legal needs' research, the RVI was first developed for Queensland in 2017 and is now being extended nationally. The RVI ranks are derived from the first principal component of a PCA on census-based indicators of rental vulnerability. While PCA captures structural disadvantage, it does not capture spatial dynamics, though rental vulnerability is often place-based. To address this, and following Robinson et al. (2019), we developed a Spatial Rental Vulnerability Index (SRVI) using Geographically Weighted PCA, which incorporates locational context.

Focusing on New South Wales (NSW) and Western Australia (WA), we applied hierarchical clustering to the first three PCA components and profiled clusters using mean values of original indicators alongside RVI and SRVI ranks. This approach identifies vulnerability typologies and examines how spatially weighted patterns align with or diverge from structural vulnerability.

Findings reveal that rental vulnerability in Australia reflects both socio-economic and spatial factors. Greater Sydney, as the nation's largest and wealthiest city, shows lower overall vulnerability (RVI) but higher spatial clustering (SRVI), indicating concentrated pockets of disadvantage among young, migrant, and mobile tenants in inner-city areas. In contrast, regional NSW exhibits widespread structural disadvantage—older tenants, low education, and Indigenous populations—resulting in high RVI but more dispersed vulnerability. WA, a less populous but geographically large state, shows moderate vulnerability in Greater Perth but severe and spatially concentrated vulnerability in remote regions dominated by Indigenous tenants and housing insecurity.

By integrating the indices we capture socio-economic risk (RVI) and reveal spatial clustering (SRVI). Together, they provide a nuanced understanding of rental stress across core economic hubs and peripheral regions, enabling planners to design interventions sensitive to both intensity and spatial concentration—urban hotspots and geographically isolated communities.

1375 | Anam Bashir, Julia Harten

Living Underground in Vancouver: Studying Basement Suites Via Online Ads

In Vancouver, turning basements into rental units is a common strategy to cope with the city's affordability crisis. Anecdotally, these suites serve a dual purpose: for homeowners, they generate income that helps make homeownership attainable, earning them the nickname "mortgage helpers"; for renters, they offer relatively affordable access to otherwise costly neighborhoods. Despite their ostensible ubiquity, little is known about their locations, prevalence, and affordability. Here, we study thousands of online rental listings collected between January and December 2023 to ask: What is the discount for living underground? And where in the city are basements advertised for rent? We extract structured data on price, size, and geography, alongside unstructured advertisement text from the collected listings. Using natural language processing, we develop a method to reliably identify listings for basement units and then apply hedonic price modeling and spatial analysis. We find that basements rent at a 13-17% discount relative to otherwise comparable, above-ground units. Spatial analysis further reveals that basements are geographically widespread but highly concentrated, clustering in single-detached neighborhoods and close to transit and universities. In sum, basements are cheaper but not cheap. While their potential as an affordability strategy is limited by physical constraints in the built environment, they uniquely expand access to the most exclusive and opportunity-rich neighborhoods – precisely where new housing is most resisted but arguably would be most beneficial. Ultimately, the study points to the unresolved tension in contemporary planning, where optimism about gentle densification is challenged by its marginal scope; It also raises questions about who truly benefits from this mode of housing provision

1587 | Manuel Koeberl, Michael Wurm, Fabio Bayro Kaiser, Vanessa Ziegler, Christa Reicher, Hannes Taubenböck

The Hidden Urban Potential: Quantifying livability in German large housing estates using accessibility metrics and spatial data

Cities across Europe face a dual challenge: accommodating population growth while limiting land consumption and soil sealing. In this context, large housing estates (LHE) represent an important but often overlooked component of urban development. Originally constructed to address severe post-war housing shortages, these estates provided rapid, cost-efficient dwellings and aimed to ensure high living standards through generous green spaces and modern amenities. Today, many of these neighborhoods in Germany are subject to a persistent stigma despite their significant share of the national housing stock and their strategic role in providing affordable housing.

While existing research has extensively discussed the social, architectural, and policy dimensions of large housing estates, empirical assessment of their current performance in terms of livability and accessibility remains fragmented. Qualitative work provides valuable insights, but is resource-intensive and difficult to scale across different cities. To address this gap, we propose a data-driven framework to objectively evaluate neighborhood-level quality of life, with a particular focus on LHE.

We identify and analyze 225 LHEs across Germany using geospatial analysis and earth observation data. Functional accessibility to essential urban services, such as education, healthcare, retail, and recreation, is quantified using pedestrian-based routing algorithms. In addition, we assess morphological characteristics including green-space availability, building density, alongside demographic indicators and housing market characteristics.

Preliminary findings reveal substantial diversity among large housing estates, suggesting distinct clusters rather than a monolithic typology. This approach provides a comparative benchmark for LHEs nationwide and offers local urban planners and policymakers an evidence-based foundation for neighborhood development strategies.

Financialization and commodification

Tue 30.6.16:00-17:30, Shelter A, U270 U8 | Session chair(s): Johanna Lilius, Katriina Rosengren

981 | Rafael Kalinoski, Mario Prokopiuk

Progressive taxation of short-term rentals as a tool for inclusive urban housing governance

This paper examines short-term rental taxation as a tool for housing governance in financially driven urban contexts. It proposes a progressive municipal tax model designed to mitigate the displacement pressures generated by the expansion of platform-based accommodation markets in Brazil. The model is applied to the case of Curitiba, where Airbnb has intensified competition for urban housing, contributing to rent inflation and spatial exclusion. Grounded in data from the AirDNA platform, the research develops a fiscal mechanism that adjusts municipal service tax (ISS in Portuguese) rates according to property occupancy levels: 2% for high-occupancy units, 3% for average occupancy, and 5% for low occupancy. This structure penalizes underutilized properties while rewarding those that maintain consistent use, encouraging the reconversion of vacant or speculative units to the long-term rental sector. The resulting

redistribution of housing supply may increase rent affordability and improve the efficiency of existing stock without prohibitive interventions. By treating taxation as a form of urban policy rather than mere fiscal extraction, the study frames fiscal governance as a pathway toward inclusive planning. It demonstrates how cities can repurpose local tax systems to reconcile tourism, investment, and housing needs, thereby reinforcing the social function of urban property. The model aligns with broader debates on planning under housing financialization, showing that targeted fiscal policies can reduce urban inequalities and prevent displacement while preserving municipal revenue. This approach situates taxation within a wider agenda of collaborative urban governance, emphasizing the role of local-scale interventions in rebalancing housing markets and ensuring dignified, secure, and accessible shelter for diverse urban populations.

1087 | Elisabeth Gruber

Defining and Operationalizing "Housing Needs": A Pivotal Factor to Counteract Housing Market Speculation?

In Austria, a housing need not only determines eligibility for social housing but also serves as a pivotal factor in municipal decisions to designate new building land or support housing development projects. Specifically in places with an extraordinary demand (e.g. tourism regions), clarifying of what kind of housing is actually needed seems to be an essential aspect. The question of what constitutes a housing need has therefore become increasingly central to contemporary housing policy and spatial planning. Yet, while the notion of the housing need has gained political and administrative significance, its definition and measurement remain contested.

Recent reforms have sought to improve the assessment of housing need—both to ensure that housing provision meets actual demand and to curb speculative development (e.g., the Wohnungswerberprogramm in Vorarlberg and the City of Innsbruck's new digital system for assessing housing needs). However, these efforts have also exposed new tensions. Narrow or static interpretations of need might exclude vulnerable groups (e.g. migrants, those in precarious housing or those in urgent need). Furthermore, it is frequently questioned whether current municipal practices genuinely capture housing need or merely collect aspirations.

Drawing on two cases from Western Austria, this paper examines how the understanding and operationalization of housing need shape access to affordable housing and influence local planning decisions. It argues that while housing need has become a pivotal reference point in housing governance, the challenges of defining and measuring it raise fundamental questions about how "need" itself is constructed, institutionalized, and used as a tool for steering housing development.

1601 | Veera Annala

Build to rent - How Housing Company Loans Shape New Residential Architecture?

During the 2010s low interest rates combined with investor-friendly taxation of rental income, transformed newly built apartments, whose construction was financed with housing company loans, into tax-advantaged investment products. This dynamic intensified investor demand for housing and during

the 2010s major cities in Finland experienced the rise of private rental sector, emerging particularly fast within new construction. While architects were calling for increased quality, size, and flexibility of housing to improve the social and ecological sustainability of construction, since 2014 the housing production in the Helsinki metropolitan area has become increasingly dominated by studios and one-bedroom apartments, and the average size of the apartments has decreased. The investor demand for newly built apartments, suitable for renting, accelerated the demand and construction of these small apartments but the weak adaptability and low quality of new construction invite to consider whether the growing influence of investor demand undermines efforts toward socially and ecologically sustainable housing construction, or whether some other factors within housing production explain this trend.

Against this background, the presentation introduces findings from a case study examining the spatial consequences of growing private investment in newly built residential housing in Vantaa. The study compares two groups of apartment buildings: those with a high share of housing company loan relative to the debt-free price of the apartment, and those with a lower loan share, to investigate whether an investor-friendly financing structure correlates with emerging trends, such as small unit average size, high number of apartments, grater Net-to-Gross floor area ratio, within the housing production. Assessing quality factors within the buildings, the case study suggests that an investor-friendly financing model correlates with lower design quality, reduced adaptability, and smaller average apartment size.

2107 | Matteo Beltramo, Mauro Fontana

The ‘1€ House’ paradox: investigating public policy and housing dynamics in Sicilian left-behind territories

Academic debates on depopulated ‘left-behind territories’ have extensively addressed the decline of social infrastructure and the foundational economy. However, the housing question is often overlooked as a technicality rather than a structural barrier to repopulation. This paper investigates the nexus between Sicily’s ‘1 Euro House’ policies and emerging housing dynamics, interpreting the scheme not merely as a regeneration tool, but potentially as a micro-gentrification mechanism.

We argue that these policies facilitate the intrinsic revaluation of properties—purchased at symbolic values—and their incorporation into globalised networks of financial and tourist circulation (e.g., Short-Term Rentals). Consequently, value generation largely escapes public oversight, concentrating in the hands of absentee owners whose interests are weakly connected to the territory's long-term socio-economic reproduction. This dynamic risks generating liquidity on a broad scale while translating only marginally into locally embedded wealth or everyday services for resident communities.

In this context, the municipality acts as a mediator to unlock dormant assets, yet this state-led brokerage often triggers a speculative chain. The global media hype acts as a ‘showcase effect’, empowering real estate agencies to market the wider local stock to international micro-investors, while digital platforms (e.g., Airbnb) provide the infrastructure to re-commoditise these properties. We hypothesise a process of ‘functional substitution’ rather than physical displacement: a shift from a potential residential resource to a tourist asset.

Adopting a mixed-method approach (analysing AirDNA/real estate data combined with qualitative fieldwork), this study explores whether this multi-layered mediation generates genuine regeneration or merely facilitates territorial value extraction. By framing housing as foundational social infrastructure, we highlight the risks of creating a 'two-speed' real estate market and exacerbating touristification in Southern European inner peripheries.

2726 | Yating Jiang

Who Defines the Ideal Rental Home? Revealing Housing Inequalities from Divergent Platform Narratives

In the era of platform-mediated housing, market algorithms and listing keywords increasingly define the "ideal" rental home. This market-dominant narrative may obscure, distort, and contradict tenants' lived experiences. This study asks: How do rental market descriptions diverge from tenant narratives? Can this semantic gap reveal hidden spatial patterns of housing inequality?

To address these questions, this research employs a mixed-method approach combining spatial analytics with natural language processing. We compile two datasets from Shanghai: web-scraped rental listings (market perspective) and online discussion forums (tenant perspective). For macro-level topic modeling, we employ Latent Dirichlet Allocation (LDA) to identify divergent concerns. For micro-level analysis, we use Word2Vec to map how markets and tenants frame identical neighborhoods differently. These semantic patterns are then geo-mapped to identify spatial correlation.

The results reveal socio-spatial incoherence between market and tenant narratives: Market discourse emphasizes asset values (e.g., location efficiency, transport convenience), while tenants prioritize lived experience (e.g., property maintenance, landlord behavior). The analysis further identifies zones of narrative conflicts—areas highly promoted in market listings yet receiving negative tenant reviews. These mismatches uncover implicit living conditions overlooked in quantitative planning and housing assessment.

This study delivers an evaluation framework that integrates natural language processing and spatial analytics to elevate tenant voices in housing studies. By validating tenant experiences against market data, it sheds light on rental habitability and spatial inequality within platform-mediated rental markets.

Land and affordability

Tue 30.6.17:45-19:15, Shelter A, U270 U8 | Session chair(s): Johanna Lilius

1905 | Michal Arbel, Rachelle Alterman

Zero financialization: The self-regulated housing model of the Kibbutzim

As housing financialization challenges affordability, research into alternative models has intensified. Israel's kibbutzim represent a global alternative - rural collectives where land and buildings are state-owned, while communities provide housing through internal, egalitarian decision-making. By excluding real estate market forces, kibbutzim have aimed for affordable and equitable living.

Despite extensive literature on kibbutzim's collective life, this is the first research addressing decision-making about construction and allocation of housing without market prices. Housing allocation followed purely internal criteria based mainly on seniority. Each kibbutz developed its own criteria according to its community's perception.

More recently, a national economic crisis led to concern among kibbutz members about economic and housing security in the future. The state developed a program allowing kibbutzim to quasi-privatize existing and new housing (with a price tag on each member household, paid to the state). In these "Renewing" kibbutzim, the process inevitably introduces housing markets. Aware of gentrification risks, some kibbutzim have resisted any privatization, remaining fully communal. The coexistence of the two models offers a rare "natural experiment" to analyze housing outcomes without and with market values.

Using a sample of about ten out of 270 kibbutzim nationwide, we explore the evolution of internal housing criteria across decades. The methodology draws on document research in each kibbutz archive, interviews, demographic, and spatial analyses. We compare and evaluate allocation criteria across all kibbutzim. For kibbutzim where quasi-privatization has been completed, we appraise housing market values and monitor second-hand sales to gauge gentrification trends and their prospective negative impact on communal housing ethics.

This study challenges assumptions about the inevitability of housing markets and explores whether communal models can persist or adapt when exposed to broader market influences. Insights from the kibbutz experience offer valuable perspectives for designing equitable housing systems in an era of increasing commercialization and financialization.

1661 | Sophia Spence

Social safety, affordable housing, and health: An exploration of LGBTQ-affirming senior housing projects across the United States

Housing is both a multidimensional determinant of health and an expression of power relations that produces and maintains structural inequalities, suggesting that housing schemes can be leveraged as a health intervention for populations that experience disparities in both realms, like the LGBTQ community. Since 2014, twenty affordable housing developments aimed at low-income queer and trans older adults have opened across the US, with at least a dozen additional buildings currently in development. However, very little existing research explores the development, implementation, or health and wellbeing implications of these LGBTQ-affirming housing projects. This presentation shares preliminary findings from a multiple case study dissertation project comparing five affordable housing developments for LGBTQ older adults in differing contexts in the US, drawing on interviews with both housing providers and residents. This research builds on previous scholarship identifying four pillars of housing as a determinant of health equity–affordability, stability, quality, and neighborhood context (Swope & Hernandez, 2019)–by theorizing a fifth pillar: social safety, defined as experiences of belonging, acceptance, and support which support positive health outcomes (Slavich, 2023). While social safety may be especially important for LGBTQ health equity, I argue that the presence (or absence) of social safety is a key factor in influencing health as it relates to housing for all populations.

References:

Slavich, G. M., Roos, L. G., Mengelkoch, S., Webb, C. A., Shattuck, E. C., Moriarity, D. P., & Alley, J. C. (2023). Social Safety Theory: Conceptual foundation, underlying mechanisms, and future directions. Health Psychology Review, 17(1), 5–59. https://doi.org/10.1080/17437199.2023.2171900

Swope, C. B., & Hernández, D. (2019). Housing as a determinant of health equity: A conceptual model. Social Science & Medicine, 243, 112571. https://doi.org/10.1016/j.socscimed.2019.112571

1622 | Gabriela Debrunner, Kaspar Bach Thunberg

Active municipal land policy for affordable housing: Comparing practices of two densifying and exclusionary cities – Zurich (Switzerland) and Copenhagen (Denmark)

The question of how to provide affordable housing in densifying and exclusionary cities has triggered intense housing and land policy debates worldwide. As cities struggle to both supply and secure affordable housing, increasingly vulnerable resident groups are being displaced from densifying areas—an exclusionary, segregating, and ultimately unsustainable urban process.

This paper introduces active municipal land policy as a conceptual approach through which municipalities defend affordable housing provision interests within commodifying private land markets. It builds on the assumption that in cities with a socialist path and property regime, such as Copenhagen (Denmark), affordable housing outcomes are more successful due to a longstanding social housing tradition shared by both authorities and private actors. In contrast, highly financialized cities like Zurich, characterized by liberal property market traditions and strong legal protection of private ownership, tend to produce more exclusionary and discriminatory housing outcomes.

To investigate Zurich's and Copenhagen's land policy approaches, the study combines statistical and spatial analyses of socio-economic and housing data, secondary sources, and qualitative interviews with key stakeholders in both cities. Findings advance municipal land policy research in three ways. First, land policy approaches are highly context-sensitive, shaped more by local stakeholders, perspectives, and strategies than by a country's political trajectory. Second, contrary to expectations, Zurich demonstrates success in negotiating with private landowners through both new legal instruments and the strategic activation of existing rules. Third, the study shows that land policy is inherently socio-political, requiring planners capable of navigating complex land use situations to achieve equitable densification.

1319 | Abigail Friendly

Towards collective property: Community mobilization against impermanence

Land regularization is a global challenge, and has been recognized as key to guaranteeing access to land and affordable housing, including in Brazil, where the issue is problematic due to the scale of informal urban areas. In such contexts, collective property arrangements have been raised to tackle the issue. In this paper, I interrogate recent experiences in implementing alternatives to individual ownership through collective property. Investigating efforts to apply collective property in Rio de Janeiro, I explore the case of the community of Grupo Esperança in the city's western periphery. Grupo Esperança is an example of a

self-built housing community constructed through Brazil's federal Minha Casa Minha Vida-Entidades housing program led by housing movements, with a long history of mobilization. Yet on completing the housing project in 2015, the lack of documentation and the residents' tenuous permanence on the land led the community to seek alternatives through collective property, drawing on their longstanding experience with housing autogestão. The community is piloting a community land trust, a type of shared equity where the land is separated from the buildings on it. Despite growing interest in collective property in Brazil, there has been little exploration of its implementation. Through the case of Grupo Esperança, I examine under what conditions collective property can be effective to equitably address housing needs faced by communities lacking secure access to land, based on qualitative research with residents, community leaders, advisors and experts. Drawing on a lens of common property, I analyze the potential of collective property to equitably address housing needs faced by communities at risk of displacement.

950 | Julie Lawson

An examination of how land policies support affordable housing and address inequality

This paper presents findings from the Equal House project (WP5.3), which evaluates how land and planning instruments shape affordable housing provision and distributional outcomes across five European cities: Vienna, Helsinki, Brussels, Paris/Île-de-France, and Valencia. Using a critical realist framework, the study examines how "open housing systems" are structured by land institutions and how these in turn influence affordability, access, and equity. Evidence is drawn from documentary analysis, semi-structured interviews with key stakeholders, and site-based observation, producing a harmonised cross-case matrix of policy rules, financial logics, and realised outcomes.

The comparative fieldwork reveals that diverse institutional arrangements—Vienna's land banking and four-pillar competitions, Helsinki's long-leasehold stewardship, Brussels' community land trust model, Paris' combination of SRU quotas and ZAC development zones, and Valencia's reparcelación process—share a common capacity to embed affordability within land governance. Yet their effectiveness is contingent on path-dependent factors including fiscal architecture, legal competences, and the maturity of non-profit providers. Across cases, public landholding, cost-rent regulation, and participatory governance emerge as robust mechanisms for securing durable affordability and resisting speculative pressures. At the same time, risks of exclusion, residualisation, and governance overload underscore the limits of institutional design when confronted with financialisation, uneven capacities, and persistent inequality.

Applying an open housing systems lens highlights how these land policies operate not in isolation but within wider circuits of investment, regulation, and social support. The study argues that effective land policy must both constrain speculative value extraction and enable cooperative, mission-driven provision, while being adaptable to shifting socio-economic conditions. For planners and policy-makers, the findings demonstrate the importance of sequencing reforms, building institutional vehicles, and aligning land stewardship with long-term affordability strategies. The paper contributes to debates on how land instruments can anchor inclusive housing futures in turbulent political economies.

2599 | Marcela RIVA de MONTI

Taking over vacant urban land. More possibilities for urban development. Villa 31 Buenos Aires

The contemporary urgency to comprehend informality and its intervention methods has driven a growing academic interest. Historically, the prevailing approach was expulsion, resulting in these areas being depicted as vacant land. A form of absence that was not to be incorporated into the logic of the city.

Examining the context beyond the confines of conventional planning regulations and market economic frameworks, these dwellings emerge as an alternative to the rent-seeking patterns that characterise urban production for the impoverished populations residing within city centres. These insular agglomerations of segregation, which are characterised by their informal nature and lack of official designation, are colloquially referred to as "Villas" within the urban landscape of Argentina.

The Villa 31-Barrio 31- Barrio Carlos Mugica is divided from the formal city by architecture and infrastructure barriers. Situated in close proximity to the most exclusive residential districts of Buenos Aires, this unauthorised occupation of public land has been in existence for a period exceeding eight decades. The phenomenon has undergone cycles of tolerance and forced eviction, alternating with the political administration in power.

The incorporation of these 'informal' practices into the official planning regulations resulted in an examination of the reinvigorated interest in the regeneration of the area within a larger urban context, through the proposals and interventions of private and public agents.

Following a decade of consideration of these proposals, the present paper examines the development of the piece.

Density and high-rise

Thu 2.7.11:00-12:30, Shelter A, U270 U8 | Session chair(s): Katriina Rosengren

1304 | Leela Loushy Kay, Rachel Katoshevski, Nurit Alfasi

Public Attitude Towards Mixed-Use Residential Buildings

In recent decades mixed-use buildings have become a common style. While this is not a new building style, the fact that residential buildings were often separated from commerce and services for many years has made the subject a contested one. The extent of areas in different uses (in square-meters per building), and the variety of uses have also contributed to this controversy .

A mixed-use environment is considered to have many advantages effectively creating a quality urban space. The scarcity of land, in light of the density of urban space, has led to the emergence of mixed-use buildings as a city phenomenon. A significant part of the desirable mixed-use exists nowadays in buildings that incorporate a variety of uses, including residences, commerce, offices, public uses, and hotels. In many buildings, more than two uses coexist, and the range between the types of uses and the amount of space allocated to each use is vast. The literature has found that the types of uses in mixed-use buildings influence the public's perception of the quality of living.

The lack of knowledge about the public's position has become critical to adapt quality and preferred city environment. This study aims to fill this knowledge-gap and examines the public's positions towards these residences, as well as how these positions vary according to the type of settlement and the types of uses included.

The initial analysis of a survey reveals a significant concern about living in mixed-use buildings. Respondents, both those who live in mixed-use buildings and the general public, are concerned about different life quality aspects. This raises questions concerning the gap between planners' ideas and professional stands and those of the public. The study thus extends our knowledge regarding planning and living in densifying urban areas and provides the tools for creating functioning cities.

1891 | Vera Götze

Upzoning and Rental Reconstruction in Los Angeles: Between Property Rights and Tenant Protection

Reconstruction development is a part of densification, but to minimize social and ecological costs, densification should occur in a way that creates new housing at the expense of as little existing housing as possible. However, we know little about how the design of densification policies and the context in which they are implemented affect the extent and efficiency of reconstruction development. While extensive research examines upzoning's effectiveness in owner-occupied markets, there is a knowledge gap regarding its impacts in rental-dominated markets, where redevelopment risks tenant evictions and loss of affordable housing. Upzoning in contexts of weak tenant protection can lead to widespread evictions and reconstruction at low ratios of new-to-demolished units (e.g., Zurich and Toronto), while strong tenant rights may halt development altogether (e.g., San Francisco and New York).

This study addresses this gap by analyzing upzoning-driven rental reconstruction in Los Angeles between 2010 and 2024, where upzoning efforts are concentrated in commercial and multi-family zones rather than single-family areas. The analysis uses detailed data on plot-level reconstructions, examining factors such as tenant eviction protections, upzoning margins, replacement conditions, segregation, and the attractiveness of rental areas.

Results reveal that rental reconstructions are rare in general, with institutional and market disincentives—beyond just tenant rights—limiting their prevalence and favoring developments with high ratios of new-to-demolished units. A key factor is the requirement to replace older rent-regulated units one-to-one, rendering low-ratio redevelopments infeasible. Additionally, regulations around rental reconstruction are constantly shifting, with differing rules across government levels and a general lack of oversight, making these projects highly unpredictable for developers.

With this study, I highlight the need for context-sensitive upzoning policies in rental markets. I advocate for a nuanced framework to assess (dis)incentives across jurisdictions, promoting a balance between property rights and tenant protection to enhance housing adaptability without exacerbating displacement.

1966 | Wenying Tu, Shenjing He

From Window Views to Wellbeing: Rethinking Perceived Visual Comfort in High-Density Housing and the Impacts on Residents' Mental Health

Window views, as a vital component of housing quality, shape access to daylight, greenery, and restorative visual environments that support residential comfort and mental wellbeing. In megacities, land scarcity and investment-driven development compress building spacing and intensify vertical stacking, making window views increasingly limited and unevenly distributed. This vertical stratification generates floor-based environmental differences that extend beyond horizontal neighborhood boundaries. Existing studies primarily rely on street-level assessments of residential environmental exposures, potentially overlooking shifts in mechanisms linking window views to wellbeing in a highly volumetric city.

In this work, we develop a perceived comfort metric incorporating view components and daylight conditions to assess potential window exposure. Using this metric, we evaluate the impacts of visual comfort within residential units on occupants' mental health. Specifically, we propose a workflow to measure window potential across residential floors based on a 3D urban simulation in Hong Kong. Then, combining the simulation results with a mental health survey of 2,000 respondents, we model self-reported depression under varying window view conditions while controlling for housing conditions and built environment features under the "5D" framework. We further examine how these impacts differ across typical housing types classified by property tenure.

We find that residents on higher floors and in units facing south report better wellbeing. Controlling for height and orientation, greater view distance and diversity are positively associated with lower depressive symptoms, while excessive exposure to monotonous sky increases depression risk. In highly volumetric urban contexts, visual diversity and perceived enclosure contribute more to health benefits than isolated greenery or water. The metrics developed may guide design and planning to assess perceived comfort in vertical contexts, and recognizing variations in window benefits may inform policies that protect view value and ensure equitable spatial wellbeing entitlements in dense residential contexts.

1984 | Alina Bärnthaler

Mapping Socio-Ecological Vulnerabilities to Densification

Urban redevelopments are central to ongoing densification efforts; yet demolition and rebuilding at higher densities are deemed to be socially and environmentally unsustainable (Debrunner, 2024; Næss et al., 2020). Socially, redevelopments have been shown to result in the displacement of predominantly low-income households (Kauer et al., 2025; Lutz et al., 2024), thereby exacerbating concerns of social and spatial justice (Elliott-Cooper et al., 2020). Ecologically, they increase material consumption and embodied emissions, which account for a growing share of total carbon emissions in the housing sector and are therefore considered a key lever for climate mitigation (Allan et al., 2022; Röck et al., 2020). These socio-ecological impacts of redevelopment-driven densification thus give rise to questions concerning their enhanced anticipation and regulation.

This study introduces a comprehensive vulnerability mapping (Shokry et al., 2022) that employs spatial statistical methods to anticipate hotspots of potential unsustainable transformations. By overlaying potential future hotspots of demolitions – and, therefore of increased resource-use – with socio-demographic indicators of social vulnerability to displacement, the study provides a dual lens for detecting potential redevelopment-driven densification dynamics. Ultimately, this equips policymakers and planners with the evidence required to implement anticipatory regulatory measures and to design targeted incentives that promote alternative approaches to densification that reconcile the goals of social and environmental sustainability.

2183 | Tal Modai-Snir

When luxury meets affordability: inclusionary housing in high-rise towers

This paper examines the integration of affordable housing into amenity-rich high-rise developments, focusing on the governance and cost conditions that shape everyday co-residence. Inclusionary housing has become a mainstream delivery tool for affordable units by partnering with private developers and leveraging incentives, exactions, or bonuses. In tight and expensive markets, this has yielded a peculiar configuration: affordable apartments embedded within prestige towers built and branded for high-income households.

Placing affordable units in luxury towers raises a basic question of fit. High-rises are expensive to build and once occupied, costly to run. Placing inclusionary housing units in the same tower as market-rate units often demands deeper financial support than standard low- or mid-rise projects. These fiscal pressures can make spatial or operational separation appear rational, yet such practices reproduce stigma, as captured in public and regulatory backlash against “poor doors.” Conversely, full integration can generate tensions among resident groups over common charges and service standards; If shortfalls in prestige or services drive homeowners out, the tower risks a maintenance spiral because these residents often anchor governance.

The study explores these dilemmas through a Tel Aviv case study of one inclusionary high-rise, combining a building-wide tenant survey with interviews of managers and homeowner representatives. Preliminary results underscore recurring issues of perceived fairness in management, concerns about property values and building image, adherence to communal norms, and fears of cross-subsidization, alongside signs of workable coexistence. The findings distill the challenges within ‘integrated’ models and set out a policy-relevant framework that links building economics to rules-in-use and, ultimately, to how people live together under the same roof.

2578 | John Paulo Garcia delas Nieves, Dina Cartagena Magnaye

Determinants of Effective Demand for Public Rental Housing: A Case Study of Low-income and Poor Households in Valenzuela City, Metro Manila

This study examines the factors driving effective demand for public rental housing among low-income and poor households in Valenzuela City, a highly urbanized city in Metro Manila. As Metro Manila continues to urbanize and land prices rise, many families struggle to find adequate and affordable

housing. Valenzuela's Disiplina Village has emerged as one of the country's few working models of publicly managed rental housing, making the city an ideal setting to explore the factors that shape demand and willingness to pay for this type of program. The research used a mixed-methods approach that combined a household survey, key informant interviews, and secondary data analysis. More than 300 households from five barangays with high concentrations of low-income residents were surveyed. The study gathered information on household characteristics, income and expenditure patterns, locational preferences, and perceptions of rental housing. Through descriptive analysis and an Ordinary Least Squares (OLS) regression model, the research identified the demographic, economic, and spatial factors that influence households' decisions to rent and how much they are willing to pay. Results show that both poor and low-income households express a strong willingness to move into public rental housing, driven mainly by affordability and proximity to employment. Family size, household income, transportation costs, and current housing expenses emerged as significant predictors of willingness to pay. On average, households are willing to pay below prevailing private-market rental prices, highlighting persistent affordability constraints. The study concludes that public rental housing can be a viable option for cities facing significant housing backlogs, provided rent levels remain aligned with the financial capacity of low-income families. It recommends integrating practical demand analysis into local shelter planning, prioritizing in-city rental options, and strengthening monitoring systems to ensure affordability and long-term sustainability of rental housing programs.

Cooperation and shrinkage

Thu 2.7.14:00-15:30, Shelter A, U270 U8 | Session chair(s): Tuomas Ilmavirta

999 | Leandro Medrano

Collective housing and the city: contemporary strategies

This research proposes a reflection on the concept of "counter-hegemony" in the context of the so-called Global South, using as an example the urban, architectural, and social dynamics in contemporary Brazil. The study highlights that, due to an accelerated and disorganized process of urbanization, Brazil experiences an urban configuration characterized by inequalities, fragmentations, and forms of territorial occupation that challenge traditional notions of urbanity and the hegemonic paradigms of urban planning. In this scenario, the goal is to analyze the possibilities for disciplinary renewal in the housing field, capable of influencing urban transformation efforts through public policies or social movements.

The concept of counter-hegemony will be particularly explored, focusing on critiques of urbanization and housing forms that resist dominant structures and offer alternatives for social justice and urban emancipation. As concrete examples of counter-hegemonic experiences, the research highlights two housing projects in Brazil: Parque Novo Santo Amaro and Jardim São Francisco. These projects represent spatial configurations that, although situated within contexts of inequality and urban fragmentation, propose occupancy and usage logics that challenge the impositions of hegemonically dominant paradigms, contributing to a more inclusive and democratic city vision.

By linking theoretical questions with concrete urban experiences, the study aims to contribute to a renewed understanding of the role of the city and architecture in constructing spaces of resistance and social transformation, reaffirming the importance of the concept of counter-hegemony in relation to

Brazil's specific realities. Thus, the research seeks to broaden the debate on possibilities for reconfiguring housing policies and foster a critical reflection on the emancipatory potential of urbanism and architectural projects in city development.

1027 | Tara Lynne Clapp, Aidan McClaren-Coux

Building collaboration as an intervention in rural housing in British Columbia Canada

In British Columbia, delivery of affordable housing relies on non-profits as developers, owners, and operators. For rural and remote places, the provincial system typically requires the establishment of a special purpose nonprofit organization specific to a local place. The place-based nonprofit must establish partnerships with local government and special purpose housing organizations. Existing literature identifies typologies of capacities that are required in rural housing delivery, and documents case studies of how rural and remote places have developed or accessed these capacities. However, rural and remote communities also find themselves at the nexus of increasing policy and regulatory requirements across a range of community infrastructures, increasing stringency of building codes. In short, the policy environment that sets costs is developed in a context of high and rising costs and values, while the rural context is one of lower investment levels and higher risks.

In this research, we brought several place-based nonprofits and small community government representatives together to explore the particularities of the barriers and challenges to housing delivery in rural areas. All of our participants represent communities that have populations of less than 10,000 people, and are remote from metro areas. Through facilitated workshops, we engaged participants first in identifying specific barriers and opportunities in policy, planning, development and operations of housing of different types. We also report on the engaged research effort to develop regional collaborations to address barriers to rural housing.

1173 | Antonio Raciti

Diverse Economy Co-Planning: Reframing Neighborhood Revitalization in Metro Rome

In the search for post-growth futures, post-growth scholars have focused on analyzing where post-growth practices materialize, why, and how the landscape of those practices shapes a set of post-growth geographies (Lange et al., 2021). On the one hand, post-growth scholars have acknowledged the importance of elaborating new epistemologies by learning with and from community-led initiatives advancing post-growth agendas (Henfrey et al., 2023). On the other hand, they have produced post-growth principles and manifestos recommending the importance of planners establishing alliances with degrowthers (Ferreira et al., 2020).

This paper proposes the diverse economy co-planning paradigm as a new framework for understanding and advancing inclusive neighborhood revitalization in Metro Rome. Rooted in post-growth and feminist political economy scholarship, this paradigm expands the scope of planning beyond market-led regeneration to include the diverse economic practices that sustain urban life and housing affordability.

Drawing from ongoing fieldwork in selected Roman neighborhoods, the research investigates how communities, social cooperatives, local enterprises, and public actors co-produce housing and urban spaces through hybrid arrangements that blend public support, civic initiative, and shared governance. These emergent practices challenge dominant models of urban revitalization tied to real estate speculation, instead cultivating localized forms of care, reciprocity, and collective stewardship.

The study combines participatory mapping, ethnographic observation, and network analysis to trace how these collaborative arrangements redistribute value, strengthen social cohesion, and resist displacement. Diverse economy co-planning contributes to a broader rethinking of how planning can enable plural economic futures.

References

Ferreira, A., & von Schönfeld, K. (2020). Interlacing planning and degrowth scholarship: A manifesto for an interdisciplinary alliance. DisP-The Planning Review, 56(1), 53–64.

Henfrey, T. et al. (2023). Rethinking the sustainable development goals: Learning with and from community-led initiatives. Sustainable Development, 31(1), 211–222.

Lange, B. et al. (2021). Post-growth geographies: Spatial relations of diverse and alternative economies. transcript Verlag.

1623 | Ching-En Ma, Hao-Teng Cheng

Spatial Differentiation of Urban Shrinkage under a Growth-Oriented Planning Regime: A Typological Analysis in Taiwan

Global structural changes, such as low birth rates and aging populations, are deeply affecting the growth-oriented urban development models and planning systems of the past. In this context, planning thought is gradually shifting from "slowing down shrinkage" to "adapting to shrinkage" through Smart Shrinkage strategies. Urban shrinkage is not caused by a single factor but is a structural and long-term process. Therefore, it is necessary to summarize and compare different studies to deepen the discussion on planning issues.

Urban shrinkage in Asian cities is mainly driven by rapid population changes and unbalanced regional development. This is very different from the situation in Europe and America. In Asia, even as populations decline, planning systems often continue to follow a growth-oriented logic, leading to more land development and spatial expansion. This coexistence of "planned growth" and "population shrinkage" shows the tension between planning systems and demographic changes. It affects how spatial resources are allocated and creates different patterns of urban shrinkage. This is a key point for understanding Asian urban shrinkage. Taiwan is a representative case; its urban development since WWII has been led by growth-oriented planning, which has created a large gap between land supply and actual demand.

Therefore, the purpose of this study is to discuss the types of shrinking cities, using Taiwan as the empirical area and townships as the research units. The study uses spatial data from three dimensions—population structure, industrial development, and vacant buildings—to analyze differences and create a

foundation for classifying shrinking cities. Regarding the research method, this study follows two steps: first, using Geographic Information Systems (GIS) and spatial analysis to understand the temporal and spatial differences of various indicators; second, using "Two-stage Cluster Analysis" to categorize and summarize the research subjects.

1936 | Sabine Weck

From Pilot Projects to Standard Practice? Exploring Collaborative Housing as Catalyst for Change and its Institutional Framework in a German Setting

Collaborative housing is a widely debated issue in many European countries (see, for example, Czischke, 2018; Jepma et al., 2025). In increasingly competitive and financialised housing markets, collaborative housing projects could contribute to and catalyse change towards sustainable and inclusive urban futures. Collaborative housing can promote affordability, energy and land consumption sufficiency, and demonstrate daily practices of mutual support that are vital for urban societies.

This study is based on a mapping exercise that identified 196 collaborative housing projects in the German state of North Rhine-Westphalia over the last ten years. I discuss the relative development of four different collaborative housing types, different according to forms of tenure/property (individual/communal; ownership/renting) and project initiators (self-organised/co-operative, investor-driven). 16 interviews with initiators, investors, intermediaries and municipality representatives, and additional interviews with residents serve to explain the drivers behind the development, and to analyse potentials and limitations in the interrelation between collaborative housing projects and their institutional context.

Drawing on this rich material, my aim is to understand the agency and practices of collaborative housing projects, and the factors that limit or enhance their role as agents of a more sustainable future. I conclude with an analysis of the ecosystem of stakeholders and actors (public, private, intermediaries, top-down/bottom-up) needed to promote collaborative housing projects in specific local contexts. Using transformative social innovation thinking (Avelino et al., 2019), I consider to what extent collaborative housing goes beyond innovative projects to indicate wider systemic change.

Avelino, F., Wittmayer, J. M., Pel, B., et al (2019). Transformative Social Innovation and (Dis)Empowerment. DOI: 10.1016/j.techfore.2017.05.002

Czischke, D. (2018) Collaborative housing and housing providers: towards an analytical framework of multi-stakeholder collaboration in housing co-production. DOI: 10.1080/19491247.2017.1331593

Jepma, M., Savini, F. & Coppola, A. (2025). Property and values: the affordability, accessibility, and autonomy of collaborative housing. DOI: 10.1080/19491247.2024.2388924

2105 | Iqbal Hamiduddin, Madeleine Pauker, Martin Field

Introducing a sociocultural practices framework: how it helps to explain the emergence and spread of 'grassroots' housing models.

This paper presents a sociocultural practices framework that we feel is useful for better understanding the provenance of niche or 'grassroots' housing models in the specific sociocultural conditions of a given locality. Drawing on Davis's Culture of Building concept, the framework connects grassroots housing development practices and responses with the sociocultural system formed from the land management practices of a bioregion. By using the development of the Swiss housing cooperative model to illustrate links between today's urban housing model and the collaborative farming practices that preceded it, we contend that the sociocultural practices framework is useful for

exploring the occurrence of specific grassroots housing models. Borrowing the terms 'rootstock' and 'grafting' from arboriculture, we further suggest that a deeply ingrained familiarity with collaborative

development in cities such as Zürich is likely to make the inward development of newer housing models such as Cohousing that much more successful. More broadly, we argue that the framework is useful for understanding how historic sociocultural norms and practices influence the success of grassroots housing models, including forms of collaborative housing in given localities, sometimes despite strenuous efforts by practitioners and prospective residents.

Regeneration and reuse

Thu 2.7.16:00-17:30, Shelter A, U270 U8 | Session chair(s): Paavo Monkkonen

986 | Dalit Shach-Pinsly, Hadas Shadar

Urban regeneration policy shifts affecting quality environmental values

As a result of state initiatives following WWII, European countries built new cities and neighborhoods. Their objectives were manifold: to improve the living conditions of residents, to provide modest and decent housing for all tenants, including disadvantaged groups, to ensure affordable housing, and to promote population dispersal. In Eastern-European countries, new industrial towns were often established. West-Europeans aspired to disperse the population that had gathered in large cities following the Industrial Revolution, which had grown uncontrollably and without planning.

After 50–70 years, these neighborhoods are aging and are undergoing urban renewal. The nature of renewal varies from country to country, particularly between those experiencing population decline and those with population growth. Renewal in countries with shrinking populations typically entails improving accessibility within and to neighborhoods, improving the energy performance of buildings and neighborhoods as a whole and placing a greater emphasis on sustainability. In countries with growing populations, renewal tends to take the form of demolition and reconstruction. The new developments are taller and denser, often at the expense of the extensive green spaces that characterized the original neighborhoods.

Our study examines how different economic paradigms reshape the spatial quality of neighborhoods that have been demolished and rebuilt. In particular, we explore how the shift from the socialist economy and ideology that arose after WWII to the neoliberal economy and ideology of the 1990s altered the spatial characteristics of these neighborhoods. We demonstrate this using quantitative tools for assessing the built environment, such as evaluations of visibility to the view, a sense of security, walkability, and presence of private spaces.

It has been concluded that urban renewal in the neoliberal era may not be in the best interests of a neighborhood or its residents, particularly when it is driven by economic interests of private developers.

1018 | Jeonghye Kim

The Invisible Cost of Inaction.

Across South Korea, large-scale apartment complexes built between the 1970s and 1990s are reaching the end of their design life. In major metropolitan areas such as Seoul, continuous housing demand, economic incentives, and government financial support have enabled steady redevelopment projects. In contrast, shrinking regional cities face market stagnation, fiscal decline, and rising vacancy rates in aging apartment complexes. This study compares how long-term inaction toward aging housing manifests differently across demographic and economic contexts, revealing the uneven burdens and trajectories of Korea's housing assets.

Using a mixed-methods approach, the research integrates quantitative and qualitative analyses: housing transaction and rent data to assess asset value changes; maintenance and expenditure data to evaluate fiscal burdens; and text mining of news articles and online communities to identify recurring issues such as safety risks, resident dissatisfaction, and policy failures. Resident surveys and expert interviews further capture perceptions of livability and institutional limitations.

Findings show a clear contrast between metropolitan and regional cities. In Seoul and its suburbs, housing prices remain stable or even increase despite higher maintenance costs and declining satisfaction, driven by persistent demand and redevelopment expectations. In contrast, regional cities experience accelerating physical decay due to disinvestment, institutional inertia, population aging, and weakened collective management.

The study proposes region-specific strategies: in low-demand areas, selective functional conversion or partial retention of apartment complexes to manage contraction; in high-demand areas, moving beyond density expansion and profit-oriented redevelopment toward preserving and reusing aging apartments as architecturally and environmentally valuable assets. Furthermore, establishing professional housing management agencies that bridge private owners and the public sector is essential.

Ultimately, sustainable livability depends not on redevelopment efficiency but on a culture of continuous care and gradual improvement, reducing the invisible cost of inaction faced by cities confronting the limits of aging housing.

1121 | Ben Clifford, Helen Pineo

Commercial to residential adaptive reuse: health and wellbeing problematics from deregulatory approach taken in England

In England, in 2013 central government changed planning regulations so that developers could convert office buildings and, from 2015, retail and light industrial spaces, into housing more easily. This deregulation has led to numerous housing quality issues. There is a growing interest in the relationship between urban planning and public health (Pineo, 2022). Within a multi-scalar relationship between

planning and health, housing quality is an important determinant of health and wellbeing and a major factor in societal health inequities (Bird et al, 2018). These issues are exacerbated in socio-economically deprived neighbourhoods and for residents may have higher vulnerability than the general population.

In this presentation, we consider the emerging findings from a major three year transdisciplinary study which has been researching the link between living in converted housing created under this deregulated route and health and wellbeing outcomes, including through environmental monitoring and modelling of homes, analysis of the location of conversions, a major survey, semi-structured interviews and focus groups with residents. Concentrating particularly on data relating to residents' own perceptions of the impact on their degree to health and wellbeing we highlight issues related to internal space standards, thermal comfort, outdoor space, windows, perceived safety and location. We suggest that in the worst conversions, residents have experienced 'unhoming' and a form of slow violence through which state (in)action has created material and symbolic differences in deregulated conversions with distinctive negative effects

We conclude by highlighting the importance of design quality in broader debates about built environment governance and the housing crisis. We argue this is particularly important when adaptive reuse is proposed for existing buildings, which may not have been originally designed for residential uses, with implications for policy-makers and planning practitioners considering increasing office-to-residential conversions elsewhere.

2062 | Cornelia Tippel, Stefano Cozzolino, Kerstin Conrad, Sabine Weck

Between centralised control and spontaneous social life: Regenerating Large Housing Estate Neighbourhoods

As in most European countries, German large housing estate neighbourhoods (LHENs) built between 1950 and 1980 typically occupy extensive, often peripheral urban territories, encompassing entire neighbourhood units; provide essential housing for populations facing barriers to accessing the private housing market; and are characterised by centralised ownership and management structures designed to guarantee adequate housing quality and the provision of basic facilities. Contemporary literature highlights two main regeneration challenges. First, the need to modernise the building stock to meet contemporary standards, including climate-related requirements and new household trends. Second, the need to enhance residents' sense of home and opportunities for spontaneous socialisation and encounters, aiming to achieve a higher level of liveability.

Combining desk and field research, including expert interviews with housing companies, municipalities, and civil society representatives, this project investigates eleven LHENs in North Rhine-Westphalia that have recently undergone – or are currently undergoing – extensive regeneration projects. It explores the extent to which current interventions address these two major challenges discussed in the literature. It analyses how LHENs regeneration is conceptualised and implemented, and identifies constraints and opportunities for innovation. Findings reveal a constituent asymmetry between the focus on modernising the built structure, which perpetuates the existing urban layout and its centralised control, and interventions aiming to open up new opportunities for spontaneous social life.

2096 | Samantha Biglieri, Rachel Weldrick, Jonathan Chan

Beyond affordability: A community-engaged project on promoting housing stability for older renters in non-market housing

Older renters face increasing risks of housing precarity and instability, largely tied to the financialization of the rental housing market, “renovictions”, and the severe shortage of affordable and age-supportive housing units. In Canada, 40% of older renters live in unaffordable housing. For older renters who live alone, these compounding systemic challenges contribute to a doubling of risk of both social isolation and, increasingly, homelessness. Yet, many older renters remain well-connected and integrated into their communities over time, representing a significant opportunity for intervention. Drawing on planning and social gerontology literature, we addressed this growing challenge with Master of Planning students. We conducted a community-engaged study with a non-profit housing provider that delivers ~1,100 rent-geared-to-income (RGI) housing units in Hamilton, Ontario, a mid-sized industrial city where 1 in 3 seniors live in housing that is inadequate, unsuitable, or unaffordable. Using World Cafés with older renters, this project investigates how supports, infrastructures, and policies can promote housing security. Participants included 21 tenants in a seniors’ building, and eight older tenants living in RGI units across several additional buildings. The overall goal was to identify specific implications for both age-supportive housing and urban planning policy in Canada. Data were analyzed using a reflexive, team-based approach. Findings reveal that affordable housing alone does not sufficiently promote long-term housing security and stability. Findings highlight the need for meaningful social engagement opportunities, inclusive urban design, and support with residential moves (e.g., downsizing, moving to a newer unit). In addition to these protective factors, findings underscore the need for changes to local housing policy, such as targeted alterations to the city’s centralized waitlist for RGI. We conclude with policy and practice implications rooted in the lived realities of older renters. We also present implications for planning education based on the experiences of the students involved.

2357 | Manuela Madeddu, Ben Clifford, Nicola Livingstone

International comparison of Adaptive Reuse practices: planning and design principles for office-to-residential conversions

The practice of repurposing existing buildings for new uses is centuries old, but interest in adaptive reuse has surged in recent years. This renewed focus is driven by its potential to address the climate emergency and housing crisis, as well as its importance in preserving heritage and buildings valued by local communities. While many types of buildings are being given ‘new life’ through adaptive reuse, the Covid-19 pandemic and the rise of remote work—alongside increasing office vacancies—have drawn the attention of policymakers’ around the world to converting offices into residential spaces. For example, in England, successive governments have promoted office-to-residential adaptive reuse through planning deregulation since 2013. In the Netherlands, USA, and Japan, office-to-residential conversion is a growing trend, and in other countries, such as Italy, although not yet a national trend, investors are showing heightened interest and local authorities in major cities are exploring the opportunities provided by this type of conversion. However, while some conversions succeed, others fail to deliver the quality of housing that people need and deserve. In this presentation, we draw on recent research and showcase examples of office-to-residential conversions from different countries to identify planning and design

principles that are conducive to successful adaptive reuse, demonstrating how these practices can contribute positively to important contemporary agendas.

Vulnerability and displacement

Thu 2.7.17:45-19:15, Shelter A, U270 U8 | Session chair(s): TBC

2146 | APIL KC

Reclaiming Agency in Post-Disaster Housing: A Capability Approach to Reconstruction after the 2015 Nepal Earthquake

Post-disaster housing reconstruction is frequently treated as a technical program of structure reconstruction and hazard mitigation, often overlooking critical dimensions of human well-being and agency. This narrow focus on efficiency or speed often undermines long-term recovery, especially for populations already living in precarious conditions. Additionally, the imposition of standardized housing models, while enhancing resilience, frequently limits the ability of affected individuals to shape their own living environments. Drawing on Amartya Sen's capability approach, in this study, I argue that true recovery extends beyond physical rebuilding, whereas it must enable people to regain agency over their housing decisions and living conditions, fostering well-being through the expansion of their capabilities.

This study examines post-disaster housing reconstruction in Nepal following the 2015 Gorkha earthquake. Drawing on thirty-two semi-structured interviews with households in Sindhupalchowk and Kavrepalanchok, I explored how standardized reconstruction policies shaped households' substantive freedoms to pursue housing outcomes aligned with their values and daily lives. Although Nepal adopted an owner-driven reconstruction model, many households experienced reduced autonomy in designing their houses, delayed financial disbursements, and bureaucratic compliance requirements. Though the reconstructed houses are structurally sound, the findings show that they are climatically uncomfortable, spatially inadequate, and misaligned with livelihood practices. Households with limited financial and social capital faced heightened precarity, including prolonged residence in temporary shelters, increased debt trap and diminished access to livelihood resources. Conversely, families able to integrate traditional materials and vernacular knowledge reported greater comfort, livability and long-term satisfaction.

I found that recovery outcomes were largely shaped by the capability to convert those resources into meaningful functionings. Hence, a capability-oriented approach reconceptualizes reconstruction as expanding autonomy and practical capabilities. The paper argues for flexible, participatory policy frameworks that expand household agency and strengthen the foundations of sustainable recovery in hazard-prone and climate-affected regions.

1992 | Martina Massari

Integrating multidimensional spatial data and qualitative insights to assess housing inequality in marginalized European communities: lessons from the HouseInc database.

Recent EU Joint Research Centre reports confirm that, since 2015, house prices in the EU rose on average by 53% and rents by over 13%, driven by land costs, speculative pricing, demographic transitions, and urbanization (Eurostat 2025). These pressures intensify housing vulnerability, raising cost-to-income

ratios and limiting public planning responses. The weakening of the social housing sector, loose regulation of rentals and inadequate public-private agreements have aggravated planning gaps, affecting marginalized populations and increasing socio-spatial barriers. Institutional shifts in 2024 saw the EU appoint an Energy and Housing Commissioner and establish new policy structures, but the local impact remains unclear. Within this changing landscape, HouseInc European project is advancing a multidimensional, mixed-methods approach to diagnose housing vulnerabilities across four diverse case studies: Vogelstang (DE), Darvari (RO), Karvina-Ostrava (CZ), and a community-based refugee integration model (IT). Methodologically, the database leverages multi-source quantitative data and is enhanced through the incorporation of qualitative findings from local fieldwork. The HouseInc GIS database integrates indicators across four analytic pillars: housing vulnerability, socio-economic stress, demographic sensitivity, and service accessibility. It combines quantitative spatial data with qualitative insights from fieldwork and participatory mapping, targeting those communities often missed by traditional data sources. Reflections highlight methodological advances in participatory GIS and intersectional vulnerability mapping, as well as limitations like under-representation of marginalized groups and the challenge of integrating qualitaty with spatial coverage.

Preliminary results demonstrate how harmonized core indicators and composite indices can expose local, national, and cross-country drivers at varying scales, from urban neighborhoods with service deserts and energy poverty to regions with tenure insecurity and decline. This approach reveals how planning gaps, shrinking public interventions and local policy fragmentation intersect with cost and supply pressures. The study concludes proposing a transferability framework to support EU cities addressing housing vulnerabilities, bridging gaps between data, governance, and practice.

2523 | Romola Sanyal

Upgrading: Urban shelter production for displaced people

The displacement of growing numbers of forced migrants into urban areas has created complexities for providing adequate and dignified shelter, especially as humanitarian actors are unfamiliar with non-camp settings and particularly urban markets. In order to provide shelter, aid organisations try to find new and novel solutions, often focusing on individual accommodation settings such as flats and houses for families or a small group of people. Sphere standards that are used to create housing in camps are modified for urban shelter, and units are 'upgraded' to meet humanitarian standards. This presentation looks at the specifics of some of these upgrades, how they are undertaken, their underpinning politics and financial constraints and what, ultimately, they achieve for displaced people. It also considers its impacts on the broader urban environment. The discussion looks at the upgrading of accommodation in Lebanon and contrasts it the acquisition and modification of apartments in Greece.

2606 | Flavia Albanese, Linda Zardo

Equitable Housing and Energy for All: A Case Study Exploration to Support Effective Policies for Migrant Inclusion in Italy

Housing precariousness – the condition of people either living in unsuitable, insecure, unaffordable, or unsafe housing, or not housed at all— and energy poverty — the inability to keep the home adequately

warm or cool or to use the energy needed for basic household needs — are multidimensional phenomena that affect people with a migrant background in particularly severe ways, often deepening their socio-economic exclusion.

Although the European Union promotes housing as a fundamental right, migrants in Italy face structural barriers that hinder access to adequate and healthy housing. While housing represents a key asset in migrants' socio-spatial integration, they remain highly exposed to housing deprivation, often living in overcrowded, poor-quality dwellings, with unstable tenancy conditions. The lack of adequate housing further increases marginalisation and undermines fundamental rights.

Housing precariousness refers to economic inaccessibility, material inadequacy, and contractual instability, with energy poverty intersecting these factors and being driven by high energy expenditure, low incomes, and poor building energy performance.

These aspects provide the grounding for a study on housing conditions and energy poverty among people with a migrant background in the Marca Trevigiana, in the Veneto region, where foreign-born residents encounter significant obstacles and discrimination in accessing housing. The study combines quantitative analyses linking energy-poverty factors with spatial data, and quali-quantitative investigation based on a questionnaire aligned with European indicators and interviews with local actors.

The research primarily aims to identify which multifaceted dimensions of poverty most significantly affect the housing and energy conditions of migrants. Secondly, it seeks to provide a nuanced and comparable understanding of the phenomenon, addressing the under-representation of foreign-born populations while strengthening, in close dialogue with local actors, the knowledge base needed to develop more equitable and inclusive housing policies capable of addressing migrants' specific vulnerabilities.

1261 | Priyanka Mokale

Gentrification and Displacement Impacts Neoliberal Policy Dynamics and Challenges of Sustainable housing of Marginalised Communities: A Study of Mumbai's Resettlement Housing

This study is based on the gentrification and displacement impact on Mumbai's marginalised communities, with a special focus on Muslim communities and Dalits (Lower caste). Various infrastructure projects are carried out annually to support the city's development and beautification. However, while performing these projects, the houses of marginalised communities were demolished. Then, as per the government's eligibility criteria (Documentation, dates, and urban citizenship), these communities have been relocated to resettlement colonies, so many of the slum dwellers face homelessness, too, due to lack of documents and eligibility criteria issues. However, most of these resettlement colonies are located in Mumbai's M-East ward, which has been declared the poorest infrastructure ward by the Municipal Corporation of Greater Mumbai. This ward is bordered by a medical incinerator, chemical and industrial factories, a landfill, a slaughterhouse, and other industrial facilities.

Therefore, upon observing these resettlement housing locations and their cramped, congested structures, a question arises about equal rights to housing and sustainable infrastructure. To examine the everyday challenges faced by these rehabilitated communities, I have chosen to adopt an environmental

justice perspective. Environmental Justice theory was initially proposed in the USA to understand housing issues faced by Black communities living in hazardous city areas. To ensure equal and high-quality access to housing in these communities, activists, NGOs, and other organizations have launched environmental justice movements.

RQ: How does the Slum Rehabilitation and Resettlement policy impact the lives of marginalised communities in Mumbai's M Ward?

Research Methodology: This study relies on secondary literature and qualitative-ethnographic fieldwork conducted by the author, following a pilot study from September to December 2024 and subsequent fieldwork from January to May 2025. To understand the daily struggles and challenges faced by marginalised communities after displacement and resettlement, the author conducted in-depth semi-structured interviews and participant observation.

Segregation and justice

Fri 3.7.09:00-10:30, Shelter A, U270 U8 | Session chair(s): Katriina Rosengren

1415 | Shao-Kai Chen, Hsi-Chuan Wang

Analyzing the Shrinkage and Gentrification Phenomenon in the Tainan Science Park Area Using Land Use and Land Cover (LULC) Change Analysis

This study aims to bridge urban theory and spatial policy by centering on land use and land cover (LULC) change to examine the temporal relationship and interactive mechanisms between urban shrinkage and gentrification amid industrial transformation. Urban shrinkage and gentrification have become major global issues reflecting spatial inequality in contemporary urban development. While previous studies have primarily addressed these two phenomena separately, few have explored how spatial and socioeconomic dynamics jointly evolved under large-scale industrial development. Focusing on the Tainan Science Park (TSP) and its surrounding districts—Shanhua, Xinshi, and Anding—this research investigates how industrial expansion may influence housing markets, demographic patterns, and land-use dynamics. Through a review of international and domestic literature, the study clarifies the conceptual definitions, causal factors, and identification methods of shrinkage and gentrification. It constructs a multi-year LULC database integrating land use transitions, population changes, and housing market data. The research employs large-scale spatial and socioeconomic analyses to examine whether TSP's industrial development generates both revitalization and decline within nearby urban areas. The findings suggest that regions closer to industrial cores benefit more from development spillovers but face a greater risk of gentrification and social exclusion. The study also identifies coexisting trajectories of growth and decline, including distinct local typologies with different features. The anticipated findings contribute empirical insights for promoting balanced, inclusive, and sustainable regional development in high-tech industrial clusters.

1751 | Fiona Kauer

Access to opportunity: How does affordable housing in high-income neighborhoods shape the social mobility of low-income residents?

Research on neighborhood effects and social mobility typically examines whether growing up in low- versus high-opportunity neighborhoods impacts individuals' outcomes later in life. Much of this literature shows that relocating low-income families to higher-opportunity areas can improve children's long-term economic and educational outcomes. Typically, these improvements are attributed to higher quality schools, peer effects, or stronger local labor markets. However, the social mobility literature has mainly focused on the mobility of low-income residents out of low-income neighborhoods, often in the context of urban renewal projects (i.e. the demolition of public housing). In these instances, low-income households often face challenges in accessing higher-opportunity areas. Barriers such as discrimination and the scarcity of affordable housing may limit residential access for disadvantaged groups in higher-opportunity areas.

This paper focuses on an alternative policy strategy of making high-opportunity neighborhoods more accessible for low-income households by providing affordable housing in these areas. Specifically, it examines whether the provision of affordable housing—including public and cooperative housing—within high-opportunity areas, allows low-income residents to access such areas and whether this access increases the socioeconomic opportunities of those who move. Leveraging longitudinal, linked register data on households and buildings in Switzerland, the study tracks the economic and educational trajectories of residents before and after relocating to affordable units in high-opportunity areas.

The findings will inform ongoing policy debates ways to reduce spatial inequality, such as enabling mobility into high-opportunity areas or integrating affordability within them. Doing so, it will provide evidence on whether affordable housing in high-opportunity neighborhoods can effectively facilitate upward mobility for low-income households.

1953 | Enoch Yeleliere, Emmanuel Frimpong Boamah

Privatized urbanism: A public choice perspective of gated communities in urban Africa

The proliferation of gated communities embodies significant socio-spatial, economic, and political transformations in African cities. These urban communities or privatized urban enclaves are often inhabited by high- and (upper)middle-income residents, transnational elites, and diaspora members. Prevailing discourses around these privatized urban enclaves predominantly focus on instances of accumulation by dispossession, the rise of the transnational rentier class, socio-spatial hierarchies, marginalization, and segregation by class. This paper contributes to the literature by drawing on the public choice literature to examine the institutional logic and residents' preferences, animating and reproducing the emergence of gated communities in urban Africa. In particular, we draw on insights from public choice scholars like Charles Tiebout, to probe (1) whether and how citizens are "voting with their feet" to improve their lot by choosing to live in these privatized urban enclaves, (2) the policy, institutional, and socio-cultural logics within urban housing, real estate, and public services delivery that may support or subvert the choice to live in these gated communities, and (3) the wider political-economic implications of our analysis to how we view collective action, preferences, choice, and citizenship in

urban Africa. The empirical analysis unfolds in a case study of urban Accra, Ghana. We employ multiple data sources, including interviews of residents and key stakeholders (e.g., real estate developers and government officials), oral histories, and document analysis of newspaper articles, reports, and government documents. Insights from our analysis illuminate the contested spatial logics of privatized urbanism between municipal officials and real estate developers, the imbrication of Western imaginaries and lifestyles in residents' housing preferences and behaviors, and the role of collective, self-organizing efforts in sustaining these private urban enclosures. We conclude by reflecting on the broader implications of our insights for re-reading the urban political economy of cities in Africa.

2464 | Fatma Yağmur Özgür

The Housing Dimensions of Justice: Energy Poverty, Tenure Status, and Just Transition at the Household Level in Türkiye

This study investigates the relationship between energy poverty and the "Just Transition" in the Turkish context by focusing on household-level impacts to identify which households may face disadvantages during the energy transition. While the Just Transition seeks to mitigate the effects of energy efficiency investments and green transformations, disparities in the housing stock could exacerbate existing inequalities. The research highlights household reinvestment capacities and vulnerabilities by examining energy poverty, housing tenure status, housing cost burdens, and housing quality variables as key indicators. In this study, tenure status is regarded as an indicator of households' capacity and constraints to invest in their dwelling, rather than a security issue.

A two-stage analysis using Turkish SILC microdata first examined energy poverty determinants via binary logistic regression. Preliminary results reveal an association between tenure status and housing burden, indicating that high housing costs increase the risk of energy poverty for tenants. This suggests that tenure status may hinder their capacity for energy improvements. In the second stage, k-means cluster analysis suggests several "energy transition vulnerability profiles" within energy-poor households: "the worst-off" tenants with low income in poor housing conditions, "hidden cost bearers" with high income but live in inefficient homes, "protected households" with low income in good housing conditions, and "transition-ready households" that have high income and are homeowners. Cross-tabulating these clusters with housing quality variables affirmed the differences observed in the earlier analyses.

Initial findings indicate that vulnerability to a just energy transition is shaped not only by poverty but also by tenure-related differences in reinvestment capacity. While discussions on the "Just Transition" have not reached the household level in Türkiye, it is crucial to underline that the reinvestment perspective introduces a new dimension of justice, impacting tenants at risk and cost-trapped homeowners as the next potential losers in the transition process.

2850 | Aleksandra Zarek

Delivering tenure mix: the role of urban design management in translating social sustainability in the implementation phase.

Despite extensive literature on tenure mix, there has been limited research on effective practices for managing stakeholder relationships across the development process. Problems in delivering socially

sustainable mixed communities often derive from unclear roles and commitments of stakeholders involved in planning, implementation and operational phases.

Based on the case of Nowe Żerniki in Wrocław, Poland, this paper presents the lessons learned through the process of delivering social sustainable tenure mix from the design intent stage through the collaborative urban design implementation process. Nowe Żerniki is a joint public-private development initiative for a socially sustainable model neighbourhood, based on the 1929 WuWA exhibition (Wohnungs- und Werkraumausstellung). It brings together multiple actors with a common vision for an innovative, practice-based policy model for planning and implementing a socially and spatially cohesive, multigenerational neighbourhood. Alongside market-rate blocks, it incorporates a social housing quarter with senior-care facilities, housing cooperatives and rental apartments.

The paper examines urban design management of stakeholders' roles during the implementation of tenure integration, considering the original ambition of promoting urban social sustainability. The central research question is: How can the interests and activities of various actors (social housing providers, residents, developers, planning authorities) be coordinated in the implementation phase to facilitate socially sustainable outcomes within mixed-tenure developments? The expected findings aim to identify transferrable good practices for building socially cohesive developments, applicable to other international urban contexts.

This case study will employ semi-structured interviews with stakeholders directly involved in the scheme's development. The resulting material will be analysed inductively, using thematic mapping to relate stakeholders' roles, interests, and responsibilities to the initial aim of establishing a socially cohesive, mixed-tenure neighbourhood. This investigation constitutes part of a wider doctoral research project, which includes additional cases from the UK and Finland addressing both the planning and operational stages.

2675 | Maria Cecília de Souza Gomes, Maria Camila Loffredo D'Ottaviano

Brazilian Housing Policies: actors, shapes and traps

In 2016, the Council of Architecture and Urbanism of Brazil (CAU-BR) decided to implement nationwide services of Technical Assistance for Social Interest Housing (ATHIS) using 2% of its own budget. In Brazil, Technical Assistance is not only a law, but a tool used to implement the fundamental right to housing expressed in the Brazilian Federal Constitution. To architects and urban planners, CAU's program was the beginning of a new scenario for social housing in the country. The Council proposes to incentivise the government through its actions, showing that it is possible to carry ATHIS through as a housing program. While assuming the role of the main proponent of ATHIS, CAU-BR shapes the direction of ATHIS's development. By examining the interactions of CAU's chosen bids and the population in which these bids take place, this paper argues that CAU's actions not only stunts ATHIS's potential by its heavily mercantile logic of processes but also exposes the limitations caused by a non-governamental organ influencing on housing policies.

Informality

Fri 3.7.11:00-12:30, Shelter A, U270 U8 | Session chair(s): Paavo Monkkonen

924 | Nana-Yaw Andoh

Beyond the Binary: Hybrid Urbanism and the Limits of the (In)formal in Accra

Contemporary cities in the Global South operate through regulatory complexities that exceed the binary distinction between formal and informal urbanism. Drawing on ethnographic fieldwork in Accra, Ghana—including narrative interviews and spatial observation—this analysis engages the concept of hybrid urbanism to illuminate how self-built housing and unregulated livelihoods are produced, organized, and governed through overlapping systems of authority, accountability, and spatial regulation. These arrangements do not merely substitute for absent municipal regulatory mechanisms; they co-produce the spatiality of the city alongside formal institutional structures.

In both inner-city markets and within self-built settlements on the urban fringe, actors such as tenant coordinators, market women's associations, and unelected informal leaders mediate disputes, enforce land-use norms, and regulate access to space, services, and income-generating opportunities. These practices blur the lines between legality and illegality, between planned and unplanned, and between formal and informal, revealing a regulatory multiplicity embedded in everyday urban life.

Rather than treating such modes of urbanism as a developmental lag or peripheral condition, this analysis argues that these hybrid configurations are integral to global city-building practices. From the perspective of global city-building, Accra serves as an exemplary case through which to rethink comparative urban theory, particularly the normative assumptions about order, governance, and legitimacy that underlie North-South urban binaries. By theorizing hybrid urbanism from the ground up, this paper contributes to an ongoing effort to reframe how cities are understood, built, and governed in a time of widening inequality, infrastructural fragmentation, and state withdrawal.

1089 | Hanae Soma, Brandon Marc Finn

Legitimacy by Informality: Rent and Legal Pluralism

Informal settlements are embedded within complex webs of land politics, authority, and power. These contexts raise recurring questions across contexts: how is legitimacy constructed, negotiated, and contested in informal settlements? Informal settlements are generally defined as urban areas that exist outside formal regulatory frameworks for land tenure, property rights, or rental agreements. Yet such definitions obscure how ownership, tenancy, and authority are actively organised and negotiated within them, especially through negotiations over rental agreements. Rent in informal settlements is widespread in practice but under theorised in urban scholarship. This paper addresses this gap by adopting a combination of qualitative methods, including semi-structured interviews, participant observation, and photography, to grasp lived experiences in informal settlements and current planning policies around them.

This paper engages these questions by examining rent, landlordism, and urban informality in Accra, Ghana. A total of 19 people were interviewed, including 11 female tenants, one male landlord, two market women, four planning officers from the Land Use Spatial Planning Authority (LUSPA), and a local

academic. Findings reveal how residents establish legitimacy through everyday practices of negotiation with landlords and through navigating overlapping customary and statutory systems. What appears unregulated to the outsider is, in fact, structured through layered systems of recognition and control.

This paper introduces the concept of 'legitimacy by informality' to describe how rent payments, landlord–tenant relations, and appeals to customary or state authorities serve as mechanisms for constructing legitimacy. In navigating the state's uneven and selective involvement, informality becomes a practice of legitimisation while revealing tensions manifested in urban space, where customary and statutory systems coexist. Informality is not solely the absence of law but the presence of ongoing legitimacy-making. Informality thus emerges as a productive process through which residents, landlords, and chiefs negotiate, challenge, and establish claims to authority and belonging.

1091 | Alfred Gasore, Andrew Butt, Serene Ho

Community Preferences in Urban Development Planning: Insights from Lived Experiences in Kigali, Rwanda

As urbanisation accelerates globally, the city of Kigali, Rwanda, has undergone a rapid transformation over the past two decades, marked by a significant increase in informal settlements. In response, Kigali developed its first comprehensive master plan to address informal settlements and direct future growth toward structured urban development. At the same time, Rwanda introduced land reform aimed at formalising land tenure and strengthening land use planning, resulting in a digital land registry that underpins the implementation of this master plan.

The implementation of this plan has relied on a range of planning practices, including expropriation, resettlement, settlement upgrading, and land readjustment. While these approaches have contributed to physical transformation and infrastructure development, their social impacts and levels of public acceptance remain contested.

This study explores the lived experiences and preferences of residents affected by these interventions, drawing on qualitative data from focus group discussions. The findings reveal that communities generally prefer settlement upgrading and land readjustment, although both face challenges. Settlement upgrading is appreciated for enhancing infrastructure and housing quality while preserving neighbourhood identity and minimising displacement. However, aligning this approach with government standards often necessitates complete redevelopment, which is financially and logistically difficult to scale across Kigali's informal settlements. Land readjustment is valued for reorganising irregular land parcels into regular, developable plots with improved connectivity and increased land value. Yet, its feasibility is largely limited to low-density areas and excludes lower-income households due to financial burdens.

Expropriation and resettlement are perceived as less preferable due to associations with forced displacement, emotional distress, non-transparent agendas, and disruption of livelihoods. Compensation is often delayed or inadequate, and relocation to peripheral areas reduces access to services and opportunities. The divergence between state-led planning objectives and community preferences underscores the need for revised planning practices that reflect socio-economic realities and lived experiences.

1308 | Carlos Lopez-Ortiz

Trading Bricks for Iron Sheets: Causes of the 'Rebound Phenomenon' in a Slum Upgrading Project in Nairobi

Although in situ slum upgrading is one of the most widely accepted approaches for improving living conditions in slums, some scholars have reported cases where beneficiaries of these programs return to slums. The Kenya Railways Relocation Action Plan (RAP) is a government-led slum upgrading initiative in Nairobi, Kenya, where 32% of the original beneficiaries abandoned the project ten years after its implementation. Paradoxically, the beneficiaries received higher-quality housing in the same neighborhoods where they lived before the intervention at highly subsidized rents. This 'rebound phenomenon' (Debnath et al., 2019) raises questions about the effectiveness of slum upgrading in improving residents' living conditions in slums in the long term. Aiming to contribute to a better understanding of this phenomenon, I ask: Why did beneficiaries of RAP leave the project? How does this decision relate to beneficiaries' housing preferences and livelihood strategies?

In this study, I adopt a mixed-methods design to investigate the reasons behind RAP beneficiaries' decision to abandon the project. I surveyed 929 households living in RAP and interviewed 25 beneficiaries who abandoned the project. The study highlights three principal findings. First, the clash between the project's rigid design and households' evolving needs caused some beneficiaries to abandon the project. Second, most households remained economically vulnerable despite having gained access to improved housing. Consequently, they seized the opportunity to increase their income and strengthen their livelihood strategies by subletting the RAP units. Third, the beneficiaries' decision to rent out did not occur in a vacuum. The contextual conditions, characterized by an intense commodification of housing and a high demand for affordable yet higher-quality housing in slums, enabled beneficiaries to obtain economic benefits from the RAP units. This paper challenges the commonly accepted assumption that access to decent housing automatically translates into improved well-being for low-income households.

1434 | Cheikh Cissé, Deden Rukmana

Urban informal densification: practices and incremental city-making in Pikine

In many cities of the Global South, rapid urbanization and peri-urban expansion have worsened housing shortages and land scarcity, leading to informal settlement practices that reshape urban peripheries. This paper examines how informal vertical densification acts as a form of popular urban production in Pikine, a growing peripheral area of Dakar, Senegal. The main research question is: how do informal densification practices transform incremental modes of inhabiting and contribute to the urban housing production in Pikine? Based on a qualitative investigation conducted in two contrasting neighborhoods in Pikine— Cité Technopole and Marché Zing — the research draws on semi-structured interviews, geolocated photographic documentation, and direct observation to develop a typology of densification practices. These strategies involve intergenerational construction, spatial improvisation, functional hybridization, and self-managed transformation of the built environment. Although operating on the margins of formal planning frameworks, they express a form of resilient urbanism in which building becomes an act of survival, family continuity, and territorial anchoring. The analysis reveals two main mechanisms: (1) land saturation driving residents to build upward and diversify land use; and (2) an administrative tolerance

regime based on tacit negotiations with local authorities. Together, these realities demonstrate that informal densification functions as a negotiated form of governance and an infrastructural citizenship. The article calls for a renewal of planning frameworks to integrate these vernacular practices and to develop adaptive tools, such as sequential permits, that reconcile safety, inclusion, and sustainability. By recognizing African peripheries as legitimate spaces of knowledge and urban production, it urges a reconsideration of spatial justice and the legitimacy of planning in the era of global urbanization.

Demand and supply

Fri 3.7.11:00-12:30, Shelter B, U261 OP POHJOLA | Session chair(s): Katriina Rosengren

2943 | Ana Paula Pimentel Walker

Housing Movements as Builders: The Legacy of Collectively Managed Low-Income Developments in Uruguay and Brazil

This paper examines a frequently overlooked approach to low-income housing development led by the third sector, known as Autogestão in Brazil and Autogestión y Ayuda Mutua in Uruguay. The Uruguayan mutual aid cooperative housing model, initiated in 1970, has endured through periods of neoliberal restructuring and neo-developmental policies. Membership-based and collectively managed, this model allows future residents to oversee all stages of housing development. Inspired by Uruguay, Brazilian housing movements have pursued similar programs and reforms.

The primary aim of this paper is to define autogestão housing production, clarify how it differs from other participatory and cooperative forms, and outline its significance for third-sector housing. It also examines several challenges, including bureaucratic obstacles, market-driven urban development, the impact of private and collective property regimes, and ideological opposition.

Since 2017, the author has participated in Participatory Action Research and service-learning projects with housing movements in São Paulo that focus on autogestão and mutual aid. These collaborations have resulted in reports, physical interventions, grant proposals, and capacity-building materials. In March 2023, the author conducted fieldwork in Montevideo, Uruguay, gathering qualitative data from interviews with leaders of seven cooperatives at various stages of development, from renovation to construction.

Understanding Uruguay's model is crucial for grasping policy transfer, especially given its institutional resilience. Housing and cooperative movements are central to the success of collectively managed projects in both countries, enabling them to withstand shifts in public funding and pro-market governmental agendas. This paper reviews strategies to tackle bureaucratic and market-related barriers, particularly regarding urban land, while also considering critiques and ethical dilemmas raised from across the political spectrum.

2190 | Rolf Pendall, Yonah Freemark

Beyond "How Many Homes?": Identifying Housing Demand Gradients in U.S. Metropolitan Areas

Cities and regions across the Anglophone world face housing affordability challenges. Many observers believe that this crisis is a consequence of housing scarcity; policymakers in the U.S., Canada, Australia, the U.K., and New Zealand have responded by relaxing development regulation. Yet the magnitude and even the existence of a supply shortage remain under debate. In the U.S., for example, estimates of the shortage range from zero to 20 million units, owing in part to disagreements over what "normal" conditions are for housing vacancy and household size. Beyond this disagreement over the magnitude of the shortage, most recent analyses of the U.S. miss how demand and supply vary both between and within metropolitan areas. In this article, we develop new indicators of demand in the U.S., using current and historical data about housing supply growth, vacancy, and household sizes at the tract level to classify neighborhoods as high and low demand. We identify which regions have the greatest share of high- and low-demand neighborhoods overall. We then measure the degree to which such differing neighborhoods are adjacent to one another. Our measure, which we call the housing demand gradient, provides a new frame for the housing supply shortage, highlighting both areas of high demand and nearby areas where housing and neighborhood quality depress demand. Such information can help decision makers tailor regulatory reform, investment, and community engagement to the unique conditions of local housing demand conditions.

2969 | Rayman Mohamed, Allison Laskey, Mckenzie Pollick-Macharia

Black Developers in Detroit: Striving for the Growth Machine

Pockets of real estate development have sprouted in Detroit since the bankruptcy of 2013. They have mostly been completed by established, large, well- capitalized, White developers. However, there has always been, and still is, a smaller constituent of Black developers. Not much is known about these Black developers. Using interviews with ten Black and six White developers in Detroit, the paper establishes a primarily qualitative understanding of Black developers. We stopped our interviews when further interviews yielded no new information relevant to our research. Our underlying finding is that Black developers are like While developers in one regard: while there are nuances, Black developers would like to be a part of the Growth Machine.

We present three other major findings: First, Black developers gain experience from public service or as employees in the private sector, whereas White developers enter through legacy connections to entrepreneurship, direct connections to legacy real estate developers, or happenstance real estate connections. In every instance, the Black developers we spoke with took a circuitous route to the business, leveraging their experiences as public and/or private sector employees to launch their firms. None of the Black developers we spoke with came with family connections to real estate, wealth, or upper middleclass parentage. Second, bias in financing and incentives remains a challenge for Black developers. Based on previous research about Black entrepreneurship, we expected that Black developers would face more constraints with respect to obtaining financing. Our research bore this out. Third, all developers seek profits, but all the Black developers we spoke with linked their work to an

interest in the betterment of communities in Detroit. This interest in communities was not shared by White developers.

2201 | Jaden Koon, Benjamin Mumford

Mapping Canada's Housing Future: A National-Scale Model of Supply, Starts, and Relationship with Demand

Long-term estimates of housing supply and new housing starts are an ongoing challenge for planners and policymakers at all scales of government across Canada. Conventionally, housing supply projections are short-term estimates of construction based largely on economic models. Other novel approaches to housing supply have focused on an entirely local level, using parcel-level information to determine how municipal policy affects new housing construction. This project introduces the first national-scale housing supply concept in Canada, covering the whole country while still using a fine scale (census tracts- small geographic areas with a population smaller than 7,500 people). It combines multiple data flows, including data from the Census of Canada and from Canada Mortgage Housing Corporation (the federal entity mandated to manage many federal aspects of housing), to establish a baseline of housing units in Canada and examine the trend of new housing starts. We then compare the locations of housing starts to the data from the VISION Housing Demand Model, with a particular focus on the (mis)match of demand and supply. Initial results from this analysis are focused on Canada's rural communities – examining the transition of areas from rural areas to peri-urban and suburban areas, and further from suburban to urban areas. This analysis presents a useful tool for federal policymakers to understand future projections of local housing need and is especially useful for targeting investment towards Canada's small but quickly growing municipalities, which lack the extensive long-term planning resources of major cities.

2657 | Katie McClymont, Danni Sinnett, Zaky Fouad

(mis)understanding rural housing need? Reflections on an analysis of strategic housing market assessments in rural England

We present the findings from a review of strategic housing market assessments (SHMAs) in rural England in the context of changing Government policy. We identified those 83 local authorities categorised as rural in Government statistics and for each we collated figures for total and, where possible, social and affordable, housing need from SHMAs or equivalent. These figures were then compared with the need identified in the most up-to-date local plan, and the total housing need using the Government's 'standard method'. Comparing projected housing need based on population growth with housing completions between 1997 and 2023, we found that around three quarters of rural local authorities have an undersupply of homes.

However, our research also outlines the complexities of assessing rural housing need, even by official measures. Geographies for local plans and SHMAs are not always consistent and vary over time; compounded by recent local government reorganisation. Moreover, there is a mismatch between the idea of rural housing, and the figures we have analysed. Local authorities classified as rural for government

data varied markedly, and do not necessarily reflect all rural areas in England. Many contain large town or urban fringes (where much of the projected housing development will be planned for), or make their local plans and SHMAs with neighbouring urban authorities. This resonates with claims that the rural is poorly understood by planning as an urban-focused activity, questioning what 'collective imaginary of (particular) rural' (Shucksmith, 2018, p164) is at work in delivering housing in rural England, and whether it is compatible with substantive notions of a 'good countryside'.

Reference: Shucksmith, M. (2018). Re-imagining the rural: From rural idyll to Good Countryside. Journal of Rural Studies, 59, 163–172. https://doi.org/10.1016/j.jrurstud.2016.07.019

2200 | Benjamin Mumford, Jaden Koon

Modelling Canada's Housing Demand Through Socio-Demographic Profiles at Fine Scales

Understanding where people live and the type of housing they require is an important step to understanding Canada's future infrastructure needs. Currently, Canadian communities produce 'Housing Needs Assessments' which simply use headship (household maintainership) rates by age-cohort to project local housing need. These assessments, which are critical to informing local planning decisions, may underestimate actual housing demand. This project takes advantage of newly produced data and a wide range of Census microdata to adapt a new method of housing demand modelling to the Canadian context. The resulting VISION Housing Demand Model produces projections of household demand at the Dissemination Area (DA) scale – a census unit of roughly 700 people – using a modified sequential propensity model. In this model, the input synthetic population is separated into highly specific socio-demographic groups relating to both visible minority status and income. We then apply propensities to each group, simulating their formation of various household structures. Currently, the model supports demand projections for several household structures, including two adult households, two adults with a child or children, single adults with a child or children, more than two adults, and single adults. We can further examine household demand by socio-demographic characteristics, including visible minority status and household income. Finally, we translate these household types to living arrangements, determining both the number of overall units demanded in a DA and a breakdown of the number of units demanded by number of bedrooms. Initial results and validation, using 2021 Canadian census counts, indicate strong performance of this model with overall counts within 1% of the actual count. This model presents a useful tool for federal policymakers to understand future projections of local housing need and is especially useful for targeting investment towards Canada's small but growing municipalities, which lack the extensive planning resources of major cities.

Housing policies

Fri 3.7.14:00-15:30, Shelter B, U261 OP POHJOLA | Session chair(s): Paavo Monkkonen

2775 | Dawid Niemier

Aligning Housing Policies with the Needs of Young Adults: Insights from the "Apartment for Graduates" Programme in Poznań

My presentation draws on the findings of my master's thesis, Contemporary Challenges of Housing Policy on the Example of Poznań, with a particular focus on the municipal programme "Apartment for

Graduates." Implemented since 2015 by Poznań Social Housing Association (PTBS), this programme offers ten-year rental contracts to university graduates under the age of thirty-six who work in the city. Participation requires a significant refundable equity contribution—formerly up to 30% of the property value—along with a high security deposit and monthly rent. Despite its ambitions, the programme has attracted limited interest among its target group. To understand this gap, I conducted an extensive survey among students of Adam Mickiewicz University, representing a broad and statistically valid share of the academic community—future graduates and potential beneficiaries. The questionnaire explored students' current housing situations, their perception of Poznań as a place to live, and, importantly, their expectations regarding the design of graduate-oriented housing programmes. The findings reveal a clear mismatch between programme assumptions and the needs of young adults. Respondents expressed strong preferences for long-term security, including the possibility of future ownership, more flexible lease durations, and lower upfront costs. Many emphasised that the required equity contribution and high deposit constitute major financial barriers. Others pointed to insufficient promotion of the programme, limited diversity of available units, and a peripheral location. A considerable number argued for expanding eligibility to all young workers and for reconsidering the age limit. These results highlight the importance of evidence-based policy design, especially when programmes target young adults navigating early labour-market and housing-market transitions. My presentation will demonstrate how systematic survey research can uncover policy blind spots and help align municipal housing initiatives with the real expectations of their intended users.

1934 | Angela Barbanente, Laura Grassini

Experimenting with community-based social housing and neighbourhood revitalisation: Impervious innovation pathways in a Southern Italian metropolitan capital

Cities are increasingly confronted with deepening forms of spatial injustice and social exclusion, including the displacement of vulnerable groups, widening inequalities in access to adequate living conditions, and rising levels of vulnerability and poverty. While market-led urban transformation and the financialization of real estate spread, the role of urban planning in shaping policy agendas and influencing decisions to ensure housing as a basic right has been increasingly marginalised.

As the European Union advances the first-ever European Affordable Housing Plan, the extent to which this initiative will generate fair and feasible innovations will depend heavily on the capacity of local housing policy to reassert its centrality within urban policy and planning through context-sensitive and socially responsive strategies. This raises crucial questions: What role can urban planning play in promoting affordable housing and revitalising deprived neighbourhoods? And how can transformative practices effectively reach the most disadvantaged?

These issues are explored in Bari, a metropolitan capital in Southern Italy. This is an interesting case study due to its 'peripherality' within both the Italian and European contexts, as well as to the structural weaknesses of its social housing policies and governance, characterised by fragmentation and limited coordination. While market-driven urban development has historically prevailed, and flagship place-branding initiatives in central areas remain prominent, efforts are being made to improve disadvantaged neighbourhoods through community-based and integrated approach to social housing regeneration.

These initiatives, analysed within the framework of the 'Unconventional and Affordable Housing (UAH)' research project, show potential for fostering more inclusive housing and urban transformation. At the same time, they reveal limitations in their collaborative dimensions, which constrain their capacity for sustained innovation. Understanding and addressing these bottlenecks is essential for strengthening the institutional capacities of regional and local governance systems, enabling them to drive transformative change that benefits disadvantaged communities.

1606 | Liu, HUANG

Social housing as social infrastructure: insight from the housing policy in Taiwan

Beyond providing residential space, social housing in Taiwan aims to play a key role in sustaining the everyday lives of residents and neighboring communities and fostering social relationships through social welfare services and place-making initiatives. However, the promotion of social housing often faces challenges from the general public. For instance, debates tend to focus on whether social housing should be self-financing or on replacing government-built units with rent-subsidized schemes, rather than on the social value that social housing generates within urban communities after its implementation, such as social cohesion, equitable access to housing, and public participation. To address these concerns, this research regards social housing as a form of social infrastructure. The concept of social infrastructure provides an analytical framework for exploring whether and to what extent social capital can be developed through deliberate planning and design, as well as community management of social housing. This research will focus on identifying patterns of social interaction and the processes of social capital formation within social housing, and explore whether and to what extent such interactions may foster place-based partnerships among diverse stakeholders, contributing to the sustainable operation of these housing projects. This research draws on three projects in Taichung, Taiwan, as case studies, employing document analysis to examine the social housing policies, site planning strategies, and community management models, and is supplemented by interviews with tenants, social welfare organizations, and commercial operators. The unique model of Taiwan's social housing demonstrates its sociality within the space. A systematic analysis through the lens of social infrastructure offers an academic response to this emerging field of study. Furthermore, the results of social network relationship analysis can improve the site design and community management of social housing to reflect social values, serving as a reference for future revisions to Taiwan's social housing policies.

1540 | Anita Vitriana, Sara Özogul, Sarah Mawhorter, Johan Woltjer

The Meaning of Housing among Low-Income Groups in the Bandung Metropolitan Area, Indonesia : Rethinking the Housing Ideology and Governance Nexus

Research on housing and its meaning has long been central to scholarly discourse. While neighbouring disciplines (e.g. sociology, geography, architecture) have explored home meanings extensively, little attention has been paid to how these meanings relate to urban planning, particularly in low-income housing governance. This paper examines housing meanings in Indonesia's low-income context to uncover a persistent ideology of single-family homeownership that has increasingly steered such housing provision towards remote suburban and exurban areas. Focusing on the Bandung Metropolitan Area

(BMA)—one of Indonesia's largest metropolitan regions—the study clarifies: (1) What is the meaning of housing for low-income households, in terms of tenure, dwelling type, and location? and (2) How do these meanings interplay with low-income housing governance in the BMA? Data were collected from both residents and providers of two prominent forms of formal low-income housing in Indonesia—basic single-family housing and public rental housing (PRH) —including community leaders, private developers, PRH managers, and government officials. The paper makes clear that low-income households attach strong meanings to single-family homeownership, valuing the sense of security and freedom it supposedly provides. These meanings have emerged from a housing system that privileges this housing type through freehold ownership and flexibility for spatial expansion. In contrast, the current system underprivileges multifamily housing—whether rental or owned—due to limited tenure period and constraints on spatial modification, particularly given the small standard unit size for low-income housing. For low-income households, renting is often a necessity, while having a home represents a major, long-term commitment, as dwellings are typically intended for lifelong occupation. In Indonesian metropolitan cities, where vertical living is increasingly inevitable, planning regulations should address these concerns, particularly resident's occupancy security and adequate, flexible living spaces. The paper emphasises that planners and policymakers should monitor processes of meaning making around housing, particularly when establishing governance frameworks.

Track 13: Technologies

Track chairs: Michele Campagna, Kamyar Hasanzadeh, Deniz Erdem Okumuş, Henrikki Tenkanen,

AI & URBAN SYSTEMS

Tue 30.6.14:00-15:30, Technologies, Y124 E-sali | Session chair(s): Kamyar Hasanzadeh

994 | Achmad Ghozali, Walter Timo de Vries

Framing Future Urbanization: Unraveling Spatiotemporal Heterogeneity and Predictive Drivers of Land Use Change in the Nusantara Agglomeration Region

Significant potential land urbanization in the Indonesian New Capital City (Nusantara) and the adjacent region has been triggered by various development and large-scale regional infrastructure investments. The developmental footprint of Nusantara has raised concerns regarding its negative impacts on the environment and regional planning systems. Consequently, monitoring urban expansion patterns is essential for understanding the land use dynamics. Empirical evidence regarding the spatiotemporal patterns of land use change (LUC) and driving factors in the Nusantara agglomeration region is currently limited. This study examines the spatiotemporal heterogeneity and identifies the primary predictive factors of LUC in the Nusantara agglomeration region as an evidence-based foundation for formulating responsible and sustainable land use strategies within and around Nusantara development. We revealed regional disparities based on the urbanization intensity and the urban land expansion differentiation indices through spatial autocorrelation analysis using Moran's I on land cover data from 2005-2025. Based on these urbanization indices, we apply the Geodetector method to measure the primary predictive determinants of urban expansion. The results demonstrate distinct spatial heterogeneity in urban expansion within the study area, especially in the high urbanization zones observed in the triangle economic center, Balikpapan, and Samarinda. Additionally, 23 factors play a significant role in LUC from 2000 to 2025. The identified factors provide significant insights into the dynamics of future LUC in the region, eliminating redundant and extraneous elements, and facilitating effective management of sustainable urbanization.

1126 | Pınar GÖKÇE KILIÇ, Deniz ERDEM OKUMUŞ

Urban Centrality in the Algorithmic City: Temporal Profiles, Functional Diversity, and Hierarchies

Urban knowledge is increasingly mediated by algorithmic systems that shape how urban centres are represented and experienced. This study examines how large-scale digital place data can be operationalised to analyse and reveal the hierarchical structure of urban centrality. It aims to integrate digitally generated spatial information into urban analysis while acknowledging its epistemological and representational limitations. Focusing on İstanbul, the methodology unfolds in four stages: (1) extraction and preprocessing of place-based information (place type, ratings, and opening hours) from Google Maps; (2) clustering and spatial visualization to detect nodes of concentration and functional diversity; (3) hierarchical classification of primary, secondary, and tertiary centres based on spatial density, temporal

activity, and functional mix; and (4) interpretation of these hierarchies in relation to the city's structural and socio-economic dynamics.

Findings demonstrate that digital place data offers a high-resolution means of identifying multiple layers of centrality in real time. A comparative analysis of three key centres—Eminönü, Taksim, and Kadıköy—illustrates how urban centrality varies across spatial and temporal dimensions. Eminönü functions as a historical and commercial core with strong spatial density but limited temporal activity, largely concentrated during daytime hours. Conversely, Taksim and Kadıköy sustain extended periods of activity through cultural, commercial, and entertainment uses, maintaining vibrancy well into the evening. These temporal and functional variations reveal distinct centrality types shaped by both historical trajectories and contemporary socio-economic patterns.

Methodologically, the study develops a reproducible workflow for integrating digital place data into spatial analysis. Conceptually, it advances the idea that digital visibility and temporal-functional diversity are crucial indicators of hierarchical urban structure. By combining computational methods with urban theory, the research contributes to debates on urban analytics, AI in planning, and data-driven spatial modelling, while emphasizing the need for critical reflection on algorithmic biases and representational inequalities inherent in digital data.

1372 | Hyejun Lee, Jae Teuk Chin

Urban AI for Predicting Urban Growth in Developing Countries: Focusing on Cities with Informal Settlement Challenges

Rapid urbanization in developing countries has led to an increasingly unbalanced expansion of urban spatial structures, now recognized as a major challenge to sustainable development. This study examines the spatiotemporal dynamics of urban growth in developing countries, utilizing high-resolution satellite imagery and deep learning–based predictive models, to forecast future trajectories of urban expansion. Given the global availability of satellite data and technologies, this approach is particularly valuable in developing countries where spatial data infrastructure remains limited.

Urban boundaries were extracted from satellite imagery, and time-series data incorporating major urban growth factors, such as population and land use, were integrated into the predictive framework. This approach allowed for a detailed characterization of the morphological and spatial expansion patterns of urban growth, as well as a dynamic simulation of its growth over time. The predicted results were used to compare and classify the expansion forms and spatial distribution characteristics of different cities.

The analysis showed distinct differences in the pace and form of urban expansion across city types. These spatial variations showed close associations with key growth factors, including population density and land-use change. In certain cities, the direction of urban expansion tended to be linked to the spatial distribution of informal settlements, suggesting that shared urban growth mechanisms may drive both phenomena.

This study integrates spatial simulation into the Urban AI framework to enhance the accuracy of urban growth prediction. It also establishes an analytical basis for the early identification of expansion trends and informed policy responses in rapidly urbanizing cities of developing countries. Furthermore, it

suggests that the proposed approach can serve as a practical policy tool by monitoring the direction and typology of urban expansion and by identifying areas vulnerable to informal settlement growth in advance, thereby supporting the proactive formulation of land-use planning and housing policies.

1740 | Esranur TANRIKULU, Deniz ERDEM OKUMUS

Reframing Disaster Risk Reduction through GeoAI and Climate Analytics

The intensity and frequency of climate-related disasters have been increasing dramatically worldwide. Climate extremes, such as heatwaves, precipitation extremes, and droughts, are described as anomalies that create drastic global crises with multiple secondary effects and risks, observable across global to local scales. While both natural and anthropogenic factors drive climate change, its consequences simultaneously amplify disaster risks. Within the disaster risk reduction (DRR) framework, climate change is recognized as both a driver and an amplifier of risk. This reciprocal relationship between climate change and disaster risks constitutes the conceptual foundation of this study, which examines how these interconnected domains converge in contemporary scientific research through the lens of digital and geospatial technologies. As artificial intelligence (AI) continues to transform analytical capabilities, geospatial technologies are also being redefined beyond their conventional applications. Thus, GeoAI — the integration of AI techniques with geographic information science — has emerged as a promising paradigm for enhancing spatial analysis, predictive modelling, and decision support across disciplines. This study aims to systematically examine how GeoAI has been utilized within DRR and climate research, which disaster types and analytical methods have been studied, and where major research gaps remain. A systematic examination was conducted on peer-reviewed studies published over the past 15 years, focusing on the intersection of GeoAI, DRR, and climate-related hazards. The results reveal that research explicitly combining these domains remains limited, with only 46 relevant publications identified. Nevertheless, the increasing number of studies in recent years demonstrates growing academic interest in using AI for analyzing climate-induced disasters, particularly in forecasting, damage assessment, and post-disaster recovery for data-driven decision-making. This study contributes by mapping existing methods and disaster types studied, identifying knowledge gaps, and offering insights for advancing the application of spatially intelligent technologies in climate-related disaster research and informing future data-driven risk governance frameworks.

2650 | Qing Zhang, Qing Hou, Zhong-Ren Peng

AI Automated Transit Planning with Hierarchical Multi Agent Reinforcement Learning

Urban transportation planning has long relied on four-step models, optimization, statistical analysis, and expert judgment grounded in origin–destination (OD) data. These approaches struggle with time-varying travel behavior, real-time OD integration, and the flexibility needed for emerging patterns; they are also labor-intensive and slow to adapt. This study first uses Density-Based Spatial Clustering of Applications with Noise (DBSCAN) to discover travel patterns from observed trip records, then develops a hierarchical, multi-agent deep reinforcement learning framework that decomposes transit network design into two coordinated layers—route planning and station placement. The framework optimizes competing

objectives, including demand coverage, operating cost, and spatial equity, using observed travel data from Tampa's Downtowner on-demand shuttle service.

In evaluation against the current bus network (using 2017 OD test data), the RL-based design produced fewer lines and broader access: routes reduced from 16 to 7, stations increased from 52 to 78, successful OD request service improved from 56.4% to 74.68%, serving passengers rose from 6,908 to 12,060, grid coverage increased from 55.6% to 60.31%, and average transfers dropped from 2.71 to 1.22. These results indicate higher simulated service rates and passenger trips, more balanced coverage (fairer accessibility across neighborhoods), and shorter, more convenient journeys with fewer transfers. The framework demonstrates the promise of reinforcement learning for responsive transit network design and offers a scalable approach that integrates data-driven optimization with domain expertise, suitable for dynamic urban environments.

Note: Figures reported here (7 routes, 78 stations) reflect the current evaluation; as we continue fine-tuning the models, final results may differ by the conference in June 2026.

2560 | SaeBom Song

Socio-Technical-Spatial Imaginaries: Conceptualizing Smart Urban Futures

In recent years, Smart Cities have been widely embraced in policymaking and urban planning worldwide, projecting ambitious urban futures. This study explores the socio-technical-spatial imaginaries surrounding smart city initiatives by critically examining the entanglement of information and communication technology (ICT) and urban development trajectories shaped by distinct socio-cultural and political contexts. By integrating the theoretical frameworks of socio-technical imaginaries (STIs) and socio-spatial imaginaries (SSIs), this work proposes an analytical framework for Smart City imaginaries (SCIs), offering a holistic lens to explore the complex interrelations between technology, planning, and space.

Existing literature contends that Smart City visions are largely driven by global corporate discourse and technological hype surrounding artificial intelligence, big data, and digital infrastructure. The Smart City concept has been strategically intertwined with other urban visions such as sustainable development, circular cities, and inclusive cities, reflecting its adaptability across diverse contexts. This integration has reinforced its legitimacy as a dominant urban development rationale based on context-specific socio-political priorities. Consequently, Smart Cities have evolved into complex strategic instruments, repackaging traditional urban planning through the rhetoric of 'smartness' while subsuming other policy domains such as housing and economic strategies.

While the STIs framework provides robust analytical tools for interrogating Smart City initiatives as co-produced outcomes of science, technology, and national identity, limited scholarly attention addresses the integration of socio-spatial dimensions. This study advocates for recognizing the mutually constitutive relationships between society, technology, and space, proposing a triadic analytical framework encompassing socio-technical-spatial entities. This framework enables a context-sensitive socio-epistemic approach for empirical investigation. Using Smart City initiatives in the Netherlands and South Korea as comparative cases, this study highlights limitations and potentials of prevailing SCIs and

calls for reimagining 'smartness' through alternative narratives fostering diverse values and inclusive urban futures.

URBAN ANALYTICS 1

Tue 30.6.16:00-17:30, Technologies, Y124 E-sali | Session chair(s): Deniz Erdem Okumus

1127 | Pınar GÖKÇE KILIÇ, Fatih TERZİ

Integrative Framework for Urban Vitality: Bridging Structural, Behavioral, and Perceptual Dimensions

Digital technologies are transforming the scope and techniques of spatial analysis that inform urban planning studies. The growing availability of large-scale spatial, behavioral, and visual data enables urban planners to study complex urban systems through multiple dataset. However, integrating and making sense of these diverse sources remains a major challenge. Yet these sources often remain disconnected, limiting understanding of how urban vitality emerges from the interaction between physical, social, and perceptual factors.

This study addresses that gap by developing a multi-representational framework that conceptualizes vitality as a dynamic interaction among structural, behavioral, and perceptual dimensions—a process of ongoing resonance across spatial and sensory domains.

The framework follows two core principles. Epistemic complementarity ensures that each data—structural, behavioral, and perceptual—reveals a distinct facet of urban reality, while methodological alignment maintains coherence across scales, metrics, and analytical models. Spatial-structural indicators (morphology, density, accessibility) describe spatial configurations; behavioral indicators (mobility rhythms, transaction flows) capture temporal dynamics of urban activity; and perceptual indicators (derived from street-level imagery and visual interpretation) represent how environments are experienced and evaluated. These data are integrated through AI-supported spatial analytics, rhythm-sensitive metrics, and data fusion techniques to identify adaptive patterns and feedback relations within complex urban systems.

The study introduces an integrative analytical framework for linking quantitative and qualitative data through AI-assisted interpretation. Conceptually, it demonstrates how artificial intelligence can enhance the understanding of socio-spatial systems without overshadowing theory-driven reasoning. By emphasizing dynamic interaction rather than static correlation, the framework contributes to methodological innovation in planning—offering a holistic approach to interpreting fluid, adaptive, and evolving urban environments.

2015 | Kamyar Hasanzadeh, Eva Purkarthofer, Anna Kajosaari, Marketta Kyttä

Redefining Neighborhoods Through Activity Spaces: A Data-Driven Framework for Functional Planning

Neighborhoods are typically treated as fixed administrative units, yet empirical evidence shows that residents' everyday movements extend beyond these rigid boundaries. This study presents a new

approach for redefining neighborhood delineations by aggregating individual activity spaces derived from a large Public Participation GIS (PPGIS) survey conducted in Espoo, Finland. We modeled the everyday environments of 3,132 residents by capturing their key destinations and travel patterns. The resulting individualized surfaces were then aggregated at the neighborhood level to form Functional Neighborhood Areas (FNAs), representing the locations most frequently visited by residents.

The comparison between FNAs and the postal-code neighborhoods of Espoo reveals substantial mismatches. In many cases, FNAs extend well beyond official boundaries, overlap extensively with adjacent neighborhoods, and form shared hotspots around major urban centers. These patterns reflect the multicentric structure of Espoo and highlight how accessibility, population density, and socioeconomic characteristics influence mobility and spatial practices. By interpreting these empirically derived FNAs through the lens of soft spaces, the study contributes to discussions on flexible spatial framings in planning. FNAs exhibit several hallmarks of soft spaces, including fuzzy boundaries, variable extents, and the ability to reveal functional relations not captured by formal governance territories.

FNAs open possibilities for rethinking how planning practice engages with the lived geographies of residents. They offer a richer evidence base for understanding service needs, mobility patterns, and the everyday connections that cut across administrative borders. In planning discussions, FNAs can help reveal functional linkages that conventional neighborhood definitions overlook and encourage more integrated thinking across units and sectors. Rather than proposing a new fixed scale, the approach points toward spatial frames that remain adaptable and sensitive to context. As citizen-generated data becomes more widely available, these kinds of functional delineations can play an expanding role in shaping more responsive, inclusive, and grounded planning processes.

966 | Justin Hollander, Elijah Mensah

Planning for waste management in informal settlements: Google Street View and Spatial Analysis in Kampala, Uganda

Rapid urbanization, population growth, and changing consumption patterns have significantly increased global waste, including municipal solid waste and plastic waste. This waste is widely linked to increased risks of urban flooding, vector-borne diseases, soil and water contamination, and air pollution. The rural-to-urban migration in Sub-Saharan Africa increases the rate of urbanization and population densities with its concomitant waste generation in cities, making it overwhelmingly difficult for authorities to address. This is due to the limited budget for waste management in the space of competing priorities such as hunger, water shortages, unemployment, and hunger that state governments need to grapple with. Further, this issue is connected to the lack of policy implementation and enforcement of regulations. Waste collection in Sub-Saharan African countries is widely recognized as inadequate, with collection rate of about 55% for 90% disposal at uncontrolled landfills and dumpsites.

This paper investigates environmental planning practices and the human health and environmental hazards associated with waste in the informal settlements of Kampala, Uganda, using Acholi Quarters, Kifumbira, and Ggaba as case studies. The research used a novel dataset extracted from Google Street View (GSV) imagery to provide insights into geographical locations of pollution accumulation and ArcGIS spatial mapping to locate chronic areas that require immediate attention. We found higher

concentrations of waste within a 0.5-mile radius from the settlement centroids in two of the three settlements. The Local Moran's I analysis identified statistically significant clusters of high and low waste presence and outliers to suggest the influence of local factors. A review of environmental planning practices and policies revealed that local authorities are well aware of these hazardous conditions but lack the necessary resources to address them.

1010 | Idan Porat, Dalit Shach Pinsly, Inês Lima Rodrigues, Or Amir

Differentiating Neighborhood Quality: A framework for Evaluation Middle-Class Mass Housing

This research is a follow-up study to the quantitative and qualitative investigation and analysis of middle-class mass housing (MCMH) in Europe, conducted within the framework of a European Union COST CA18137. The initial study examined approximately 110 case studies of middle-class neighborhoods, presenting the relationship between their physical characteristics (analyzed using GIS) and spatial quality attributes (based on a dedicated template). This paper developing an assessment tool for neighborhood quality based on the knowledge accumulated in the previous study. Here, five neighborhoods ranked highest in the researchers' qualitative assessment and five neighborhoods with particularly low-quality assessments were selected and analyzed for their spatial characteristics. The conclusions drawn from analyzing the similarities and differences in spatial characteristics indicate a significant variance in the physical characteristics of high-quality neighborhoods versus those requiring improvement. However, this variance does not point to an "ideal neighborhood" but rather to specific neighborhood characteristics and parameters that contribute to, or detract from, diverse types of quality. Spatially dispersed neighborhoods, for example, offer quality in terms of readability and walkability, while neighborhoods with random pattern offer quality in the form of extensive open spaces and a stronger sense of place. Neighborhoods with a high variety of building typologies exhibit quality related to belonging and identity. That is, different types of spatial structures generate different types of quality.

It follows that neighborhoods requiring improvement and having a low qualitative assessment cannot be improved using a uniform, global model. Instead, there is a significant advantage in adopting a specific, place-based spatial solution rooted in each neighborhood's unique potential, based on its specific spatial structure and inherent development opportunities. This research enables planners and policymakers to guide the renewal and improvement of middle-class mass housing estates and to develop each neighborhood in a quality-oriented manner based on its unique spatial DNA.

1746 | Siyu Miao, Yang Xiao

An Intelligent Method for Identifying Urban Renewal Potential Based on SpatialGene Theory: A Case Study of Shanghai

Emerging digital technologies and large-scale urban data offer new opportunities for interpreting complex socio-spatial transformations. Responding to this agenda, this study develops an interpretable, AI-driven framework for identifying urban morphology signatures and predicting renewal potential in rapidly changing megacities. Building on spatial gene theory, building morphological characteristics are

conceptualized as “spatial phenotypes,” enabling the integration of urban form, location, and socioeconomic attributes into a unified analytical pipeline.

Using Shanghai as a case study, we extract multi-dimensional morphological indicators from high-resolution building roof remote sensing data and classify seven distinct morphology signatures through a Gaussian Mixture Model. Evolutionary transitions from “old urban district” signatures toward “central urban” characteristics are operationalized as indicators of renewal. A Random Forest model incorporating 14 variables—including building form, spatial accessibility, and neighborhood socioeconomic conditions—is then employed to predict renewal potential across the metropolitan area.

The results reveal clear spatial heterogeneity: renewal dynamics have expanded from inner-city districts toward the suburban and outer-ring areas, with emerging hotspots in western and historically underdeveloped regions. The most influential predictors include total building area, average building perimeter, construction year, distance to the city center, and housing prices.

This study demonstrates how interpretable machine learning can enhance the detection, explanation, and monitoring of morphological change at scale. The proposed framework provides a transferable digital tool for integrating heterogeneous geospatial data, supporting scenario exploration, and informing evidence-based renewal strategies in the context of urban digital twins and computational planning. The research contributes to ongoing debates on how advanced digital methods can reshape planning theory, analytical capabilities, and decision-making.

2739 | Balázs Cserpes, Benjamin Dally, Nicole Reiswich, Juan Hernandez

Data-based Approaches for Finding and Mapping Urban Densification Potentials

As many other cities in western and northern Europe, Hamburg is characterised by a continuously increasing population size and a sustained demand for housing and infrastructure services. City development since the early 2000s has been focusing on the conversion of former large-scale port and industrial locations to mixed-use urban areas (such as HafenCity and Grasbrook). However, as available land is being used up, identifying and mapping urban densification potentials becomes an increasingly complex challenge for planners and decision makers.

Suitable areas for housing, urban and infrastructure development are hard to find, especially in the more central and well-connected parts of the city. They are often dispersed as smaller, fragmented plots and are rarely available for direct conversion. The complexity of the problem is increased by complex ownership rights, legal constraints, speculation and rising property prices in the real estate market.

Data-informed planning tools can assist in solving such complex problems, with Hamburg being a suitable test-bed for these approaches on a larger-scale. The city provides a well-maintained, documented and open (spatial) data catalogue and platform. Granular data on the building plot level contain information on current land use and ownership, along with machine-readable planning regulation parameters that can be linked and further analysed in the context of densification.

The presented paper discusses the exploratory research conducted on the use of open data for quantifying and localising development potentials. It focuses on the process of operationalisation of

urban planning regulation parameters, linkage of property information with data on the built environment in a self-developed data platform. In this platform, collected data are analysed through exploratory approaches (e.g. clustering) and prepared for analysing alternative definitions of densification. These results can subsequently converted into decision criteria and are displayed in a web-based support tool for planners and decision makers.

CONNECTIONS

Tue 30.6.17:45-19:15, Technologies, Y124 E-sali | Session chair(s): Jussi Torkko

2370 | Harini Sawandi, Amila Jayasinghe, Chethika Abenayake

AI-Driven Micro-Scale Walkability Audits Using Spatial Dynamics: A Framework for Pedestrian Environment Evaluation

This paper positions urban informatics and planning as a joint lens for evaluating walkability at the micro-scale, using AI-driven analytics and urban sensing to understand how spatial dynamics shape everyday pedestrian experience. Focusing on a Global South case study from Sri Lanka (University of Moratuwa campus), the study explores how fine-grained spatial and environmental attributes influence walking patterns within an educational, mixed-use setting.

GPS-enabled location-based services are used to collect real-time pedestrian trajectories from 100 participants, generating rich spatiotemporal traces of on-campus movement. From these data, we derive segment-level indicators of digital pedestrian pulse—including speed, route choice and dwell behaviour—and link them to spatial variables such as tree view, street-network metrics (mean depth, choice), and local environmental conditions.

An AI-supported pipeline is implemented: k-means clustering identifies distinct walking pattern types, while eXtreme Gradient Boosting (XGBoost) quantifies the relative importance of spatial and environmental factors in explaining variations in walking behaviour. Results reveal strong interactions between spatial configuration and micro-environmental quality: higher tree view and shaded segments are associated with slower, more lingering pedestrian rhythms, whereas segments with higher choice and better connectivity support faster, more direct flows. Mean depth emerges as a key structural determinant of navigability and perceived accessibility.

The proposed framework demonstrates how AI, mobility big data and spatial modelling can transform traditional, labour-intensive walkability audits into scalable, dynamic diagnostics for planners and campus/municipal authorities. By integrating micro-scale pedestrian analytics with built-environment indicators, the study contributes methodologically to Track 13 (Technologies) and substantively to Track 1 (Accessibility and Mobility), offering practical insights on how to design context-sensitive, climate-responsive and pedestrian-friendly environments in rapidly urbanising Global South contexts.

1029 | Pnina Plaut, Dalit Shach-Pinsly, Khaireyah Alu-Hamra, Ahuva Vinograd

Promoting walkability for Older Adults' in Public Urban Spaces

Participation of older adults in outdoor daily activities, is one of the major challenges in light of the growth of this population world-wide. As post-industrial societies age, the mobility of older adults in urban areas is seen as increasingly important and greater effort is being expended on research and development in order to safeguard their participation in outdoor and social activities.

This research is part of a project funded by Horizon Europe, titled “JUST STREETS”: Designing inclusive, safe, affordable and sustainable urban mobility. The main goal of our research is to analyze the relationships between older adults' walking patterns, their personal characteristics (e.g., age-related cognitive decline and socioeconomic characteristics), and their urban environment (i.e., characteristics of the built environment and accessibility to public transportation). Data was obtained through an ICT Spatial Mobility App, individually-tailored for older adults, supporting the identification of barriers and enablers elements along the walking routes. This app enables and encourages elderly to conduct daily outdoor activities (e.g. shopping, errands, social gatherings, leisure) and reach destinations safely by walking. In addition, it helps set priorities for improvement in street design strategy (i.e shade, light, benches, water fountains, safety and security).

Two neighborhoods in the city of Haifa were selected: Kiryat Eliezer and Ahuza (which include 22% and 26% older adults, respectively). Cross-sectional surveys and face-to-face interviews with 120 older adults (aged 60+). The focus was on walking patterns for daily activities. GIS analysis was performed to evaluate those patterns and the characteristics of the built environment including obstacles and enablers they face.

The analysis provides walking profiles of older adults in public urban spaces

2228 | Yilin Zhao, Xiaoying Meng

Street Space Morphology Restructuring in AI-Oriented Districts from a Spatial Justice Perspective: A Case Study of Beijing AI Origin Community

In urban areas dominated by artificial intelligence (AI) industries and applications, street spaces are increasingly reshaped by algorithms and data logic. Governance driven by efficiency and calculability often overlooks human-centered spatial resource distribution and fairness, posing new challenges to spatial justice.

This study raises two interrelated research questions: First, what are the overall morphological characteristics of streets in AI-oriented districts? How are these characteristics reflected through the layout, function, and interconnections of street corridor spaces, street interfaces, frontage zones, and micro-public spaces? Second, how might these morphological features trigger spatial justice issues under varying levels of AI intervention?

Taking the planned AI-driven urban area in Haidian, Beijing (Beijing AI Origin Community) as a prototype, the study integrates GIS spatial analysis, systematic street observation, and streetscape scenarios generated by diffusion models to compare street spaces under different AI intervention levels. It analyzes

three spatial units—street corridor spaces, street interfaces and frontage zones, and micro-public spaces—focusing on how AI-driven interventions in spatial enclosure, interface openness, usage rights, and the arrangement of micro-public spaces and digital terminals affect disparities in spatial usage, accessibility, and interactivity. The study identifies potential spatial justice issues and proposes an analytical framework for street space in AI-oriented districts, offering planning and governance insights for future urban renewal.

2614 | Amor Ariza-Álvarez, Valentina Tagliari, Manuel Pérez-Docampo, Miguel L. Navarro-Ligero

Virtual streets, real perceptions: using VR for communicating urban futures in participatory scenario planning

Urban planning is increasingly conducted under deep uncertainty, while participatory scenario planning (PSP) still relies on narratives, maps, and static visualisations that many non-experts find abstract, demanding, and weakly connected to their future views. This paper tests immersive virtual reality (VR) as a communication format for urban future scenarios, asking which factors and mechanisms most strongly shape how non-experts perceive VR-communicated future scenarios. We adapt a co-produced 2050 “Urban Dystopia” scenario for Madrid’s Henares Corridor into a first-person, 3D streetscape that renders insecurity, inequality, unsustainable mobility, degraded public space, and declining local services through spatial and sensory cues. Sixty participants experienced the scene using a head-mounted display and completed pre/post-exposure questionnaires. Individual factors (sociodemographic, mobility patterns, immersive tendencies, urban-future concerns) and VR factors (design cues, sensory immersion, presence/realism, physical and hindsight reactions) were analysed using ordinal logistic regression and complemented with a qualitative review of video recordings. Results show that scenario perception emerges from the interaction between heterogeneous publics and VR affordances, rather than by the technology alone. Women, car users, younger participants, and frequent public-transport users interpreted the VR environment as more insecure, unequal, unsustainable, and poorly maintained. Dynamic elements (traffic and people), built-form and commercial frontages were the main design cues, while multi-sensory immersion and post-exposure “problem recognition” amplified critical readings of the future streetscape. These differences reveal how embodied experience and social position filter scenario perceptions, complicating assumptions of neutral immersion. By foregrounding the challenge of communicating uncertain futures to diverse publics, the paper advances a conceptual and empirical framework for VR-enabled scenario communication that makes socio-spatial and environmental futures more legible to non-experts while revealing how digital methods can reproduce inequalities in interpretive power. It offers guidance on integrating VR environments into PSP workflows as planning-support tools that foster more interpretable, reflexive, and inclusive planning practice.

2581 | Hyemin Na, Jeongseob Kim

Evaluating Pedestrian Movement and Safety in One-Way and Two-Way Streets Using AI-Based Behavioral Data: An Empirical Study

The primary goal of this empirical study is to examine how different street operation modes—specifically one-way versus two-way traffic—influence pedestrian movement patterns and their behavioral exposure to safety risks. Understanding the impact of road design on pedestrian actions is crucial for developing truly pedestrian-centered urban environments. Traditional evaluation methods often rely on aggregated metrics, such as traffic volume or crash statistics, which fail to capture the vital, micro-level, situational behaviors exhibited by individual pedestrians in response to their environment (e.g., changes in speed, evasive maneuvers, or path deviations).

To address this gap in micro-level analysis, this research employs a robust computer-vision-based analytical framework. This framework integrates object detection, multi-object tracking, and homography transformation to convert raw video footage into spatially and temporally continuous representations of pedestrian movement. This allows us to quantify directly measurable behavioral data, including walking trajectories, instantaneous speed changes, distance of path deviation from the sidewalk, and minimum proximity distance to moving vehicles. By quantifying these observable actions, the study aims to determine precisely how pedestrians react to and modify their behavior under different road operational conditions. For comparative analysis, two street segments with similar commercial functions but distinct traffic operations (one one-way, one two-way) were selected.

This study demonstrates that AI-based behavioral data can move beyond simple aggregated indicators to provide an objective assessment of a road's impact on pedestrian safety and movement quality. It contributes a methodological foundation for incorporating digitally extracted observable behavioral evidence into future planning processes, allowing urban design decisions to be evaluated from a practical, pedestrian-action-based perspective.

1155 | Somsaksith Sitthivan, Noriko Otsuka, Akira Takahashi, Kensuke Yasufuku

Assessing and Enhancing Street-level Walkability using Virtual Reality and 3D Reconstruction: A Case Study of Heritage City, Luang Prabang, Laos

The integration of visualization and spatial simulation technologies is reshaping urban design and planning. While the macro level analyses provide a holistic view on street networks and land-use patterns, the micro-scale analyses enhance understanding of human environment interactions and supports the advancement of human-centered design. The assessment of street-level walkability emerges as a crucial factor for promoting sustainable and livable urban environments. Traditional approaches such as photo based evaluation and on-site audits or walk-along interviews have been commonly used to assess micro-scale walkability. However, these methods face notable limitations. Photo evaluations provide only static and partial views of the environment and lack of spatial depth, while field audits and walk-along interview require significant time, human and financial resources. To overcome these limitations, this study introduces a mixed method that integrates Virtual Reality and 3D reconstruction technology to evaluate street-level walkability in the designated heritage area in Luang Prabang, Laos. We apply 3D Gaussian Splatting, a novel 3D reconstruction and rendering technique that

utilizes machine learning to generate photorealistic 3D models from 2D images or video data, enabling a more immersive and realistic environment for VR based walkability evaluation. The methodology consists of two key steps: First, a subjective walkability assessment is conducted by trained auditors using a checklist developed for this research, based on street-level photographs from 24 routes selected in the study area. Then, two routes with the lowest score by the walkability assessment are selected for VR based evaluation. Secondly, a photorealistic 3D reconstructed model was created to compare the existing conditions of the routes with several scenarios of computer graphics modification, and then asked the auditors to re-evaluate them. This research contributes technology-led methods using emerging VR and 3D reconstruction to identify human environment interactions in exploring better scenarios and designing more walkable urban environments.

2724 | Liyuan Ma, Ceren Sezer

Engaging Underrepresented Youth in Net-Zero Urban Regeneration: Augmented Reality for Co-Designing Public Space

Augmented reality (AR) has a strong potential to visualize spatial design on-site at a 1:1 scale and to enable users to modify design elements in real time through a gamified and interactive process. Its high level of interactivity is particularly effective for engaging the youth - an age group often underrepresented in urban transformation processes.

This study reports on a workshop held in Hoensbroek, a post-mining town in the Netherlands, where a tablet-based AR app was tested with high school students. Using the AR interface, student groups selected spatial components from two urban design libraries, placed and modified them directly on the central square of the town. Their task was to envision a greener, more pleasant, and socially vibrant public square aligned with ambitions for a net-zero transition. The design elements selected by participants including green infrastructure, permeable surfaces, shading structures, and spaces for social interaction reflect critical components of climate-adaptive and low-carbon urban regeneration.

Involving youth in this process provided valuable insights into how underrepresented groups perceive and prioritize elements of sustainable urban transformation, including urban greening, socialisation opportunities, walkability, and spatial permeability. Their contributions illustrate how participatory processes can uncover context-specific needs and foster community ownership of net-zero ambitions, particularly in vulnerable neighbourhoods that face both socio-economic and environmental challenges.

The workshop proved highly engaging, with students demonstrating strong commitment to exploring and applying the AR app and collaboratively developing various creative spatial scenarios. Data collection included photos, video recordings, group interviews, and questionnaires. Findings show that the AR application effectively supported idea generation and helped youth articulate design intentions. However, technical limitations particularly challenges in camera spatial detection, negatively affected user experience. Recommendations for technical enhancement are proposed to improve future AR-supported participatory design processes.

GEODESIGN

Thu 2.7.11:00-12:30, Technologies, Y124 E-sali | Session chair(s): Henrikki Tenkanen

1220 | Marina Borges

Adaptive Master Plans: Integrating Urban Performance, Governance, and Regenerative Planning

Urban planning is increasingly confronted with a paradox: while cities generate unprecedented volumes of spatial and environmental data, planning instruments such as master plans remain largely grounded in static diagnostic approaches. This mismatch limits the capacity of planning systems to respond to rapidly evolving urban conditions marked by climate pressures, socio-spatial inequalities, and technological transformation. Recent advances in computational urbanism have expanded the possibilities for modelling, simulating, and evaluating urban environments. However, their integration into planning practice remains fragmented, often confined to technical applications without fundamentally reshaping how planning problems are framed and addressed.

This paper argues that what is missing is not only more data or more advanced tools, but new analytical frameworks capable of linking computational modelling with planning decision-making. It proposes the concept of Adaptive Master Plans (AMPs) as a computational planning environment designed to support iterative scenario exploration and performance-based evaluation. Through three experimental applications in Belo Horizonte, the research demonstrates how parametric modelling, geospatial analysis, and environmental simulation can reveal trade-offs between densification, accessibility, and regenerative strategies. Rather than producing definitive solutions, these analytical environments enable more reflexive and context-sensitive interpretations of urban conditions.

By repositioning computational tools as integral components of planning analysis rather than auxiliary instruments, the paper contributes to ongoing debates on adaptive planning and data-driven urbanism. It suggests that planning can evolve from static regulation toward more iterative, evidence-informed processes capable of engaging with the complexity and uncertainty of contemporary urban systems.

Acknowledgement

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References

As, I., Talwar, P., & Basu, P. (2022). Artificial intelligence in urban planning and design: Technologies, implementation, and impacts. Elsevier.

Batty, M. (2024). The Computable City: Histories, technologies, stories, predictions. MIT Press. https://doi.org/10.7551/mitpress/14099.001.0001

Brenner, N. (2014). Urban theory without an outside. In N. Brenner (Ed.), Implosions/Explosions: Towards a study of planetary urbanization (pp. 14–31). Harvard Graduate School of Design.

Kitchin, R., & Dodge, M. (2011). Code/space: Software and everyday life. MIT Press.

Ratti, C., & Claudel, M. (2015). Opensource architecture. Thames & Hudson.

Shaw, J., & Graham, M. (2017). An informational right to the city? Code, content, control, and the urbanization of information. Antipode, 49(4), 907–927. https://doi.org/10.1111/anti.12312

1599 | Eric Heikkila

The planning implications of an "app" that does everything

The machine age radically transformed the very foundations of our societies, and the unfolding digital age is poised to do likewise. This paper inquires into the nature of the fundamental changes that we might expect to ensue. To do this we undertake a thought experiment. Specifically, we imagine the existence of an "app" that does everything. While this thought experiment may appear to be too fanciful to be of any practical use, we view it as the ultimate limiting case of accelerating trends in digital prowess. The use of limiting cases is common in many fields of inquiry. For example, the foundations of calculus are based on limits tending to infinity or its reciprocal, zero. Or, in the context of the social sciences, macroeconomic models may postulate instantaneous versus immobile financial capital flows to contrast and gain insights into the behavior of open versus closed economies. It is in that same spirit that we ponder the planning implications of an app that can do anything immediately. We assume that this app is imbued with immensely powerful artificial intelligence and can extend itself through a ubiquitous and highly evolved internet of things. An essential question is who owns this app, and how is its power deployed. We explore scenarios ranging from single ownership to cases where the app is universally available and thus in the hands of all and sundry. Each scenario explores the foundational human and societal dynamics of a society wherein an omnipotent app is in the hands of imperfect humans, with a view to the implications for succeeding generations of planners. This thought experiment is intended to stimulate and broaden the scope of the panel's discussion at WPSC.

2642 | Michele Campagna, Alessandro Marucci, Federico Falasca, Andrea De Simone

Scaling-up Geodesign in the planning practice: Evidence from the L'Aquila Provincial Plan

Geodesign research has advanced rapidly worldwide over the past decade as an innovative digital approach to spatial planning and design in both research and education. Nevertheless, its diffusion into professional planning practice remains limited. Although geodesign holds considerable potential to support adaptive and collaborative digital spatial planning and design, real-world applications are still scarce and only rarely documented in scholarly literature.

To address this gap, this contribution presents a successful case study of collaborative geodesign undertaken in support of the Provincial Territorial Plan of L'Aquila, Italy. The case is noteworthy both nationally and internationally due to its scale and scope: it concerns a large and sparsely populated mountainous territory (5,047.55 km^2; approx. 286,000 inhabitants) characterized by high seismic risk and hazard.

The geodesign process culminated in an intensive digitally supported workshop (16 hours across four sessions) involving approximately one hundred representatives from local municipalities—around 30 out of 108, accounting for more than 60% of the provincial population—as well as major institutional and socio-economic stakeholders. The workshop was positively received, generating over 300 substantive

policy and project proposals and resulting in a negotiated consensus scenario through the geodesignhub planning support system. As such, this initiative arguably represents one of the largest geodesign exercises documented in the literature to support an actual plan-making process. The collaboratively developed design constitutes a core input to the forthcoming Provincial Territorial Plan.

This contribution is specifically focuses on proposing a critical review of the results and comparing this case study with other applications of geodesign in the planning practice at different scales highlighting the significance and added value of this recent application of collaborative digitally-supported planning and design in the real-world planning practice.

2677 | Tijana Dabović, Bojana Pjanović

Using the Global to Local to Global Geodesign for Climate Mitigation Project to Rethink Planning at the Periphery – Case of the Belgrade Region in Serbia

Climate change poses one of the most existential crises humanity faces today. The outcomes of COP30 in Brazil (2025) demonstrated that more decisive climate action is essential - to both reduce greenhouse gas emissions and strengthen nature's capacity to sustain life. In this context, it is critical to raise awareness among spatial planning students regarding the complex impacts, scales, and timeframes inherent to spatially intelligent and just climate mitigation - particularly in Serbia, a peripheral European country.

To advance this goal, educators and undergraduate students at the Department of Spatial Planning, Faculty of Geography, University of Belgrade (2025/2026), applied Steinitz's 2012 geodesign framework and digital tools from the Global to Local to Global Geodesign for Climate Mitigation Project (GLG), focusing on regional climate mitigation strategies for Belgrade. The project encompassed a review of global climate science, spatial analyses of current activities contributing to emissions or environmental degradation, and region's projected climate, ecosystems, and land use by 2050 under various IPCC scenarios. This process informed the development of land suitability criteria and evaluation maps for seven core systems: water, forests/grasslands, agriculture, settlements, transport, industry, and energy.

Utilizing the GLG Climate Actions List - comprising 117 actions with AI-generated cost and emissions estimates - and associated spatial maps, participants selected key projects and structured their timelines using the GLG Gantt chart tool. Through role-play, four stakeholder teams (environmentalists, welfarists, investors, and government officials) iteratively negotiated potential climate design(s) for the region using the Geodesignhub platform. Both students and educators concluded that, in profit-driven, autocratic systems such as Serbia and Belgrade, such innovation currently remains confined to educational "labs." Nevertheless, the process is expected to evolve as new generations, along with knowledge and emerging tools, contribute to forming coalitions for a possible mainstream transition under more favourable circumstances in the future.

2326 | Alessandro Marucci, Federico Falasca, Chiara Di Dato, Lorena Fiorini

Collaborative planning in complex inner areas

Innovative methodology and cutting-edge planning support technologies are at the core of sustainable planning, and cooperation is essential for such a complex task, where various factors influence the success of the involved processes. In this context, negotiated participation procedures can play a crucial role in fostering the introduction of multiple visions during the early planning stages. Central to collaborative planning approaches is the principle that multiple stakeholders contribute their expertise, providing a comprehensive understanding of the context. Such prerogative is even more important in highly heterogeneous and fragile territories such as those of the inner areas.

The current contribution explores the recently concluded GeoDesign workshop that took place in October 2025 in the province of L'Aquila, central Italy.

Supported by the Universities of L'Aquila and Cagliari, the Province Authority of L'Aquila provided an expert-based, geographic information system procedure to support stakeholder's involvement in developing the new provincial territorial coordination plan. In such intricate framework, also challenging due to the disruption of the social and economic fabrics due to several extreme events such as the ones of earthquakes, several challenges for the province have emerged. Hydrogeological and flood risk mitigation, short supply chain and support to local agriculture, better and safer roads are just some of the main issues that stakeholders are willing to address in the decades to come.

Ultimately, this procedure has proven valuable for reformulating the traditional planning paradigm and placing proactive dialogue at the heart of the new provincial plan of L'Aquila.

2682 | Michele Campagna, Laura Tolu, Abir Benfradj

Integrating Planning Theory and Planning Support Systems for Multi-Scale Climate Mitigation: A Geodesign-Based Approach Across Multi-Jurisdictional Contexts

Climate mitigation planning requires both robust theoretical foundations and advanced Planning Support Systems (PSS) capable of handling the complexity of multi-scale and multi-jurisdictional decision-making. As mitigation addresses a global challenge with spatially differentiated impacts, territorial planning must operate simultaneously across administrative levels, governance cultures, and data regimes. Traditional planning approaches often struggle to reconcile these complexities, highlighting the need for conceptual frameworks and technological infrastructures that can integrate heterogeneous knowledge, model spatial outcomes, and support collaborative reasoning among diverse actors.

This contribution examines how geodesign can serve as a bridge between planning theory and PSS by offering a coherent approach that combines spatial data integration, performance-based modelling, and structured participatory design. The ongoing research includes the development of a global-to-local spatial database; the construction of interactive, web-based planning support tools; and the implementation of impact models able to estimate and compare the relative performance, costs, and benefits of climate mitigation actions. These tools have been experimented in multi-stakeholder geodesign workshops at regional (Sardinia), national (Italy), and supra-national (Mediterranean) scales, each simulating actors operating under different institutional, legislative, and administrative conditions.

The case studies reveal how multi-jurisdictional settings complicate climate mitigation planning, but also how geodesign can effectively mediate these challenges. The approach fosters shared understanding through common geospatial frameworks, facilitates negotiation across institutional boundaries, and supports the co-production of spatially grounded mitigation portfolios informed by explicit impact assessments.

The findings illustrate the dual contribution of this research. Theoretically, it advances understanding of how collaborative, spatially explicit frameworks can enhance coherence and legitimacy in multi-level climate mitigation governance. Technologically, it demonstrates the value of geodesign-based PSS for enabling transparent, scalable, and performance-oriented support to decision-making across diverse jurisdictions. Collectively, the study highlights how integrating methodology and technology perspectives can strengthen climate mitigation planning in complex territorial contexts.

GENERATIVE AI

Thu 2.7.14:00-15:30, Technologies, Y124 E-sali | Session chair(s): Michele Campagna

1090 | Wayne Williamson

Can large language models write a rezoning report?

We are witnessing a significant evolution in natural language processing (NLP) as large language models (LLM) exhibit an impressive ability to generate natural language. Given the availability of LLMs, it is inevitable that text rich administrative urban planning functions such as processing zoning amendments will adopt LLM technology in some form. The use of LLMs in urban planning is a promising and emerging field of research and practice that could redefine how planners undertake their daily tasks. Drawing on the expertise of planning managers in Sydney, Australia, this study developed and evaluated draft rezoning reports generated by GPT 5, Gemini 2.5, Claude 4, Grok 4 and Qwen 3. The study used basic python scripts, application programming interface (API) calls and instructional prompts to generate the draft rezoning reports. Planning managers evaluated the draft reports using a rubric. The results were aggregated to provide an overall evaluation of the LLMs reporting writing ability. Although human evaluation remains a valuable tool for assessing LLM output it has some challenges, including high subjectivity, expensive, time-consuming, and difficult to replicate. Hence, this study also used the BERTScore automated metric. The results of this study demonstrate that all 5 LLMs tested can effectively write a draft rezoning report. The BERTScores ranged from 0.87 to 0.88 which indicates a strong semantic match between the reference (planner written) and prediction (LLM generated) draft reports. However, the Gemini and Claude generated draft reports received higher scores from planning managers based on accuracy, relevance and coherence of the synthetic text. This study is limited to a single planning system and a single stage in the rezoning process. However, the implications of this study will inform how LLM text generation could be used in planning practice and inform future research efforts to automate routine planning tasks.

1454 | Milad Malekzadeh, Magdalena Biernacka, Elias Willberg, Jussi Torkko

Evaluating Greenspace Attractiveness with ChatGPT, Claude, and Gemini: Do AI Models Reflect Human Perceptions?

Understanding greenspace attractiveness is essential for designing livable and inclusive urban environments, yet existing assessment approaches often overlook informal or transient spaces and remain too resource-intensive to capture subjective perceptions at scale. This study examines the ability of multimodal large language models (MLLMs), ChatGPT GPT-4o, Claude 3.5 Haiku, and Gemini 2.0 Flash, to assess greenspace attractiveness similarly to humans using Google Street View imagery. We compared model outputs with responses from a geo-questionnaire of residents in Łódź, Poland, across both formal (e.g., parks, managed green areas) and informal (e.g., meadows, wastelands) greenspaces. Analyses assessed agreement on binary attractiveness ratings and the thematic similarity of explanatory reasoning using semantic clustering and manual categorization. Results show high AI–human agreement for attractive formal greenspaces and unattractive informal spaces, but low alignment for attractive informal and unattractive formal greenspaces. Models consistently emphasized aesthetic and design-oriented features, underrepresenting safety, functional infrastructure, and locally embedded qualities valued by survey respondents. While these findings highlight the models' potential for scalable pre-assessment, they also underscore the need for human oversight and complementary participatory approaches. We conclude that MLLMs can support, but not replace, context-sensitive greenspace evaluation in planning practice.

2501 | Yating Jiang

From Policy to Place: Automated Vertiport Planning with Large Language Models

As cities worldwide race to deploy urban air mobility, aggressive top-down strategies—such as Shenzhen's target for over 1,200 vertiports by 2026—risk prioritizing efficiency and economic competitiveness over socio-spatial concerns like equity, noise justice, and ecological sensitivity. To bridge this divide, this study develops a novel vertiport planning framework that leverages large language models (LLMs) to translate ambiguous policy texts into rigorous spatial constraints.

The methodology employs a text-to-code paradigm. LLMs first parse unstructured government guidelines and aviation regulations to extract spatial rules regarding vertiport sites (e.g., protected zones, distance to residential areas). These rules are then automatically translated into executable geospatial scripts using Python's GeoPandas library. By running these scripts against multi-source urban datasets, including land-use maps, road networks, points of interest, and 3D building data, this automated pipeline filters prohibited zones and calculates site suitability, yielding a high-resolution vertiport suitability heatmap.

Using Shenzhen as a testbed, this framework identifies viable vertiport sites and reveals their spatial relationships with existing urban amenities, such as transport hubs, commercial centers, and green spaces. The scalable pipeline significantly reduces the labor of manual regulatory interpretation.

This paper introduces a novel vertiport planning system that translates policy language into spatial action. It empowers planners to rapidly generate infrastructure plans that adapt to evolving regulations

and address spatial concerns. This ensures the responsible deployment of emerging mobility systems and offers a transferable approach for other infrastructure domains.

2503 | Yue Wu, Qiceng Ma

Towards Efficient and Human-Consistent Streetscape Perception: Evaluating Urban Visual Qualities Using Multimodal Large Language Models

Recent advances in multimodal large language models (MLLMs) offer new opportunities for evaluating subjective urban perceptual qualities traditionally captured through labor-intensive human surveys. This study proposes an automated and scalable framework for streetscape perception assessment using MLLMs combined with visual feature extraction and human–AI comparative validation. Street-level panoramas from Shanghai's Inner Ring area were analyzed through a Human–AI Interaction pipeline. We first constructed a domain-specific retrieval-augmented generation (RAG) knowledge base integrating street-design guidelines from Shanghai, Nanjing, London, and New York. For each pairwise image comparison, Qwen3-VL identified visible scene elements and retrieved relevant design principles, then judged which image appeared safer, greener, livelier, more memorable, or more enclosed. Each image participated in twelve randomized comparisons, and perceptual scores across six dimensions were derived using the TrueSkill Bayesian ranking system.

To extend MLLM perceptual judgments citywide, the study employed DINO-V3 descriptors and cosine-similarity-weighted KNN (k=10) to propagate anchor-image perceptual scores across more than 70,000 street-view samples. Human validation was conducted using 100 manually selected images labeled by eight participants. MLLM-generated perception scores achieved strong correlations with human judgments across all dimensions (PCC 0.50–0.71), comparable to or exceeding values reported in prior VLM–human consistency studies. Leave-one-out tests confirmed the robustness of the DINO-KNN propagation method (PCC ≈0.70 against MLLM, >0.55 against human benchmarks for k≥10).

These results demonstrate that contemporary MLLMs can effectively approximate human perceptual evaluations of complex streetscapes and substantially reduce the cost of subjective data collection. The study also highlights inherent limitations of MLLMs, including sensitivity to cultural context and potential biases inherited from large-scale training data, underscoring the need for continued human-AI co-validation in urban design applications.

2840 | Jiali Yang, Liu Liu

A Generative Virtual-Survey Approach for Early-Stage Urban Renewal Assessment in Data-Scarce Environments

In the early stages of urban renewal where micro-level social sensing data is scarce, accurately predicting residents' willingness-to-travel for new amenities without costly field surveys remains a critical challenge. This study proposes a generative simulation framework integrating Large Language Models (LLMs) and GIS as a "Virtual Survey" tool for the pre-design assessment of green space perceived accessibility.

The methodology adopts a "Generative Semantic Modeling" approach. First, Vision Language Models (VLMs) interpret satellite imagery to infer community demographics by analyzing building age, density, and community environment. Simultaneously, candidate sites are identified through a dual-stage screening mechanism combining GIS morphological rules with VLM-based feasibility verification. Second, a walking-network-based Origin-Destination (OD) cost matrix is constructed alongside heterogeneous synthetic agents instantiated via probabilistic sampling. Finally, a Monte Carlo-based simulation is executed, where agents reason about their willingness-to-visit by weighing distance impedance against facility attractiveness.

Comparative experiments in residential districts in Shanghai (Total N=27,292 decisions) using dual models (Gemini/Qwen) reveal high inter-model robustness (Pearson r≈0.78). The simulation indicates behaviors resembling classical spatial interaction laws (e.g., distance decay), while modestly extending conventional GIS approaches in addressing subjective constraints. Text mining suggests that agents captured differentiated mobility decision logic related to safety concerns, reflected by an approximate 11% drop in willingness scores (from 6.51 to 5.78) when “crossing risks” were present. This tendency was especially notable for physically proximate candidate sites near main roads. Moreover, the results quantify demographic heterogeneity and the mobility preferences across different age groups. This study demonstrates the potential of the framework to estimate decision uncertainty and extract latent needs. Theoretically, it establishes a new pathway of "Virtual Survey + Spatial Mechanism Inference," supporting planners in optimizing facility layout and accessibility planning from a human-centric perspective during the preliminary design phase.

AI IN PLANNING 1

Thu 2.7.16:00-17:30, Technologies, Y124 E-sali | Session chair(s): Deniz Erdem Okumus

1699 | Aksel Ersoy, Chuanrui Yu

Generative AI as a team member in collaborative design: a scoping review

Collaborative design could improve design better outcome by bringing multiple users and perspectives, where Generative AI (GenAI) could potentially support with the process. Recent studies and literature reviews developed how GenAI could help individual designer on design tasks, while obscure the implication of GenAI in collaborative design teams with multiple users. This literature review aims to understand the potential and impact of GenAI in collaborative design, particularly considering GenAI as a team member. It finds that most studies were lab study, calling for more field studies to generalize theoretical findings into practices. Image generation and text processing are common methods for integrating GenAI in team in synchronous and asynchronous collaboration process. Human perception towards GenAI affects the collaboration outcome. Proper GenAI and collaboration design could improve team performance, communication, knowledge, engagement and experience. More studies are needed for field evidence, theories and guidelines on how team and GenAI could collaborate.

1120 | Didem Turk Grigoletto

Opening the Black Box in using AI: An Expert-in-the-Loop Approach

Emerging geospatial technologies and AI promise unprecedented coverage for urban analysis. This is promising for planning, but it also introduces risks. Many AI tools operate as black boxes: they may appear accurate, yet it's hard to see why they decide, where they fail, or how training data shape results. Current end-to-end approaches lack transparency, break when settings change, and underuse planning expertise. To address this gap, this study proposes a computational–heuristic workflow for block-based urban morphology that blends deep learning, morphometrics, and explicit domain rules to improve interpretability and reliability.

Using 3 m PlanetScope imagery, a U-Net trained on OpenStreetMap-derived masks segments urban blocks. Morphometric attributes (via momepy) are computed, and blocks are grouped with an unsupervised method plus a transparent rule-based layer, yielding five interpretable types within two macro families: compact and porous. Developed in Barcelona and tested in Paris, Turin, Copenhagen, New York, and Beijing, the workflow identifies what transfers and what fails. Results show that the compact/porous split holds across cities, and that local mixes of types form distinctive "fingerprints" reflecting urban characteristics and history (e.g., enclosed courtyards in Barcelona, regular shells with through-alleys in New York, large compact superblocks in Beijing). Accuracy is highest in ordered urban fabrics and drops in fragmented areas where key details fall below image resolution. Recognizing these limits helps avoid treating outputs as facts; otherwise, density, access, or exposure may be misread. Contributions are: (1) open rules and code for inspection and reuse; (2) simple uncertainty flags marking low-confidence areas; and (3) an expert review step before planning use, with priority for sensitive areas. Beyond large-scale mapping, the workflow offers a more accountable, transferable, interpretable way to apply AI, supporting cross-city comparison in both data-rich and data-poor contexts while retaining human judgment.

1488 | Usmi Mukherjee, Muhammad Ahsanual Habib, Mohammad Masudur Rahman

The Promises and Perils of AI in Urban Planning Systems

Urban planning systems involve processes that guide growth, regulate land use, and shape our environment. Artificial Intelligence (AI) is fundamentally reshaping these processes. Existing applications of AI in planning can be grouped into three emerging roles: (1) AI as planning simulators, where surrogate models (e.g., neural networks) enable rapid scenario testing, (2) AI as a policy strategist (e.g., deep reinforcement learning) learns intelligent interventions to tackle challenges such as mobility management and (3) AI as a human behavior emulator, where large language models synthesize realistic decision-making in synthetic populations, improving behavioral dynamics in simulations. AI-based urban planning systems can expand the planner's ability to support real-time policy experimentation and testing of interventions across diverse demographic and cultural contexts, which is often infeasible or politically risky in real-world settings. However, despite their promise, the integration of AI in planning can introduce significant risks, including data bias, limited transferability across diverse geographic and cultural contexts, substantial computational costs, and limited interpretability. AI models are often trained on datasets that introduce historical bias or geographic constraints, and these embedded biases can distort

results. Furthermore, AI systems function as black-boxes, generating recommendations without revealing how inputs were weighted or why specific outputs were produced. The lack of explainability makes it difficult for planners to validate results, communicate uncertainty to stakeholders, or defend decisions in public settings where accountability is critical. As AI becomes embedded in planning workflows, the role of urban planners must evolve to AI accountability practitioners, defining problem boundaries, interpreting model behavior, scrutinizing assumptions, and ensuring decisions reflect community priorities rather than algorithm-driven optimization. We must lead in establishing ethical frameworks, standardized reporting and validation protocols, and explicit governance for AI components. The central challenge is no longer purely technical but ensuring transparency, reproducibility, and public trust through accountability and responsible oversight.

1492 | Muzeyyen Anil Senyel Kurkcuoglu

Mapping GeoAI Research in Urban Planning Literature: An LLM-Assisted Analysis

In geospatial research, technology plays an important role by expanding analytical capabilities through GIS, remote sensing, and more recently AI, while reshaping our understanding of how spatial knowledge is produced, interpreted and shared. With the integration of AI into geospatial analysis, a new interdisciplinary domain, named GeoAI, has emerged. GeoAI incorporates machine learning, deep learning, and spatial data science techniques to analyze, model, and predict spatial patterns and processes. In recent years, a growing body of GeoAI research has developed across the literature, while these techniques have found increasing applications in urban contexts. This study investigates the thematic and methodological structure of GeoAI in the urban planning literature through an open-source, LLM-assisted approach.

Publication data from 2015–2025 period is retrieved from open-access academic databases using keywords including GeoAI, AI in planning, and machine learning in spatial analysis. Titles, abstracts, keywords and author affiliations are processed through open-source models to generate semantic and bibliometric representations. Clustering analysis is conducted to identify major research themes in the GeoAI literature, while bibliometric analysis examines the geographic and institutional distribution of studies to reveal leading countries or institutions and research collaborations. Keyword co-occurrence mapping is applied to visualize conceptual linkages and frequently associated terms. Each thematic cluster is summarized and interpreted using an LLM, enabling a semantic synthesis of dominant research themes, while preliminary results reveal five main clusters: smart city, environmental monitoring, sustainable development, digital twins, and disaster management.

The thematic and geographic analysis of GeoAI research in the planning literature reveals not only the leading topics and the geographies where these themes are studied, but also highlights neglected themes and underrepresented regions. Moreover, adopting an AI-assisted methodological framework enhances the reliability and efficiency of literature analysis, illustrating how emerging technologies can support knowledge production in planning research.

1763 | Nataliia Yehorchenkova, Oleksii Yehorchenkov

AI-Supportive Tools for decision making and planning support. Case Study of STICS project

Artificial intelligence is widely promoted as a way to make spatial planning more evidence-based, yet planning practice in many municipalities is still constrained by fragmented data, low analytical capacity and limited understanding of AI tools. This paper presents early results within the Slovak innovation initiative STICS – Smart Transformation and Innovation Consortium Slovakia.

Authors focus on a set of AI-supportive tools designed for local and regional planning and governance, including:

- data-processing pipelines that harmonise heterogeneous territorial datasets into an interoperable environment,
- synthetic data derivation services to compensate for missing or uneven local data,
- forecasting modules for key territorial indicators, and
- risk-screening and scenario exploration tools to support ex-ante assessment of planned investments.

The paper discusses how these tools are being integrated into a Territorial Planning Living Lab and tested with planners and municipal stakeholders. On this basis, we identify major gaps (data quality and coverage, semantic inconsistencies, lack of AI-ready governance procedures), challenges (trust in AI outputs, explainability for non-technical users, aligning tools with statutory planning processes, capacity building), and opportunities (AI-ready territorial data infrastructures, reusable workflows for other regions, new roles for planners as interpreters and curators of AI-generated insights).

Authors conclude by outlining design principles and research needs for scaling such AI-supportive tools beyond the STICS context, contributing to the broader debate on how AI can be responsibly embedded in everyday spatial planning practice.

2870 | Olle Järv, Tuomas Väisänen

New avenues to support planning of border regions using the people-perspective and big data

Border regions in Europe are seen as key to balanced and sustainable territorial cohesion within the European Union and are inherently linked to the spatial materialization of EU Cohesion Policy. With open internal borders in the EU, millions of people cross national borders for work, study, shopping, tourism, and visiting friends and family. These interactions contribute to the formation of a functioning system—a functional cross-border region—that transcends the concept of the state and reimagines the logic of territorialization.

Despite the growing importance of border regions in policy, planning, and governance, we lack comprehensive and up-to-date information on functional cross-border regions and clarity on how to link them with the existing spatial order. This hinders cross-border planning, regional development, and social cohesion across EU Member State borders. To tackle this knowledge gap, we need data on people's

interactions across borders that are not predefined by official border-region definitions. Thus, we must look beyond traditional data sources to reveal such interactions and revise existing definitions of border regions (e.g., cross-border living space).

We showcase a promising avenue to support cross-border planning in border regions by (1) proposing a people-centered approach to redefining a functional cross-border region and (2) using big data sources (e.g., social media and mobile phone data) to reveal cross-border interactions from people's digital traces. First, we present a conceptual framework and methodology for operationalization. Second, we report empirical findings from a cross-border planning perspective in the cases of transport and public service provision, sustainability and social cohesion in border regions in the EU. Finally, we discuss how this approach, which provides an additional de facto layer, can be blended with and complemented by the de jure nation-state spatial order.

SMART COMMUNITIES

Thu 2.7.17:45-19:15, Technologies, Y124 E-sali | Session chair(s): Paulo Silva

2133 | Serena Barnaba

Integrated methodologies for mapping urban vulnerabilities in support of just transitions: the centrality of citizens and the contribution of AI-driven tools

The worsening impacts of climate change are imposing increasingly complex challenges on societies and economies, revealing the limits of current development models. In this context, ecological and energy transitions are emerging as strategic processes to promote sustainability. But new tools are needed to be able to capture the complexity of urban vulnerabilities, particularly in socio-economically disadvantaged and environmentally fragile contexts, to make those transition equitable.

The literature offers a wide range of methodologies for identifying and mapping such vulnerabilities by combining quantitative and qualitative indicators. Among the most widely used tools, GIS plays a central role thanks to its ability to integrate spatial data and produce representations supporting the selection of priority intervention areas. The rise of artificial intelligence is expanding these possibilities by automating processes and enhancing stakeholder engagement.

This contribution provides a critical analysis of how the combination of traditional GIS methodologies and emerging AI-driven tools can support just transitions through intersectional vulnerability identification and mapping. It will outline a methodological framework supporting bottom-up and inclusive mapping by acknowledging citizens as co-producers of knowledge and active participant in more equitable urban planning and decision-making.

Methodologically, the paper combines theoretical investigation with multiple case study analysis. Mixed research methods are used, including targeted interviews with key stakeholders.

The analysis shows how GIS-based, AI-driven, participatory, or hybrid strategies are applied in practice and how effectively they can capture and reveal complex socio-ecological vulnerabilities, by enabling faster and partially automated mapping of citizen knowledge, enhancing data interpretability. This demonstrates how integrating digital innovation with socio-territorial sensitivity can guide planning

processes that are truly inclusive, participatory, and contextually informed, especially in disadvantaged neighbourhoods where citizens' perspectives are currently often overlooked.

1336 | Tuna Tasan-Kok

Algorithmic intelligence and the reconfiguration of urban expertise: Property-market governance in the age of AI

This paper explores how Artificial Intelligence (AI) and Machine Learning (ML) are reconfiguring the production, circulation, and legitimization of expertise in urban planning, by focusing on Amsterdam's property market. Building on the notion of property-market intelligence channels as conduits shaping governance networks (Taşan-Kok, 2024), it argues that digitalization has moved these channels into a new, opaque phase of algorithmic authority. Whereas traditional market intelligence relied on shared norms, professional trust, and negotiated principles among planners, policymakers, and private actors, AI-powered tools transform expertise into a "black-boxed" form of knowledge that privileges data-driven, proprietary epistemologies.

Empirically, the paper identifies several categories of digital tools currently active in Amsterdam: data-integration and visualization platforms, consultancy and advisory systems, decision-support algorithms, and generative design applications. These tools do not merely assist existing governance processes; they actively restructure them. They embed private-sector rationalities within urban knowledge infrastructures, deepening asymmetries between public and private actors and redefining how credibility and authority are established.

This digital shift risks undermining collaborative forms of governance and eroding the relational legitimacy that once emerged through deliberation and mutual recognition. Legitimacy in this form of urban expertise is not primarily negotiated through open discussion, but increasingly delegated to algorithmic systems whose internal logics remain inaccessible. This raises crucial questions about accountability, transparency, and the democratic grounding of planning decisions in a data-driven urban economy.

By tracing these transformations in Amsterdam's property-market governance, the paper contributes to ongoing debates on the algorithmic turn in planning and the political economy of digitalization. It calls for renewed theoretical and institutional attention to the relational foundations of legitimacy and expertise in an era when urban knowledge is being redefined by AI-driven systems.

2286 | Jonas Pauly, Julia Mayer, Rasha Abu Qasem, Martin Memmel

Advancing the understanding of spatial decision support systems through a multidisciplinary classification framework

Spatial planning as a public task is characterized by the need to resolve conflicts arising from different demands on land and space. Subsequently, digitalization trends in spatial planning (Pallagst et al. 2022) are leading to digital solutions such as Spatial Decision Support Systems (SDSS), which have the potential to improve the quality and time of decision making within planning processes (Crossland et al.

1995, p. 226). However, the understanding of SDSS in relation to decisions in spatial planning, the technologies and functionalities used, and their data basis have not yet been sufficiently investigated. Ghattas (2018) suggests that further research is needed to better understand the various assessment tools available in sustainable spatial planning.

This contribution deals with a proposal to systematize SDSS. As part of the research project "Ageing Smart - Designing Spaces Intelligently," researchers from spatial planning and computer sciences teamed up in order to combine theories from decision-making in spatial planning with those from software and data engineering. One innovative outcome of the joint research is a classification framework for SDSS. It is based on in-depth research into how decisions are made in spatial planning, how digital tools are embedded into this process, what kind of data is processed, and what technologies are used. This allows for a revised perspective and understanding, empowering planners to better assess the requirements and possibilities of digital tools in spatial planning in the future.

References:

Crossland; Wynne; Perkins (1995): Spatial decision support systems: An overview of technology and a test of efficacy. Decision Support Systems (14/3)

Ghattas (2018): The Formulation of a Spatial Planning Support System used for the Sustainability Attainment Assessment of the Land Use Planning Process in the Egyptian Cities. Technische Universität Kaiserslautern

Pallagst; Heß; Liggesmeyer (2022): Smarte Räume. Anwendungsfelder der Digitalisierung am Beispiel Smart Rural Areas. RaumPlanung (217)

1878 | Xunran Tan

E-participation in Urban Planning from a Power Perspective

Urban planning and the associated public participation are undergoing a profound digital transformation. Digital participation, namely e-participation, presents opportunities and challenges to planning practices. A substantial body of literature has demonstrated that e-participation tools (EPTs) can enhance the diversity of participatory methods, enable the collection of higher-quality data, and facilitate more efficient processing of the collected data by planners and researchers. These benefits of EPTs, through planning practice, made a positive contribution to the promotion of democratic processes. However, a growing body of research has also highlighted that advances in digital technologies are deeply integrated into authoritarian regimes and illiberal agendas. In light of this, I argue that it is necessary to undertake a structural examination of e-participation at this pivotal moment of transition, rather than focusing solely on the functionalities and technical performance of EPTs.

Power is one of the analytical lenses I consider particularly suitable for such a structural examination. Accordingly, I developed a power framework grounded in Steven Lukes' three-dimensional theory of power, Mark Haugaard's four-dimensional theory of power, and other power-related conceptualisations, to interrogate the processes of e-participation. I conceptualised the e-participation process as comprising three phases: EPTs development, EPTs adoption, and EPTs implementation. For each phase, I

conducted an independent study that examined a key issue specific to that phase from the perspective of different actors, including EPT developers, researchers, planners, local governments, and the public. I then applied the power framework to the findings of these studies, seeking to explain how various actors gained or lost power through e-participation at each phase, and to further explore the reciprocal relationship between power and e-participation.

2729 | Nicole Reiswich, Benjamin Dally, Balázs Cserpes, Juan Hernandez

Cooperative Ideation of Digital Tools for Land Management

Growing metropolitan areas are confronted with a range of spatial needs, frequently with limited options for outward expansion. As land use management becomes increasingly challenging in densely built places, data-based solutions are often preferred to assist the conduction and evaluation of land purchases. These digital tools are often viewed critically, especially due to their lack of situational awareness. Our contribution argues that research based on use cases, and translated into digital tools through collaboration with stakeholders can improve planning and land use practices.

In cooperation with the Hamburg State Authority for Land Management we develop and apply new, digital methods of urban analysis aiming to support future urban decision making. The cooperation integrates practical expertise with interdisciplinary research to create use cases by critically examining existing workflows and exploring improvement potentials through digital methods and tools. The practical usability of the latter is evaluated through user tests with experts from the field, allowing retroactive improvement. This process has resulted in the development of the Proptech-Toolbox AGORA, a suite of tools designed to support data-based strategic land management. One of its key capabilities is the identification of densification potentials by a comparative analysis of the legal and the current building coverage ratio. Geoparsing — an accompanying tool — analyzes qualitative text data, such as newspaper articles and records of local legislature; utilizing large language models enables the localization of data on a map based on spatial information within the texts.

This contribution presents insights from a long-standing research collaboration. In the paper, we focus on the critical reflection of the partnership, its underlying problem definition, and results. We argue that such collaborations empower the development of decision support tools, but that tests and transfer of these tools must also be included in the process to establish them in future planning practice.

2973 | Hedwig van Delden, Roel Vanhout, Holger R. Maier, Aaron C. Zecchin

How effective is spatial planning in reducing natural hazard risk i

Natural hazards pose a significant risk to societies across the world. This risk will likely increase into the future, due to climate change, urban development and changing demographics. Understanding the range of potential future conditions, and the associated key uncertainties, is essential in designing disaster risk management strategies.

For this purpose, we have developed a spatially explicit, dynamic, multi-hazard decision support system called UNHaRMED (Unified Natural Hazard Risk Mitigation Exploratory Decision Support System), which

calculates dynamic risk profiles as a combination of hazard, exposure and vulnerability. The aim of UNHaRMED is to better understand current and future risk, and assess the impact of (a combination of) risk reduction options under various future conditions. In order to do so, UNHaRMED consists of coupled models integrated into a policy support system. It allows users to understand the impact of climate change, socio-economic developments and risk reduction options on the future evolution of exposure, hazard and vulnerability and hence the resulting risk.

The use of the system will be illustrated through an application to Greater and Peri-Urban Melbourne for bushfire and coastal flood risk, for which we first simulated a range of futures using different climate and socio-economic scenarios. Next, we assessed the impact of different urbanisation strategies (e.g. sprawl versus compact development, development restrictions in hazard-prone areas, use of different building types) on their ability to reduce future risk under these different scenarios.

We found that in a rapidly growing area, the impact of socio-economic development exceeds the impact of climate change, and well thought out spatial planning strategies in combination with other risk reduction measures can substantially reduce future risk. Nevertheless, when exploring different risk reduction strategies it is also important to consider the liveability of these options as part of a broader regional development strategy.

URBAN ANALYTICS 2

Fri 3.7.09:00-10:30, Technologies, Y124 E-sali | Session chair(s): Kamyar Hasanzadeh

2420 | Vuokko Heikinheimo, Geoff Boeing, Rossano Schifanella, Carl Higgs

Transferable open-source tools for monitoring healthy and sustainable built environments

Spatially disaggregated evidence for measuring and monitoring progress towards more sustainable and healthy urban environments is needed to support impactful decisions and action in cities across the world. The Global Healthy and Sustainable City Indicators software (https://healthysustainablecities.github.io/global-indicators/) supports the generation of data, maps and reports on policy and spatial indicators in diverse urban contexts based on open tools and data. These evidence-based indicators enable analysis within and between cities supporting researchers, planners, policy makers and community members in advocating for healthier and more sustainable urban development. Cities worldwide are invited to participate in this global collaboration.

This open-source tool has been developed through a collaborative network of researchers and practitioners based on an action research approach. Policy indicators are evaluated using a policy checklist, and spatial indicators of urban and transport features are calculated based on open or custom data. The software can be executed as code or through a graphical user interface. Key outputs include geospatial data of the spatial indicators, and a report summarizing the policy and spatial indicators based on local configurations. The reporting tool generates outputs in multiple languages with validated translations.

The availability of high-quality source data for spatial decision support is not self-evident, especially in peripheral regions. By default, the tool uses spatial data from OpenStreetMap – the de facto source data for many urban and transport analysis – and we encourage local teams to engage in collaborative

mapping to improve data quality. The indicator toolkit is constantly developed to include new indicators and improve usability. Latest developments include the addition of indicators of public green space and urban heat. Future work focuses on the development of safe cycling infrastructure indicators, software refactoring, and an improved user interface that supports interactive configuration of a streamlined analysis workflow.

2858 | Elias Grinzinger, Thomas Dillinger, Vladimir Ondrejicka, Martin Baloga

From data to decision-making: a visualisation framework for land use and soil sealing in Austria and its potential for application in Slovakia

This presentation showcases a visualisation approach for monitoring land use and soil sealing in Austria, developed using open data from a national land use data model. The underlying dataset, combined from existing sources such as the digital landscape model and the digital cadastral map, was developed with the aim of enabling annual updates to support long-term monitoring. The “Soil Walks dashboard” (named after the Soil Walks project, funded by the Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management, which developed a walking-based engagement method for municipal councillors and local stakeholders) provides municipalities with an accessible overview of local land use and soil sealing patterns, reflecting their public administration responsibilities for local spatial planning in Austria. It visualises key indicators, including land use relative to settlement areas and population, building land reserves, soil sealing levels in relation to settlement areas, inhabitants and land use types, the location of valuable agricultural production areas, and the spatial distribution of land use categories.

In the context of the international STICS (Smart Innovation and Transformation Consortium Slovakia) project, funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia, the transferability of the Austrian approach is being examined for its applicability to Slovakia. This includes assessing whether sufficient data exist to establish a similar monitoring system and identifying the most appropriate planning level for such a dashboard within the Slovak governance structure. Given the importance of cross-border collaboration within Europe, particular attention is paid to the implications for the Austrian-Slovak border region, where shared land-use challenges demand coordinated tools and evidence. The approach will be tested in a living lab setting to explore its practical relevance and adaptability. These findings will inform the design of a tailored visualisation tool to support sustainable land use management in Slovakia.

2249 | Yuguan Zhang

Dynamic Urban Flood Vulnerability Assessment Using Human Mobility Big Data: A Case Study of Shanghai

Under climate change and rapid urbanization, coastal megacities face intensifying compound flood risks. Traditional vulnerability assessments, largely based on static census data, cannot capture the substantial diurnal and event-driven fluctuations in human exposure and sensitivity driven by mobility. This study

developed a fully dynamic, high-temporal-resolution flood vulnerability framework for Shanghai, China, by integrating large-scale mobile phone signaling data with a machine-learning-based flood hazard map.

Following the IPCC framework, we constructed a dynamic indicator system encompassing exposure, sensitivity, and adaptive capacity. Exposure was measured as time-varying population density and combined with a grid-level flood hazard index generated through a validated random forest model trained on historical inundation records, terrain, land cover, hydrology, and building environment (VIF < 5). Sensitivity incorporated four dimensions. Social structure included dynamic proportions of young children and older adults, migrant population share, low-education ratio, dynamic cross-district commuters, dynamic low-income groups, and proportion of elderly living alone. Housing conditions included the share of old buildings and rental housing. Traffic conditions were represented by a congestion index derived from travel speed and mode. Population mobility was captured through inflow/outflow intensity and Shannon travel entropy derived from destination distributions. Adaptive capacity integrated life convenience and emergency response capacity, measured through accessibility to shelters, fire stations, hospitals, and density of transport facilities.

All indicators were aggregated at a 500 m grid level with strict privacy safeguards. A composite vulnerability index was produced using Technique for Order Preference by Similarity to Ideal Solution (TOPSIS).

Results revealed pronounced temporal heterogeneity: vulnerability hotspots shift during daytime and nighttime. These findings underscored that urban flood vulnerability is inherently dynamic, and cities must incorporate temporally explicit assessments to enhance climate resilience and improve targeted early-warning and emergency response strategies.

2278 | Guoqing Li, Chao Liu

Towards Better Urban Acoustic Environments: Noise Exposures, Social Inequality and Planning Challenges in Four European Cities

Urban noise is a well-documented environmental stressor linked to sleep disturbance, cardiovascular risks and reduced wellbeing. Yet few studies have focused on potential inequalities in urban acoustic environments across socioeconomic subgroups. Understanding these disparities is essential for assessing environmental inequalities, advancing more socially just and better acoustic environments. This study investigates two questions: who faces disproportionate noise exposure, and who has access to quiet urban spaces?

The analysis covers Greater London, Berlin, Paris and Amsterdam, four European metropolitan areas. Noise level serves as the dependent variable (Y), and socioeconomic status (SES) as the independent dimension (X), represented through indicators such as income or deprivation, tenure structure, migrant status, educational attainment, etc. This study incorporates two methodological modules. The spatial analysis module constructs noise maps to visualise the spatial distribution of noise exposure and quiet areas, and applies spatial clustering techniques to identify high-exposure and quiet zones. Global and Local Moran's I further quantify overall and local spatial autocorrelation in noise levels, revealing the degree and location of clustering within each city's acoustic environment. The correlation analysis

module uses Geographically Weighted Regression (GWR) to examine spatial variation in the relationships between noise exposure and SES, and Support Vector Regression (SVR) to capture nonlinear socio-noise associations that linear models cannot represent.

The expected results will first include maps of noise-exposure and quiet-area distributions for the four European metropolitan areas, accompanied by spatial autocorrelation analyses. Further, GWR and SVR models are expected to reveal linear and nonlinear relationships between noise levels and SES. These results will help determine whether inequalities in noise exposure and access to quiet areas emerge, and how their structure and magnitude differ across cities with distinct housing and transport systems. Together, these findings aim to inform planning strategies that strengthen environmental equity and support the pursuit of better cities.

2632 | Dominic Behde, Göktürk Burak Köse, Jörg Pohlan

Bridging Urban Planning and Public Health: Designing a Prototype Health Information System for Urban Neighbourhoods

Socially disadvantaged neighbourhoods have particularly complex social and infrastructural problems, demanding precise health and social analyses for effective health promotion and prevention. Small-scale observations reveal inequalities that often remain hidden at a higher aggregated spatial level. Two key barriers remain: (1) the small-scale integrated analysis of health data, taking into account social setting and space, together with a comprehensible presentation, and (2) delivering location specific, target group relevant information about health promotion and prevention opportunities and services.

We are developing a prototypical digital health information system for the neighbourhood level. Based on Hamburg's social monitoring, the system brings together and makes accessible aggregated health insurance routine data, survey data, community-mappings and focus-group results. These were examined previously as part of our ‘G-BA Innovation Fund Project’. The system is co designed iteratively and involves collaboration with health insurers, health promotion experts, data analysts, and interdisciplinary researchers.

(1) An interactive GIS map module with customisation functions enables fine-grained analysis of the health situation and needs assessment. (2) A geo-contextualised ‘Geostory’ module links maps, texts and multimedia content to visualise complex socio spatial relations. Experts and citizens can co-create and give feedback on the content. (3) An API driven calendar module provides a platform for connecting and organising fragmented prevention service information and local health-promotion resources.

We place particular emphasis on accessibility and user-friendliness in system development. No-code-application design enables stakeholders to create content independently. The approach follows the principle of ‘bridge building’ between the fields of urban planning and public health, as well as various data sources.

Looking ahead, the prototype-system's open-source design and modular architecture offer potential for transferability to other cities. We aim to report hurdles, data protection limitations and the potential for further analysing, visualising and utilising complex data. We conclude with insights for transdisciplinary urban health research.

2671 | Qi Hao, Ying Long

Bridging the Data Gap in Peripheral Cities: A Multi-Temporal Framework for Building Exterior Quality Assessment with Mobile Sensing Images and Visual AI Models

The pursuit of a "Good City" fundamentally relies on the maintenance of a safe and high-quality physical environment. However, cities in less-developed regions often face a "double disadvantage": they suffer from physical decay due to population contraction while lacking the timely, high-resolution data required for effective monitoring. This study addresses this inequity by proposing a low-cost, high-frequency framework for city-scale building exterior quality assessment, integrating Active Urban Sensing with advanced Visual AI.

Taking Xining—a typical city on the Tibetan Plateau representing the "peripheral" context—as a case study, we conducted active sensing campaigns annually from 2022 to 2025, covering a 1,446 km road network to compile a longitudinal dataset across four consecutive years. To process this massive dataset, we developed a comprehensive pipeline featuring building footprint simplification, precise spatial alignment of sensing images to building units, and defect detection utilizing the YOLOv10 model combined with Slicing Aided Hyper Inference (SAHI). This approach enables the precise detection of six dimensions of building quality (e.g., structural integrity, maintenance status) at the fine-grained building unit scale. Our detection model achieves a mean Average Precision (mAP50) of 0.70 and a classification accuracy of 0.87, significantly outperforming traditional methods.

The results reveal the spatiotemporal evolution of building quality, identifying specific clusters of deterioration missed by conventional surveys. By democratizing access to "urban physical examination" tools, this research demonstrates how advanced technologies can be adapted to peripheral contexts, empowering planners with the longitudinal evidence needed to foster safer, more equitable, and resilient urban environments.

DIGITAL TWINS

Fri 3.7.11:00-12:30, Technologies, Y124 E-sali | Session chair(s): Michele Campagna

1898 | Heeseo Rain Kwon, Patrick Ballantyne, Akos Balog, Jinhyeok Jang

Framework for AI-enabled Transport Digital Twin Development: Case Study of Liverpool and Busan

Urban Digital Twins (DTs) are gaining prominence for their transformative potential with the advancement in artificial intelligence (AI). However, literature on applied examples of transport DTs, especially for buses, remains limited. This study conducts a literature review and thirty-eight stakeholder interviews to map the landscape for AI-enabled, transport-focused DT development in Liverpool City Region in the UK and Busan in South Korea. It identifies key actors, their roles and responsibilities, the relationship among them as well as their motivations, priorities, and standards pursued regarding topics including big data, AI, modelling frameworks, governance, feasibility, and social equity. Based on the synthesis of cross-case findings, this paper proposes a transferable framework for guiding DT development for buses, multimodal transport and beyond, with examples of input data, DT modules, conditions needed and KPIs.

Furthermore, it identifies six important considerations for DT implementation and presents practical case examples from Liverpool and Busan. First two points are on governance: fostering multi-stakeholder collaboration and funding; and pursuing DT initiatives at both national and local levels. Two other points are on data: standardising online data-sharing platform with privacy safeguards and data monetisation; and overcoming reliance on private data through data agreements and citizen participation. Final two points are on DT design: adopting modular DT solutions; and matching DT modules with appropriate level of AI-enabled dynamic simulation, visualisation and automation.

2002 | Isabelle Bohné, Lars Sievers, Frank Othengrafen

Assessing Urban Digital Twins: Exploring Their Role in Climate-Resilient Urban Development

Urban Digital Twins (UDTs) are emerging as powerful technologies in urban planning and governance. Combining urban dashboards, detailed 3D models of the city, and advanced visualization elements, they enable dynamic representations of urban systems that integrate real-time data from various sources. Many cities worldwide have begun to implement UDTs to support planning processes, infrastructure management, and sustainability monitoring. However, despite their growing popularity, there is still no systematic analysis of how UDTs influence or contribute to climate adaptation strategies.

The increasing frequency of extreme weather events demands new approaches for resilient spatial development. In this context, UDTs promise to accelerate decision-making by simulat-ing future scenarios, such as heat stress mitigation or flood risk management, and visualizing complex interdependencies between environmental factors and urban structures. Yet it re-mains unclear how UDTs are actually used for climate adaptation purposes and which specif-ic aspects they address: Do they primarily serve technical optimization? Do they foster partic-ipatory processes or interdisciplinary collaboration? To what extent do they contribute to sus-tainable forms of urban development?

This contribution aims to explore both the possibilities and limitations of Urban Digital Twins for climate adaptation in cities. By examining current applications and case studies from dif-ferent contexts, the presentation will identify patterns in how UDTs are integrated into planning practice. It will also discuss critical gaps related to data availability, governance structures, ethical considerations, and long-term sustainability impacts. Ultimately, the goal is to outline pathways toward responsible use of UDTs that not only accelerate planning but also enhance adaptive capacity within urban systems facing climate change.

2079 | Petri Kangassalo, Pilvi Nummi

Usefulness of a Self-developed 3D Planning Support System

Modern game engine-based 3D PSS, characterized by visually rich and interactive interfaces, significantly enhance the understanding of planning proposals. These systems can provide real-time capabilities for plan creation and analysis, facilitating sketching, and impact assessment of alternative plans. However, these advanced features require further investigation to ensure usefulness across diverse user groups. Our research addresses this need by focusing on the usefulness of a self-developed 3D PSS for

collaborative urban planning and citizen self-organization. Building on prior research that explored stakeholder needs for this specific PSS through a user-centred design approach, this study also evaluated its usability—a crucial aspect for broader adoption and effective citizen engagement in urban planning. Specifically, this paper investigates the usability of three iterations of the PSS through workshops and post-questionnaires with students (N=46) from three yearly urban planning courses to identify areas for design improvement and to assess its potential in facilitating participatory urban planning. Using a mixed-methods approach, this study combined quantitative analysis of Likert-scale responses with qualitative insights from open-ended questions, user feedback discussions, and observations during the test sessions. By comparing user feedback from three user testing workshops and questionnaires, the study assessed the effectiveness of design improvements. The findings highlight the challenges of balancing specialized functionalities with broad accessibility in advanced digital tools for participatory planning, alongside the trade-offs between scarce development resources and desired features. The results revealed that software complexity can reduce usability and expose users to bugs. Furthermore, users' prior experience with similar tools and games may influence the usability rating, a factor particularly evident among urban planning students. Ultimately, this investigation aims to provide actionable recommendations for enhancing the usability of game engine-based 3D PSS platforms, thereby bridging the gap between technological innovation and effective participation and collaboration in urban planning.

2688 | Sara Ringvall Sundkvist, Lina Berglund-Snodgrass, Dalia Mukhtar-Landgren

Rethinking Planning Knowledge Through Digital Twins: Sociotechnical Imaginaries

Over the past decade, the concept of digital twins has attracted growing attention across a wide range of fields, positioning itself as a potentially transformative technology for managing complex processes and systems. Urban and spatial planners have emerged as early adopters of this concept (example, El-Agamy et.al 2024). In combination with persistent policy demands for public-sector innovation(Fred & Mukhtar-Landgren 2024), this has resulted in a proliferation of municipal initiatives concerning the potential application of digital twins in municipal planning practice.

The aim of this paper is to analyse imaginaries of planning in municipal visions of digital twins. Based on a STS-perspective of socio-technical imaginaries (Jasanoff 2015), visions of the use of digital twins are seen as performative: they do not simply reflect existing planning paradigms but actively challenge or strengthen them. Imaginaries represent particular epistemologies of planning, privileging certain modes of knowledge production and participation over others, thus potentially reconfiguring the relationship between technology and knowledge in planning.

Empirically, this study examines visions about Virtual Gothenburg, a local government digital twin initiative in the Swedish municipality of Gothenburg, articulated in official guidelines, promoting videos, public showcases and action programs. The study concludes that two recurring political, socially, and technologically co-produced imaginaries of the relationship between technology, knowledge, and planning co-exist in the visions. The first promotes twin technology's potential as a means for dialog and citizen participation. The second emphasizes twin technology's capacities to process, analyze, and visualize large quantities of data, framing digital twins as the expert source enabling fact-based

knowledge production. The visions of Virtual Gothenburg do not only simultaneously entail collaborative and data-driven expertise as desirable planning practices, they they also entail imaginaries that reshape the traditionally conflicting epistemic relationship between participatory and expert-driven planning ideals.

1463 | Evelyn Riemer, Anna Growe

Interactive Urban Futures: Gaming and VR for Sustainable City Awareness

Interactive digital simulations and immersive experiences are transforming how citizens engage with complex urban systems. Grounded in experiential and spatial learning theories (Kolb 1984; Jenkins 2004; Batty 2018), these tools make interdependencies, sustainability challenges, and planning trade-offs tangible and experientially accessible. Yet, traditional participatory methods often fail to convey the dynamic and systemic nature of urban processes. This study therefore asks: how can digital games and virtual reality (VR) enhance citizens' understanding of urban complexity?

Using the mainstream city-building game TheoTown— downloaded over ten million times—as an experimental medium, the research explores how even non-educational games can foster reflective learning about urban systems. Games and VR combine intrinsic motivation, immediate feedback, and risk-free experimentation, offering scalable entry points for civic learning and engagement (Nadeem et al. 2023). The empirical study is conducted in an open inner-city living lab, where a public "GameChanger:Desk" invites participants to play a modified 15-minute version of TheoTown, followed by a short reflection survey assessing problem-solving strategies, perceived sustainability challenges, and awareness of interdependencies. A complementary VR module extends the experience by offering spatially immersive explorations of alternative planning scenarios.

Preliminary findings indicate that even short gameplay sessions can stimulate meaningful reflection on urban dynamics, highlighting trade-offs between density, mobility, and ecological balance. These insights underscore the pedagogical and participatory potential of mainstream digital games and immersive technologies.

Batty, M. (2018). Inventing future cities. MIT Press.
Jenkins, H. (2004). Game design as narrative architecture. In N. Wardrip-Fruin & P. Harrigan (Eds.), First Person (pp. 118–130). MIT Press.
Kolb, D. A. (1984). Experiential learning. Prentice Hall.
Nadeem, M., Oroszlanyova, M., & Farag, W. (2023). Effect of digital game-based learning on student engagement and motivation. Computers, 12(9), 177.

2701 | Astrid Krisch, Juliet Carpenter, Avar Almukhtar, Hannah Grove

Envisioning a liveable neighbourhood? The application of Augmented Reality and Virtual Reality in community co-creation

Digital technologies are increasingly being integrated into all aspects of our daily lives. This paper critically explores the benefits, as well as challenges, of their use in urban planning co-design, applying the technologies of Augmented Reality (AR) and Virtual Reality (VR) in a community setting.

The research is part of the ENACT15mC project (Envisioning Neighbourhoods and Co-creating Thriving Communities in the 15-Minute City), under the EU's 'Driving Urban Transitions' programme, and reports on one of the project's four Urban Living Labs (ULLs), based in Oxford.

The Oxford ULL concentrated on a residential neighbourhood on the edge of the city. It aimed to explore whether digital technologies can enable residents to envision their area as a liveable and connected neighbourhood, using AR and VR tools to assist in urban placemaking. A representative panel of community members took part in a series of four workshops over 9 months, to define the challenges of the neighbourhood, engage with AR and VR technologies, and explore their potential to assist in envisioning liveable places.

The research demonstrated that digital technologies have an important role to play in facilitating the reimagining of a neighbourhood, allowing participants to visualise and interact with proposed urban interventions, in ways that would not be possible using traditional consultation methods. However, the case also highlighted the challenges and barriers to employing AR and VR, both for residents, for whom working with digital technologies can be challenging, and for policy-makers wishing to engage with a wider section of the community. Issues of inclusivity lie at the heart of participatory planning, and while AR and VR can open up avenues to widen inclusivity, they also risk excluding some parts of the community due to technological barriers. The paper concludes with recommendations for policy-makers employing digital technologies in participatory urban planning and design.

AI IN PLANNING 2

Fri 3.7.14:00-15:30, Technologies, Y124 E-sali | Session chair(s): Henrikki Tenkanen

2896 | Pınar Ergül Taşkıran, Nicel Saygın, Aslı Ceylan Öner, Koray Velibeyoğlu

LIVING IN AN AGING WORLD BEYOND THE FUTURE OF UNCERTAINTY: Climate Anxiety Responsive (Urban) Design (CAReD) for Elderly Well-being through AI (CAReD-AI+) and Environmental Psychology (EP)

Forecasting the future always keep its uncertainty such we live at the time of climate change. Heat-related challenges caused by climate change in urban areas affect elderly (as a peripherial subject) disproportionately who are the most vulnerable to rising temperatures. Environmental psychology, which emphasizes the interaction between people and the environments, is an emerging field and offers a critical perspective for addressing these vulnerabilities theoretically. However, its integration into urban design practices to reduce temperature-related pressures on elderly well-being remains underexplored. Additionally, while climate anxiety, a psychological response to perceived environmental threats, is increasingly recognized, its relevance to urban design strategies also remain rarely studied in literature and practices. This research aims to fill these gaps by focusing on the intersection between elderly well-being, environmental psychology, and climate anxiety within the urban contexts. Moreover, it proposes an interdisciplinary methodology, is called Climate Anxiety Responsive Design with AI and Co-Design (CAReD_AI+), that combines spatial analysis with psychological dimension through participatory AI. In CAReD_AI+ methodology, firstly, the study area is divided into 4 sub-clusters according to the degree of land surface temperature. Secondly, Climate Change Anxiety Scale assessments analysis, is designed by Susan Clayton, is held with elderly through surveys and in-depth interview. Then, all of the datasets are

integrated into first step of AI (AI1) to develop the embryonic urban design strategies. Lastly, these strategies are developed through co-design workshops with the elderly to obtain feedback. During the process, ultimate urban design scenarios and strategies are simultaneously created with second step of AI (AI2) in conjunction with elderly feedback during the co-design workshops. This research not only fills a critical gap in the existing literature but also contributes a replicable methodology which provides a roadmap for an uncertain future for the aging population is not left behind but is instead integrated.

2084 | Somaie Abolhasani, Anna Hersperger

Equitable urban green spaces planning under zoning constraints: an AI-based 3D simulation framework for policy scenario evaluation

Cities are home to a majority of the world's population and are arenas where conflicting demands for economic growth and just and green development are negotiated. Planning policies sit at the core of urban governance, and at the municipal level these policies are operationalized through zoning and building regulations (ZBR). Although the impacts of ZBR are inherently three-dimensional (3D), for example shaping building volumes, they are encoded in textual documents and linked to 2D maps, limiting their effectiveness as analytical and communicative tools in planning.

This study aims to translate ZBR into visual, measurable urban development scenarios and examines how regulatory choices affect equity of green spaces—defined here as the distribution, accessibility, visibility, and availability of green across different zones. It develops an AI-based 3D simulation framework that reconceptualizes ZBR as testable policy instruments rather than static constraints. Methodologically, the study extracts building regulations (e.g., maximum height, floor-area ratio, building coverage ratio) from regulatory texts to generate building envelopes for future developments in the case-study area of Sislerfeld, Switzerland. These 3D building envelopes are integrated with designated green zones, 3D vegetation datasets, and green-space requirements (e.g., green ratios, setbacks) to build a simulated environment in which alternative ZBR can be evaluated. A generative AI model then creates and iteratively refines multiple development scenarios that all comply with the regulations but differ in how they balance intensification with equity objectives in urban greening.

This study advances computational and digital urban planning approaches for assessing regulatory impacts on socio-environmental outcomes. It enables policymakers and planners to compare regulatory options, reveal distributional impacts, and interrogate the spatial justice implications of zoning reforms. More broadly, it shows how AI-driven spatial modelling can enhance the interpretability of complex socio-spatial systems and open new spaces for reflection on the role of digital technologies in planning practice.

1411 | Jussi Torkko, Milad Malekzadeh, Elias Willberg, Tuuli Toivonen

The changing of green: The impact of seasonality and the use of AI on people's perception of urban street-level greenery

Urban street-level greenery, the greenery perceived by people, is usually mapped as a static entity without consideration for the seasonal changes in vegetation. The main reasons for this are the lack of

understanding of people's perception of seasonal change by computer vision models and the absence of seasonally explicit street view imagery. However, the greenery of the real world is not static, and the health and societal impacts of street-level greenery are dynamic and subject to temporal changes. Therefore, there is an urgent need for a novel understanding of mapping greenery in a temporally accurate manner.

Our work challenges the current stagnant situation by observing how much the seasonality of vegetation affects people's perception of green spaces and whether artificially generated images can serve as a substitute to mimic the seasonal change. To do this, we first collected spatially and visually matching street-view images of different seasons, which allow us to represent the temporal change with repeating locations and camera angles. Then, we conducted a survey using an online image rating platform, where participants were tasked with rating the images for their greenery characteristics. Simultaneously, we also tested whether artificially generated images can be used for mimicking the changes in real-world images.

Our early findings show significant and quantifiable differences between spatially and visually matching, but temporally differing street-level scenes between seasons. They also show the applicability of AI image generation for supplementing the availability of seasonally explicit images, which allows previously seasonally unmapped locations to be targeted. The work highlights the urgent importance of moving past the current static state of mapping street-level greenery, toward a more dynamic and methodologically comprehensive approach. Our findings also enable researchers and urban planners to practically adjust their greenery mapping methodologies to include important seasonal variations and preferences in their calculations.

2066 | Anto Aasa

Building-Level Synthetic Population Generation: A Spatial Microsimulation Approach Using Open Administrative Data

Synthetic populations serve as fundamental infrastructure for agent-based modeling, policy evaluation, and crisis simulation. While recent methodologies increasingly use Bayesian networks and generative adversarial networks, these approaches require detailed training data and computational resources often unavailable in many contexts. We present a pragmatic spatial microsimulation approach that generates individual- and household-level synthetic populations at building resolution using openly available administrative data.

Applied to Estonia, our methodology spatially allocates the entire census population (1.36 million individuals) across 284,018 residential buildings through multi-scale data integration combining 1km population grids, building registries, and aggregated demographic distributions. Population is first allocated to buildings proportionally within 1km grid cells, then households are generated within buildings following national size distributions with logical consistency constraints. This approach captures attribute interdependencies through spatial patterns and household formation rules, achieving demographic realism with greater transparency and computational efficiency than machine learning methods.

Multi-level validation demonstrates accurate reproduction of demographic distributions across spatial scales, with 100% logical consistency in household formation. The resulting synthetic population comprises 579,536 households with spatially-assigned attributes including gender, age, native language, education levels, employment status and income.

Our methodology shows how spatial microsimulation can leverage administrative data to create high-resolution synthetic populations. Building-level precision enables detailed analysis of accessibility, environmental exposure, and neighborhood effects while maintaining reproducibility and interpretability—critical for policy applications. This work demonstrates a viable path for creating spatially precise synthetic populations when microdata for statistical learning is unavailable.

2241 | Xiangxue Li, Yang Xiao

Shopping Mall Downgrade or Upgrade? An AI-Assisted Approach to Identifying Retail Gentrification

To address the analytical challenges of retail space transformation, this study develops an artificial intelligence (AI)-assisted framework to examine the socioeconomic restructuring of urban commercial spaces through the perspective of retail gentrification. Traditional research methods face limitations in scale and depth, primarily relying on surveys and interviews. To address these limitations, this study employs the large language model (LLM) to conduct semantic reasoning analysis on shopping mall point-of-interest (POI) data, focusing on key indicators such as store level (LL), internationalization level (IL), and localization level (LL). This AI-enabled entity extraction method enables large-scale identification of urban retail dynamics. Simultaneously, grounded in the theoretical framework of retail gentrification, the study expands its scope to encompass shopping malls. Taking Shanghai shopping malls as a case study, the research constructs a retail gentrification assessment framework. By integrating GPT-4o with POI characteristics, it innovatively establishes an intelligent evaluation model. Through comparative analysis of dual-time-slice data from 2019 and 2024, combined with three empirical cases, the study validates GPT-4o's effectiveness in identifying retail gentrification metrics. Findings reveal that Shanghai shopping centers exhibit pronounced spatio-temporal differentiation in retail gentrification: a multi-center development trend remains absent, forming a polarized pattern where “downtown areas show pronounced gentrification while peripheral zones experience downgrading,” with high-value zones clustering toward the northeast. This study offers a new paradigm for quantifying retail gentrification and provides reference for commercial planning in globally comparable cities.

2648 | Andreas Obersteg

Co-creative digital tools in circular planning and construction

Innovation is key to tackle societal challenges and meet ambitious EU sustainability goals. But room to experiment as a prerequisite for new ideas yet rarely exists. This holds true, in particular, for public planning and construction processes where day-to-day administrative action, planning and information management still takes place in sectorial silos and where strict requirements leave only very little room for innovative and sustainable construction.

The CircleBIM project aims to tackle this challenge by creating collaborative & experimental space for interdisciplinary & interdepartmental action on the topic of circular construction in 7 (BE, DE, DK, FR, NL, NO, SE) Local Circular Construction Partnerships (LCCPs), and with regular exchange and learning formats to test, implement and roll-out innovative circular construction projects.

Moreover, by applying and improving Building Information Management (BIM) as a process, approach and prerequisite for planning and building with circularly sourced materials, CircleBIM aims to increase the efficiency, sustainability and innovativeness of public planning and construction (PPC) processes. BIM - still a novel concept and rarely used - allows to structure complex information flows across sectors and integrates multiple discipline actors into these processes.

The contribution firstly presents an analysis of the co-creation of the CircleBIM framework involving practitioners and academics from the fields of circular planning and construction and BIM, a tool to start and conduct circular planning and construction projects using BIM. Secondly it outlines an analysis of the first application of the framework in the 7 Local Partnerships and an cross-case analysis of learnings from their collaborative planning processes.

Track 14: Theories

Track chairs: Pia Bäcklund, Laurent Devisme, Franziska Sielker, Dominic Stead,

New directions

Tue 30.6.14:00-15:30, Theories, Y122 D-sali | Session chair(s): Pia Bäcklund

1000 | James White

Planning-by-concession: Faust and the cumulative tragedy of development

This paper employs the Faustian bargain as an allegorical device for exploring the fragility of planning in the public interest by recasting the 'tragedy of development' (Berman, 1982) thesis as a 'cumulative tragedy of development' that manifests in the 'everyday state' under neoliberalism (Painter, 2006). Drawing inspiration from Marshall Berman's thesis on modernity, "All That is Solid Melts into Air" (1982) and his interpretation of Goethe's epochal 1808 play "Faust", it seeks to look beyond the large-scale devilish impacts wrought by the heroic Faustian planners of the modern era (Sandercock, 2003). Instead, it focuses on the cumulative impacts of present-day 'corporatist bargaining' (Reade, 1986) or 'planning-as-dealmaking' (Gibson et al, 2023) which takes place between mid-level planning officials and developers, often behind closed doors. Using Faust as a guide, and drawing upon data from three primary, qualitative case studies researched in Canada and the United Kingdom, the paper proposes a tentative new theory termed 'planning-by-concession' (White and Punter, 2023) wherein planners successively cede ground to developers as they make deals during the planning and development process. It is argued that, under neoliberalism, this Faustian practice has been valorised as the route to 'good' planning and devilishly favours the interest of capital over the public good. Looking to the future, the paper ends by arguing that less flexibility, stricter rules and a more democratic and transparent approach to land value capture might be one route to curtailing the curse of Faustian dealmaking and the cumulative tragedy of development that gives rise to planning-by-concession.

2051 | Manfred Kühn

Beyond Agonism: Paradigm shifts in Planning Theory

New theoretical approaches in planning theory are often accompanied by a radical break from old paradigms, leading to a division between planning theories. Since the 1990ths the "communicative turn" (Healey 1992) became a dominant paradigm. Communicative planning theory emerged from critics of the rational planning model, which had assigned planners the technocratic role of a neutral expert who acts in the public interest (Meyerson/Banfield 1955). Communicative theory assigned planners a new role of negotiation, participation and consensus finding in search for the public interest. A decade later, communicative planning has been questioned by agonistic approaches (Hillier 2003, Pløger 2004). This shift was accompanied by a turn from consensus to conflict. Using empirical examples from urban planning in Germany, I want to show that rational, communicative and agonistic planning approaches are not mutually exclusive, but are mixed in planning practice (Bäcklund/Mäntysalo 2010). The lecture reflects to which extent the paradigm shifts follow a dialectical movement of thesis, antithesis and

synthesis. In this regard, the recent paradigm of agonistic planning could be followed by a political planning theory, which combines the different moments of conflict resolution and consensus building.

References

Bäcklund, P./ Mäntysalo, R. (2010): Agonism and institutional ambiguity: Ideas on Democracy and the role of participation in the development of planning theory and practice - the case of Finland, in: Planning Theory 9 (4) 333-350.
Healey, P. (1992): Planning through Debate: The Communicative Turn in Planning Theory. In: Town Planning Review 63, 2, 233–249.
Hillier, J. (2003): Agonising over consensus: Why Habermasian ideals cannot be real. In: Planning Theory 2, 1, 37–59.
Meyerson, M. / Banfield, E. C. (1955) Politics, planning and the public interest: The case of public housing in Chicago. London: Collier-Macmillan.
Pløger, J. (2004): Strife: Urban Planning and Agonism, in: Planning Theory, 3 (1): 71-92.

2598 | Elnaz Sarkheyli

From consensus-seeking to need-responsive Planning

Collaborative and communicative planning have long been recognized as key approaches for improving the responsiveness of urban development projects to various contextual challenges and diverse interests. However, these consensus-driven approaches can sometimes overlook the fundamental needs and motivations that originally justify a project. Urban development initiatives typically aim to meet housing demand, promote urban integration, and create inclusive, accessible, vibrant, green, and sustainable neighbourhoods. While communication and collaboration processes often focus on how to achieve these goals, they frequently neglect the deeper ontological conflicts and fundamental disagreements regarding values and priorities that underlie these goals. This paper discusses various planning approaches and their effectiveness in identifying such conflicts and addressing the fundamental needs that should be prioritized in the planning process. Through interviews with planners and stakeholders, as well as a review of planning documents, this research examines the development of Oceanhamnen in Helsingborg, Sweden. The case study reveals that contemporary planning processes, despite involving dialogue, communication, and collaboration with diverse stakeholders, can still fail to address core needs and motivations, such as spatial and social integration and the provision of adequate housing options in the growing city of Helsingborg.

1092 | Kang Cao, Yong Wang, Lanting Zhang

Potential Directions on Planning Theories: A Perspective of Adaptive Radiation

Around the year 2000, several planning theorists put forward 'new directions' for planning theory in the upcoming century. Fainstein (2000), for instance, suggested three directions: the communicative model, new urbanism, and the just city. Meanwhile, Allmendinger and Tewdwr-Jones (2002) proposed three alternative directions: communicative or collaborative planning, postmodernism, and neo-pragmatism.

Over two decades have since elapsed, the question arises as to what potential theoretical directions may be taking shape. This study draws inspiration from evolutionary biology and genetics, specifically the concept of adaptive radiation, to elucidate the prevailing trends in theoretical research within spatial and urban planning. Through a comprehensive review of literature published in the journal Planning Theory and other key collections of planning theory over the past decade, the study identifies four emerging directions in current planning theory research: post-politics and agonism, post-colonialism and informality, post-structuralism and complexity, and post-humanism and the Anthropocene. Each direction encompasses diverse theories that may respectively adapt to exploit distinct political-economic-socio niches.

A conspicuous consequence of the present diversification of planning theories is the absence of a 'common denominator' in contemporary planning theory research. In response, Davy, Levin-Keitel, and Sielker (2023) introduce the concept of plural planning theories, acknowledging the multiplicity of truths, rationalities, and environments within planning theory, and advocating for a plural rather than singular form of theory.

Reference

Fainstein, S. S. 2000. New directions in planning theory. Urban Affairs Review, 35(4): 451-478.

Allmendinger, P., Tewdwr-Jones, M., eds. 2002. Planning Futures: New Directions for Planning Theory. London: Routledge.

Davy, B., Levin-Keitel, M, and Sielke, F.(2023. Plural planning theories: cherishing the diversity of planning, European Planning Studies, 31(11): 2267-2276.

New political realities

Tue 30.6.16:00-17:30, Theories, Y122 D-sali | Session chair(s): Franziska Sielker

1644 | Rebecka Kjellström, Jonathan Metzger, Sofia Wiberg

Navigating the mess: enacting complexity in public transport planning

Complexity is not a mere theory; it is an ever-present part of planning practice that practitioners must navigate. Through competing projections, proliferating targets, and unruly information flows, they make uncertainty and multiplicity visible and negotiable, then bind them so action can proceed. Rather than portraying practitioners as ignoring complexity, we argue they live with and enact it while instituting limits so planning keeps moving. Drawing on an ethnographic study of Stockholm County's public transport planning authority, we show how planners oscillate between Kwa's baroque complexity and a romantic ideal of coherence, bringing multiple realities into view, then purposefully contracting this multiplicity to preserve organisational order.

Where prior work often treats complexity as discourse, we show its practical instrumentation through four enactment practices: taming-on-the-go (iterative, provisional reductions that make problems momentarily graspable without claiming final resolution); limits to self-reflexivity (hereafter reflexivity stops: deliberate halts to inquiry before fully conceding co-production of what counts as real, visible, or measurable); proactive self-discipline (anticipating constraints and self-editing framings and evidentiary

standards to secure acceptance under the region's prevailing political rule); and epistemic artefact work (crafting and circulating models, scenarios, and maps that stabilise partial realities long enough to allocate resources and justify priorities).

Together, these practices compose an ontological choreography that aligns heterogeneous data, devices, and organisational logics just long enough to decide and deliver. Empirically, we analyse four phenomena: contests between regional and municipal demographic projections; inflation of regional goals; hopes that more tools and information will deliver a neutral way forward; and the self-editing of official staff reports to fit shifts in the governing majority and political climate. Our contribution is to specify how complexity is enacted and bounded in practice, rather than merely invoked as discourse.

1766 | Juanjo Galan

Polycrisis: a literature review and an exploration of methodological approaches in spatial planning

The simultaneous or concatenate occurrence of different kinds of crises generates complex and elusive challenges that cannot be understood or addressed by solving each crisis independently. This kind of multifaceted problem is becoming increasingly common as a consequence of the growing interconnection and interdependence that different systems display now globally at different scales. Based on the analysis of existing literature, this paper includes firstly a conceptual study of the polycrisis term and of different methods developed to understand, represent and address this multidimensional phenomenon. Simultaneously, the paper identifies the fundamental connections that this term has with resilience theory, complex systems dynamics, and with the increasing necessity to operate in highly uncertain contexts. Secondly, the paper analyses the implications and potentials that a polycritical approach can have in spatial and urban planning and in the definition of new methods to develop more resilient, adaptable and flexible environments. From a methodological perspective, the research is based on a systematic and comparative study of the existing literature in the intersection between urban and spatial planning and polycrisis. Results reveal that most of the conceptual frameworks and methods that have been used to understand causal connections and interdependencies on polycrisis have not been transferred yet to spatial studies and research. At the same time, the produced results suggest new lines or avenues for future research, mainly regarding the spatial component in the explanation, representation, assessment, planning and management of complex socio-ecological systems.

2687 | Loukas Triantis

Pathways to reimagining planning beyond neoliberalism

This paper develops a vision for a post-neoliberal planning paradigm by drawing together three contemporary theoretical strands: the Common, care, and the new climatic regime. Building on Dardot and Laval's (2019) understanding of the Common as an active and collective practice, the paper argues that planning can be reframed as a shared institutional undertaking rather than a sector dominated by commodification and privatisation. Complementing this, insights from the Care Manifesto (Hakim et al., 2020) foreground care as a political, spatial, and ethical principle capable of reshaping planning priorities

for communities, economies, and states. In parallel, Latour's (2018) theorisation of the new climatic regime highlights the challenges posed by the climate crisis and invites attention to post-human perspectives. The paper explores how these conceptual frameworks can expand planning imagination beyond dominant commodified and privatised norms (Brown, 2015). By articulating the connections among these key readings and strands of thought, it outlines potential directions for addressing contemporary challenges, including social inequality, climate vulnerability, and declining planning legitimacy. It suggests that integrating care, post-humanism, and the collective thinking and doing of the Common can foster more democratic, and inclusive planning futures. Ultimately, the paper argues that a post-neoliberal planning approach requires a reimagining of how institutions, planners, and communities can shape alternative pathways.

Brown, W. (2015). Undoing the Demos: Neoliberalism's Stealth Revolution. Zone Books.

Dardot, P., & Laval, C. (2019). Common: On Revolution in the 21st Century. Bloomsbury Academic.

Hakim, J., Chatzidakis, A., Littler, J., Rottenberg, C., & Segal, L. (2020). The Care Manifesto: The Politics of Interdependence. Verso Books.

Latour, B. (2018). Down to Earth: Politics in the New Climatic Regime. Polity.

2960 | Marco Cremaschi, Neema Kudva

Making Sense of Planning Theory in an Authoritarian Era

Are democracy and planning necessarily linked, and if so, which comes first? While much contemporary planning theory assumes a close connection between the two, planning also flourishes under authoritarian regimes — as the rise of China as a global economic power illustrates. Equally important, planning serves very different theories of social change: some view transformation as revolutionary and structural, while others see it as incremental and aligned with capitalist development and economic growth. Rather than offering a definitive answer or a prescriptive model, the question draws our attention to planning as a form of governance and to its shifting relationship with social change. This relationship is always shaped by the problems planning seeks to address: land use, public space, housing affordability, equitable economic development, and today's urgent challenges linked to war, famine, mobility, and climate change.

Planners have long sought to understand their work by navigating binary frameworks: substantive versus procedural questions, top-down versus bottom-up strategies, policy design versus implementation, technical expertise versus lived experience, and more. Yet research and numerous case studies show that such binaries rarely hold in practice. Persisting in these oppositions obscures the need for theoretical perspectives that account for planning's critical dependence on implementation, its complex entanglements with politics, and its reliance on tacit knowledge for success.

Drawing on our research in cities and towns across the global North and South, this paper examines how planning is shaped by the ways problems are defined and by its inherently political nature.

2966 | Vesa Kanninen

New Era of Spatial Ordering: Spatial Planning for the Hybrid Spatialities of the Green Transition

According to the prevailing economic growth discourse on regional development, growth will concentrate in only a handful of regions, while others are seen to empty out. However, discourses of green transition present new opportunities for regions interpreted as peripheral to re-enter the growth discourse as green energy producers for growing cities and international investments. This is further reinforced by the devolution of coordination in spatial planning and development from the state authorities to local administrations. However, also volatile and unsustainable spatial interdependencies between the cores and the peripheries may emerge.

Despite rich literature on the spatialities and spatial interdependencies of the green transition, research remains under-operationalised in explaining how green transition discourses oriented towards economic growth and local spatial planning practices interact across scales to shape the multiple geographies of the green transition and the spatial planning processes and practices within regions affected. By adding theoretical viewpoints from Discursive Institutionalism, Practice Theory, and Hybrid Spatialities (Golubchikov et al., 2014) into the study of spatial planning, this research provides an integrative lens for understanding how institutions evolve through both the ideas and discourses that agents express, and the embodied practices through which they act.

Drawing on empirical evidence from spatial planning within peripheral locations in Finland, the study explores how overlapping, and partly institutionalised, spatial development discourses create tensions and opportunities across different spatialities and spatial planning levels. It asks what is the new spatial ordering of developed countries, how multidimensional planning and governance challenges arising from the interplay of emergent discourses, institutions, and practices transform established core-periphery relations into new hybrid formations, and how this in turn transforms spatial planning.

Golubchikov, O., Badyina, A., & Makhrova, A. (2014). The hybrid spatialities of transition: Capitalism, legacy and uneven urban economic restructuring. Urban Studies, 51(4), 617–633.

1413 | Jesse Fox, Talia Margalit

Popular technocrats: How laypeople's discourse in city master-planning processes replicates professional knowledge

In planning theory, professional planners are generally understood to possess highly technical, professionalized knowledge, while laypeople possess local knowledge. When laypeople wish to engage with professionals, theory holds that they often must acquire some professional knowledge to 'translate' their local knowledge into professional terms.

What happens, however, when discourses are almost completely saturated with highly professionalized terminology, reflecting technocratic types of knowledge? Is there still an opening for expressions of local knowledge?

We set out to examine knowledge types in urban master-planning discourses. We put together a diverse sample of cities in Israel (by size, wealth, centrality, ethnicity and socio-spatial features) and collected planning documents from several discourse arenas, both formal and informal, including planning board meetings and other professional-only forums, public-participation exercises, public-facing communiques, objection hearings, media coverage and social media. We used distant reading methods borrowed from the field of digital humanities to analyze these large corpora of text, tracing the common phrases actors used across different cities and discourse arenas, and supplemented this with close reading based on critical discourse analysis.

Our results indicate that laypeople widely adopted planners' jargon and framings. Even in informal arenas in which they are largely talking to one another, laypeople now tend to imitate the way planners discuss plans, in both style and content. We interpret these findings in light of theories on technocratic-populism, which hold that populist-run regimes often draw heavily upon technocratic knowledge in actual governance. Our findings reveal the existence in such contexts of “citizen-technocrats,” whose knowledge mirrors that of professionals.

Digitalization

Tue 30.6.17:45-19:15, Theories, Y122 D-sali | Session chair(s): Jesse Fox

2221 | Zhong-Ren Peng

Symbiotic Planning Theory: Reframing Planning’s Social Contract in the Algorithmic City

Urban governance is increasingly algorithmic, yet the profession lacks a native theory to govern AI without losing democratic legitimacy. Symbiotic Planning Theory (SPT) treats AI as civic infrastructure for co-creation under constitutional governance: humans set ends and ethics; AI has bounded, generative agency to expand options and surface trade-offs. SPT commits to five principles—human ends/machine means; contestable transparency (traceable provenance, reasons, alternatives); equity by design (distributional and procedural metrics); adaptability (reversible decisions and scheduled re-authorization); and explicit planner-in/on-the-loop roles—linking agency design to legitimacy and distributive outcomes. Within planning’s canon, SPT complements and departs from Rational Comprehensive, Incremental, and Communicative/Advocacy–Just City traditions by constitutionalizing algorithmic means while preserving legitimacy and reversibility.

SPT makes two testable claims: (1) publishing data, assumptions, and reasoning—plus channels to question and revise—raises trust and perceived legitimacy in contested settings; (2) equity-aware generation plus stress-testing (uncertainty, robustness, subgroup impacts) reduces disparities over time versus baselines. Pause conditions are clear: do not delegate to AI or automation when models are not contestable, provenance is uncertain, decisions are not reversible, or power asymmetries preclude fair participation.

Environmental Justice and Cumulative Impact illustrates SPT. Rather than single-proxy optimization or facility-by-facility regulation, SPT frames EJ as a multi-objective, distributional challenge across land use, health, and industry. Its recursive logic—normative co-framing with communities; generative policy bundles (e.g., remediation plus permitting reform); deliberative stress-testing with cumulative exposure

and subgroup impacts; adaptive execution with monitoring and time-boxed re-authorization—synthesizes technical complexity with democratic legitimacy.

Derived from my forthcoming book, Symbiotic Planning: Human–AI Collaboration in Urban Planning, the talk invites critique and evaluation and offers a durable governance paradigm for intelligent, inclusive, auditable urban futures.

2147 | Nurul Atikah Ramli, Mark Tewdwr-Jones

Is Planning Still Central? Exploring Peripherality through Digital Participation

Urban planning is facing more and more challenges from technology that changes everything and from a government driven by urgency. This raises questions about whether traditional planning theories remain useful for driving change. Although participatory planning is frequently regarded as a normative practice rooted in inclusivity and collaborative rationality, the increasing incorporation of digital platforms introduces novel epistemological and political dynamics that may redefine whose knowledge is considered legitimate and what forms of action are perceived as valid, possible, or peripheral. This research critically examines digital participatory planning through the lens of peripherality, investigating the extent to which the growing engagement of non-traditional stakeholders through digital platforms is transforming planning's theoretical positioning, strategic capacity and relevance.

Rather than treating digital engagement as a one-off input, this study conceptualises such an approach as a potential for future visioning, capturing early signals of urban expectations, contestations and desires articulated by diverse actors, including those often excluded from conventional planning processes. This perspective challenges traditional notions of planning as problem-solving and advances the idea of planning as an anticipatory, future-oriented practice. By questioning whether planning's strategic role is being redefined at the margins of governance, the research engages with core theoretical debates on normativity, epistemology and institutional peripherality.

Drawing on critical planning theory and the digital governance literature, this paper invites discussion of how planning theories can evolve to account for digitally mediated imaginaries and plural modes of future-making. It contributes to rethinking planning theory not as a static body of knowledge, but as an active force negotiating the boundaries between centrality and peripherality in contemporary planning practice.

1795 | Nikhil Kaza

Planning with Synthetic Persons

The question of a synthetic person is not as far-fetched as it may seem. In recent debates about the regulation of Artificial Intelligence, the European Parliament explicitly considered whether it should establish "the status of electronic persons responsible for making good any damage they may cause." (Bryson, Diamantis, and Grant 2017). Since then, the matter has become even more salient; the explosion of objects that are remarkably good at mimicking human actions (e.g., Generative AI, large language models, etc.) has entered into our cultural consciousness, provoking widespread fascination as

well as anxiety (Bassett and Roberts 2023). Despite this, planning theorists have yet to engage with them (Sanchez 2023). How should planning theories and processes account for synthetic persons?

In this paper, I argue that such accounting holds a mirror to our normative prescriptions and positive descriptions of planning. Representation, participation and communication are taken for granted in normative planning theories, proving to be a challenge with synthetic persons who have little political or spatial relationships. Meting out of accountability, rights and responsibilities for these persons pose special problems, as they do for other legal persons (e.g. organisations), however, they are elided in common place theoretical frameworks. Relationships and interactions, along with questions of legitimacy, among synthetic and non-synthetic stakeholders, raise both theoretical and pragmatic concerns. Without human interlocutors, communicative planning theory might fall apart. Or does it?

In a provocative article about environmentalism and artifice, Kreiger (1973) argued that the idea of natural is `artificially` created. Fifty years later, we can pose similar questions about the role of persons in planning processes. Drawing upon post-humanist traditions and actor network theories (Jon 2020), I explore how agency and responsibility are constructed and distributed in planning processes.

2841 | Ward Rauws, Gert de Roo

Planning for Adaptivity. A rationality framework in recognition of uncertainty and spontaneous change

The concept of adaptive planning has its momentum, driven by the need for approaches that embrace dynamic and spontaneous changes in urban environments. These approaches take uncertainty as fundamental. While the debate around adaptive planning is evolving and expanding, it remains diverse and somewhat fragmented. This paper promotes clarity and convergence by exploring the coherence among various adaptive planning proposals.

At its core, the paper introduces a framework that outlines different rationalities for adaptive planning. These complement and build upon the goal-oriented and consensus-driven rationalities that dominate contemporary planning. The framework shows a shift from directive planning, which focuses on controlling outcomes, to planning that prioritizes responsiveness to unexpected changes. The framework also positions adaptivity within contexts distinguished in their degree of uncertainty, the magnitude of change and the position of planners relative to that change. From this perspective, adaptive planning offers three alternatives to conventional directive approaches: planning that allows for change, is responsive to change, and is ready for change.

Institutionalism

Thu 2.7.11:00-12:30, Theories, Y122 D-sali | Session chair(s): Gavin Parker

984 | Andre Sorensen

Towards an Urban Historical Institutionalism: Municipal governance, territoriality, and the regulation of urban property

Although institutions are central to urban governance, urban property, and urban planning, historical institutionalist research focused on cities and urban governance remains underdeveloped and weakly theorized. Mainstream HI remains trapped in a methodological nation-state perspective that limits its insights for the study of urban issues because the logics of urban institutions are fundamentally different than those of nation-state institutions (Magnusson, 2011; Keil and Mahon, 2009; Salet, 2018). For cities the role of municipal government of a bounded territory, the linked demands of shared spaces and infrastructures and their roles in enabling the continued existence and value of urban property, the distinctive histories of municipal licencing and police powers, and the demands of collective management of current and future potentials, risks and vulnerabilities in specific places combine to create sets of institutions and institutional change processes that are quite different from those of nation states (Sorensen, 2018; Sorensen, 2025). This paper outlines an Urban Historical Institutionalism (UHI) and research agenda focused on municipal governance institutions, territoriality, infrastructures, police powers, property systems, and shared spaces.

Sources Cited:

Keil R and Mahon R (2009) Leviathan Undone? Towards a Political Economy of Scale. Vancouver, Toronto: UBC Press.

Magnusson W (2011) Politics of urbanism : seeing like a city. London ; New York: Routledge.

Salet WGM (2018) Public norms and aspirations: the turn to institutions in action. New York and London: Routledge.

Sorensen A (2018) Institutions in urban space: Land, infrastructure and governance in the production of urban property. Planning Theory and Practice 19(1): 21-38.

Sorensen A (2025) Territorial governance: institutions, jurisdiction, infrastructure, and urban property. In: Cotella G and Janin Rivolin U (eds) Handbook of Territorial Governance. London: Routledge, pp.15-33.

1096 | Andrea Restrepo-Mieth

Weakness and Institutional Planning Theory

Recent literature on institutional theories in planning have highlighted critical junctures, gradual institutional change, ambiguity, path dependence, discursive institutionalism, and institutional innovation. Missing from these discussions is a thorough conceptualization of, and engagement with, institutional weakness – the unwillingness or inability of institutions to guide behavior and produce a prior defined outcome. While institutional weakness has been more closely associated with the global South, challenges to global North institutions previously thought of as strong call for a reassessment of

weakness and its problematization. In this article, I build on the literature on historical institutionalism to argue that acknowledging institutional weakness, understanding its manifestations, and theorizing its presence in city and regional planning is helpful for scholars and practitioners in four ways. First, it requires that we acknowledge that both formal and informal planning institutions can be born weak. Second, it calls for planners to pay attention to the sources of weakness and attempt to create guardrails against this in the process of designing plans and policies. Third, it highlights how even the most carefully crafted plans and policies may become weak (for example, by being derailed during implementation), calling attention to broader institutional and organizational environments. Lastly, it considers how planners can exercise their agency to help strengthen institutions.

1357 | Alexey Martín

Planning Theory and Nomocracy: A Dialogue from the Perspective of Historical Institutionalism

In 2010, Stefano Moroni published an article in which he presented two theories about land-use regulation (see also Moroni, 2007, 2015, 2018): one based on a teleocratic approach and the other on a nomocratic one. According to the former, planning would constitute the central and most important instrument of public regulation of land use. Under the latter, planning would have a secondary role, proposing different types of regulatory instruments. Moroni indicates that the teleocratic framework is problematic due to: i) the impossibility of developing an integrated plan attributable to the lack of relevant information about what is supposed to be integrated; ii) planning results in a drop in productivity, efficiency and creativity; iii) the plan establishes a predetermined design of what should be understood as a good life. This author suggests that the nomocratic approach offers a viable alternative. He argues that, given the complexity of cities, land-use regulation should rest upon abstract and general rules not directed toward specific ends. Thereby, moving away from teleocratic planning, nomocratic regulation would foster spontaneous order and individual freedom within complex urban contexts.

Moroni's ideas have been widely discussed (see, e.g., Alexander, Mazza, & Moroni, 2012; Holcombe, 2012; Slaev, 2016). However, in a recent article (Martín & Jurado, 2025), which uses historical institutionalism (HI) as its theoretical framework and whose intention was not to test the viability of the nomocratic thesis on land-use regulation, it is possible to verify the presence of the regulatory conditions outlined by Moroni (that is, the absence of a master plan and the existence of an abstract legal norm) without the outcomes he anticipates. This paper shows how HI, applied to the history and theory of urban planning (see Sorensen, 2018), provides evidence that questions Moroni's claims about the nomocratic approach in the regulation of land use.

1725 | Gerd Lintz

Multiple Streams Framework: Positioning the political science approach within planning theory – an attempt based on selected criteria

An ongoing research project at the Leibniz Institute of Ecological Urban and Regional Development, Germany, aims to analyse and explain the emergence and development of regional parks and green belts using the established Multiple Streams Framework (MSF) from political science. This approach was first

established by Kingdon (1984) and has since been widely adopted and further developed (Zahariadis et al. 2023). On the one hand, there is a long-standing body of empirical evidence that suggests this approach, which emphasises the role of complexity, ambiguity and chance, can make a helpful contribution to explaining significant policy change. However, the MSF's relationship to established theories of planning science, which form a crucial foundation for open space, landscape and spatial planning, needs further clarification. The fact that the MSF was developed out of a critical examination of the model of synoptic (planning) rationality and incrementalism is not sufficient to categorise it.

The presentation opens with an introduction to the MSF and its five elements: problem, policy and political streams, policy entrepreneurship and policy window. This is followed by a comparison with selected explanatory approaches from planning theory, as systematised by Rydin (2021) in her book 'Theory in Planning Research'. The comparison is based on two selected criteria. The first relates to the relationship of the approaches to the concept of rationality of the overall system, including procedural rationality: Can political and planning decisions lead to a better ‘common good’? The second criterion relates to the value judgements underlying the approaches: What role does justice in the sense of equality play here? While there are some similarities and differences between these theories, MSF appears to be a good complement to existing approaches in planning theory.

2115 | Anita De Franco

Planning for Possibilities: Exploring new horizons and limits of spatial planning in a global perspective

This paper proposes to examine spatial planning as a discipline oriented towards the creation and expansion of possibilities. The theoretical framework first introduces and maps how the planning discipline employs different conceptions of possibility; it then clarifies which particular understanding of “possibility design” can open new and critical perspectives for planning theory. The paper advances three arguments in favour of “possibility design”, showing how this approach allows us to: (i) accept uncertainty as an inescapable element of action and its outcomes; (ii) move beyond the paradigm of assigning opportunities, which arbitrarily distort key processes of human development; (iii) strive for the non-exclusivity of distributive aspects, enacted by public policies, particularly those related to spatial planning. Through exemplary cases, the paper demonstrates the contributions – but also the limits – that this possibility-based approach encounters within planning theories as we have known them so far. The paper is mainly theoretical and conducts a critical review of planning frameworks in various contexts around the world.

References

Cotella, G., & Rivolin, U. J. (Eds.). (2025). Handbook of Territorial Governance. Edward Elgar Publishing.

Gilead A. (2014). Pure possibilities and some striking scientific discoveries. Foundations of Chemistry, 16, 149-163.

Jessop, B. (2001). Institutional re (turns) and the strategic–relational approach. Environment and planning A, 33(7), 1213-1235.

Lapintie K. (2007). Modalities of urban space. Planning Theory, 6(1), 36-51.

Lewis D. (1986). On the plurality of worlds. Blackwell.

Ul Haq, M. (1992). Human development in a changing world. United Nations Development Programme, Human Development Report Office.

2498 | Léo Magnin Hoffbeck, Thomas Buhler

What do 'professional cultures' bring to the table of planning cultures studies?

Since the cultural turn in urban planning research starting in the 1980s (Peer & Sondermann, 2016), a growing interest in the existence and articulation of locally-specific planning cultures has emerged, which has led to several theoretical and empirical elaborations.

Mostly drawing on Knieling & Othengrafen (2016) Culturalised Planning Model, this literature has recognised the existence of regional, national, or supra-national planning cultures. However, as these propositions multiply, they tend to focus largely on cultural differences through the lens of planning artefacts – the visible products of planning – in order to allow for a geographic delimitation of cultures. In doing so, they sometimes overlook the way the broader planning environment functions as professional and political arenas, which would allow for a delimitation of cultures based on the groups that hold it.

Drawing on a sociology of professional groups, this presentation explores how approaching planning through the lens of professional cultures can deepen our understanding of planning cultures. By conceptualising the planning environment as a field (Bourdieu, 1976) – a socio-historical configuration of actors or groups linked by complex relationships of hierarchy, competition and cooperation – each professional group or segment can be understood as holding their own professional culture, that is somewhat unified at a trans-national level (Champy, 2009). The power dynamics between these groups, and the ability to shape local planning discourses based on elements of their own professional rhetoric (Hughes, 1963) will draw the basis for local planning cultures at varying scales.

This approach opens new methodological pathways, both qualitative – through a renewed interest for planner's education and career paths – and quantitative. Precisely, this paper will draw on the results of a questionnaire-based survey conducted in four European countries (UK, Germany, Italy and France) focusing on values, representations, practices and professional cultures of planning.

Transformative Planning

Thu 2.7.14:00-15:30, Theories, Y122 D-sali | Session chair(s): Talia Margalit

1171 | Mads Angelsø

Shared Agency and Planning: Toward Transformative Practice

Philosophy of action can contribute to the theoretical foundations of planning by providing a framework that supports transformative practice rather than reification and "dead documents"— plans that exist on paper but fail to generate change in practice. Taking as a point of departure the conception of human beings as planning agents, the paper examines planning, human cooperation, and the relation between

individual and shared agency. Planning is understood as a social practice of problem-solving that extends individual capacity to plan actions. It is a future-oriented process of reflection in which planners deliberate about possibilities and seek to align these with facts and values. In this process, the planner engages in a pragmatic construction of reality guided by norms of practical rationality, particularly consistency and coherence. The analysis draws on Bratman's theory of intentions, plans, and practical reasoning, together with Nørreklit's conception of the construction of reality.

Inspired by Rochelle and Teasley, a distinction is drawn between collaboration and cooperation as two forms of collective planning. Engaging with Bratman's account of shared intentions and shared agency, alongside Shapiro's critique, the conditions that make collaborative and cooperative relations possible are explored. The possibility of shared deliberation and socially pragmatic construction of reality is proposed as central to a planning practice oriented toward transformation and meaningful change—especially in contexts characterized by complexity and wicked problems, where planners operate in experimental situations in which neither problem nor solution is known in advance. Such contexts highlight the value of identifying a set of practical virtues for collaborative planning. By integrating philosophical insights on human agency, intentionality, and collective reasoning, planning is positioned not merely as procedural documentation, but as a reflective, socially embedded practice capable of fostering adaptive and transformative outcomes.

2429 | Karin Snel, Judith Westerink, Marlies Meijer

Transformative Planning

Transformative planning has mainly been framed as planning for justice. Given the global environmental challenges and need for multi-scalar transformations, we argue that this framing is too narrow. We propose an advanced conception of transformative planning, integrating environmental and justice purposes. Through addressing the transformative power of planning, we strive to encourage planners (in academia and practice) to contribute to shaping our environments and societies in a truly sustainable manner. In our opinion, planners already possess many of the skills, tools, and forms of knowledge required for transformative action. However, planners (i.e., we) can be more bold in addressing the underlying drivers of climate change, biodiversity loss, and inequality, and contributing to equitable societal change.

Drawing on an extensive review of interdisciplinary literature, we propose a conceptualisation of transformative planning characterised by seven dimensions: 1) address underlying causes, 2) provide leverage, 3) unlock alternative futures, 4) radically inclusive and just, 5) integrative across issues and scales, 6) anticipate resistance, and 7) be reflexive. While planning has always held transformative potential, uniting these dimensions under the concept of transformative planning adds analytical and practical value.

We argue that this concept can reorient the role of planning in two key ways. First, it can enhance recognition—also within other disciplines and sectors—of planning's capacity to steer transformative change. This way, more collaborative and coordinated efforts with mutually supportive strategies and instruments can be achieved. Second, it can strengthen planners' own awareness of their capacity and responsibility in relation to their potential role in societal change. By mobilizing planning's "superpowers"

to address root causes and foster systemic leverage, planning becomes not only relevant but indispensable for shaping just and sustainable futures. Transformative planning inspires new agendas in research and education: How to educate transformative planners? How can planning become a transformative science?

1232 | Tanja Mölders

Transformative Planning – buzzword or new paradigm?

Amid escalating global social-ecological crises such as climate change and biodiversity loss, planning increasingly faces demands to adopt forward-looking strategies that facilitate transformations toward sustainable societies. Planning is, by its nature, involved in structuring transformation processes. To what extent these processes and their substantial results are truly sustainable is an open debate to which this lecture contributes.

To highlight the tension of transformative planning between buzzword and new paradigm, I firstly address sustainability concepts as such and ask which understandings of sustainability underlie spatial planning in different thematic contexts and at different scales: Is sustainable development conceived in an integrative manner or in terms of a three-pillar model? Are understandings of green growth or more peripheral visions, such as growth-critical approaches represented? What role do understandings of justice play, etc.?

Secondly, the question arises as to which understandings of planning are being discussed in the context of sustainability transformations: Is planning attributed a moderating role in the sense of a communicative planning paradigm, or is it assumed that a "proactive state" is needed to define and enforce transformation goals in a more rational sense?

I will show that the answers to these questions are by no means clear-cut or consistent. However, theoretical reflection of and explicit positioning on normativity (regarding sustainability) and governance (regarding understandings of planning) are absolutely essential if planning is to play a serious role in the implementation of sustainability transformations. Then we might even be able to speak of a new, transformative planning paradigm.

2070 | Linda Maiwald

Operationalizing Transformative Capacities in Shrinking and Peripheral Places

This paper advances the conceptual foundation for applying the Transformative Capacities Framework (TCF) (Wolfram, 2016) to urban contexts of shrinkage and periphery—spatial settings that have long remained at the margins of urban transition research. While the TCF has been mainly developed for dynamic metropolitan environments, its validity and limitations in structurally disadvantaged areas are little understood. Addressing this gap, the study asks how transformative capacities can be meaningfully operationalized in shrinking and peripheral urban places, and what this means for their potential role in steering low-carbon transitions.

To build this foundation, the paper systematically integrates four interconnected strands of literature - periphery, shrinkage, transformative capacities, and urban governance - to develop a unified conceptual framework that explains how transformative capacities emerge, or fail to emerge, in shrinking and peripheral contexts through governance mediation. This integration targets a major analytical blind spot: existing TCF applications focus on economically dynamic, institutionally robust urban systems, while the relevance of the framework for places marked by demographic decline, institutional fragility, and structural dependence on external actors remains unclear. Simultaneously, research on shrinkage and peripheralization has mainly documented processes of decline, offering limited insight into the governance conditions that may enable transformation.

By critically revisiting the TCF through this integrated lens, the paper identifies how governance arrangements can either enable or constrain the development of transformative capacities under structural limitations and where conceptual adaptations are required to render the framework transferable. Ultimately, the paper contributes to advancing the theoretical reach of the TCF beyond metropolitan paradigms, offering new hypotheses on the conditional transferability of its core dimensions and highlighting the relationship between place, transition, and transformative capacities as a foundation for future research on socio-ecological transformation in peripheral and shrinking urban contexts.

2783 | Emilia Smeds, Jonathan Metzger

Plan/ning as a vehicle of change: conceptualizing dimensions of transformative agency in strategic spatial planning

Following mid-2000s debates, there are continued calls for strategic spatial planning (SSP) to contribute to transformative societal change. In Sweden, there is great interest in modes of 'collective action' to address socio-ecological challenges within SSP processes at the regional scale. However, planning theory has a limited amount to say, in concrete terms, about how planning can engender different types of transformative action and change. Much of the empirical literature still conceptualises the influence of SSP as a framework using the distinction between plan conformance and performance, and performative models of SSP are understood through the lens of soft planning. This paper addresses this gap between planning research, where ways-of-thinking about plan/ning as a vehicle of transformative change are scarce, and planning practice in Swedish regions focused on action-oriented SSP.

Recent work has discussed actor-centred (Purkarthofer & Stead 2023) and cooperation-centred (Pokharel & Forester 2024) institutional perspectives on agency in planning. We contribute to this debate with an STS-inspired perspective on agency. Post-ANT perspectives have contributed insights regarding the "agency of things" in planning processes. Yet what sometimes has been lost-in-translation is that the theoretical thrust was not to attribute autonomous agency to specific objects, but to reconceptualise agency as distributed, relational and constituted through networks. Adopting a relational approach, we conceptualise different dimensions agency in plan/ning, by considering the plan-as-framework for decisions and plan-as-agenda for action, and asking for both modes: What type of relations are required for the plan to have agency? Our theorising draws on a commissioned report written for a regional administration in Sweden, using contents and reflections from this co-production process to 'think with'.

Following this exploration of what STS can help us understand regarding plan/ing agency, we discuss the implications for normative desires for SSP as a vehicle of urban-regional transformations.

2594 | Ryan Lok, Jennifer Dean

Planning for ethnic diversity and cultural difference in cities: A scoping review of the planning literature published between 2000-2025

Throughout the 20th and 21st century, diversity has moved from the peripheries of planning theory towards a mainstream value in planning practice. This shift reflects a growing acknowledgement that planning must respond to the pluralistic realities of ethnically and culturally diversifying cities in the Global North. Diversity has been incorporated into planning praxis through its recognition in policy and practice (e.g., multicultural planning) which directly acknowledges ethnically diverse populations. Diversity is rooted in postmodern epistemologies and justice-oriented perspectives on planning that alternatively challenge the dominance of modernist planning paradigms positioned to be integral to planning for social justice, equity, and inclusion. Yet, despite diversity having theoretical and pragmatic recognition in planning, contemporary cities exhibit increasingly complex forms of difference, that the planning field must also interpret and respond to. As diversity continues to become a central concern of both scholars and practitioners, an assessment of how diversity has been conceptualized and addressed in planning is needed to document the normative debates and practical approaches to achieving it. Through a scoping review of 42 academic articles published between 2000-2025, this study identifies themes that emerge from the planning literature on ethnic and cultural diversity and difference. Results indicate that theoretical discussions have drawn heavily on postmodern thought, emphasizing pluralism, the politics of difference, and the need to engage with peripheral and multiple epistemologies. Planning practitioners operationalize diversity into a value-laden term which may be contradictory to the epistemological underpinnings of diversity and difference. This tension produces a dilemma for planning as there are pragmatic challenges in developing policies and adapting practices towards recognizing diversity. The scoping review further documents the historical trends in conceptualizing and practicing planning for diversity while also sharing insights on where a continued focus on diversity and difference in planning can take the profession in the future.

Translating theory

Thu 2.7.16:00-17:30, Theories, Y122 D-sali | Session chair(s): Pia Bäcklund

1005 | Rita Mayrhofer

Work and Action in Planning: Translating Hannah Arendt's Political Theory into Planning Theory and Practice

Planning finds itself in a bind: whilst rational approaches remain methodologically dominant despite decades of critique, communicative and participatory approaches stand accused of reproducing rather dissolving power structures. This contribution discusses translating Hannah Arendt's political theory into planning theory to productively address this aporia.

Arendt's work offers planning theory largely untapped potential. Her distinction between labour, work, and action from The Human Condition enables a fundamentally expanded understanding of what occurs when we plan. Whilst work targets the instrumental-rational production of durable objects and structures according to means-ends categories, action denotes the genuinely political activity of plural subjects in the public realm, characterised by openness to outcomes, unpredictability, and the constitution of public space through speech.

A phenomenological-hermeneutic interpretation of participatory planning processes in Vienna, Berlin, and Eindhoven reveals that participation can be understood as both work and action, yielding different outcomes. In procedures structured by rational means-ends logic, such as consultation, outcomes are predetermined and participants instrumentalised as "resources" for information gathering without decision-making power. Participation as action, conversely, is characterised by open-ended exchange, discursive engagement, and actual decision-making authority (Arnstein's top three rungs). Planning experts here act as participants, facilitators, or activists. Such political moments enable the constitution of public space in Arendt's sense. An interplay of work and action emerges where both activities are consciously distinguished and brought into dynamic, non-predetermined sequence, requiring openness to outcomes, process flexibility, territorial boundedness, responsibility, and planners' willingness to accept users as co-creators.

This contribution engages two central dimensions. First, it reconfigures planning's normativity by positioning Arendt's concept of power against instrumental understandings of domination. Second, it exemplifies epistemological challenges and productive possibilities of translating political-theoretical concepts into planning contexts. Arendt's "thinking without a banister" becomes a methodological stance that productively disrupts established concepts and opens new perspectives on participatory processes.

1371 | Nathan Pittman

Moving beyond the technical/political binary in urban transport planning

Urban transport planning is characterised by a fundamental tension between its technical elements and its political elements. Researchers have variously criticised transport planning as being both too technical and too political (or, alternatively, not technical enough and not political enough), and argued that both further depoliticisation and repoliticisation is necessary for UTP to deliver the changes to transport systems needed to address contemporary challenges (Fischler, 2012; Vigar, 2017). Such approaches, whether conventional or critical, have substantially failed to resolve this paradox.

This research explores the technical/political binary using an approach informed by the governmentality literature (Dean, 2010; Foucault, 1991; Li, 2007). It draws on interviews with transport planning actors, alongside wider documentary evidence, from the Melbourne (Australia) and Toronto (Canada) urban regions.

Several key insights emerge. Firstly, the capacity to identify some things as technical and other things as political is a key conduit through which power operates in UTP. Overly simplistic binaries obfuscate how power is contained within the so-called technical dimensions of UTP. The continued maintenance of the

binary itself, in practice and research alike, is tightly bound with the capacity for UTP to retain the moral authority required to shape the future. As such, this research reimagines the technical/political dualism not as a problem to be solved, but as an inherent feature of urban transport planning.

2660 | Furkan Erdem Sözeri, Ceren Sezer

Operationalizing Urban Well-being for Net-Zero Futures: A Multi-Scalar Neuro-Spatial Framework

While "urban well-being" has become central to sustainable transformation and net-zero policies, a critical methodological gap hinders its integration into planning practice. Current assessments focus on technological metrics and carbon accounting, failing to capture the embodied neurophysiological impacts of the built environment that shape behavioral engagement with climate goals. This research addresses this deficit by proposing a "Neuro-Spatial Framework," positioning neuro-architecture as an essential methodological instrument supporting both well-being and climate-positive behavior.

Based on a systematic review, the study establishes a taxonomy of "Space-Brain Indicators." It synthesizes how environmental parameters, ranging from architectural complexity to green infrastructure distribution, correlate with neural mechanisms of stress regulation (amygdala activity) and attention restoration (alpha/theta oscillations). The review identifies a lack of data-driven metrics linking perceptual processes to the lived experience of sustainability.

Building on this synthesis, the paper examines neuro-urbanism research utilizing neuroimaging to uncover the cognitive-affective basis of spatial responses. By cross-analyzing results across scales, it identifies a "multi-scalar" continuity in how the brain processes environmental stimuli. It argues that restorative mechanisms observed in micro-settings directly influence macro-scale strategies, including mobility choices and net-zero acceptance.

Shifting the analytical focus from subjective preference to "perceptual resilience," this study challenges planning epistemologies separating environmental performance from human experience. It argues that meaningful net-zero transition requires environments that physiologically support comfort and perceptible ecological quality, determinants of how sustainability is trusted and acted upon. The outcome is a conceptual roadmap for translating perceptual data into design guidelines, bridging well-being policy, sustainable behavior, and climate-neutral futures.

2703 | Emma Holmberg

The More-Than-Human Turn in Planning: A Literature Review

In recent decades, relational ontologies have redefined cities as dynamic, co-produced environments shaped through the ongoing co-becoming of human and nonhuman worlds. This shift has inspired a growing body of planning research that uses more-than-human theories to inform new ways of perceiving, studying, and planning places. The aim of this paper is to provide a critical literature review of this more-than-human turn in planning, specifically tracing its philosophical and conceptual foundations and assessing its contributions to contemporary planning research.

Despite conceptual richness and attempts at methodological creativity, the review identifies two persistent gaps. First, planning practitioners are rarely invited to participate in more-than-human research as interlocutors or co-researchers; consequently, little is known about how practitioners interpret, negotiate, or contest these ontological framings. Second, there is a lack of evaluative studies examining if and how shifts from Western dualist representationalism to relational more-than-human ontologies and epistemologies actually lead to more careful, responsible, or ecologically attuned planning practices.

In addition, many examples of more-than-human planning approaches tend to center on recognizing particular species or mapping multispecies relations. While valuable, such interventions risk reproducing an additive logic that leaves deeper ontological separations intact. To fulfill its transformative potential, more-than-human theories therefore require stronger empirical engagement with the lived experiences of planning practitioners and more sustained experimentation with approaches that cultivate care-as more-than-human worlds.

The article concludes by outlining future directions for more-than-human planning research grounded in a relational understanding of future flourishing as inseparable from more-than-human flourishing. Such planning calls for situated, close-to-practice approaches that enable planners to cultivate 'caring-as-place' and to reflect on the frictions, challenges, and everyday complexities of enacting such care in professional practice.

2120 | Yamit Shimon, Efrat Eizenberg, Alona Nitzan-Shiftan

Towards organization of hope: theorization of space and hope in the diverse/conflictual city

Urban planning researcher John Forster wrote that "the most evocative and powerful definition of planning that I know is this one: 'Planning is the organization of hope'" (Forster 1999, 177). Inspired by Forster's writing, this talk aims to think the relations between "urban space" and "hope".

Theoretically, this is an attempt to move between two concepts that have been extensively written about separately. Few studies address the direct link between space and hope, leaving gaps across urban studies, architecture, political science, and psychology. Since the publication of "Spaces of Hope" by David Harvey (2000), studies have explored this relationship from activists' perspective as part of social struggle; environmental and climate aspects and with regards to healing spaces. However, research on the relationship between hope and space is still underdeveloped.

In this talk, we discuss the two concepts through theorization of "spatial hope" as subjective experience and embodiment of hope in space, and "spaces of hope" as spatial action and the spatial characteristics of hope. These concepts will be discussed with regard to the research of Haifa as a religious, ethnically, nationally, and culturally diverse city with a history of co-existence and conflict.

This theoretical investigation reflects the motivation to design urban spaces that promote wellbeing and social justice in the multicultural/diverse/conflictual city. I believe that understanding the relation between hope and space in our cities is an essential step towards the organization of hope.

2916 | Loris Servillo

Struggles in contemporary planning. Framing challenges and experimentations

Based on experimental fieldwork experiences conducted both in marginalised and "left-behind" territories and in diverse urban contexts, the presentation reflects on key challenges facing contemporary spatial planning. Rather than treating these cases as self-contained, it mobilises them as probes to question how contemporary planning understands space and society, how it mobilises its principles and values, how it reflects policy arenas and territorial boundaries, and how it can get locked in the relationship between political and technical rationalities.

Building inductively from situated practices, conflicts and negotiations observed in the field, the contribution reflects on the conceptual scheme articulated along four interconnected dimensions. First, it explores emerging cognitive readings of space and society, foregrounding relational, processual and multi-scalar understandings of urban and territorial change. Second, it revisits the normative underpinnings of planning, asking which principles and values (such as justice, care, recognition and redistribution) are explicitly or implicitly mobilised in concrete interventions. Third, it examines the reconfiguration of policy arenas and boundaries, focusing on soft spaces, fuzzy territorial delineations and hybrid governance arrangements that characterise contemporary planning practice. Fourth, it interrogates the persistent gap between political and technical rationalities, highlighting frictions between expert knowledge, political decision-making, and everyday situated knowledges.

Taken together, the presentation explores the limits and the challenges confronting planning today, providing directions for new experimental approaches.

Temporality

Thu 2.7.17:45-19:15, Theories, Y122 D-sali | Session chair(s): Thorsten Wiechmann

1256 | Gavin Parker, Mark Dobson

Modalities of time and temporality in and for planning: an overview and agenda

The increasing attention being paid to temporalities in planning is significant (e.g. Dobson and Parker, 2024; 2025; Jensen et al, 2025; Hutter and Wiechmann, 2022; Lennon and Tubridy, 2022). Prior work has argued for more attention to be paid to time (Laurian and Inch, 2019). So far work has largely focussed on the implications for forms of temporal governance (Adam, 2008), speed in planning processes, or opportunities for participation and deliberation and long-term approaches to infrastructure development. However a wider consideration of the literature of time in the social sciences (Nowotny, 1994; Foucault, 1995; Bourdieu, 2000; Adam, 2004; Lazar, 2019) implies a greater agenda, with profound implications for the practice of planning in the Anthropocene.

Existing and emerging scholarship indicates the multiple avenues for research on time and temporalities in planning globally. Drawing on reviews and critiques of time and its use in planning (Parker and Dobson, 2026; Dobson and Parker, 2024), the paper reflects on six modalities or themes of time and temporalities in planning. An aspect of this research agenda is bringing time back into centre stage in the politics of planning and place, given that practices involving the manipulation of time cut across territories and demonstrate how governmental priorities necessitate changes to systems and policy or processes. Such

understanding can also reveal how timing, speed or squeezes of process may marginalise some voices or issues, as well as limit the event horizon for planning in the face of long-term challenges. When positioned amongst pre-existing literature on time and planning, the six perceptible modalities presented are active ways of shaping or using time in planning research and practice. These groupings function as a useful framework for giving shape to the development of planning theory and research agendas and further exploration of the emerging 'temporal turn' in planning studies.

1255 | Gavin Parker, Mark Dobson, Michelle Lyon

Timelining development: time ownership and delay in English planning.

Analysis of time has rarely been attempted in critical application to property development, yet in rhetorical terms, time taken or 'delay' to development has been used to justify serial planning reform in the UK and elsewhere (Ball, 2011; Parker and Dobson, 2025). The paper draws on an emergent time and temporalities literature in planning (Laurian and Inch, 2019; Dobson and Parker, 2024; Wiechmann, 2024; Jensen et al., 2025) and framed using theory derived from Lazar (2019), Adam (2004), and Nowotny (1994). Drawing on a detailed case study, the paper provides a novel methodological approach to systematically mapping the development 'timeline' and account for the use of time during the fifteen-year process of delivering a large housing scheme. The findings draw on an in-depth analysis of planning documentation to create a detailed form of 'stage-event' model timeline that depicts how time was used and by whom in the planning and development 'pipeline'.

We apply the label of 'time ownership' to indicate how time is used and controlled by different parties at various stages of the development process. The findings highlight a lack of engagement with time use in development, a lack of transparency of process and evidence of the manipulation of time. It argues that the lack of understanding of 'actually existing' planning tasks and end-to-end development process acts to allow the simplification of 'planning' in mainstream political and economic debate and justify reform based on both a narrow view of planning and limited empirical evidence. The analysis holds significant ramifications, both in emphasising a need for whole systems consideration of development, and also of time as a resource and tool. Such insights demonstrate time is manipulable and highlights the different types of delay (Goncalves et al., 2025) and relationship of control with and over other resources in the development process.

1335 | Gérard Hutter, Thorsten Wiechmann

Time and Power in Strategic Planning: Historical Institutionalism and the Emscher Restoration

In recent planning theory, an increasing number of voices have called for a more differentiated understanding of time (Laurian & Inch 2019; Hutter & Wiechmann 2022; Dobson & Parker 2024, Jensen & Laws 2025). To advance such a perspective, planning theory can draw on approaches developed in other scientific disciplines. To analytically capture the temporal embeddedness of planning processes within long-term developments and historical contexts, historical institutionalism offers a particularly suitable theoretical framework. This approach focuses on the evolution, stability, and transformation of action-

guiding institutions over time, as well as on their influence on the behaviour of actors. Power plays a central role in this context, as institutions always reflect, reinforce, or reshape existing power relations.

Drawing on an empirical case study—the restoration of the Emscher river system in Germany's Ruhr region between 1980 and the present—the paper explores the potential of historical institutionalism to conceptualize key categories of temporality, such as duration, pace, and timing, and to render these, alongside the role of power, accessible to empirical planning research. Based on an event analysis and a simplified phase model, the paper critically discusses further explanatory concepts of historical institutionalism, including path dependency, critical junctures, and gradual institutional change (Mahoney & Thelen 2010, Sorensen 2015). The Emscher restoration ideally illustrates the interplay of path dependencies and gradual institutional change in long-term planning processes. Long-standing structures shaped actors' choices, while gradual adjustments integrated ecological and participatory goals into existing water management practices. This demonstrates how stable institutional paths and gradual change coexist, enabling stepwise transformations of power without abrupt crises. The paper concludes by reflecting on the applicability of historical institutionalism for analysing temporality and power in strategic planning processes.

1496 | Andre Sorensen

Urbanizing Historical Institutionalism: Time, place, speed, and sequence in city-building processes

One significant challenge of applying historical institutionalist (HI) concepts and conceptual frameworks to planning theory and practice is that while most HI analysis is of relatively aspatial issues such as welfare policies (Pierson, 1994) and taxation (Hacker and Pierson, 2010), urban planning policies and outcomes are profoundly spatial. It is possible to generate usable insights about planning institutions and processes from an aspatial perspective (Taylor, 2013; Sorensen, 2015), but this ignores important aspects at the intersection of institutions and spatiality that are fundamental to cities and planning. While the physical durability of the outcomes of urban development processes referred to by Hommels (2005) as urban 'obduracy' has long been a core theme of urban morphology studies (Conzen and Whitehand, 1981; Larkham and Conzen, 2014), I suggest that urban land development is at its core a process of institutionalization that is place and time specific and has varied greatly over time, producing variegated landscapes of institutionalized property. This suggests a research focus on the timing, pacing, and sequencing of urbanization processes and their spatial outcomes in comparative perspective.

A key issue is that the institutionalization of urban property, its physical forms, connections to public infrastructure, density, land-use, and tax obligations are often highly durable, particularly at the finer grain of particular districts, properties and parcels (Wheeler, 2003; Sorensen, 2016; Savaya and Alfasi, 2024). Urban land development and redevelopment can therefore be understood as spatial critical junctures whose timing relative to other world-historic events, urban ideas, and transportation and building technologies varies greatly. Yet they produce spatial and institutional imprints that have enduring impacts on both landscapes of urban property and urban institutions. I suggest that a more systematic understanding of these processes will aid both in comparative study of urbanization and in underlining the importance of planning processes and institutions.

Knowledge

Fri 3.7.09:00-10:30, Theories, Y122 D-sali | Session chair(s): Pia Bäcklund

1352 | Lukas Nikolaus-Behrend

Planning as Uncertainty with Direction – A Hermeneutic Perspective on Planning Practice

Planning is always directed towards the future – a future that is, by its very nature, unknown. Therefore, every act of planning unfolds under conditions of uncertainty while still demanding orientation and direction. How, then, can planners act meaningfully toward what they cannot know?

This presentation explores understanding as the epistemic orientation of planning practice. Drawing on Gadamer's hermeneutics, understanding is conceived not as a technical or purely cognitive step, but as a practical and interpretive act through which meaning and direction both guide and emerge from action. Planning thus appears as an iterative practice of sense-making, where actors interpret situations, negotiate meanings, and define what counts as "the right direction" in a given context.

The presentation develops the notion of planning as uncertainty with direction: direction does not arise from eliminating uncertainty or relying solely on expert knowledge, but from shared interpretive processes that transform uncertainty into situated, purposeful meaning and action. An empirical case from planning practice illustrates how such processes of understanding unfold in concrete planning situations. The conclusion argues that understanding is not merely part of planning but its very condition; the way planning can act meaningfully and responsibly amid uncertainty.

1360 | Heather Campbell

Planning to act: knowledge for action. Is academic planning knowledge fit for purpose?

The general narrative is of a time that is perplexing, divisive and precarious, with such sentiments aligning with the lived experience of too many. The implications of inequality and the climate crisis prompt calls for something to be done, yet scepticism pervades as to whether governments have the will or capacity to take meaningful action. Planning and policy-making sit at the nexus of knowledge and action, which is also a connecting point between academia and government. This paper explores this interface, questioning how far current academic research supports the 'ways of knowing' needed to support effective action.

The general lack of trust in governmental institutions has been further undermined by growth of social media platforms and an abundance information, both benign and malign. In this insecure and at times febrile environment, one source of policy inspiration might be expected to lie at the interface between the worlds of academia and politics, policy and practice; often characterised more grandly as the interplay between knowledge and action.

The relationship between knowledge and action is not linear nor determinative. Rather the meaning and pertinence of knowledge, such as the findings of formal academic studies, to the particularities of a decision-making situation is a matter of practical judgement. Universities and academics are not the only generators of knowledge, but knowledge generation and its dissemination through teaching are fundamental to their purpose.

This paper explores the interface between academic knowledge and action, searching for how greater traction can be achieved on current policy challenges. Building on previous work by the author, the argument highlights the disconnections between the knowledge resources and capabilities needed to support practical judgement in policy-making, and current planning theory and research. The paper concludes by outlining possibilities for the radical evolution in academic planning practices.

2847 | Qingyuan Guo

Toward a Pragmatist Theory of Inquiry for Planning Research: Introducing Design Recovery in Cases

A relevant way to problematise the current field of planning theory is to point to the theory-practice gap. This gap manifests in two aspects: one is perceived hardness to apply theory in the realm of contingent planning practice; the other is perceived non-relevancy of theory from the professional field. The theory-practice gap is not necessarily needed to be problematised since it implies the contestable assumption that theory is serving practice. However, problematising the gap is functional in the sense that there is vast demand from practitioners for knowledge generated from academia.

This paper serves to make a meta-diagnosis of two causes for the theory-practice gap. The first is that despite established idealised theory of inquiry for professional practice, primarily drawn from pragmatism planning theory, there is lack of theory of inquiry for academic research. The second is that there is lack of theorisation about how academic research can produce knowledge fit for professional problem solving.

The third concern is about reflection on how academic inquiry can work alongside existing explanatory and normative planning theories. Echoing the conference theme of periphery, this paper would like to bring inspiration for these challenges through introducing a methodology developed in the adjacent discipline of public management, with the research practice called Design Recovery in Cases, developed jointly by Michael Barzelay and Alan Love. DRC provides a coherent answer about what is the idealised practice for professional problem solving, which coheres with current pragmatist planning theory; what kind of knowledge can contribute to professional problem solving; what kind of process is needed to translate empirical research findings to knowledge fit for professional problem solving; and the way to design empirical inquiry to make empirical findings better suit such knowledge production.

2225 | Magdalena Ugarte, Miguel Melin, Natalia Caniguan

Foregrounding Mapuche Planning Through Oral History and Land-Based Methodologies

This presentation stems from a participatory action-research project with Mapuche-Lafkenche communities in Tirúa Sur, in what is now known as Chile. Using a collaborative methodological approach grounded in Mapuche inquiry protocols, the project sought to identify, document, and systematize Mapuche territorial organization principles that still exist in the collective memory and narratives of native speaking Elders. Through walk-along conversations with Elders, walks on the territory, and community mapping, the history of the territory was reconstructed through oral histories, reaffirming the long Mapuche presence in the area, the mechanics of Indigenous dispossession and forced displacement, and the ongoing invasion of their territory up to this day. Taking Mapuche toponymy as an entry point,

distinct principles of territorial organization emerged and were identified, which grounded in the normative principles of Mapuche law have allowed Mapuche people to project their existence as a collective despite settler colonial violence. These tenets include criteria for human settlement and organization; the delineation of territorial boundaries; the definition of permitted or prohibited uses and activities in certain spaces; the protection of areas of special cultural, ceremonial, and strategic significance; care and respect for the environment during the execution of productive and subsistence activities; and the creation of mobility and communication systems between territories. The presentation will highlight the identified principles of Mapuche-Lafkenche territorial organization, as well as the profound ontological differences with dominant discourses, reinterpreting Chilean state violence through the imposition of its colonial spatial planning systems in Wallmapu. It will also reflect on contemporary revitalization processes that seek to restore traditional forms of socio-spatial organization, positioning them as a political exercise that lays the foundation for the territorial reconstruction of the Mapuche people.

2111 | Oren Yiftachel

Theorizing Urban Digitalization: DIEP Impact, planning and the New Apartheid

Digital technologies rapidly transform urban society – its policies, spaces, economics and struggles. Yet, planning theory has rarely engaged with its implications to the remaking of cities and the emergence of new digital apartheid regimes. In this paper I offer a conceptual and analytical framework to deal with this sea change, heralding the datafication of policymaking, privatization of infrastructure and public assets, new forms of surveillance, centralizing power and bordering. These appear to disproportionally influence urban peripheries, margins and minorities. Hence, urban digitization appears to be a double-edged sword that promotes democratization, transparency, participation, and inclusion, while at the same time may deepen domination and stratification, through centralizing and opaque algorithmic governance, expanding AI dependence and rapid developments that are difficult to audit and critique, particularly at the urban margins.

While literature is replete with accounts of the impact of digitalization on human society in general, far less is devoted to its urban implications, and particularly the impact on planning. In this paper, I first offer an epistemological/analytical framework termed here "DIEP Impact" focusing on four dimensions : Data, Infrastructure, Economic-social and Political which form a conceptual infrastructure for Impact analysis. Second, I apply this framework on data from a new comparative study, which highlights the emergence of urban digital apartheid, as a growing model for reshaping urban societies, particularly in Israel/Palestine and other immigrant and diverse cities. Third, I discuss the role of urban planning in facilitating the rise of the new regime, offering alternatives to problematic urban trends, and responding to the need to revitalize planning theory in the shadow of the digital challenge.

Ontological

Fri 3.7.11:00-12:30, Theories, Y122 D-sali | Session chair(s): Rasmus Nedergård Steffansen

2004 | Jonne Silonsaari

Why prefigurative planning needs critical realism? Concrete utopias, post-normal methods and generative mechanisms.

Davoudi (2023) has urged planning to adopt prefigurative politics as its new operating principle. Prefigurative planning would not be based on prediction and control but envisioning concrete utopias and performing the not yet in the here and now (Swain, 2019). Little research discusses how to actually do these things, but based on insights from other domains (Raekstad & Gradin 2020; Monticelli, 2022; Yates, 2015; 2021), certain non-conventional methodological approaches seem relevant.

First, to envision concrete utopias, art-based and creative methods can provide knowledge, narratives and ideas for planning that are unattainable with conventional methods (Carpenter & Horvath, 2022; Metzger, 2011). Second, to perform the not yet in the here and now, different forms of experimentation are key for practically testing possible futures (Bertolini, 2025). Both of these can suggest multiple ways of knowing the subjects and objects of planning as proposed by radical planning approaches (e.g. Friedman, 1987; Miraftab, 2009). More precisely, social justice can be (as per principles of prefiguration) located in the praxis of planning, rather than its mere outcomes (Lake, 2016).

However, such pragmatist and transdisciplinary approaches often overlook fundamental questions such as what constitutes a rigorous scientific method or what kind of inference and knowledge claims are valid (Emmel, 2021). Thus, I suggest that prefigurative planning and any post-normal methods therein should apply critical realism as their underlabourer (Bhaskar, 2015, 179). Concrete utopias can be understood in realist terms, i.e. as realizable but non-actualized possibilities (Archer, 2019). With this starting point, critical realism can inform how artistic interventions contribute to (realist) theorizing (Kontos & Poland 2009; McDonald, 2008; Mukumbang & van Wyk, 2020), and how experimentation helps analyzing the generative mechanism behind the actualized events. In result, the false consciousness that ‘’there is no alternative’’ can be contested in new ways (Xue, 2022).

2122 | Stefano Moroni

Why We Can’t Escape Planning Theory

This paper adopts the view that every action or practice implies, either implicitly or explicitly, a theory. Here, the point is not so much that practitioners are thus the “real” theorists. It is that theories are not abstract matters relevant to academics alone; they are relevant to everyone. Clearly, either we can leave all the theoretical assumptions imbued in planning practice undiscussed or we can consider them critically; this is “doing (planning) theory”. In this sense, theory induces us to take a step back in order to appreciate the broader picture. In short, one of the main tasks of planning theory – though obviously not the only one – should be to foster critical debate on the theoretical assumptions that inevitably underlie planning practice and, in this way, increase awareness and suggest a possible renovation of aims, approaches and tools. A possible objection is the following: “Practice is more chaotic, confused, than theory” (“Theory is tidy; practice is messy”). But this too is a “theory”. It can be true or not, fruitful or not, but it has to be corroborated or disproved as a theory. In short: there is no way out of theory. We cannot

escape theory. Note that every theory of planning is, precisely, a theory “of planning”, that is, of some kind of activity: for instance, a public activity (i.e. an activity performed by a public authority). The point in this case is the “object of planning theory”. Obviously, in making claims about planning, such a theory cannot but presuppose, implicitly or explicitly, some hypotheses about the functioning of (for instance) the city. Therefore, it is important to distinguish between “planning” and “what is being planned”: in the latter case, the point is the “object of planning”.

2526 | Rasmus Nedergård Steffansen

Dialectical critical realism as underlabourer for sustainable urban planning

This paper explores the role of dialectical critical realism as an underlabourer for sustainable urban planning, emphasizing its capacity to provide a robust philosophical foundation for addressing complex socio-ecological challenges. Sustainable urban planning requires navigating multi-layered realities - physical, social, and institutional while confronting contradictions inherent in development processes. While Bhaskar’s notion of basic critical realism has been applied to planning, the dialectical turn remains almost entirely unexplored. By foregrounding absence, emergence, and transformative praxis, the dialectical dimension further enriches planning research by putting an emphasis on the ever precent dynamics of change. This paper sets out to explore what these concepts could mean for sustainable urban planning and how they can be used as both theoretical and normative principles in planning practice. As an underlabourer, dialectical critical realism does not prescribe specific planning solutions but clarifies conceptual confusions, critiques reductionist approaches, and supports integrative methodologies. By situating planning within an open, dynamic reality, dialectical critical realism facilitates a shift from both purely technocratic and purely communicative models toward reflexive, participatory strategies that recognize the interplay of structure, agency, and context. This philosophical grounding enables planners to identify constraints that hamper sustainable transformations and propose emancipatory paths towards desirable futures. The paper argues that adopting dialectical critical realism can strengthen the epistemological and ethical foundations of sustainable urban planning, fostering approaches that are both scientifically rigorous and socially just. Ultimately, dialectical critical realism serves as a meta-theoretical resource, guiding planners in developing transformative practices that align urban development with ecological integrity and human flourishing.

2741 | Robin A. Chang, Lasse Gerrits

Critical Realist Perspectives on Time-Sensitive Developments in Spatial and Urban Planning

Potential is at the heart of planning – both for what unfolds in space and what emerges over time. This can be understood not just in terms of environmental pressures that require spatial changes, but also in terms of the planners' work. The reason why that potential is sometimes unlocked relates to the passing of time and how circumstances flow together to create opportunity for planners to engage. This requires from them to be able to ‘read’ time. This engagement through spatial mediums and instruments give form to the time-sensitive epiphenomena we identify as urban or spatial planning.

In many contexts, reforms to policies affecting planning are both redefining and restructuring how time is understood in spatial planning processes and practices. But what does planning sciences have to say about this? And do we have the frameworks and tools we need to grasp the essence of this change?

This contribution addresses these concerns through a broader engagement with time-sensitive changes from a critical realist perspective. This perspective posits that insights from philosophy of science that could help us make better sense of planning as it evolves and the ensuing implications for research supporting planning sciences. We draw on examples from ongoing changes in the Canadian context while leaning on the work of Bhaskar (2008), Naess (2015), and Gerrits et al. (2022) to propose conceptual and empirical directions for spatial planning sciences to improve time-sensitive engagement with spatial and urban planning studies.

Bhaskar, R. (2008): A realist theory of science. 2nd ed. London: Verso (Radical thinkers, 29).

Gerrits, Lasse; Chang, Robin A.; Pagliarin, Sofia (2022): Case-based complexity: within-case time variation and temporal casing. In CGN 7 (1), p. 29. DOI: 10.20377/cgn-115.

Næss, P. (2015): Critical Realism, Urban Planning and Urban Research. In European Planning Studies 23 (6), pp. 1228–1244. DOI: 10.1080/09654313.2014.994091.

1940 | Barbara Pizzo

Planning theory and post-growth imaginaries

Modern planning is rooted into pro-growth paradigms. Most of theories have been developed to legitimize planning (e.g. in its relationship with the market, Tugwell 1939, Samuelson 1954, Lindblom 1977), to explain how it works and for whom (e.g. in its serving the public interest, Davidoff 1965), to criticize it (e.g. for being an instrument of power – Wildavsky 1979, Friedmann 1987), or to propose alternative approaches (e.g. to achieve more just processes and results – Miraftab 2009, Fainstein 2010). But, whether developed in the Global North or South, they contemplated one development model, growth.

Now that planetary boundaries finiteness and climatic and socio-ecological crises are increasingly acknowledged, the need to consider beyond-growth perspectives becomes necessary.

Planning theories are frameworks to give sense to and to explain planning action: they are intrinsically intertwined with practice. It becomes urgent to collect and examine practices that transcend growth paradigms, and to prove concepts such as frugality, sufficiency, reduction, and downscaling, to provide different theoretical frameworks. Here the focus will be on two interrelated questions: the first one is the capacity for such a theory to become so convincing to be able to impose itself as a counter-hegemony (in Gramscian terms); the second one is which kind of imaginaries it uses and evokes, elaborating on the conceptual tension between the “economic imaginaries” as defined by Jessop (2010) – that is meaningful constructions and causally effective forces, and planning attitude to work through imaginaries (e.g. urban, landscape – Pizzo 2009) – that is, imaginaries produced through planning, design, urban or regional policies. Critical realism (Bhaskar 1975, 1986, 1989 – Sayer 2000, Danermark et al. 2002, Sum & Jessop 2013), offers key lens to tackle this issue within the planning domain, allowing to overcome at the same time basic realism, positivistic stance, and purely constructivist approaches.

1172 | Andrew Ivins

Determining the facts that matter in complex decision-making: a critical realist framework of identifying valid knowledge in planning

Determining 'valid knowledge' and 'the facts that matter' are key concerns in planning practice and literature, but much existing theory places agency on the planner to determine validity while overlooking the structural mechanisms that surround complex decision-making in planning practice. This research applies the philosophy of critical realism to identify key elements of structure including a critical realist conception of structural hegemony, alongside political rationalities, public policy doctrines such as the public interest, and professional ethics. These concepts are proposed as key causal mechanisms impacting upon decision-making and the determination of valid knowledge. Referencing an empirical case study of the siting of a waste-to-energy incinerator in the UK context, the research further suggests that there exists a hegemonic lag between the rationalities and workings of the planning system, and the rationalities of wider political and hegemonic contest. This hegemonic lag is proposed as an explanation of why complex planning decisions often become controversial.

Cases

Fri 3.7.14:00-15:30, Theories, Y122 D-sali | Session chair(s): Luke Juday

1518 | Pille Metspalu, Jürgen Pikk

Strategic Spatial Planning Meets Dashboarding: Monitoring Peripheral Resilience in Estonia

In the age of polycrisis, spatial planning often seems enveloped in a gloom not unlike that of Harry Potter and the Deathly Hallows. The fractured nature of contemporary planning theory makes it difficult to locate a unified response to systemic crises. However, revisiting partially sidelined theoretical frameworks may offer a promising way forward—Davoudi's (2023) concept of prefigurative planning serves as one such compelling example.

This paper examines the development of the monitoring framework for Estonia's new national spatial plan "Estonia 2050", to be enacted by the end of 2026. The plan aims to counter peripheral vulnerability by reducing capital-centric development, introducing a polycentric settlement model structured around ten regional nodes.

Our research builds on a practice-led study inspired by the Delphi method, engaging experts from public and private sectors to co-evaluate possible indicators for plan implementation. This process surfaced profound questions regarding the strategic nature of national-level planning today. Does the availability of extensive open spatial data blur planning's focus, promoting flexibility and dynamism at the expense of long-term direction? Or can a collaboratively constructed implementation dashboard, rooted in shared spatial governance, enhance planning's strategic agency?

We anchor our discussion in Albrechts and Balducci's (2013) critical features of strategic spatial planning and Mäntysalo et al.'s (2019) notion of strategic incrementalism, offering insights into how Estonia's

planning system seeks to strategically realign spatial governance to address peripheral vulnerabilities while responding to systemic uncertainty.

Davoudi, S (2023) Prefigurative planning: performing concrete utopias in the here and now. DOI:

Albrechts, L; Balducci, A (2013) Practicing Strategic Planning: In Search of Critical Features to Explain the Strategic Character of Plans DOI: 10.1080/02513625.2013.859001

Mäntysalo, R; Tuomisaari, J; Granqvist, K; Kanninen, V (2019) The Strategic Incrementalism of Lahti Master Planning: Three Lessons. DOI: https://doi.org/10.1080/14649357.2019.1652336

1787 | Haryo Winarso, Isnu Putra Pratama, Johan Woltjer, Petrus Natalivan Indrajati

Peripheral Visions, Strategic Actions: Re-theorising Mega-Project Planning in Indonesia's New Capital

Adaptive Investment Sequential Planning: Analysing Indonesia’s New Capital Nusantara (IKN) through a Strategic Action Field Framework

The planning of Indonesia’s new capital, Nusantara (IKN), exposes a critical gap in contemporary planning theory. Traditional models—rational-comprehensive, blueprint, collaborative—are inadequate for understanding mega-projects in the Global South, where planning is subordinated to investment logic and state strategy under volatile conditions. This paper introduces the concept of Adaptive Investment Sequential (AIS) Planning and analyses it through Fligstein and McAdam’s Strategic Action Field (SAF) theory.

We frame IKN’s development as a Strategic Action Field, a contested arena where state incumbents, investors, and local stakeholders vie over the project’s rules and spatial outcomes. Within this field, AIS Planning emerges as a strategic mode of governance. It is characterised by investment-driven phasing, adaptive flexibility to capital availability and exogenous shocks, and the selective inclusion of actors—all tactics to maintain state dominance and stabilise the field against contention.

Based on document analysis, field observations, and stakeholder interviews, this study reveals how socially skilled state actors operationalise AIS Planning to navigate uncertainty and attract capital. The research makes three key contributions: it conceptualises AIS Planning as a distinct Global South approach; it demonstrates the utility of SAF theory for unpacking mega-project politics; and it reveals how state–capital dynamics are spatially structured through sequential, adaptive planning that prioritises investment over fixed master plans or democratic consensus.

1805 | Yosef Jabareen

Planning Urbicided Gaza: Exploring Emerging Hegemonic Global Planning Regimes in the Post-War Era

In the aftermath of an intensive urbicidal war waged by Israel—devastating Gaza’s housing, infrastructure, universities, mosques, churches, and schools—global powers, primarily the United States, Israel, and their affiliated business elites and think tanks, have been preparing large-scale reconstruction

plans for Gaza. This study aims to deconstruct these emerging plans and expose their geopolitical and economic motivations.

It argues that these proposals signal a new global planning paradigm—one that acts as an extension of military power, and which continues the logic of violent intervention through spatial reorganization, land-use configuration, neoliberal economic development, and mega-urban projects. In this context, planning becomes a continuation of the battlefield through spatial means.

Drawing on an empirical analysis of ten major reconstruction plans proposed by the U.S., Israel, and their affiliated business and think-tank networks, the study finds that these initiatives deploy AI-generated visualizations to produce unprecedented, fantastical images of Gaza—blue rivers, pristine beaches, golden casinos, skyscrapers, expansive ports, and lush green landscapes—while the millions of Palestinians who inhabit Gaza effectively vanish from this imaginary. These proposals reflect a new mode of dispossessive and hegemonic planning (Jabareen 2024, 2015), which is violent, geopolitical, and oriented toward displacing people who disrupt these global power fantasies. This planning operates in extraterritorial colonized spaces, functioning as a dispossessive mechanism of territorial, political, and economic control. As such, planning becomes a broader strategy for regulating Gaza's population and depoliticizing collective life—an erasure of people and nature—ultimately serving as an instrument for reproducing domination and advancing neocolonial fantasies rather than supporting genuine recovery or the self-determination of its people.

Reference:

Jabareen, Y. (2024). The architecture of dispossession. Environment and Planning C, 43(1), 58-76.

Jabareen, Y. (2015). Hegemonic Planning and Marginalizing People. Gunder et al., (Eds.) The Routledge Handbook of Planning Theory.

Jabareen, Y. (2015b). Territoriality of negation. Geoforum, 66: 11-25.

2106 | Ana Carolina dos Santos Medeiros, Gab da Silveira Muller

URBAN FETISH AND THE "MODEL CITY" MYTH: urban planning, capital accumulation, and inequality in brazilian urbanism

This paper critically examines how contemporary urban planning in Brazil operates as a political and ideological instrument that transforms the city into a fetishized object of desire. Drawing on Marx's concept of commodity fetishism and Lefebvre's theory of the production of space, the research explores the discursive and material construction of the so-called "model cities" with Balneário Camboriú (Brazil) and Curitiba (Brazil) as comparative case studies. Both cities are internationally portrayed as successful models of progress, efficiency, and sustainability. However, beneath this image lies the reproduction of social exclusion, speculative accumulation, and spatial fragmentation. Through a theoretical and interpretive methodology combining discourse analysis, planning document review, and spatial observation, the study investigates how architectural form, verticalization, and planning rhetoric work together to conceal structural inequalities and legitimize capital accumulation. The concept of urban fetish is proposed to describe this phenomenon: the transformation of planning images, urban

aesthetics, and technical narratives into autonomous sources of value that obscure the social relations of exploitation embedded in the urban fabric. The "model city" thus functions as a powerful ideological device that naturalizes neoliberal rationalities, erases conflict, and aestheticizes inequality. By articulating critical urban theory and political economy, the paper contributes to rethinking planning as a terrain of ideology, not only a technical or institutional practice. It argues for the need to reclaim planning as a space of contestation, where theory and politics converge to unveil, rather than reproduce, the fetishized logic of capitalist urbanization.

2444 | Liudmila Slivinskaya, René Westerholt

Planning for potential activities: re-thinking mono-functional spaces of housing estates as places for meaningful affordances

The contribution offers a theoretical reflection and implications for planning of public spaces

following an empirical study on the role of perceived activities (affordances) in meaningful urban places in the context of housing estates. Public spaces in prefabricated housing estates are an example of mono-functional underused urban spaces that pose a challenge for planners and designers. Lack of active use and attractive design in public spaces precludes us from positive spatial experience and meaningful engagement with urban space, compromises quality of urban life and contributes to neglect, undermaintenance and deterioration of public spaces.

The study, conducted as walking interviews with photo elicitation, showed that the residents engage with open spaces in the housing estate through meaningful affordances, which are associated not with functional objects or utilitarian facilities, but with the composite physical settings of their meaningful places. This indicates that functional features and utilitarian usage, along with the design and formal attributes of public spaces, are not always the principal determinants of our experience there. Following the findings, the contribution advances the humanistic geographical notion of place coupled with the environmental psychology concept of affordances as instrumental for planning and design of public spaces. Affordances in urban context reside in the relationships between people as agents of place meaning, and the built environment which comprise physical settings of urban places. Planning for affordances as potential meaningful activities thus can complement planning for functions in public spaces, supporting planning and design efforts aimed at improving public spaces in cities in residential areas and beyond.

Cases

Fri 3.7.14:00-15:30, Theories, Y122 D-sali | Session chair(s): Luke Juday

2485 | Silvia Marchesini, Davide Vettore

Re-theorising Cultural Ecosystem Services through Landscape Quality: ISPRA Indicators as Peripheral Planning Knowledge

Economic valuation, by quantifying ecological functions in monetary terms (Costanza et al., 1997) and connecting ES to market-based rationalities of planning and development that favor growth narratives (Gómez-Baggethun & Ruiz-Pérez, 2011), has dominated ES discourses. This is most problematic for CES:

relational, symbolic and place-based in character, they find themselves poorly suited to quantitative monetized frameworks (Daniel et al., 2012; Chan et al., 2012). Continuing the theoretical thread of the European landscape approach (Council of Europe 2000; Turri 1998; Magnaghi 2000), the paper suggests an alternative reading of the CES, through the lens of the European approach towards quality in the landscape.

The Italian Institute for Environmental Protection and Research (ISPRA) provides the "Carta della Natura" system and the "Carta del Valore Naturalistico-Culturale d'Italia" map. The paper argues they are not just neutral technical devices; they are epistemic infrastructures that embed a specific way of knowing and valuing territory into environmental management. In this sense, the paper asks how ISPRA landscape quality maps can be operationalized to develop an indicator system, linking landscape and ES assessment with the CES and challenging the monetary valuation predominance in ES-based planning. The national landscape cartographies, based on naturalness, ecological status, geodiversity, conservation value, and cultural assets in the Physiographic Landscape Unit (PLU), are indicators of naturalistic and cultural value and vulnerability and non-monetary proxies for CES.

The discussion focuses on two aspects: ISPRA indicators as an alternative epistemology of value beyond dominant economic metrics; PLU as a meso-scale where CES, landscape quality and planning decisions can be articulated, especially in peri-urban and agrarian fringes. By bridging ES debates with Italian landscape-assessment, the paper develops a conceptual and operational framework that reframes the evaluation of peripheral landscapes beyond economic valuation and positions CES as a core driver of landscape-oriented transformative action.

Track 15: Crises

Track chairs: Toni Ahlqvist, Marco Cremaschi, Saija Toivonen

Rethinking resilience

Tue 30.6.16:00-17:30, Crises, Y229a | Session chair(s): Saija Toivonen

2910 | Iffat Khan, Nandan Mukherjee

Disappearing lands with disappearing memories

Bangladesh's charlands form a unique landscape defined by impermanence—river-formed islands that appear, erode, and vanish, sometimes within months. Families live with the continuous possibility that the land beneath them will disappear. Homes are built, abandoned, rebuilt, shifted, and lost again. With every erosion, displacement, and temporary shelter, people lose far more than structures: they lose memory, continuity, cultural practices, and the sense of home that binds generations. This paper argues that the crisis of disappearing land is also a crisis of disappearing memory—a slow, largely unacknowledged erosion of identity. The vanishing landscape produces a parallel dissolution of collective and embodied memory, a condition of solastalgia: the distress of losing one's home while still living through its gradual unmaking.

Despite decades of recognition, colonial land logics, insecure tenure systems left more than ten million char dwellers without rights, representation, or cultural recognition. Their crisis is therefore not only environmental but political and existential. Architectural and planning interventions often worsen this invisibility by treating housing as a static object rather than as a vessel of memory, mobility, and lived meaning.

This paper reframes the crisis in the charlands as an entanglement of land, water, body, memory, and governance. Examples from diverse field experiences and failed development models demonstrate that conventional planning and architectural approaches fail sometimes because they resist the fluidity that defines char life. The paper proposes a regenerative, bottom-up framework for crisis governance and housing that centres continuity, everyday resilience, disappearing memory, and materials capable of adapting and moving with the landscape.

2771 | Tara Kanj

Cartographies of Rupture: Disasters as key moments of learning in the spatial design of deltaic landscapes

The Dutch delta is, by nature, a highly morphodynamic landscape. At the same time, climate risks are escalating, creating pressures on natural systems and human settlements. The effort to inhabit this volatile terrain has led to a rigidification of the delta's dynamics and a reliance on predictive models and control strategies to manage uncertainty. This has culminated in a dominant paradigm of control, embodied in grey, hard infrastructures, which are now revealing their limits amid accelerating climatic and hydrological variability. To navigate these vulnerabilities, an alternative spatial logic is required, one that, this paper argues, can be revealed through a systematic study of past disasters.

This research hypothesizes that studying past disasters can inform the spatial design of deltaic landscapes in ways that anticipate uncertainty and adapt to change, rather than merely resist it. Disasters are treated as diagnostic events: high-resolution episodes of spatial truths that expose underlying processes, interactions, and assumptions often obscured by conventional planning. This argument builds on the principle that the probability of an event is inversely related to its impact. It is the outliers (extreme events) that provoke the most profound mutations across every dimension of the landscape, from physical morphology to the intangible systems that shape it. Studying these events retrospectively provides an unusually complete arc of spatial behavior, encompassing anticipation, rupture, and aftermath.

Methodologically, the paper advances a comparative, cartographic approach to disasters. Floods from the Netherlands, Japan, and the United States are examined and reconstructed through multi-layered "disaster cartographies" tracing water movement, infrastructural behavior, breaches, perception, and governance responses across three temporal frames: anticipation, unfolding, and aftermath. This palimpsestic method allows flood events from different contexts and centuries to be transposed, potentially revealing how alternative approaches might have altered outcomes.

2627 | Amor Ariza-Álvarez, Sara Tori

Using Wild Cards for Crisis-Aware Mobility and Land-Use Planning: Insights from Participatory Visioning in Urban and Rural Europe

Participatory visioning and backcasting are increasingly used to guide mobility systems towards low-carbon, socially just futures under uncertainty. Yet learning across territorial scales and participatory formats remains fragmented. This paper reflects on two scenario-building experiments that used wild cards to explore disruptive mobility and land-use futures in Europe: an urban corridor in metropolitan Madrid and a rural village in Flanders. In both, citizens imagined 2050 and then had their preferred visions systematically "distorted" through low-probability, high-impact events such as overpopulation, urban insecurity, energy crises, car bans or mass teleworking. Disruption was treated not as an external shock, but as a lens to interrogate crisis, vulnerability and resilience in everyday mobility and land-use systems. Despite contrasting spatial scales and institutional settings, both processes converge on futures that reduce car dependence, enhance accessibility and favour compact or proximity-based settlement structures. We ask how different constructions of "crisis" travel through participatory visioning, and what this means for planning under deep uncertainty. Methodologically, we re-read both studies through a shared analytical framework, comparing (i) how wild cards were selected and framed, (ii) how urban versus rural participants translated them into socio-spatial change and (iii) how far the resulting futures departed from business-as-usual projections. Two main lessons emerge. First, wild cards catalyse debate, but participants often reinterpret them in ways that preserve familiar mobility hierarchies and land-use patterns; crisis imaginaries widen without necessarily destabilising dominant logics. Second, social position and life stage matter: children and younger participants more readily entertain "unthinkable" futures, whereas experts and adult residents tend to domesticate crisis into incremental change. The paper concludes by proposing design principles for crisis-aware scenario building that widen the range of shocks and stresses considered, clarify whose resilience is at stake, and use disruptive futures to support more reflexive, context-sensitive risk governance in planning practice.

1545 | Karina Landman

Building adaptive capacity in a time of crisis: reconsidering urban resilience as a process and mechanism

The world and the places we live in are changing. In an era of polycrisis, high levels of uncertainty threaten a sense of stability and control. Driven by population growth, migration, economic decline, political instability, and, more recently, the COVID-19 pandemic, urban systems and spaces are changing to accommodate the movement of people, new technologies, natural catastrophes, and novel functions. In many cases, these trends contribute to increased levels of inequality, poverty, food insecurity, and unemployment, as well as more urgent warnings about the impact of climate change. Although some call this a new opportunity for radical transformation, others are proclaiming the death of cities. High levels of uncertainty are characteristic, along with increased intensities of complexity, rapid fluctuation and unbounded experimentation, raising questions about the nature and implications of crisis in different cities and contrasting contexts.

This paper focuses on the need to build adaptive capacity to confront the escalating spectrum of complex, interconnected, and multifaceted crises facing settlements worldwide. Incorporating resilience thinking, the discussion extends beyond a resilience approach that focuses solely on mitigating the effects of natural disasters or climate change. Instead, it builds on the notion of evolutionary resilience to view cities as complex-adaptive systems, investigating how they can adapt to the rapid changes of the urban socio-ecological system through increased adaptive capacity. The article achieves this through an exploration of the Panarchy, which encompasses various adaptive cycles at the micro, metropolitan scales (Tshwane) and national level in South Africa, informed by the notions of revolt and remembrance. The author argues for a reconsideration of urban resilience as a multidimensional concept that offers a process (rather than an outcome) and mechanism to facilitate a pathway towards increasing adaptive capacity in cities during times of crisis.

1068 | Tanja Schnittfinke

Visualizing Urban Risk: Cascading Effects as a Planning Method for Compound Crises

Urban crises rarely occur in isolation but instead emerge as interconnected disruptions unfolding across spatial, temporal, and institutional boundaries. The COVID-19 pandemic, for instance, did not act as a singular shock but rather intensified pre-existing vulnerabilities and intersected with other crises, creating cascading and compounding effects. This paper critically reflects on the methodological approach of cascading effects analysis, drawing on case studies from Cape Town, Dortmund, and São Paulo to explore how this framework can enhance the understanding and governance of compound urban crises.

In Cape Town, South Africa, the pandemic interacted with ongoing public health challenges, particularly high rates of HIV and tuberculosis, while load shedding further strained health and social service infrastructures. In Dortmund, Germany, the pandemic's economic disruptions were compounded by rising energy costs stemming from the Russian-Ukrainian war, disproportionately affecting low-income households. In São Paulo, Brazil, COVID-19 lockdowns coincided with an increase in gender-based violence, further limiting access to essential social services. These cases illustrate how infrastructure

disruptions and governance responses are shaped by pre-existing socio-political and economic conditions, exacerbating marginalization and deepening systemic inequalities.

This paper explores how cascading effects analysis can be extended as a tool for visualizing and addressing interdependencies within compound crises. Applying a cascading effects approach allows planners to move beyond sectoral silos and engage with the complex interdependencies. This research argues that this framework offers a valuable approach for identifying intervention points in crisis management, supporting more resilient and equitable urban planning strategies. The paper calls for a methodological shift in urban crisis research, advocating for tools that communicate systemic risks more effectively to policymakers and stakeholders and bridge the gap between risk assessment, social vulnerability, and planning practice.

Resilience economics

Tue 30.6.17:45-19:15, Crises, Y229a | Session chair(s): Saija Toivonen

2946 | Matthew Gebhardt

Insurance Captives, Affordable Housing, and Climate Risk

In 2024 there were 27 separate weather and climate events that resulted in over $1 billion in damages. This trailed only 2023, which saw 28 $1 billion weather and climate disasters. The increasing prevalence and costliness of these events is one significant factor influencing the increasing cost of insurance for housing. Sharply escalating insurance premiums are one of the most significant drivers of operating expenses for multiunit rental properties, including affordable housing, increasing at a rate more than triple that of the next closest operating expense in 2023. Affordable housing in the US is often also assigned higher premiums due to perceived risk associated with construction quality, population, and operations and required to carry higher levels of coverage by lenders and tax credit investors. Affordable housing projects operating with fine margins are poorly situated to weather these escalating costs, as they are restricted in their ability to raise rental rates to offset these expenses. Rising insurance premiums are threatening the viability of an increasing number of affordable housing buildings and portfolios.

This project explores the use of insurance captives as an approach to controlling operating expenses in affordable housing through a case study of a recently created insurance captive formed by Home Forward, the public housing authority for Portland, Oregon. Drawing upon interviews with staff and participant observations (disclosure: I am Chair of the Board of Commissioners for the organization) and review of documents associated with the formation of the captive, this project presents the decision-making process that resulted in the captive, the risks and benefits of this approach, and the lessons and implications for the larger affordable housing field. It further examines the captive performance in response to the January 2024 ice storm that caused significant damage to several properties as a stress test of the concept.

2537 | Thaís Santos da Silva

Preliminary analysis of disaster resilience in the finance sector of the municipality of Franco da Rocha, São Paulo: Strengthening resilience capacity through the territorialization of the budget planning

Considering the increase in extreme events in recent years in the municipality of Franco da Rocha, São Paulo, this study seeks to develop strategies to strengthen disaster resilience in the context of municipal action planning. In addition to the development of a Local Resilience Plan as an important measure, it is also important to use existing instruments, such as the Multi-Year Plan (a budget planning tool) provided for in the 1988 Federal Constitution. Given the lack of territorial data to support the development of various plans, the tools developed by the United Nations Office for Disaster Risk Reduction (UNDRR) called Quick Risk Estimation (QRE) and Disaster Resilience Scorecard for Cities, recently applied in the municipality, are adopted as an alternative for gathering information. This application was carried out during the training period for Franco da Rocha civil servants, appointed by the local government, for the Research, Development, and Innovation Program (PD&I) called Analysis of Disaster Resilience in the Municipal Context, promoted by the Federal University of Juiz de Fora, for which the municipality was selected through a public call. This work also proposes to conduct a methodological test for the preparation of a database for budget planning, in addition to recognizing the importance of treating public policies in a territorialized manner using Quantum GIS software. As a final proposal, indicators are presented for the composition of the Local Resilience Plan, the final product of the RD&I Program, as elements for measuring the Finance sector, which can be incorporated into monitoring platforms.

2197 | Jan Whittington, Adrienne Greve

City Climate Budgeting: Transforming the Capital Pipeline

Cities worldwide are subject to many challenges due to climate change from GHG reduction to potential climate impacts. Cities have developed climate action plans; however, in parallel, a city's plan and budget must explicitly include climate change as it affects capital.

For over 10 years, we field tested models for climate-informed capital development in cities across sub-Saharan Africa, Turkey, and India. These were World Bank, Rockefeller, and UN-funded technical assistance programs lasting one year or more, with models built on widely shared software systems, MS Excel, ArcGIS, and QGIS. All capital projects were analyzed for their costs (capital, operations, and maintenance), greenhouse gas emissions (annual and lifespan scope 1 and 2), and exposure to material loss and damage over the project lifespan due to climate-exacerbated natural hazards (physical asset impacts and financial cost to rebuild).

Results of these field tests for a sample of eight cities encompass 187 capital projects with a total capital cost of 2.5B USD across eight sectors of infrastructure (e.g., buildings, transport, waste, green infrastructure). Given the climate-related performance and cost-efficiency of various capital project design alternatives, city professionals selected alternatives for these projects that eliminated 92 percent of greenhouse gas emissions and 87 percent of financial loss and damage.

Globally, research and practice demonstrate overwhelming demand for solutions cities can implement to cost-effectively reach the targets suggested by the Paris Agreement and feasibly prepare for the unavoidable impacts of climate change. Driven by this demand, these tools have been developed into an easy-to-use software service, currently being tested by ten cities and counties in the US and Canada. Feedback from participating cities identifies the many ways that a scientifically-based and customer friendly solution can bring about a cost effective transformation of the capital pipeline long sought in the climate research and policy-making arena.

2592 | Andrew J. Greenlee

Crisis of Housing or Housing of Crisis? – A Genealogy of US Housing Policy

Crisis narrative currently pervades public discourse about housing in the United States. This narrative is typically used to frame the widespread scarcity of affordable housing for middle- and low-income housing consumers. While there are contemporary widespread market failures related to the supply of affordable housing – in 2024, 42.9 million US households were considered cost burdened, paying more than 30% of their income towards housing and an additional 21.5 million were severely cost burdened, paying more than half of their income towards housing costs – this narrative construction of crisis glosses over a much deeper and complex set of issues created in part due to the history of solving complex problem through housing policy interventions. This is reflective of a more enduring perpetual crisis in housing rather than an emerging crisis of housing (Heslop and Ormerod, 2019). In this paper, I examine several sequelae of the contemporary crisis of housing in the United States from mid-century to present, in order to describe the housing of crisis within housing policy. These existing crises reflect a diverse range of issues related to environmental justice, finance, spatial access, social reproduction, and institutional culture that I argue must be acknowledged and reconciled to evolve policy toward a more productive, humane, and equitable system of housing in the U.S.. I also argue that given the unique role which planners play in regulating the social, economic, and physical terms upon which housing is provided at the local level that there is a unique role for planning to play in evolving national housing policy in light of its contradictions and shortcomings.

1361 | Karen Chapple, Tara Vinodrai

Supermom in the 'hood: Pandemic-era female labor force participation in Bogotá, London, and Toronto

Women typically serve as the primary caregivers for the children in the household, and many work part- or full-time as well. To balance the demands of home and work, employed individuals with caregiving responsibilities benefit from easy access to jobs and amenities by living in either care amenity-rich neighbourhoods or neighbourhoods with high levels of transit accessibility (or both, i.e., the 15-minute city). However, the Covid-19 pandemic brought new challenges of working from home while often serving as full-time caregiver, with lasting impacts for many.

In this paper, we examine two related questions: How does a care amenity-rich environment and high labour market accessibility impact female labour force participation in different contexts (Bogotá,

London, and Toronto)? And how did the Covid-19 pandemic transform labour force participation for women living in different types of neighbourhoods? We hypothesize that the presence of care amenities supports higher levels of labour force participation, particularly for high-wage workers in high-skilled occupations, but accessibility plays a critical role as well, particularly for women in low-wage service occupations. These built environment and accessibility factors then lead to higher post-pandemic labour force participation, but again with outcomes differentiated by occupation of employment.

For the analysis, we deploy census, travel survey, Open Street Map, and cell phone data. We develop a typology of neighbourhoods based on accessibility to amenities and then identify the key factors determining labour market success via multiple regression.

The findings of this research not only have implications for transportation, economic development, and land use policy, but also speak to debates about the "15-minute city" by showing how a dense built environment functions as labour market support – but primarily for high-end, high-wage occupations, due to factors such as housing costs.

Social resilience

Thu 2.7.14:00-15:30, Crises, Y229a | Session chair(s): Toni Ahlqvist

2536 | Romola Sanyal

Managing urban crisis- an analysis of humanitarian interventions

Despite the fact that forced migration is becoming an increasingly urbanised issue, humanitarian responses are ill-prepared to address it. This is for a range of reasons including the fact that humanitarian support has often been provided in camps, and the architecture of humanitarianism and refugee responses are themselves designed to operate within the camp context and are ill-suited for urban areas. Because of the camp bias, there are also few within humanitarian agencies or NGOs that are urban specialists and there remains a dearth of knowledge, understanding and expertise on how to address protection issues for displaced people within urban contexts.

In this presentation, I unpack the agency politics between different UN organisations to understand how urban responses remain 'stuck' despite the urbanisation of displacement. Drawing on interviews and ethnographic material, I discuss how policies are created from the edges of the system to push through urban ways of thinking and what some of the financial and other politics around that may be. Despite the concerning outlook, I argue that given the 'humanitarian reset' there are important opportunities for planners and humanitarian actors to collaborate and develop robust responses to large-scale displacements into cities.

1290 | Sung-Chieh Chen, Hsueh-Sheng Chang

A Place-based Micro-scale Social Vulnerability Framework for Mitigation and Preparedness under Compound Typhoon-Flood Hazards: The Case of Tainan, Taiwan

Climate change has increased the frequency and intensity of extreme weather events, leading to more complex disaster impacts. As a result, compound disasters have become an important research focus. In

Taiwan, typhoons combined with heavy rainfall often cause compound flood disasters, especially in southern coastal areas such as Tainan.

Existing social vulnerability assessments often rely on generalized indicators that may not fully capture local conditions. To address this gap, this study develops a place-based, micro-scale social vulnerability framework through disaster context analysis and literature review, with particular attention to the pre-disaster phase in shaping vulnerability. The framework incorporates both quantifiable indicators and context-specific factors to better capture local conditions.

The results reveal clear spatial clustering of social vulnerability in Tainan and identify three main types: urban structural vulnerability, rural caregiving vulnerability, and mountainous aging-agricultural vulnerability. Notably, high vulnerability is observed not only in rural areas but also in highly urbanized districts.

However, due to data limitations, mitigation and preparedness factors are only partially represented using available indicators and proxy variables. This highlights the lack of local-scale preparedness data and suggests the need to strengthen pre-disaster actions and data development to reduce disaster losses and recovery costs.

This study contributes by proposing a place-based analytical framework and emphasizing the importance of improving data and policy for mitigation and preparedness. It also highlights how local-scale experiences in Taiwan, as an island setting under climate change, may inform broader discussions on disaster governance and adaptation in similar contexts.

2298 | Varsami Ersi Zafeiriou

Two Cities, One Storm: Social Vulnerability as a Lens on Contrasting Resilience Pathways in Athens and Thessaloniki,Greece

The global resilience paradigm often replicates a problematic dichotomy, celebrating the technical governance of "resilient cities" in the Global North while framing those in the Global South primarily through a lens of "vulnerability." This leaves a critical blind spot: peripheral cities in Europe, wherein austerity legacies and protracted crises could reveal how resilience planning can either confront or entrench structural inequality.

This study investigates this gap through a comparative case study of Athens and Thessaloniki, Greece, examining the causal mechanisms by which their resilience planning addresses social vulnerability. The research asks: how are drivers and parameters of social vulnerability diagnosed and addressed, and what distinct urban capacities shape these responses? The methodology combines critical policy analysis of strategic documents with semi-structured interviews with key stakeholders. Guided by the VISIBLE framework, retrofitted for a prolonged crisis, the study specifically traces how these drivers and parameters are recognised, framed, and addressed within formal planning processes (Zafeiriou, 2025).

Findings demonstrate that the conceptualisation of social vulnerability within each city’s strategy dictates its institutional responses. Thessaloniki’s approach, shaped by its significant youthful human capital, frames vulnerability through a lens of economic precarity and lack of opportunity, thereby fostering

bottom-up social innovation. Athens leverages its stronger institutional capacity to diagnose vulnerability resulting from service deprivation and fragmentation, leading to interventions that use coordinated networks to enhance systemic access and opportunities.

This study ultimately argues that resilience planning under a state of crisis is not a neutral technical exercise but a political one, shaped by a governing Weltanschauung: foundational worldviews that determine whether interventions manage symptoms or transform systems. Consequently, a transformative shift is required, one that compels urban planners to move beyond symptomatic relief and directly confront the foundational structures that perpetuate inequality and vulnerability.

2145 | Evangelia Maria Kouvara, Evangelia Athanassiou

Transforming territories: emergency politics and public space in Thessaly, Greece.

This paper examines the notion of crisis as a process, in relation to the production of public space. Through this process, public space turns into a territory of opportunity. This transformation consists of a top-down process, in which the institutional framework and the state interventions play a crucial role in public space decision-making. These decisions are the dominant crisis management and response policies, which are implemented as the “emergency governance”. Simultaneously, crisis as an opportunity is a field where multiple actors interact through different relationships and bottom-up contestations.

The paper reviews the spatial and social dimensions of successive and overlapping crises in Thessaly, as a multi-dimensional opportunity. Thessaly is a Greek region that during the last decade has been severely affected by successive crises such as the financial crisis, Covid-19, successive floods and the social crisis raised by the fatal rail accident at Tempi. Public spaces in Thessaly have been heavily impacted by these events and have effectively become a testing ground for emergency policies and a new governance regime. At the same time, streets and squares have served as sites of dissent and solidarity. These two emerging approaches to crisis management demonstrate a lack of cohesion: while emergency policies prepare the ground for new actors to come into play, accelerating processes of neoliberalisation of both rural and urban space, local residents develop their own mechanisms to recover and resume everyday life. The present study examines the effects of successive crises on public space, documenting both top down emergency policies and residents’ responses.

The paper argues that each crisis transforms the territory and prepares it for the next, through these two intertwined dynamics, thus creating fertile ground not only for local versions of neoliberal politics but also for reclaiming the public nature of public space.

1214 | Subhashni Raj

Decoding the community food security landscape

Food security in island communities is particularly vulnerable to climate disruption and health-related disasters due to socio-economic-ecological (SEE) constraints, and limited adaptive resources. The conventional resilience-based framework assumes that communities can absorb disruptions and return

to normalcy. However, for marginalized populations, “normal” often means a pre-existing state of food insecurity making this framework inadequate.

This research proposes to shift towards restoration and transformation of the food system through integrating indigenous knowledge with scientific methods to enhance food sovereignty and adaptive capacity. By utilizing a comparative approach we explore food system vulnerabilities, adaptations and recovery mechanisms in two different island communities– Hawai‘’i and Fiji. Consider that Hawai‘’i is heavily dependent on food imports – currently about 90% of the food is imported. Hawai’i history demonstrated how government policies have systematically eradicated traditional agricultural practices, replacing self-sustaining indigenous food systems with a dependency on external food sources. In contrast, Fiji has maintained strong subsistence agriculture and traditional food practices that enhance food sovereignty despite economic and environmental challenges. By comparing these two communities' food systems, we aim to discover the role of traditional foodways in fostering food security.

Our research combines spatial and statistical analysis with qualitative insights from community engagement explores the changes in food pathways before, during, and after the COVID-19 pandemic. By mapping food networks, analyzing policies, and examining lived experiences, the study aims to uncover systemic barriers and solutions for culturally relevant interventions. Preliminary results from this on-going research will be presented.

Planning for Resilience

Thu 2.7.16:00-17:30, Crises, Y229a | Session chair(s): Marco Cremaschi

2311 | Mehmet Ali Gasseloglu, Funda Uz

Moments of Rupture: Rethinking Crisis Through the Material and Discursive Conditions of Architectural Production

Cities increasingly face environmental, climatic, political, and economic crises whose effects extend far beyond sudden shocks. Across diverse geographies, crisis moments reveal that the built environment is not a passive victim but an arena where vulnerabilities, power asymmetries, and governance failures are produced and intensified. Such disruptions expose the material and institutional conditions through which architecture is made, showing how crisis governance, design discourse, and construction practices are tightly interlinked.

While scholarship on crisis and resilience often prioritises emergency response or technical adaptation, it pays insufficient attention to how crises configure the material, political, and discursive conditions under which architecture operates. This gap obscures how institutional power, expert knowledge, and material processes shape what recovery means and for whom it is pursued.

This paper develops a theoretical framework that conceptualises crisis as a revealing moment of architectural production, where material politics, discursive power, and governance logics converge. It examines how these processes determine whose resilience is prioritised, which futures become thinkable, and which alternatives remain marginal.

The study draws on three strands of inquiry:

(1) political ecology and production studies,

(2) critical discourse analysis of crisis-related architectural narratives, and

(3) comparative post-disaster cases across different geographies and hazard types. These cases activate spatial disciplines both discursively and operationally, offering a basis for analysing how material and institutional conditions reconfigure during disruption and how design-related actors shape recovery imaginaries and practices.

The analysis shows that crises recalibrate material regimes, legitimise expert narratives, and consolidate governance structures that often marginalise local knowledge, while also opening limited windows for ecological and justice-oriented transformation. By situating architecture within its conditions of production, the paper reframes crisis as an analytical lens for understanding the interdependence between spatial disciplines and broader socio-material systems, contributing to future-oriented and justice-aware approaches to navigating systemic urban crises.

1384 | Claire Daniel, Robyn Dowling, Sophia Maalsen, Pauline McGuirk

Governing risk in urban AI: the need for AI governance specific to the planning sector

Artificial Intelligence (AI) is increasingly embedded in urban planning processes, from predictive analytics to automated assessment of plans and development proposals. While generic AI governance instruments emphasise important principles such as fairness, transparency, and accountability, their implicit focus tends to centre cybersecurity and preventing unwanted bias in the treatment of individuals subject to automated decision-making. This focus often fails to capture the domain-specific risks arising in the planning context, where the subject of decision-making is not individual people but places, ranging from single buildings to entire cities and their communities.

Drawing on empirical research into AI implementation in planning in Australia and international cases, we identify critical gaps between generic AI policy instruments and the situated deployment of AI in planning practice. We argue that these gaps risk allowing planning-related AI systems to pass through formal governance checks without sufficient scrutiny , despite their role in decisions shaping the future city. Without frameworks attuned to the spatial, social, and political dimensions of planning, and the materiality of its practice in context, AI risks producing outcomes that are misaligned with the public interest and long-term urban wellbeing.

We propose a risk-centred framework tailored to planning, highlighting dimensions such as procedural explainability, ability for the community to meaningfully influence planning decisions, and the consideration of long-term social and environmental outcomes. Our findings underscore the need for sector-specific formal governance mechanisms to ensure that AI adoption is aligned with planning in the public interest.

2271 | Lassi Tähtinen, Saija Toivonen

Deep Uncertainty and the Future of Urban Preparedness: The Role of Spatial Planning in Evolving Risk Landscapes

The accelerating complexity of social–technological–ecological systems heightens uncertainty and increases the likelihood of systemic crises. International bodies such as the UN and EU emphasise that preparedness must therefore be multidimensional, spanning sectors and governance levels. With the continuous urbanisation, over three-quarters of Europe's population are living in cities, making the urban built environment function simultaneously as risk hotspots and as key arenas for strengthening societal resilience. Hence, spatial planning is increasingly recognised as a long-term mechanism for advancing preparedness, yet existing research focuses largely on climate change and natural hazards, offering a limited view of what the full threat landscape spatial planning is instrumentalised for.

This qualitative, futures studies-based case study examines how spatial planning contributes to urban preparedness for diverse and evolving future threats within the European governance context, using Helsinki, Finland, as an illustrative case. The study analyses how institutional preparedness actors identify, frame and prioritise threats, how these framings and prioritisations have changed between 2015 and 2025 under EU-mandated risk assessment reforms, and how they are operationalised through planning instruments such as legislation, building codes, land policy, and zoning. Drawing on uncertainty theory, the research also explores how planning practices address—or overlook—low-probability, unexperienced, emerging, or unknown threats.

Empirically, the study triangulates risk assessments, strategic preparedness documents, multi-level land-use planning materials, EU directives, and targeted expert interviews. The findings seek to illustrate how preparedness institutions imagine evolving threat landscapes and how these imaginaries shape urban preparedness strategies through spatial planning, offering insights for urban risk and resilience officers, and spatial planners seeking to strengthen resilience under deep uncertainty.

2184 | Mrudhula Koshy, Rolee Aranya

Planning Under Uncertainty for Addressing Polycrisis: Conceptual and Empirical Perspectives from Global South settings

A combination of climate change-induced extreme weather events, armed conflicts, forced migration, financial recession, political polarisation, shifting global power centres, aid withdrawal, and rising inequalities has led to worldwide recognition that polycrisis is the new normal. Like many other fields, planning, which focuses on long-term goals and agendas, and humanitarianism, which addresses short-term emergencies, are acknowledging the urgent need for an epistemic, institutional, funding, decision-making, and governance reset to better address polycrisis situations across scales. This paper examines these global dynamics through the lens of 'planning under uncertainty' and the potential to bridge planning and humanitarianism to better address polycrises.

In recent decades, planning literature has explored what constitutes a flexible and dynamic approach through complexity-oriented planning, resilience-oriented planning, risk-oriented planning, post-structuralist planning, and adaptive planning, among others. Many of these approaches are developed

primarily in Global North settings, which are often characterised by strong institutional mechanisms, relative equality among actors, adequate resources and comparatively strong governance structures. When applied in parts of the Global South, where institutional capacity, resources, and governance arrangements differ greatly and are sometimes fragile, these approaches are often poorly placed methodologically and theoretically to diagnose and address crises. Some approaches, such as adaptive governance and community-driven action, are emerging from the South, but their potential to address polycrisis remains underexplored. This underscores the need to situate planning theories and practices in their specific social, political, and economic contexts rather than assuming universal applicability.

This abstract draws on unprecedented monsoon flooding in 2018 and 2019 in Wayanad, a peri-urban, hill district in Kerala, India. The authors highlight that current perspectives on planning under uncertainty can benefit from rich empirical insights from the Global South to present a contextualised contingency planning approach that accounts for grounded specificities and that simultaneously bridges long-term planning and short-term humanitarianism.

1961 | Annette Kroen, Jago Dodson

The role of urban planners in the resilience of complex urban systems

Urban expansion, climate change and socio-economic shifts are increasing exposure to natural hazards in cities. These hazards can interact, leading to multidimensional, cascading and compounding disaster impacts in urban areas. While rural areas are also affected, cities have distinct characteristics: the concentration of assets and people amplifying disaster consequences, including feedback loops and cascading impacts; the number and diversity of actors; and complex governance situations. This complexity highlights the need for a multi-hazard and systems approach to resilience, with collaboration at the city-regional scale.

This presentation reports on research into natural hazards in complex urban systems in Australia, one of the world's most urbanised nations. Through document and policy analysis, stakeholder surveys and interviews, the study identified key gaps and barriers in understanding disaster impacts in complex urban systems. These include the challenge of integrating thinking across multiple systems, hazards, and timeframes and outside of 'one's own' domain, and the uncertainty and unpredictability of hazard impacts and feedback loops between systems. For resilience building, challenges also include trade-offs between different measures.

Addressing these multi-hazard risks requires place-based approaches – locally as well as city-wide. Furthermore, disaster risk reduction includes reducing exposure to hazard risk, for example through land-use planning decisions (e.g. relocation from a high-risk area) or engineering works (e.g. levees). However, it also includes decreasing vulnerability, e.g. through reducing socio-economic and political drivers. Mapping exposure, social, economic, and demographic dimensions can assist in understanding drivers and experiences of vulnerability. For all of these activities urban planning has vital role to play, and planners must build awareness and skills in these areas.

We will present options for adaptive resilience planning strategies and introduce a Practical Guidance Tool for Conceptual Mapping of Resilience and Vulnerability supporting capability development, vulnerability and risk assessment and decision-making for resilience investment.

Infrastructure Resilience

Thu 2.7.17:45-19:15, Crises, Y229a | Session chair(s): Marco Cremaschi

2538 | Matthias Zimny

Regional resilience of critical infrastructures in a risk society

The increasing threat of extreme weather events, including rising heat stress, heavy rainfall and flooding, poses a significant challenge to the functionality of critical infrastructure (CI). This situation necessitates the development of resilience-oriented planning approaches. A practice-oriented focus aims to understand the effects of extreme events on infrastructure systems, while the model of the resilient region serves as the overarching goal for regional planning.

Against this backdrop, two case studies are presented in the context of the risk society. In the district of Euskirchen (North Rhine-Westphalia) – a region that was particularly affected by extreme flooding – the Interregional CI Dialogue was initiated. This model project focuses on resilience governance through a network of regional actors, strengthening the resilience of critical infrastructures through continuous exchange and common objectives. The integration of scientific findings into reconstruction and prevention measures is a strategy to enhance the region's resilience to future events.

Concurrently, the ERDF-funded research project "Grün4KRITIS" in the Ruhr region is addressing how green infrastructure can contribute to the protection of CI. The investigation will explore the potential of natural systems to serve as a tool for climate adaptation. The practice-oriented approach encompasses the analysis of heat, heavy rain, and flood risks for infrastructure sectors, as well as the quantification of protective services provided by green infrastructure. Through the close integration of planning practice and scientific modelling (e.g., on cascade effects, interdependencies, and spatial analysis), innovative, nature-based solutions are being developed for the region.

Utilising these case studies, the lecture elucidates challenges in regional practice, such as cross-sector coordination, data basis, and stakeholder cooperation, and possible solutions for resilient regional planning. The projects examine how regional entities can enhance the protection of their infrastructure through planning and collaborative efforts, thereby ensuring the continuity of public services even in extreme circumstances.

2306 | Jennifer Oriwol, Johann Neuhard

Cascading Effects, Local Realities: A Spatial Lens on Critical Infrastructure Risk

Extreme weather events, like floods or heat waves, are increasing noticeably as a result of climate change, challenging the protection, maintenance, and restoration of critical infrastructures (CI), as their failure would have far-reaching implications for public life. While the damage potential and functional interdependencies of such infrastructures are often analysed solely through cascade chains,

conventional flood risk management and spatial planning typically rely on spatial approach. This study develops an approach to integrate functional and spatial analyses, making them applicable for spatial planning.

Using the example of the Ruhr region in Germany, we applied a mixed-methods approach: existing cascade chains are spatially specified and validated in collaboration with infrastructure operators to make location-specific knowledge and action needs visible. In addition, spatial analyses of climate hazards were conducted to identify hotspots and potential spatial amplifiers of cascading effects. These results are subsequently integrated into participatory formats that are based on a gaming-simulation workshop, in which different disruption scenarios are played through to jointly explore areas requiring action and holding potential.

The contribution will demonstrate how operational and spatially grounded knowledge enhances existing analyses and expands planning suggestions for climate adaptation measures. By making cascading risks spatially visible and jointly exploring response options with operators, the approach offers a new way to develop CI protection strategies that are relevant. This ensures that CIs can continue to function during extreme events by combining existing planning frameworks with the knowledge of CI operators for action.

1433 | Marius Ehrmann

Creating a better evidence-basis for crisis management - A novel approach for identifying and designating critical infrastructures at the regional and municipal level

Climate change, hybrid warfare, rapid technological change – these are just some of the risks that demand a better (disaster) preparedness on all levels of government and society. This is especially true for critical infrastructures (CI) which are of such vital importance that “the failure or impairment (…) would result in lasting supply bottlenecks, significant disruptions to public safety or other dramatic consequences (…)” (BMI 2009). In Germany, this definition of CI is anchored in the CI-Ordinance, a federal regulation that defines threshold values which, if surpassed, show that an infrastructure or the service it provides is ‘critical’. However, when matched with the responsibilities of crisis management, a so-called ‘problem of fit’ (Schmitt 2020) comes to show: while CI is defined on a nation-wide basis, crisis management is placed in the legislative control of the federal states, and, even more off, first responders such as the fire departments are organized at the municipal level. The hypothesis of this presentation is that for effective disaster preparedness and crisis management it is important to understand not just which infrastructures and services are critical at the federal level, but also which ones are critical on lower administrative levels. There are various indicators that can be applied to assess CI (Fekete 2011), and the approach presented here will expand on these established indicators. Merely applying another threshold value, for example the number of annual in-patients at a hospital, disregards the local situation, which strongly depends on factors like the spatial structure, buildout of infrastructure systems, redundancies, and others. This new approach switches the perspective from purely an infrastructure point of view to a spatial perspective that can identify areas that are under- or overserved, thus enabling stakeholders to make evidence-based adjustments and take measures in those identified cases to help crisis-proof regions and municipalities.

1817 | Johann Paul Neuhard

The use of green infrastructure to increase the resilience of critical infrastructure to extreme weather events – the approach of the Grün4KRITIS research project

Running water, electricity, organised road traffic and a healthcare system are important parts of daily life for many people worldwide. In Germany, the protection of these critical infrastructures (CIs) is a matter of national, regional and local concern. CIs face a range of disruptive factors, such as climate change, which heighten the need for protection.

Through the German Adaptation Strategy (DAS) and its associated DAS Adaptation Action Plan, Germany is addressing the effects of climate change, which are already evident and are expected to become more pronounced in the future. Implementing the measures described in these strategies would also positively impact the protection and resilience of critical infrastructures, thus reducing potential damage from extreme weather events.

To respond to the consequences of climate change and extreme weather events of increased intensity and frequency, various approaches can be pursued at the CI operator level. One of these is the use of green infrastructure (GI). The Grün4KRITIS research project is investigating this approach for the transport and health CI sectors in the Ruhr area in North Rhine-Westphalia, Germany. The project aims to improve understanding of how GI can enhance the resilience of critical infrastructure (CI) and to quantify the protective function of GI using ecosystem services. Subsequently, a prioritisation of protection and further qualification of GI elements with a significant impact on CI protection is to be developed.

From the project's inception in early 2024 until late 2025, valuable insights have been gained regarding the definition of regionally significant CIs. Additionally, expert knowledge was collected and compiled through workshops and interviews, establishing a robust theoretical basis for subsequent project phases.

1847 | Shruti Syal, Jennifer Ciminelli

Mapping Social & Ecological Capital for Urban Resilience Planning with Green Infrastructure

In an era of polycrisis, urban green infrastructure (GI) offers the promise to build resilience against interconnected socio-environmental threats—urban heat island effect, flooding, pollution, food insecurity, etcetera. A tree canopy project to tackle UHI could also be designed to address flooding or pollution through green stormwater infrastructure, or a community garden could address food insecurity and biodiversity issues. This promise is unfulfilled due to institutional disconnects and an ambiguous social network that cannot leverage landscape-scale ecological connectivity or stable multi-actor collaboration. This fragmentation exemplifies Track 15's core concern: how planning can identify and address root vulnerabilities.

Grounded in systems theory, we operationalize urban resilience as an emergent property of Ecological Capital (multi-scalar natural or 'constructed' urban greening) and Social Capital (related organizations, relationships, governance structures). These capitals are inextricably linked: grant dependence, unclear maintenance responsibilities, and weak civic networks lead directly to GI disrepair and diminished ecological function. Deploying integrated methods—GIS mapping, ethnographic field observations,

content analysis, social network mapping, and stakeholder interviews—we map both capitals as interactive, open-access networks.

Findings from the Hopewell, VA pilot research reveal that consolidating site, neighborhood, and regional-scale GIs provides the granularity that regional planning overlooks while achieving the ecological connectivity it provides. Network mapping does not just provide an analytical framework to visualize organizations and relationships constituting governance capacity (nodes → links → networks); when used to map both capitals together, it shows that landscape-scale projects with diverse GI components produce robust social networks and funding diversification, while single-purpose, linear networks collapse when one partnership or GI project fails. Ongoing Richmond, VA research extends this work (167 GI projects, 845 actors), already offering new lessons about actor centrality and network strengthening, and responds to Track 15's expectations of using analytical tools to shape crisis preparedness and governance shifts for equitable, adaptive urban futures.

Nature-based resilience

Fri 3.7.09:00-10:30, Crises, Y229a | Session chair(s): Davide Longato

2458 | Peter Davids, Elena Klopries

Identifying two strategies for implementing NBS on private land

Nature-based solutions (NBS) have gained prominence as effective measures for reducing climate-related risks such as flooding, drought, and heat stress. Compared to traditional grey infrastructure, NBS often require substantially more s[apace to deliver their intended benefits. As a result, large-scale implementation becomes viable only when private land is included. Yet mobilizing and engaging private landowners remains one of the most persistent challenges in advancing NBS, often determining the overall feasibility and long-term impact of these interventions.

Building on practice-based research on implementation processes in 6 case studies in Germany, Austria, Italy, Romania, Slovakia and Czechia, this contribution identifies and examines two distinct strategies for implementing NBS on private land. The first is a rational approach, in which risk assessments determine the most suitable type, scale, and location of NBS. This strategy prioritizes technical effectiveness, ensuring that interventions are placed where they can achieve the highest reduction of climate risks. In the second approach, the willingness, interests, and constraints of private landowners guide decision-making. In this strategy, the type, scale, and placement of NBS are shaped by what landowners are prepared to adopt, emphasizing the efficiency of the implementation process and the likelihood of participation rather than optimal hazard reduction.

By comparing these two approaches, this contribution highlights the inherent trade-offs between climate-risk effectiveness and practical feasibility. It argues that successful NBS deployment on private land requires an adaptive balance between scientific rationale and stakeholder pragmatism. The contribution concludes with recommendations on when each strategy is likely to be most appropriate, offering guidance for policymakers, planners, and practitioners seeking to accelerate NBS uptake across privately owned landscapes.

1550 | Elizaveta Shelekhina, Ari K. M. Tarigan

Reviewing Nature-Based Stormwater Management in Arctic Municipalities: Barriers, Enablers, and Planning Implications

Nature-based solutions (NBS) are increasingly promoted as sustainable approaches worldwide for managing urban and regional stormwater and building climate resilience. NBS contributes to multiple benefits associated with socio-economic and environmental factors. Yet, their adoption in Arctic and sub-Arctic municipalities remains limited and fragmented, and their integration into municipal planning policies remains unclear. In fact, due to the unique and harsh environments in cold regions, not every stormwater management technique or solution is suitable. To clarify the current state of the art regarding NBS stormwater adoption in Arctic environments, this study conducts a systematic literature review of barriers and enabling factors affecting stormwater-related NBS in cold-climate contexts, particularly in the North Sea region. Employing a PRISMA-guided scoping review of peer-reviewed articles retrieved from Scopus and Web of Science, the analysis identifies dominant clusters of NBS research and practice relevant to high-latitude conditions. The findings highlight that while technical measures—such as bioretention systems, permeable pavements, and green roofs—are increasingly adopted to address freeze–thaw dynamics, their long-term performance remains under documented. The study further reports that institutional and regulatory rigidity, limited funding mechanisms, and fragmented interdepartmental collaboration are key barriers to implementation. In parallel, strong local governance, policy integration, and co-creation with residents are critical enablers. In addition, environmental benefits, including improved water quality and ecosystem restoration, are widely reported, yet social and economic outcomes are less explored in Arctic contexts. Overall, this review underscores the need for cross-sectoral planning frameworks and locally adapted design standards to mainstream NBS for stormwater management under cold-region climatic constraints. The study aims to indicate planning policy overviews that help adopt NBS stormwater tailored to the Arctic region context.

2155 | Shruti Syal

Nature-based Solutions for Water Sanitation and Hygiene access in urban ‘informal’ settlements

Delhi's storm drains (nullahs) carry runoff and untreated sewage into the Yamuna River, creating an intertwined public health and environmental crisis affecting >1 million residents in jhuggi jhopdi clusters (JJCs) or 'informal' settlements. Despite decades of investment by local, national, and international actors, WaSH (Water, Sanitation and Hygiene) access remains fragmented by tumultuous histories of "slum" eviction and infrastructure provision failures, compounding flooding, pollution, and water-borne diseases. Nature-based Solutions (NbS) like constructed wetlands can address both WaSH and remediation—a critical opportunity squandered by institutional fragmentation, creating cycles where waste moves from one jurisdiction to another (e.g. toilet to drain to public space) rather than being removed. Using GIS suitability analysis and social network mapping, I explore where and how to provide coordinated sanitation-remediation projects using NbS to enhance urban resilience. Aligned with Track 15, this research identifies "cause", "target", and "instrument' for urban resilience within this system.

City-scale analysis identified locations of sufficient vacant land vis-a-vis population size to add decentralized wastewater treatment systems (DEWATS) to community toilets already provided. Literature

review revealed which climate-appropriate, low-cost DEWATS typologies to test, and site-scale suitability of their efficacy to treat while withstanding the Monsoons was determined by adapting the ALLOWS (Assessment of Local Lowest-cost Wastewater Solutions) Method and SWAT (Soil & Water Assessment Tool) for hydrological modeling. The results revealed trade-offs between robustness and resource requirements, but showed that many sites were suited to intervention and thus could have city-level impacts.

Ongoing social network mapping of 651 plans, policies, legislations, reports and publications (being supplemented by interviews with ~100 "central actors" over 2026) is exposing structural issues: thematic silo-ing even among well-connected agencies, fragmentation across government levels, ambiguous and poorly documented relationships between local government and community actors, etcetera. Mapping the city's social capital as a network will support coordinated sanitation-remediation projects.

2693 | Yudhistira Pribadi, Britta Restemeyer, Margo van den Brink, Johan Woltjer

Framing "nature" in Nature-based Solutions: Insights from Indonesia's flood management practices (1970s - 2020s)

Nature-based Solutions (NbS) have been increasingly recognized as a resilience-building approach in flood risk management. However, differing perceptions of what can or should be considered “natural” in NbS (Osaka et al., 2021) are complicating the implementation of NbS in local flood risk management practices (Lechner et al., 2020), especially in the Global South. Adopting a historical policy-framing perspective, this paper explores how NbS frames have evolved in global debates and how they are expressed in national-level policy. Drawing on a literature review, this paper distinguishes between four frames that dominate the global NbS debate in environmental policy: a technical, economic, social, and ecological frame. These frames differ in how they define policy problems, which roles of nature they involve, which solutions are suggested, and how responsibilities are assigned. Using policy-document analysis and interviews with stakeholders, the paper explores how these frames have materialized in Indonesia’s flood-risk management policies from the 1970s to the 2020s. Indonesia offers a compelling case given its long-standing engineering-led flood policies, while more ecological approaches, including NbS, have remained limited to project-based implementation. Preliminary results suggest that technical and economic frames continue to dominate policy and implementation, while social and ecological frames emerge in community-led and localised practices. These practices typically relate to socio-economic conditions, including local stewardship of nature. The question remains how these emerging practices could influence the future of NbS adoption in Indonesia’s flood management policy.

References:

Lechner, A. M., Gomes, R. L., Rodrigues, L., … Gibbins, C. (2020). Challenges and considerations of applying nature-based solutions in low- and middle-income countries in Southeast and East Asia. Blue-Green Systems, 2(1), 331–351. https://doi.org/10.2166/bgs.2020.014

Osaka, S., Bellamy, R., & Castree, N. (2021). Framing “nature-based” solutions to climate change. WIREs Climate Change, 12(5), e729. https://doi.org/10.1002/wcc.729

2819 | Catherine M. Ashcraft, Christina Rosan

Managing Combined Sewer Overflows with Nature-Based and Community Centered Approaches

This paper advances understanding of compound urban crises, nature-based solutions/green infrastructure (GI), and community centered methods for climate preparedness that advance equity. Combined sewer overflows (CSOs) and their associated environmental and health problems are at the core of compound urban infrastructure crises. CSOs reflect the confluence of intense precipitation with longer-term, structural failures: stormwater runoff accelerated by impervious surface area, insufficient sewage system capacity, and underinvestment in cross-sectoral coordination for vulnerable communities to influence decisions. While some cities have developed participatory processes that center community needs in planning nature-based solutions to reduce and slow stormwater runoff, these responses often struggle because they address only one problem at a time. A common challenge is locating GI investments where they will provide intersectional benefits, reducing CSOs and providing benefits to overburdened and under-resourced communities.

In this paper, we draw on urban/periurban initiatives in the USA and Europe to propose guiding questions for research into equitable and effective solutions to CSOs. First, policy and planning processes should be informed by community-driven data collection that captures a range of structural problems. Walking audits, for example, can provide data about community assets that mitigate stormwater runoff and about how individuals experience CSOs. Targeted sensors in sewer systems can provide fine-scale data to better identify where and when CSOs occur. Second, an equity index can support solutions that respond to the compound nature of urban sanitation, integrating responses to CSOs and equitable GI investments, while highlighting areas with intense CSOs and flooding that cannot be addressed by GI alone. Third, regional approaches that coordinate planning across jurisdictions can mobilize additional resources and capacity, while leading to greater benefits. We argue that an equity index framework, informed by community data and an asset-based, regional approach, can address CSOs and help communities prepare for compound urban crises.

Blue resilience

Fri 3.7.11:00-12:30, Crises, Y229a | Session chair(s): Honey Kumar

2953 | Aysin Dedekorkut-Howes

State Level Coastal Adaptation: A Case Study of Australia

Approximately 85 percent of Australians live in the coastal region. Coupled with rapid population growth and increasing development pressure, climate change impacts such as rising sea levels and the increasing intensity of storms and cyclones pose growing risks to Australia's lifestyle, environment, and economy. Despite the level of vulnerability and risk action to date has been limited by all levels of government. In the absence of guidance and financial and technical support from higher levels of government adaptation at the local level remains patchy. In response, several states developed programs in the last decade to assist local governments and communities in developing coastal management and adaptation plans. In 2016 Queensland state government launched the QCoast2100 Program which funds coastal local governments to prepare Coastal Hazard Adaptation Strategies (CHAS). Similarly, New South

Wales government funds local Coastal Management Programs (CMP) through the NSW Government Coastal and Estuary Grants Program. Western Australian Government committed $33.5 million over five years from 2021-26 to the CoastWA Program which supports planning, managing and adapting to the impacts of coastal hazards to ensure sustainable land use and development on the coast for the long-term. In 2022 Victoria launched its Resilient Coast – Adapting for 2100+ Program which provides a statewide approach and grants for development of adaptation plans or projects. South Australia Climate Ready Coasts program is developing Coastal Hazard Adaptation Planning Guidelines for the state and will start funding projects in 2025. This project evaluates these state programs in terms of level of support and guidance they provide to local governments, identify their weaknesses and strengths and lessons they can learn from each other. The methods include a systematic analysis of the program documentation (guidelines developed to help the local governments, websites and reports) and interview and survey data collected to evaluate each program.

1234 | Mengyuan Jia

Exploring Future Flood Risks Under Climate Change Scenarios: A Village-Scale approach to Beijing's Mountainous Villages

Climate change has increased the frequency and intensity of extreme storm events, posing growing flood challenges to cities—particularly the urban fringes of megacities. Villages in these fringe areas are exposed to environmental impacts from megacities while possessing lower disaster response capacities than urban zones.

This study aims to explore future flood risks under climate change using three Shared Socioeconomic Pathways (SSPs) scenarios, focusing on 1,903 mountainous villages in Beijing. Employing mobile signaling hotspot data and the SCS-CN hydrological model, we assessed current flood risks and projected risks across three periods (2021–2099) under the SSP1-19, SSP2-45, and SSP5-85 scenarios.

The results show a 1.18-fold increase in flood risk by 2099, but it was unevenly distributed. According to the simulated flood submerge area maps, the size of the submerged area is projected to increase by nearly 1.5 times compared to its current size. The sub-urban townships located in Huairou and Yanqing Districts, along with those located in the upper watershed area of the Baihe River, will experience a notable rise in flood risk in 2021-2099. These findings can provide a theoretical basis for climate adaptation actions and policies for the sub-urban area of Beijing.

1557 | Pengfei Dai, Zhichao Li

Mitigating Travel Exposure through Blue-Green Spaces: Insights from the 2023 Flood Crisis in Beijing

Intensifying climate extremes are exposing the vulnerabilities of urban mobility systems, particularly in megacities where rapid urbanization has disrupted natural hydrological patterns. This study investigates how blue-green spaces mitigate travel exposure during extreme flooding, focusing on the July 31, 2023, torrential rain in Beijing—the city's most severe rainfall in recent decades. Using anonymized high-resolution mobile signaling data integrated with hydrological, meteorological, and land-use datasets, we

reconstruct spatiotemporal patterns of population movement before, during, and after the event. Spatial regression and exposure modeling were applied to assess the relationship between blue-green space distribution, accessibility, and travel disruption. The results reveal that communities with greater accessibility to connected blue-green spaces experienced shorter disruption durations, lower exposure intensity, and faster recovery of mobility flows. These findings demonstrate that ecological spatial structures can play a crucial role in reducing human exposure and maintaining urban functionality during climate-induced crises. By integrating large-scale behavioral data into urban flood resilience research, this study offers new empirical evidence for the co-benefits of ecological planning and adaptive mobility management. It further emphasizes the need for cross-sectoral, data-informed planning frameworks that recognize blue-green spaces as dynamic infrastructures supporting both environmental regulation and social resilience in future climate adaptation strategies.

1824 | Fran Galbusera, Thomas Machiels

Keeping climate-adaptive water management plans up to date for uncertain futures: Lessons from the Sigmaplan in Flanders

Climate uncertainty poses a growing challenge for water management, making it difficult to plan effective adaptation measures when future conditions remain inherently unpredictable. Although substantial work exists on water management planning, little research learns from existing long-term plans and how they evolve in response to changing climate uncertainties. This paper therefore asks: How can climate-adaptive water management plans remain up to date in a context of increasing climate uncertainty?

We address this question through a single-case study of the Sigmaplan in Flanders – the region's largest, integrated water management plan, designed to protect cities and communities along the River Scheldt and its tributaries from flood crises until 2100. Sigmaplan is a purposively selected case because it was launched in 1977, is currently undergoing a second major revision (Sigmaplan 3.0), and implementation is onging. This long trajectory allows us to examine how shifting climate trends, predictions, and uncertainties have influenced plan updates and implementation. Data were collected through document analysis and semi-structured interviews.

Our analytical framework draws on adaptive governance theory, which explicitly addresses uncertainty and flexibility in social-ecological systems. Five characteristics guide our analysis: polycentric and multi-actor governance, stakeholder participation, knowledge diversity and integration, experimental and iterative approaches, and flexibility, robustness, and resilience.

Findings show that Sigmaplan has gradually developed a hybrid character: while grounded in planning-and-control-based water management, it increasingly incorporates adaptive features such as flexibility, phased implementation, and regular evaluation. Governance emerges as a decisive factor. Polycentric decision-making and stakeholder participation strengthen adaptability, whereas political dependency, lengthy procedures, a rigid legal framework, and local resistance constrain it.

These insights contribute to planning research, where the relationship between governance and flexibility remains underexplored. They also offer practical lessons for enhancing flexibility in long-term water

management planning – an urgent need as regions worldwide need more large-scale climate-adaptive water management.

2053 | Marisa Fuchs, Jennifer Oriwol

From Hazard Maps to Cascading Effects: A Multi-Method Approach to Critical Infrastructure Resilience in Flood-Prone Regions

The increasing frequency of extreme flood events creates growing challenges for regions worldwide, not only through physical impacts but also through cascading failures across critical infrastructures (CI). Traditional flood risk management (FRM) and spatial planning approaches remain largely place-based, focusing on hazard and exposure mapping while overlooking functional interdependencies that can amplify disruptions beyond inundated areas. The July 2021 flood in Western Europe illustrated these shortcomings, as failures in electricity, telecommunications, transport, and emergency services triggered widespread cascade effects.

This study develops and applies an integrated assessment framework that combines spatially explicit flood risk analysis (hazard, exposure, vulnerability) with a systematic criticality analysis of interdependent CI. Using Euskirchen County, Germany, as a case study, the research employs GIS-based hazard mapping, criteria-based vulnerability assessments of CI sites, and empirical analysis of cascading effects based on expert interviews and a multi-stakeholder workshop.

The results indicate that all CI sites examined are potentially at risk due to flooding events. Cascade diagrams and a sector-wide recovery timeline reveal highly branched failure chains originating particularly in the energy, telecommunications, and transport sectors. The findings highlight key intervention points to mitigate cascading impacts. For spatial planning, these include CI siting outside hazard-prone areas, flood-adapted design of bridges and transport junctions, the safeguarding of evacuation corridors, and the strategic distribution of emergency service facilities. Systemic interventions include decentralised and flood-resilient energy supply concepts, redundant and analogue communication systems, and strengthened cross-sectoral coordination mechanisms.

By integrating two traditionally separate analytical strands, a place-based flood risk assessment and systemic CI criticality analysis, this study provides a novel and transferable approach for FRM and spatial planning practice. The framework supports planners and decision-makers in identifying high-risk CI, anticipating cascade effects, and prioritising targeted, risk-based adaptation measures to enhance regional resilience.

Special sessions

SS1: Activism in Peripheral Cities

SS1: Activism in Peripheral Cities

Fri 3.7.11:00-12:30, Special Session B, U406b | Session chair(s): Clarissa Freitas, Jose Ricardo Faria, Fabricio Oliveira

2104 | Ecem Engin, Esin Özdemir Ulutaş

Planner Agency and Community Empowerment: An Analytical Interplay

This study examines how community empowerment can be advanced through planner agency by exploring the relational processes through which planners engage with grassroots actors and their forms of local knowledge. The aim is to clarify the conceptual and practical conditions under which planners can support empowerment-oriented planning, particularly in contexts where institutional authority, participation, and knowledge production intersect. As Sager, Healey, and Forester argue, planner agency incorporates but simultaneously transcends expert knowledge, reframing the planner's role from technical specialist to an engaged ally capable of supporting, mediating, and amplifying community-driven initiatives. This shift positions planners as political actors who translate heterogeneous forms of local knowledge into strategic action, thereby reshaping the possibilities for empowerment within planning practice. To deepen this conceptualization, the article draws on Latour's science–technology framework, which reframes both planners and communities as heterogeneous collectives whose agency emerges through dynamic associations. This perspective helps to illuminate how empowerment materializes not through predefined social categories but through the alignment of actors, practices, and forms of knowledge; a process in which planners play a crucial role. Grassroots dynamics therefore serve as an analytical field for examining how planners interpret community claims within institutional settings. Empirically, the study relies on interviews with the İzmir City Council and the Chamber of City Planners to investigate how empowerment is understood and operationalized within the relationship between citizen groups and epistemic communities. These insights reveal the tensions and possibilities that shape whether grassroots initiatives can influence planning institutions. The article contributes to planning theory by arguing that debates on planner agency and knowledge must be more explicitly connected to questions of governance. Advancing community empowerment requires planning institutions that recognize diverse knowledge practices, strengthen planners' capacity to act relationally, and create pathways through which locally grounded initiatives can meaningfully inform institutional decision-making.

2356 | Mirte Jepma

Insurgent Urbanism on the Urban Fringe: A Documentary on Grassroots Housing Alternatives in a City Under Pressure

This contribution presents The Sinking Fringe (De Zinkende Rafelrand, 56 min, 2025), an activist documentary film that forms part of an ongoing ethnographic research project on grassroots planning and urban resistance in Amsterdam. Co-created with residents facing eviction and with the action committee

Het Baaibuurt Collectief, the film offers a deep, practice-based insight into how communities articulate alternative planning visions when confronted with top-down urban renewal.

The documentary follows the case of Baaibuurt West, a fringe neighbourhood on Zeeburgereiland whose inhabitants are slated for removal so that the land can be raised by seven metres of sand and redeveloped into conventional housing. Rather than accepting displacement, the residents organise themselves and work with architects to a fully fledged counter-proposal: a cooperative, neighbourhood-scale housing model that provides the required 1,800 affordable dwellings while preserving existing ecological structures and community networks.

Through interviews, archival and observational footage, the project documents the agents, processes, and democratic practices emerging from this grassroots planning initiative. It shows how residents become planning actors in their own right—producing knowledge, spatial strategies, and organisational forms that challenge state-driven urbanism. As such, the film speaks directly to current debates on popular planning, insurgent practices, and democratic innovation in rapidly changing urban contexts.

By presenting a grounded case from a European city, the research exposes how uneven development persists within Western and Global North contexts, showing that precarity, unequal power relations, and intense development pressures continue to affect certain communities far more than others.

The documentary can be screened as a standalone contribution (56 min) and can be accompanied by a discussion or presentation by the filmmaker-researcher to further unpack the planning insights and limitations of social activism. Together, we can decide the best form of this contribution within and beyond the special session.

2626 | Mariana Quezado Costa Lima, Clarissa Sampaio Freitas

Cartography as a Tool for Insurgent Planning: The Case of the ZEIS Bom Jardim Observatory in Fortaleza, Brazil

The historical exclusion of informal settlements from official maps illustrates how cartography reflects power structures, revealing or concealing reality according to dominant interests. In insurgent practices, territorial disputes are often interconnected with cartographic disputes, which makes counter-maps into objects of political action. Through the lens of insurgent planning and critical cartography, this paper explores this dynamic by examining the case of the ZEIS Bom Jardim Observatory in Fortaleza, Brazil's fifth-largest city. The Observatory, a network of community entities, emerged in 2022 from a long-standing struggle for recognition in the Grande Bom Jardim area, a peripheral region marked by the state absence and the stigma of violence. Part of this region was designated as a Special Zone of Social Interest (ZEIS) in 2009. Sustained grassroots pressure, which included the creation of a popular plan, led to the adoption of an institutional plan in 2019. The Observatory now aims to monitor this plan's implementation, as a technical-popular instrument for social control. Drawing on participant observation and field research, this study documents how the Observatory strategically employs maps to spatialize and monitor sanitation projects, produce technical maps for land tenure regularization, articulate proposal maps that visualize community demands, and critically engage with the zoning maps in the city's master plan revision. The findings show how marginalized groups can transform cartography from a tool of state

control into an instrument of popular resistance. Among the Observatory's diverse insurgent planning strategies, cartography emerges as central to the communities self-representation. Mastering this dominant language of formal planning reduces power asymmetries and enables the residents to contest official narratives on a more equal footing, actively negotiating their right to the city.

2938 | Valeria Monno

Liminality, utopias and possibilities of change in marginal urban spaces

In this paper, I reflect on peripheral collective actions that are often disregarded or deemed irrelevant by formal planners and policymakers because they do not conform to their “normalised” conception of citizens' involvement. This occurs despite these actions enact spatially just practices of producing urban space.

In this paper, I reconsider such actions as much more of continget ways to mitigate the lived marginality and gain some marginal improvement. Instead, I inquire into them as potential transformative organisations and theoretical sites for shaping utopias of social-ecological justice in the city. For this purpose, I analyse these actions as hybrid and, therefore, ambiguous and precarious processes of interactions among agents of production of urban space. Such a perspective offers a framework for exploring and discovering agencies that reflect new conceptual, spatial, and temporal frames of interpretation and action in everyday life, and for navigating collective actions as theoretical sites.

From the inquiry carried out, space-time liminality emerges as a theoretical construct through which citizens organize their action as multiple trajectories of transformation of actors’ agency, meanings, perceptions of the future. By redefining action as multidimensional and transitory within precarious processes of change in-between unjust stable states and an unknown future, liminality gives citizens a framework for assembling different space-times of thinking and action through which they can cope with varying aspects of marginality and elaborate credible socio-ecological alternatives. Inclusiveness, social rootedness, and openness to emergent and credible futures through the construction of counter-narratives depend on the intricacies of these space-time. Such complexity is crucial to guarantee a dialectical confrontation between citizens, NGOs and public institutions. It avoids the appropriation of counter-narratives and the reproduction of the same injustices in urban transformations and propels capacities for generative utopian/structural socio-ecological changes.

SS1: Activism in Peripheral Cities

Fri 3.7.14:00-15:30, Special Session B, U406b | Session chair(s): Clarissa Freitas, Jose Ricardo Faria, Fabricio Oliveira

1040 | Batel Yossef Ravid, Liat Savin Ben Shoshan, Erez Tzfadia

Technologies of Displacement and Sumud: Digital Mapping in Planning Informalities

In the digital age, data has become both a symbol and a tool of governance. Over 100,000 indigenous Bedouin-Palestinian citizens inhabit “unrecognized,” i.e., informal, settlements in the Beer-Sheva metropolitan area, Israel. These settlements remain absent from state digital infrastructures—

unmapped, uncounted, and therefore unplanned. Lack of data is itself a planning act: a technology of displacement that makes entire communities invisible to state-led development and participatory planning.

Drawing on critical cartography and settler-colonial theory, our study examines ten digital mapping platforms—governmental, civic, and academic—that map and counter-map informal Bedouin settlements. A comparative analysis of sources, designs, content, and usability identifies three cartographic regimes. a. Surveillance mapping hyper-visualizes Bedouin informalities as violations, creating displacement, or visibility without rights. b. Planning-oriented mapping uses selective data to simulate inclusion while maintaining exclusion. c. Narrative-based civic (counter) mapping enacts digital sumud—a form of cartographic resistance grounded in indigenous presence, memory, and the refusal of erasure.

These civic and academic platforms, produced by residents, NGOs, and researchers, build narrative infrastructures that reimagine planning as a democratic, bottom-up practice. They exemplify popular planning in a peripheral context: collective, data-limited, yet politically generative acts that challenge the state's monopoly on spatial knowledge.

By viewing digital maps as planning agents, the paper frames digital sumud as a form of grassroots planning—a way of enabling planning without formal recognition. We argue that in contested settler-colonial territories, digital mapping platforms are not neutral or purely technical planning tools, but active agents and political-visual infrastructures that influence and enforce territorial power while also reclaiming it. Considering digital maps as political tools, we find that counter-mapping, especially GPS-based, impacts urban planning — improving safety, transportation, and access to services in unrecognized villages. These practices foster new spatial imaginaries for integration into metropolitan infrastructure.

1813 | Rachel Barber

What is the city but the people: Examining community engagement in Canadian left-behind places

Canada’s economic landscape is becoming increasingly uneven. Globalization has led to the concentration of resources and accelerated demographic growth in a small number of larger cities and their regions. Cities located beyond the orbit of these growing regions have been “left behind” – a term increasingly used by scholars studying uneven regional development. As large growing cities garner a disproportionate amount of provincial and federal funding, media limelight, and academic research focus, left-behind communities are quietly grappling with population and economic decline, and deteriorating infrastructure. While many studies have focused on voting patterns in left-behind places and the “revenge of the places that don’t matter”, residents may also react to long-term local demographic and economic decline by disengaging, due to concerns that the condition of their community will not improve. Given the benefits of community and civic engagement in mitigating socio-economic inequality and contributing to a sense of belonging, research on community engagement in left-behind places can provide additional insight into their socio-political realities. This study assessed whether Canadian left-behind places experienced a decline in community engagement or have lower

rates of community engagement compared to growing places. Community engagement was operationalized using volunteer rates, participation in municipal elections, the number of non-profit organizations per capita, as well as the number of culture, recreation, and sports infrastructure per capita. Quantitative analyses confirm that the rates of community engagement are statistically significantly different in left-behind places compared to places experiencing demographic and socio-economic growth. However, the direction of these relationships was not uniform. Moreover, spatial analyses found that the strength of these relationships varied by geographic location within Canada. The findings reaffirm the need to consider community engagement as a contributing factor to, or a consequence of, left-behindness while formulating policy interventions mitigating the economic and socio-political impacts within left-behind places.

1887 | Hannah Klug

Co-producing Contextual Consciousness – Lima's Popular Neighbourhoods as resonant Learning Spaces to promote a Contextual Planning Practice

How to handle the needs of peripherical urban areas is still a mayor challenge of the global planning community and is becoming increasingly urging in front of the multiple crises we are currently experiencing. Within this context, planning schools are under scrutiny, since the gap between educational content and urban reality is still huge, especially in former colonized countries in the so-called Global South. To close this gap, several activistic student groups and practice-based design studios emerged in Peru's capital Lima, since the 1980s, to collaborate with neighbourhood associations and other urban actors in Lima's periphery, to improve housing conditions and public spaces in disadvantaged urban areas, and to additionally complement their academic formation with practical experiences.

Following Wesely and colleagues (2021), these initiatives can be understood as 'grassroots urbanism schools', grounded in Freire's concept of popular education, or as 'radical pedagogies', as described by Colomina and colleagues (2022), carrying the potential of deconstructing hegemonic knowledge structures and supporting the development of a Latin American epistemology for planning. Drawing on Hartmut Rosa's theory of Resonance (2016), I explore Lima's peripheral neighbourhoods as resonant learning spaces, guided by the question of how these specific urban areas and their dynamics can promote contextual learning and thus a contextual spatial planning practice. Guided by qualitative research design, spatial practices of six student-led and one academic initiative were analysed to describe the characteristics of learning spaces and knowledges co-produced.

Regarding the development of a contextual planning practice, data revealed that moments of crisis and uncertainty play a crucial role, as well as the experience of self-efficacy and the development of contextual consciousness. Research further revealed five possible collaboration formats, to integrate the peripherical city into academic teaching, and to connect the often-rigid university structure with the dynamic and uncertain nature of urban peripheries.

2828 | Ameera Akl, Krystallia Kamvasinou

The Transformative Potential of Urban Acupuncture: Coproducing Public Spaces in the Informal Periphery of Cairo

This study contributes to conceptualising peripheral spaces as sites of innovation and self-organisation that challenge core-centric planning paradigms. It explores the transformative potential of micro interventions in Cairo's informal periphery. Drawing on the concept of urban acupuncture (Lerner, 2014), we argue that small interventions involving the public act as micro zones for recovery and resilience. Informal settlements grew incrementally on Cairo's periphery, demonstrating self-organisation and alternative planning approaches rooted in everyday practices rather than state-led master planning. Despite suffering from poor infrastructure, these settlements are significantly self-sustained and self-managed, revealing the productive capacity of peripheral urbanisms often dismissed by conventional planning discourse. We explore urban acupuncture as an approach of intervention in light of the theory of coproduction (Ostrom, 1996; Watson, 2014). Coproduction processes require effective partnerships between professionals and the public, differing from the limited participation often adopted by governments, especially in Global South cities. Using a case study in Ezbet Khairallah, a peripheral informal settlement, extensive fieldwork, based on observations and semi-structured interviews, revealed how redesigning a dysfunctional underpass and surrounding areas with the local community transformed them into meaningful places nurturing local lived experiences. The intervention reunified the settlement that had been divided by the ring road and integrated it with the city. However, five years later, the widening of the ring road eliminated the intervention.

The study reveals that coproduced urban interventions can generate positive socio-economic impacts without imposing top-down change, facilitated by the key role designers and planners play in mediating stakeholder collaborations. However, without sustaining the improvements and aligning such interventions with long-term development, the positive transformation risks remaining temporary. Theoretically, this study contributes to planning scholarship on peripheral centralities (Phelps et al., 2023) by demonstrating how micro-scale interventions can be transformative, but susceptible to erasure, while constantly negotiating core-periphery power dynamics.

SS2: AI and Planning Practice

SS2: AI and Planning Practice

Tue 30.6.14:00-15:30, Special Session C, M232 M1 | Session chair(s): Thorsten Wiechmann

1151 | Batel Yossef Ravid, Idan Porit, Zvi Koren

Reading the Pulse of Planning: Using AI to Analyze Planning Committee Decisions

Planning committees make hundreds of decisions every year, yet the discussions behind these decisions are usually documented in long, unstructured protocols. This paper presents a practical method for turning these planning discussions into usable data through AI-based text analysis.

Drawing on protocols of the Israeli national planning committee as a case study, we analyzed a large collection of committee protocols to track which planning clauses are discussed most often and in what

contexts. This analysis helps to reveal how different policies function in practice: which rules are frequently invoked because they are central, flexible, or contested, and which remain largely inactive.

By transforming textual records into structured insights, the study introduces a new way to monitor and evaluate planning activity. It enables planners and policymakers to observe where attention, uncertainty, and negotiation concentrate within the planning system — essentially allowing us to "feel the pulse" of national spatial policy.

The approach demonstrates how AI can support evidence-based and transparent planning by translating everyday decision-making into patterns that inform future policy review and reform.

1381 | Robyn Dowling, Claire Daniel, Sophia Maalsen, Pauline McGuirk

Planning and AI Collaborations in New South Wales, Australia

Planning agencies in Australia are weaving AI into daily planning work as they seek efficiencies, improvements in residents' engagement with and knowledge of planning processes, and to hasten housing approval processes. Drawing on Maalsen's (2023) notion of 'algorithmic collaborators', we approach the relation of AI and planning generatively: wherein the planner (understood as a set of skills, expertise and experience) and AI (understood as a myriad of computational technologies that stimulate human intelligence to address complex tasks) collaborate to achieve designated outcomes.

Using interviews with planners involved in an Early Adopters pilot of AI in the state of New South Wales, Australia we explore the work required to make AI suitable for planning use. Algorithmic collaboration is far from a seamless partnership. It only becomes possible through the labour involved in ensuring data readiness, testing and iterating, advocacy and translation work required to ready institutions for AI, and, ideally, collaboration across geographical and institutional contexts. This labour inevitably complicates both the tech industry and government policy rhetoric that AI will speed up planning processes, improve productivity and reduce the administrative burden on planners (NSW Gov n.d). Our work identifies the interweaving of planning and technological skills and draws out the key dimensions of organisational, educational and culture change required to proactively shape beneficial AI integration. Such processes have implications for the uptake of AI within planning more broadly.

References:

Maalsen, S. (2023). Algorithmic epistemologies and methodologies: Algorithmic harm, algorithmic care and situated algorithmic knowledges. Progress in Human Geography, 47(2), 197-214. https://doi.org/10.1177/03091325221149439

NSW Government (n.d) Artificial intelligence in NSW Planning. Available at: https://www.planning.nsw.gov.au/assess-and-regulate/development-assessment/artificial-intelligence-in-nsw-planning, accessed 10 November 2025.

1435 | Kyungdong Kim, Saehoon Kim

New AI-Powered Planning Territory : The Expanding Role of Generative AI in Urban Suitability Analysis

Since the 21st century, data-driven decision-making has become central to urban planning. While machine-learning models have long been utilized to analyze and predict spatial patterns, the emergence of Generative Artificial Intelligence (Generative AI) since 2022 has introduced a new paradigm that extends beyond prediction to the generation of novel images, texts, scenarios, and policy alternatives, fundamentally reshaping how cities are planned and managed.

This study investigates how Generative AI redefines the traditional suitability analysis process in urban and environmental planning through a case-based research approach.

While conventional GIS and multi-criteria decision-making(MCDM) models focus primarily on quantifiable physical variables, Generative AI integrates spatial data, policy documents, and user intentions through natural-language reasoning, enabling contextual understanding, dynamic adaptability, and cognitive transparency.

Representative applications of Generative AI for urban suitability analysis were examined to evaluate its methodological characteristics and practical implications. The findings demonstrate that AI-based suitability analysis extends beyond static site evaluation by identifying unexpected potential locations, reconnecting fragmented areas, and activating underutilized spaces—functioning as an integrated tool that merges evaluation and creative scenario generation.

Building upon machine-learning foundations that quantify correlations among multiple factors, Generative AI generates new spatial patterns, scenario-based visualizations, and context-aware alternatives. Through this process, it exhibits notable strengths in contextual comprehension, dynamic adaptability, and cognitive transparency—demonstrating its ability to interpret both quantitative and qualitative narratives, adapt analytical criteria to evolving objectives, and articulate reasoning processes in interpretable forms.

Overall, these findings suggest that AI is evolving from a mere analytical instrument into an active spatial agent capable of exploring and proposing new planning possibilities. The study concludes that Generative AI transforms suitability analysis from a static evaluation model into an interactive and exploratory planning framework, highlighting its potential to serve as an intelligent and transparent collaborator between data analytics and human-centered design.

1510 | Ryan van den Nouwelant, Charlie Gillon, Bill Randolph, Chris Pettit

Potential ‘implementation gap’ in AI-informed planning decisions: a marriage of mistrust and distrust?

Urban governance reforms, like public policy more broadly, have long been stymied by the so-called ‘policy-implementation gap’ (or related ‘theory-practice gap’) wherein the outcomes on the ground don’t align with domain knowledge and policy objectives. This paper argues emerging AI-informed planning decisions, particularly regulatory ‘planning approval’ of private developments, risk facing the same fate.

This paper first outlines the landscape of AI-informed planning decision 'practices' that have emerged across multiple jurisdictions. These practices aim to improve planning approvals or, simply, increase the speed at which they are made. Then, based on in depth interviews with key stakeholder groups involved in early AI-powered tool development and integration across Australia, the paper highlights the challenges facing those seeking to promote wider take-up of these practices – not only using the actual tools, but also reforming the surrounding decision-making processes and systems. Trust is often a central theme in research into the implementation gap. And policies aiming to deploy AI-informed planning decisions seemingly suffer from both opposites of trust: _mistrust_ – a suspicion in the intent of others' actions; and _distrust_ – a wariness of potentially detrimental outcomes (irrespective of intent). Planning decision-making processes are inherently political, with a level of mistrust among actors (perhaps best evidenced by the contemporary NIMBY-YIMBY discourse). With AI technology at the point in its 'hype cycle' where expectation most exceeds capability, a degree of distrust is now apparent (perhaps best evidenced by the 'AI hallucination' discourse). The paper concludes by mapping out lessons from previous planning reforms and from the introduction of previous technological innovations, to proffer a potential path for effective implementation of AI-informed planning decisions which might lead to better planning outcomes.

SS2: AI and Planning Practice

Tue 30.6.16:00-17:30, Special Session C, M232 M1 | Session chair(s): Thomas W. Sanchez

1295 | Pamela Robinson

Planners as Digital Placekeepers: Reimagining Professional Ethics and Practice for an AI Era

Artificial intelligence is transforming the ethical and institutional foundations of urban planning, leading planners to consider what it means to serve the public interest in environments increasingly mediated by algorithmic systems. As AI impacts data analysis, policy, design, and participation, planners face both new opportunities and profound ethical challenges.

Scholars now question whether planners should lead, follow, or step aside in the age of AI (Landis, 2025), and whether new "North Stars" (Sanchez, 2025) or symbiotic approaches (Peng, 2025) are needed as planning adapts to complexity. While our professional codes of ethics (e.g., RTPI, CIP, AICP) serve as normative anchors, AI adoption pressures continue to outpace ethical guidance. Planners have a pressing need for adaptive, practice-based responses in these intervening times.

This paper advances the concept of planners as digital placekeepers, calling on the profession to bring its expertise shaping physical spaces into digital environments. As digital placekeepers, planners could bring their ethical obligation to work in the public interest to decision-making around the use of AI tools in planning practice prioritizing inclusivity, accountability, and ethical accountability. This paper draws on recent practitioner workshops about planning ethics and AI exploring how ethical rehearsal (Campbell, 2006) and other dynamic governance activities can foster adaptive capacity (Chaffin et al., 2014; Janssen & Van der Voort, 2016) in our profession.

By reframing AI as an ethical horizon (Sennett, 2018) rather than a technology tool, the paper proposes digital placekeeping as a pathway for redefining our professional scope of practice so that planners can proactively exercise their duty-bound obligation to work in the public interest. This framework offers planners an opportunity to exercise dynamic ethical judgment amid algorithmic opacity, data asymmetries, and automated decision support. Digital placekeeping charts an expanded scope of practice toward ethical leadership in the AI era.

1733 | Asma Mehan

Reframing the Planner in the Age of AI: Skills, Ethics and Agency for the Future Profession

As artificial intelligence (AI) becomes deeply embedded across urban governance, data infrastructures, and design processes, the role of the professional planner must evolve beyond traditional territorial and procedural boundaries. Drawing on recent industry evidence that AI tools are already reshaping planning tasks and decision-making frameworks, this paper argues that planners will need to reconceive their core competencies, ethical responsibilities, and modes of practice. For instance, the American Planning Association's report Planning With Artificial Intelligence outlines how machine learning, neural networks, natural language processing, and computer vision are beginning to support—but also challenge—everyday planning work. At the same time, the Royal Town Planning Institute warns that while AI presents opportunity, it also poses risks in terms of data bias, transparency, and institutional trust. The study asks: What will it take to be a professional planner in an era of AI-augmented urbanism? Three interrelated themes guide the analysis: (1) Skill and labor transformation—As routine data processing, spatial modeling and scenario-generation become increasingly automated, planners will need stronger capabilities in critical interpretation of algorithmic outputs, stakeholder engagement, equity-driven governance, and hybrid human–machine collaboration. (2) Organizational and equity implications—AI-driven planning may accelerate efficiency, but without reflexive governance it risks amplifying spatial injustice, reducing transparency, and eroding public trust. The planner's role must shift from data translator to ethical mediator. (3) Ethical and professional accountability—With AI systems increasingly making or influencing decisions about land use, mobility, zoning and public participation, planners must ensure that algorithmic systems serve collective, equitable objectives and not simply managerial imperatives. Through a review of emerging planning-education reform efforts and professional development frameworks, the paper proposes a roadmap for planning schools and professional bodies to adapt, emphasizing critical AI literacy, interdisciplinary learning (data science + public policy + ethics), and scenario-based pedagogy that foregrounds human values and pluralized futures.

1909 | Zhong-Ren Peng

The Planner as AI Systems Steward: A Professional Blueprint for Symbiotic Planning

Derived from my forthcoming book, Symbiotic Planning: Human–AI Collaboration in Urban Planning, this presentation outlines how planners can govern AI as civic infrastructure while strengthening their creative and analytic craft. In Symbiotic Planning, AI is a co-creative collaborator—not a mere tool—proposing contestable options under bounded, delegated agency and human primacy ("AI proposes, humans

dispose"). Planners expand their role from expert analysts to systems stewards who define ends, design human–AI roles, govern evidence, and safeguard legitimacy.

I translate this stance into practice through the CORE framework (Collaboration, Options, Refinement, Execution): clear role grammar (Lead/Support/Approve), Transparency Packs that document provenance, calibration, equity indicators, and versioned change logs, equity floors with trigger thresholds, abstention when evidence is weak, and human-led incident response with rollback and re-authorization. Plain-English guardrails include a four-level incident system (from minor to critical) with defined escalation and response-time targets to restore service, and formal pre-deployment checkpoints to test, evaluate, validate, and verify systems.

Two concrete domains illustrate the steward's toolkit. Transportation Justice & Mobility Equity: planner-on-the-loop oversight of dynamic priority lanes and curb allocation/pricing guided by Vision Zero and accessibility telemetry; equity floors trigger public hearings and rollback, while Transparency Packs make decisions contestable and auditable. Climate Migration & Managed Retreat: buyouts and receiving-site capacity governed by a Civic Evidence Dossier (including a Dissent & Uncertainty Annex), transparent compensation frameworks and wellbeing indices, pre-deployment testing/verification, and an Operations→Collaboration feedback loop that schedules hearings and Charter updates when triggers fire.

Aligned with "AI and the Future of Planning: Outlook for the Profession," the talk specifies skills, roles, and governance structures planners need now—procurement language embedding axioms, a starter playbook (policy, first equity/data audit, cross-department working group), and a pathway self-assessment that matches readiness to ambition—offering a standards-ready agenda for trustworthy, equitable, auditable, and creatively human-led AI-enhanced planning.

1999 | Frank Othengrafen, Lars Sievers

Beyond Data: The Role of Implicit Knowledge in AI-Supported Urban Decision-Making

AI-supported negotiation and decision-making are profoundly transforming how collective knowledge and experience are understood in urban planning. Traditionally, collective knowledge has emerged through the interaction of diverse actors such as planners, politi-cians, and residents. Their contribution reflect perspectives shaped by social norms, lived realities, emotions, and professional routines. These forms of implicit or non-formalized knowledge (MacKenzie & Spinardi 1995) have long guided planning practice but often remain undocumented or difficult to quantify. With the increasing use of AI systems that rely on for-malized, digitized data (Shaamala et al. 2025; Son et al. 2023), there is a growing risk that such experiential knowledge will be marginalized. What happens when this embedded local intelligence disappears from planning processes? How can planners ensure that the inherent spatial knowledge within cities, i.e. the "knowledge of places", and their own intuitive under-standing continue to inform decisions in an AI-driven environment?

The challenge lies not only in preserving but also in translating non-formalized forms of know-ing into formats accessible for hybrid human–machine collaboration. Strategies must be de-veloped to capture implicit insights such as social norms, ethical considerations, emotional dimensions, and to integrate

them responsibly into data-centric systems without reducing their complexity. This calls for critical reflection on epistemological shifts: How does AI reshape what counts as valid planning knowledge? How can planners maintain agency over interpre-tive processes while using algorithmic tools?

Planning in an AI-driven future therefore demands new competencies and reflexivity from professionals who must navigate between digital rationality and embodied experience. The presentation explores approaches for integrating implicit spatial and professional knowledge into AI-supported planning workflows through interdisciplinary exchange between academia and practice. Ultimately, it aims to stimulate discussion about pathways toward responsible and democratic uses of AI that value both measurable data and intangible human insight.

1548 | Dan Milz

AI in Public Participation: Comparing Methods for Assessing Stakeholder Input

Participatory planning processes often include public workshops and meetings in which members of the public are given information about a plan and provided with an opportunity to provide their thoughts. Planners have relied on a handful of methods for capturing that input during these face-to-face meetings which can be distilled into some form of hand or type written documentation (e.g., observational notes, sticky notes with participant comments, etc.). These techniques are criticized for their lack of transparency because they do not provide a clear connection between the interactions in meeting and how those activities and comments reshape the composition of the plan itself. However, large language models offer a potential opportunity for assessing video recordings of planning meetings and workshops in ways that would augment the capacity of practicing planners. This presentation discusses the ongoing experimentation with using language models to evaluate public meetings that occurred during a planning process in urban Honolulu, Hawaii, USA. Public workshops for this process were recorded in several ways. First, discussions were captured graphically by an artist/facilitator trained in graphic note taking. Second, planners in attendance captured hand written notes of the discussions and interactions. Finally, all meeting interactions were audio/video recorded. We used large language models to transcribe and evaluate the audio/video records of the planning workshops. We then compared the outcomes of our AI-supported assessments to the other methods of capturing public input at this workshop to describe the qualitative strengths and weaknesses of each approach in order to document the ways in which this application of large language models can enhance planners' existing set of practices for capturing public input.

SS2: AI and Planning Practice

Thu 2.7.16:00-17:30, Special Session C, M232 M1 | Session chair(s): Thorsten Wiechmann

1849 | Pilvi Nummi, Teemu Heino

AI-Assisted Analysis of Qualitative Participatory Data in Urban Planning

Participatory data, encompassing for example citizens' experiential knowledge, development ideas, and opinions regarding land use planning, is diverse and often qualitative. This diversity of the data makes it difficult to analyze and utilize the collected data in planning processes. The laborious nature of analysing

qualitative data has limited its impact on urban planning processes and affected the selection of question types asked and the data gathered.

The advent of digitalisation offers new avenues for utilizing diverse information sources in urban planning processes. However, a "qualitative gap" persists, where quantitative data is prioritized as it can be processed more easily with existing IT methods, unlike qualitative participatory data (Kitchin, 2025). Artificial intelligence, specifically generative AI tools based on machine learning and large language models, are anticipated to address existing challenges in participatory data analysis. (Raymond et al., 2025).

We present an ongoing study which aims to bridge the qualitative gap in digital urban planning by employing AI to facilitate the analysis of qualitative participatory data. The empirical part of the study involves testing different AI tools (e.g. ChatGPT or similar and qualitative analysis software with AI features) in analysis of heterogeneous participatory data gathered in a real-life planning process. The results of the AI-assisted analysis will be compared with human-made analysis to reveal differences in interpretation. During the research process the findings and AI-based methods will be assessed in collaboration with urban planners. The outcomes will inform the integration of AI tools in processing, analysing, and managing qualitative participatory data in urban planning organisations.

2283 | Jonathan Metzger, Sofia Wiberg

Exploring the potential of using generative AI for increasing attention to social dimensions in planning

Generative AI applications based on Large Language Models (LLMs) are a revolutionary type of artificial intelligence technologies that have seen a rapid development in capacity and usage in recent years.

The big game changing difference between LLM-based generative AI and the older expert AI systems is their flexibility, speed and ease of use. This makes LLM-based AI extremely easy to tinker with, which generates possibilities for creatively experimenting with new areas of application in relation to planning-related work tasks.

In this presentation we present a project exploring how ‘out-of-the-box’ LLM-based generative AI applications can be used to strengthen a particular aspect of planning practice by increasing attention to social dimensions within complex, multi-level and cross-sectoral spatial planning processes.

In the presented project, planners from different government agencies and with different types of expertise who are all involved in a major urban development project have been invited to partake in an education in using generative AI for planning work. Following this they have been guided through a structured process in which they explore the potential for using generative AI applications to provide increased attention to the social implications of planned urban and transport developments.

The presentation discusses preliminary findings from the project and stresses the importance of exploring both the potential benefits, as well as risks and limitations of using LLM-based AI as a resource to strengthen attention to social issues in planning processes. It is argued that any such ambition must be

based on planners' ability for situated professional judgement, as well as a solid understanding of the political and institutional context within which the work is performed.

2333 | Amila Jayasinghe, Nuwan Dias, Chethika Abenayake, Chinthaka Rathnasiri

"Planning with Chatbots: Co-Designing an AI Landslide Risk Assistant with National Building Research Organization (NBRO) in Sri Lanka"

This research reports on the co-development of an AI-driven chatbot for landslide risk communication in Sri Lanka, and reflects on its implications for planning practice and the planning profession. Working with the National Building Research Organisation (NBRO) Sri Lanka and planning, geology, geotechnical, civil engineering and architecture experts (n=14), we designed a subject- and context-specific chatbot that integrates national landslide guidelines, NBRO documents and locally grounded examples to support community awareness, early warning and safer development decisions in landslide-prone areas.

A PRISMA-based systematic review first mapped global experience with disaster-management chatbots, revealing four persistent gaps: weak context specificity, limited multi-source data integration, inadequate user-centred design, and the absence of frameworks for building and maintaining trust in AI systems. These insights informed a two-stage research design: (1) iterative development of six domain-specific chatbot variants; and (2) four rounds of expert testing in which they were compared with general-purpose models (ChatGPT-4, Google Gemini) using criteria of relevance, understandability, accuracy and comprehensiveness.

Across the rounds, experts reported rapid growth in AI use (40%→100%) and perceived practical usefulness (80%→100%), while trust indicators such as transparency (20%→100%), reliability and accuracy (30%→100%), and user engagement (40%→100%) improved markedly. The final NBRO chatbot outperformed general-purpose models for contextualised, regulation-sensitive landslide queries.

We discuss how such domain-specific chatbots can augment planners' roles as risk communicators and educators, reconfigure skill requirements for future planners, and raise new questions about institutional responsibility, upda

SS2: AI and Planning Practice

Thu 2.7.17:45-19:15, Special Session C, M232 M1 | Session chair(s): Zhong-Ren Peng

1011 | Yanliu Lin, Anya Gommeren, Evanthia, Shihan Wang

Artificial Intelligence in Urban Governance and Planning

Artificial intelligence (AI) is increasingly embedded in urban governance and planning, from predictive and optimization modeling to scenario planning and autonomous decision-making. Yet, its roles and implications for governance and the planning profession remain unclear. This study conducts a systematic literature review on AI in urban governance and planning, identifying four interrelated themes. The first theme, urban planning, highlights AI's role in integrating data, models, and algorithms to support planning tasks, as well as its broader implications for deliberation, participation, and the evolving role of planners. The second theme, smart cities, emphasizes AI's applications across domains such as health,

education, infrastructure, safety, and resource management. The third theme, decision-making and human–AI interaction, explores how humans engage with, influence, and communicate with AI systems, and how these systems affect human behavior and decision-making. The fourth theme underscores a shift from rule-based automation to varying levels of autonomy—adaptive, context-aware systems operating with limited human oversight. Synthesizing insights across these themes, the study identifies four cross-cutting dimensions that conceptualize AI's role in urban governance and planning: (1) AI as a decision-support system or agent, reshaping roles, responsibilities, and power relations; (2) AI as a cognitive augmentation system, enhancing human decision-making capacity; (3) AI as a normative and ethical challenge, blurring the boundary between human and machine agency; and (4) AI as a co-evolutionary system, illustrating the reciprocal adaptation between technological innovation and governance structures. The paper concludes by outlining professional implications for planning, emphasizing the need to integrate ethical reflection, human oversight, and institutional adaptation in AI-driven planning practices.

1013 | Zhen Li, Yanliu Lin, Junyao He

AI Application in Urban Planning in China: A Framing Approach to Understand Algorithmic Governance

Artificial intelligence (AI) is increasingly promoted as a solution to urban challenges, yet its integration into planning is never neutral. In China, the state plays a central role in promoting AI deployment and facilitating local experimentations, embedding these technologies within policy discourses of modernization, efficiency, and innovation. This paper examines how AI reconfigures planning practices through a framing approach that links discursive constructions to institutional change. Drawing on national policy documents and planning materials from major Chinese cities, it analyzes how AI is problematized, legitimized, and materialized in urban planning practices.

The analytical framework combines policy framing theory (Rein & Schön, 1996) and Bacchi's WPR approach (2012) with the concept of opportunity structures (Koopmans & Statham, 1999) to reveal how certain narratives, actors, and practices become visible, reasonable and legitimate within algorithmic governance. The findings show that AI functions as an institutional agent, redistributing authority, expertise and legitimacy through planning instruments, pilot zones, and digital infrastructures. State–market collaborations, such as in Shenzhen's drone-based "low-altitude economy", demonstrate how algorithmic systems are embedded in planning and framed as engines of economic competitiveness and governance innovation.

Moving beyond the "digital authoritarianism" narrative, the study highlights productive experimentation and local adaptation within state-defined parameters. It argues that China's state–tech collaborative model exemplifies a distinctive form of algorithmic governance that fuses developmental and control-oriented rationalities. The study has two major contributions. First, it advances a framing-based analytical innovation to analyze how policy discourse performs governance by reorganizing institutional arrangements. It is transferable for examining algorithmic governance across different institutional contexts. Second, the study offers conceptual and practical insights into how algorithmic governance redefines state–market relations and institutional legitimacy. China's state–tech collaborative model,

anchored in security and stability imperatives, provides a productive contrast to Europe's transparency-oriented approaches, contributing to broader debates on politics of digital planning.

2075 | John Landis, Zhong-Ren Peng, Tom Sanchez

Chronicling the Generative AI [R]evolution in Planning Practice & Research

This presentation will review and summarize recent developments in Generative Artificial Intelligence as they pertain to contemporary urban planning practice and research. It will be organized into four parts. The first part will review the major themes and initiatives that emerged from the October 2025 ACSP Workshop on AI in Urban Planning. Organized around six issue areas (AI in planning, innovative machine learning use cases, innovative generative use cases, AI in planning practice, AI in planning education, and ethical issues in AI uses in planning), the ACSP Workshop did a good job identifying cutting-edge developments and issues around the use of AI in urban planning. Since this is an especially fast-moving field, a second part will review key AI developments in urban planning since the ACSP Workshop. A third part will highlight half a dozen recent and leading AI use cases that point the way toward how AI will change planning practice in various parts of the world. A final part will present a cooperative three-year "AI in Planning" agenda to help World Planning School Conference attendees coalesce around efforts to ensure that planners take an active leadership role in shaping how AI technologies improve the lives and environments of city dwellers worldwide.

References

Landis, J. (2025). Lead, follow, or get out of the way: Generative AI and the future of American city planning. Unpublished paper.

Peng, Zhong-Ren, et al. "The pathway of urban planning AI: From planning support to plan-making." Journal of Planning Education and Research 44.4 (2024): 2263-2279.

Sanchez, T. W., Shumway, H., Gordner, T., & Lim, T. (2023). The prospects of artificial intelligence in urban planning. International Journal of Urban Sciences, 27(2), 179-194.

2490 | Maria Rosaria Stufano Melone, Riccardo De Benedictis, Stefano Borgo, Camilla Perrone

Towards a methodological approach in planning: semantic and ontology-based AI for effective decision support systems

Artificial Intelligence (AI) has evolved considerably in the last decade, generating increasing interest in knowledge management and representation for complex systems, city planning and territorial management. With its technical potentials, AI challenges the epistemological and professional foundations of planning, calling for new forms of knowledge integration and ethical responsibility. Within the broader domain of urban intelligence, this contribution addresses how semantic reasoning and cognitive duality can inform the evolution of planning theory and practice in the age of intelligent systems (Stufano et al., 2024).

Today's technologies (ICT, IoT, sensor networks, and personal devices) offer huge volumes of capillary data requiring processing within built models for proper interpretation. Data-driven AI facilitates rapid analysis and prediction, but its opacity, bias, and lack of interpretability raise accountability and democratic governance concerns (Sanchez et al., 2025). Instead, semantic and ontology-based approaches promote transparent, logically consistent representations of urban knowledge, enabling shared understanding among human and artificial agents alike.

Inspired by the dual-processing model (Kahneman, 2011), this perspective highlights the coexistence of reactive and deliberative reasoning in urban decisions. The former reflects fast, heuristic responses for real-time needs; the latter embodies reflective, value-oriented thinking for long-term coherence. Balancing these modes offers a pathway toward interpretable, ethically grounded, and human-centered AI.

This research, exemplified in specific use cases, investigates and develops effective urban decision support systems that embrace semantic and cognitive perspectives for ethical and social responsibility while enhancing control, transparency, awareness, and consistency.

Sanchez et al. (2025) The Ethical Concerns of Artificial Intelligence in Urban Planning, J. of the APA, 91:2, 294-307

Stufano Melone et al. (2024). City Interactions in Urban Planning: The Square Example from an Ontological Analysis Point of View. International Conference Computational Science and Its Applications pp. 448-455

Kahneman, D. (2011), Thinking, Fast and Slow. Farrar, Straus and Giroux, New York

SS4: City-University collaboration

SS4: City-University collaboration

Tue 30.6.14:00-15:30, Special Session A, U401 | Session chair(s): Hanna Mattila, Sampo Ruoppila

1366 | Ilka Mecklenbrauck

Space sufficiency and multi-coding in university buildings and sites.

This paper examines how existing public university buildings can be utilized more efficiently, flexibly, and sustainably through activity-based space organization. Current university infrastructures are predominantly characterized by disciplinary space allocation and monofunctional typologies, which increasingly conflict with the evolving requirements of digitalization, hybrid teaching formats, interdisciplinary collaboration, and new working cultures.

The research focuses on two complementary strategies: space sufficiency and multi-coding. Space sufficiency seeks to reduce spatial consumption through need-oriented allocation, ensuring that resources are used responsibly and efficiently. Multi-coding, understood as both a planning and

operational principle, enables spaces to accommodate multiple functions and user groups over time. This approach requires not only spatial and technical adaptability but also a paradigm shift in how space demands are defined and governed - moving beyond disciplinary stereotypes toward flexible, user-centered models of space management.

The study develops and tests new occupancy models based on spatial clusters that integrate innovative usage concepts. These models consider not only conventional room categories, such as teaching spaces, offices, or laboratories, but also differentiated activity modes, including focused work, collaboration, and informal learning. Using selected case studies of existing university buildings, the project analyzes current usage patterns, identifies spatial potentials and constraints, and designs adaptive, multi-coded space scenarios.

A key dimension of these aspects is opening university spaces to broader public use, especially beyond regular academic hours, enhances the importance of the interaction between campus and city. The project emphasizes that university and urban development must be conceived together to foster spatial and social synergies.

The ongoing research deepens comparative investigations at university campuses in Germany, Switzerland, the United States, and Mexico, allowing for a transnational perspective on the adaptability and transferability of space concepts. As an interim report on the authors' own research, it presents preliminary findings and methodological approaches.

2917 | Elisa Privitera

(Re)generative Academia for Climate Action

In this paper, I introduce the concept of generative academia in relation to climate action, positioning it in contrast to the extractive approaches to knowledge production traditionally applied within academia. Rooted in the colonial legacy of Western institutions, these extractive practices have increasingly come under scrutiny in recent years. Movements such as Decolonize Academia and feminist scholarship emphasize the importance of non-extractive, anti-oppressive approaches (Potts & Brown, 2005) grounded in care and reciprocity, calling for a slowing down of knowledge production to fundamentally transform the power dynamics inherent in this process (Stengers, 2018).

The growing number of research initiatives and theories focused on co-producing knowledge with local partners—particularly with underserved communities—exemplifies this shift toward justice-driven research practices. Exploring academia's potential to be generative, rather than extractive, is essential for advancing innovative, justice-oriented, and ethical practices, and for mainstreaming them within university institutions.

Several scholars have highlighted that climate action must engage with equity and justice, or it risks reproducing existing inequalities (Bulkeley, 2013). In other words, a generative academia can be crucial not only for fostering social equity and justice but also for promoting climate justice action.

I discuss generative academia through two case studies of participatory action research initiatives promoted by the University of Toronto, in which I was directly involved during my postdoctoral work: the

Just Transitions in Action project and CERC NEST. Both cases provide insights into how climate action can be integrated into the research and pedagogical agendas of universities.

Finally, I expand the discussion toward the relevance of moving toward a regenerative academia—one that not only acknowledges ongoing injustices but restore wounded socio-ecological relationships, especially with marginalized people and places. I argue that academia, by serving as a regenerative force, healing and repairing, can catalyze transformative socio-environmental change and transitions.

2772 | Ceren Sezer, Alper Al, Asli Alanli, Liyuan Ma

Activating University Campuses as Social Infrastructure for Just Net Zero Transitions: Insights from the Community Collaboration Laboratory (CCLab) at RWTH Aachen

Just net zero transitions depend not only on technological systems but on the strength of social infrastructure. Literature conceptualises social infrastructure through its physical, relational, governance, and cultural–expressive dimensions. University campuses have the potential to activate all four: they provide diverse open spaces and mobility networks, bring together dense and heterogeneous communities, act as semi-public institutions where decision-making can be opened to participation, and serve as cultural sites of experimentation and shared narratives that shape climate imaginaries.

This paper addresses two guiding questions: How do these four dimensions of social infrastructure manifest on university campuses? How can we evaluate whether these infrastructures enable or constrain just net zero transitions?

To answer these questions, the paper draws on a methodological framework developed by the Community Collaboration Laboratory (CCLab) at RWTH Aachen University, combining spatial analysis, participatory action research, and hybrid analogue–digital tools for creative governance strategies. It reports on CCLab's projects at RWTH Aachen that engage campus communities in net zero transition activities across the physical, relational, governance, and cultural–expressive dimensions. The paper also presents neighbourhood-based projects to demonstrate the transferability of these methods and to deepen understanding of how social infrastructure functions across different spatial and social contexts. This comparative application strengthens the methodological framework and clarifies which elements are campus-specific and which are universally relevant for just net zero transitions. Ultimately, the work illustrates that social infrastructure is not a backdrop but a critical driver of net zero transitions.

References

Jamie Yoder, Anne Williford & Dorothy Espelage. (2025) Building and Sustaining Successful Partnerships Between Universities and Service Settings for Youth-Based Research. Journal of Child and Adolescent Counseling 11:1-2, pages 17-34.

Latham, A., & Layton, J. (2019). Social infrastructure and the public life of cities: Studying urban sociality and public spaces. Geography Compass, 13(7), e12444.

2774 | Ronit Davidovici

Between Academic Campuses and Urban Space - Methodology for Planning an Urban Academy 'Without Fences'

Open academic campuses are mostly old buildings, the result of historical development. A small number of them are modern buildings, which integrate in defiance of the perception of the zoning, which encloses academic buildings in fenced courtyards and a closed urban space.

Urban planning today emphasizes the importance of connection and synergy and the importance of mix uses, and hence, also between academic campuses and the urban space. This is, mainly, to encourage innovation, community involvement and economic growth.

This research and planning process. grew out of an urban planning studio, which I teach at Reichman University. It is a private university and prestigious, located on a closed and fenced campus on the edge of the city.

The students were asked to research the topic and conduct a simulation of strategic planning that encourages connections and ties between the city and the academic campus where they study and the city. The process included historical study, interviews and questionnaires with a variety of target audiences, and planning whose products were presented to the municipality and the academy in a concluding meeting.

, may lead to innovation in the perception of the dissemination of knowledge, its opening to the community and the meanings of the interface with the urban community for the quality of the academy, its connection to the area and the enrichment of knowledge.

The article presents this new discussion between architecture and design, knowledge and research, and practical planning results, trying to design our better campuses for a better urban future.

1045 | Carlos J. L. Balsas

Retrofitting urban industry in the U.S. Sunbelt

U.S. urban industry has experienced remarkable transformations. At least two and a half centuries of evolution has changed the location, productive processes, technology, sources of energy, and outputs. This paper analyzes an attempt at helping to retrofit an aging urban industrial district in South Phoenix. It focuses specifically on mounting pressures to convert remaining, relatively centrally located, industrial land to non-productive commercial and office uses. It fills a gap in the scholarship of industrial development and industrial land retrofit in the U.S. Sunbelt. It is argued that the Wedge South Mountain industrial area presents advantages to the local community in terms of urban structure, proximity to labor pools, and good transport networks in the core of the Phoenix metropolis. The methods comprised an advanced urban planning studio at Arizona State University, multiple inventories and site visits, presentations and feedback from economic development specialists at the City of Phoenix and at the Greater Phoenix Economic Council. Eco-industrial parks comprising a variety of lot sizes, an array of complementary businesses, multiple levels of utility generation and sharing arrangements, renewable energy sources, and coordinated management practices of grounds, labor pools and access to capital,

as well as the timely attenuation of environmental and social impacts appear to characterize the most productive advanced manufacturing areas in other parts of the nation and the world. This study proves that they can also be implemented in the U.S. Sunbelt. The key findings comprise a series of implications for the retrofitting of urban industrial areas in the Global North.

1495 | John H. West

Making allies: University-community collaboration in a small peripheral city in the U.S

Many people in the United States are skeptical or even disdainful of cities, government, planning expertise, and higher education (Hackworth 2019). Some academic planning departments are located in places where these attitudes have been the prominent for a generation and have become embedded in laws that defund and limit local government and universities. The historical, political and policy context of Ball State University and Muncie, Indiana, are indicative of challenges and opportunities for planning education in places with austere state politics regarding cities and higher education. This article focuses on an eight-year community engagement project and shows that engaged academic planning can enhance learning outcomes and provide robust justifications for the teaching, learning and research that occurs within institutions of higher education. Building specifically on the work of Kenneth Reardon in East Saint Louis (2019), this paper extends his investigation of university/ community partnerships to a location and era in which the value of planning and freedoms higher education itself are being circumscribed.

Drawing on Actor-network theory (West 2025, Latour 2002, Callon et al., 2009) the author argues for building new allies in places where few exist through the following strategies:

- First, community-engaged classes should be oriented towards institution building, which includes writing policy, building community connections, and applying for grants, rather than one-off class projects or plans.

- Second, engagement should be recursive, with classes collaborating with the same institutions and neighborhoods through many semesters to build trust and awareness in the community, and expertise and relationships among faculty and students.

- Third, departments should invite practicing professionals into the classroom and create opportunities for motivated students to continue work through internship opportunities, after classes end.

SS4: City-University collaboration

Thu 2.7.14:00-15:30, Special Session A, U401 | Session chair(s): Hanna Mattila, Sampo Ruoppila

1088 | Rosanna Rivero, Connie Staudinger

Multiscale Geodesign application in a Regional Planning Studio

This project describes a multiscale geodesign collaboration conducted by students in the Master of Urban Planning and Design program at the University of Georgia. It reflects on the value of experiential

learning projects undertaken in a Regional Planning Studio, which immerse students in the frameworks of geodesign and scenario planning. The Study area is Newton County, a rural county located east of Atlanta, composed mainly of 3 small cities near the I-20 corridor connecting Atlanta with the coast. Each of these 3 cities has its own character: Porterdale (a historic mill town), Covington (a movie landmark town), and Oxford (an educational hub for a small campus of Emory University.

Geodesign is a collaborative planning framework for visualizing a region's future through an iterative process that starts with a layered, exploratory phase, during which students learn and map a collection of systems spanning from the built to the natural environment. It is followed by a more in-depth analysis and evaluation of these systems, encompassing qualitative, quantitative, and spatial analyses, including suitability analysis. In this, students identify a set of criteria to evaluate particular land uses, such as residential, recreational, and others. In this second evaluative phase, students identify potential stakeholders and their priorities, assess current and future conditions and suitability for various land uses, and ultimately lay the groundwork for generating feasible and plausible future scenarios in the Studio's last phase. We merge ideas and methods from geodesign and scenario planning to create future scenarios for the region.

1657 | Binita Mahato

Alabama City Year Program: Connecting Planning Education and Practice

The Alabama City Year Program (ACYP), based at Auburn University, fosters collaboration between cities and university planning programs, extending beyond just university towns. In Alabama, only 36 of 593 municipalities have dedicated planning departments, often with outdated or no strategic plans and limited access to planning services. These communities face significant societal challenges, including poverty, healthcare access, economic disinvestment, educational gaps, infrastructure deterioration, and declining quality of life.

Urban and regional planning aims to serve underserved communities by providing quality planning services. Many small towns depend on local universities for planning support, and ACYP has bridged this gap by connecting planning educators and students with these communities. The collaboration benefits all parties in four ways:

1. Communities, especially underserved ones, receive planning services via faculty research, outreach, and student projects.

2. Students gain practical experience through real-world planning projects, enhancing their resumes and portfolios.

3. The program creates internship opportunities, funds planning degrees, and offers future employment prospects for students.

4. Through Auburn’s Outreach Office, ACYP highlights a strong community-university partnership, leveraging faculty research for community-engaged scholarship.

Over the years, ACYP has expanded its collaborations beyond Auburn, working with more than 15 communities in Alabama. This ongoing partnership helps bridge the gap in planning services for underserved areas, fostering sustainable community development and providing valuable educational experiences for students.

1662 | Jay Mittal, Sweta Byahut

University-Community Partnerships -- Experiential Training and Capacity Building

The paper discusses the Auburn University Community planning program in Alabama, focusing on building partnerships between the graduate planning program at the university and over a dozen small and medium communities over ten years (Mahato et al 2023). It describes how to integrate community engagement into planning classes and provides logistical steps for these partnerships. Two case studies are presented, showcasing course details, engagement logistics and activities, and challenges faced, along with benefits for faculty, students, and the community. The paper offers a framework for similar programs to develop service-learning initiatives (Mittal 2024).

References:

1. Mahato, B, S. Byahut, and J Mittal. 2023. “Alabama City Year Program: A Two-way Tool for Planning Awareness and Recruitment.” Ch 23 in Hollstein, L. et al. (Eds.), Professional Awareness and Diversity Challenges in Urban Planning Education. New York: Routledge. (257-271).

2. Mittal, Jay. 2024. “Learnings from 10 Years of Engagement with Communities in Southeastern US,” Chapter 10 in Routledge Handbook of University-Community Partnerships in Planning Education. Edited by LaFrombois and Mittal, New York: Routledge.

1767 | John Gaber, Barry Nocks

25 Years of Organic City-University Partnerships: The living Greenville-Clemson University case

This paper documents the 25-year Greenville-Clemson University partnership and the unfolding of a handful of interconnected mini-partnerships that set the foundation for the long-term relationship between the City of Greenville and Clemson University. In 2001, the City of Greenville, SC and Clemson University started a long-term planning partnership to execute the Reedy River Master Plan. The most dramatic outcome from this venture was the creation of the Swamp Rabbit Trail (SRT). As of 2022, the SRT annually generates $6.7 million dollars in tourism dollars (Nocks, 2024, 204). What is not seen, is how the organic partnership between the City of Greenville and Clemson University has grown into a series of new interconnected partnerships. These new city-university partnerships include: paid internship scholarships with the City of Greenville (and Greenville County), City of Greenville-based Clemson University experiential learning classes taught on an annual basis (Reardon, 2000, 72), and several dozen of master theses and Ph.D. dissertations analyzing the City of Greenville. The weaving of these mini-partnerships was the key ingredient in creating the long-term relationship based on trust between the City of Greenville, local residents, and Clemson University. The paper concludes with best-practice

recommendations on how city-university partnerships can evolve from short-term class projects into long-term city-university relationships.

B. Nocks. (2024). “Planning for the Transformation of Diverse River Corridor Amid Political Conflict: Reedy River Master Plan, Greenville, SC,” in Routledge Handbook of University-Community Partnerships in Planning Education, M.E. Heim LaFrombois and J. Mital (eds), Routledge.

K. Reardon. (2000). “An Experiential Approach to Creating an Effective Community-University Partnership: The East St. Louis Action Research Project,” in Cityscape, 5:1, pp.59-74

1816 | Valeria Fedeli, Anna Moro, Ilaria Tosoni, Daniele Viarengo

City Science Exchange: how to reinforce a dialogue among cities and science

This paper develops an integrated reflection upon the manifold experiences of systematic collaborative platforms between cities and science. It moves from a general conceptual framework based upon around three complementary lenses. First, it discusses a contemporary idea of science, understood not only as a system of formal knowledge production but also as a set of practices, methods and interpretative frameworks capable of engaging with societal challenges. Second, it introduces an idea of urban science that goes beyond data-driven approaches, framing cities as complex, multi-scalar and interdependent systems where scientific inquiry must intersect with spatial, social and political dimensions. Third, it examines the evolving relationship between cities and scientific knowledge, focusing on how scientific institutions, local governments and urban actors can co-produce evidence, tools and operational frameworks to address issues of fragility, inequality and transformation. Moving from this general framework, the paper examines different cases of City-Science initiatives developed by cities in the European context, trying to reflect on how the interface between cities and science has been interpreted and developed so far and how the different available models are contributing to experimenting a research/practice continuum.

Taken together, these three perspectives contribute to redefining how knowledge is produced and mobilized in and for urban contexts, highlighting the need for new interfaces between research, policy and territorial action—particularly in regions marked by structural vulnerabilities and rapid change.

The paper also offers insight on how CRAFT, the Competence Center of the Department of Architecture and Urban Studies, is trying to build a growing awareness of this topic in the Italian context.

1178 | Grace Yixian Zhou, Juha Tuunainen, Mari Vaattovaara, Terhi Esko

Bridging Research and Policy: Knowledge Exchange Networks on Urban Segregation in Finland

Universities and researchers hold significant potential for addressing complex urban challenges by integrating academic knowledge with policymaking. This study explores the evolving interplay between urban segregation researchers and policymakers in Finland. Since the 1990s, urban segregation has become an increasingly pressing concern in Finland, evolving from initial denial and contested

recognition to an institutionalized national priority. This shift highlights the complex dynamics of the science-policy interface.

The study draws on theories of science–policy interface, knowledge brokering, and boundary objects to examine how researchers, policymakers, and other stakeholders interact within formal and informal networks to co-produce knowledge and inform urban policy responses. Using a mixed-methods approach—combining surveys, social network analysis, and content analysis—the study identifies institutional mechanisms and hybrid actors that facilitate knowledge exchange across academic and policy boundaries. By addressing gaps in understanding science–policy dynamics in urban contexts, this research provides insights into how the academic and policy communities can collaborate more effectively to strengthen evidence-informed urban policy and planning, and support cities in addressing equity, resilience, and sustainability challenges.

SS4: City-University Collaboration

Thu 2.7.16:00-17:30, Special Session A, U401 | Session chair(s): Hanna Mattila, Sampo Ruoppila

2894 | Jan Bittner, Ludmila Kolouchova

Co-Producing Knowledge: An Academic Initiative to Develop a Morphological Analysis Tool for the Small Borough of Prague–Radotín

This contribution presents a novel form of collaboration between the university and small-sized boroughs in Prague, which are often excluded from the knowledge support routinely available to larger and more central districts. Within this initiative, a ‘synergy lab’ was established to repurpose existing methods, codes and datasets from other research projects for local public-sector needs. The case study showcases the successful implementation of a simple, data-driven urban-morphology tool designed to support decision-makers in Prague–Radotín (CZ) and to strengthen their position in negotiations with disproportionately powerful stakeholders or neighbouring major boroughs.

Drawing on the SpaceMate framework developed by Berghauser Pont, the project created a user-friendly and interactive analytical tool tailored to real-world demands for evidence-based decision-making when assessing new development masses. Its interface offers indicative plots that summarise the distribution of building mass and floor area within user-defined localities. Thresholds (quantiles) and deviations can be customised and are displayed directly in the map interface, enabling real-time interpretation of the urban context during negotiations with other stakeholders.

Although contextual mass analysis can, in principle, be derived from city-wide datasets, limited data granularity and the statistical expertise required often restrict their practical usability for smaller boroughs. Crucially, the tool provides an independent and locally controlled data source, allowing the neighbourhood to operate autonomously from analytical platforms developed by larger institutions, whose agendas may not always align with local interests.

2747 | Jeffrey Biggar, Hannah Hickman, Jingyi Zhu

Learning Together: City–University Collaboration through an International Study Tour of Urban Retrofitting Practices

This presentation shares key findings and reflections from an urban retrofit study tour of five Canadian cities conducted in May–June 2025. Supported through a partnership among six universities, the tour facilitated knowledge exchange between UK and Canadian planners, local government officials, practitioners, and academic researchers. Its purpose was to examine collaborative approaches to climate mitigation and adaptation in infrastructure and development projects, and to explore how international study tours can foster shared learning, inspire innovation, and strengthen cross-sector partnerships.

Drawing on participant feedback and reflections, we discuss how transnational learning both shaped and challenged understandings of retrofit best practices; the value of cross-cultural exchange in generating forward-thinking approaches to decarbonizing cities; and the role of city–university collaboration in enhancing research and professional planning practice. The insights contribute to ongoing efforts to better connect planning practice and academic research. We argue that study tours can serve as an effective model for operationalising the theory–practice nexus by linking academic researchers with municipal officials and practicing planners. In doing so, we critically assess how "a symbiotic relationship between theory and practice" (Goodman et al., 2017: 497) can be realised and outline a framework for strengthening research-driven city–university collaboration in support of planning and retrofit initiatives.

2778 | Ender Peker, Aybuke Balahun Coban

Co-Creating Climate-Responsive Urban Futures: Lessons from the METU–Kadıköy Partnership

This paper examines a developing form of city–university collaboration through the partnership between the Department of City and Regional Planning at Middle East Technical University (METU) and Kadıköy Municipality in Istanbul. Emerging from the CRP446 Climate Responsive Urban Design course, the collaboration offers a structured platform where students, academics, and municipal practitioners jointly engage with real urban challenges linked to climate resilience, environmental justice, and public space design. Rather than relying on municipalities merely as data providers, the partnership embraces a co-creation model in which municipal actors actively participate in the pedagogical process and shape the direction of learning activities.

The collaboration is organised around three interconnected components. First, joint field explorations allow students and practitioners to assess climate-related vulnerabilities in a specific neighbourhood. Second, co-design workshops bring together students and municipal staff to develop climate-responsive design proposals that reflect both local knowledge and planning realities. Third, iterative critique sessions enable practitioners to review student proposals and provide practice-based feedback. These activities position the municipality as a living laboratory, creating opportunities for transdisciplinary learning while simultaneously informing ongoing municipal planning initiatives.

Drawing on student reflections, focus groups, and course documentation, the paper demonstrates how this collaboration enriches planning education by grounding climate-responsive design in institutional processes, regulatory contexts, and implementation constraints. At the same time, municipal actors gain access to evidence-informed ideas, creative explorations, and external perspectives that can support their sustainability goals. The partnership fosters mutual learning, communication, and capacity building between academic and practice communities. The METU–Kadıköy model suggests that structured collaboration can produce reciprocal benefits, strengthen planning curricula, and contribute to cities' ongoing search for climate-responsive solutions.

2113 | Age Poom, Elise Jalonen, Martin Haamer, Anto Aasa

Advancing sustainable urban mobility in a mid-sized university city

Universities are key actors in advancing sustainable urban mobility and climate goals. In line with Estonia's climate policy and Tartu's ambition to achieve a 60% share of sustainable modes in urban travel by 2030, the University of Tartu conducted a comprehensive mobility survey to inform institutional and city-level strategies. The survey assessed travel behavior, barriers, and opportunities among students and staff, aiming to reduce environmental impact and promoting healthier and more sustainable urban mobility patterns.

The mixed-method approach combined a large-scale online questionnaire, focus group discussions, timetable analysis, parking log data, and business travel records across multiple campuses. Results reveal that 66.7% of students and 52.3% of staff primarily use sustainable modes (walking, cycling, public transport) for commuting, while frequent car use persists among 13.8% of students and 30.9% of staff. Key barriers to sustainable travel include limited public transport connectivity between campuses, fragmented cycling infrastructure, inadequate winter maintenance, and teaching scheduling constraints across multiple campuses. Namely, timetable analysis shows that up to 36% of consecutive classes require inter-building travel, often exceeding 1 km, creating time pressure and incentivising car use.

Acknowledging the impact of campus location and available mobility services on students' and staff's travel choices and overall urban mobility patterns is key to the transition towards more sustainable urban travel. Findings underscore the importance of context-sensitive interventions and institutional collaboration in advancing climate goals. We recommend accounting for mobility-related impacts in campus development, prioritising safe and attractive campus surroundings, integrating weather-protected bike parking, and adjusting timetables to reduce accessibility constraints. City-university collaboration is essential for improving public transport schedules, enhancing cycling infrastructure, and developing joint campaigns to promote active mobility. This research demonstrates how integrated data-driven planning and university-city partnerships can accelerate the transition toward sustainable mobility in mid-sized European cities.

2100 | Wolfgang Scholz, Wiriya Puntub, Ali Jamshed, Yannick Roth

Challenges and benefits of collaborations between universities and city planning departments. Case studies from coastal cities in the Philippines

Small and medium size coastal cities, both in the Global North and South, face multiple challenges to implement climate change adaption measures while at the same time planning regulations are getting more complex. Main hindering factors on the side of municipalities are limited trained experts and financial resources. Also, local politicians might not always support planning projects to address climate change adaptation and mitigation when they interfere with the life of their voters and landowners. Universities, on the other hand, can provide expertise and ideas without being restricted to administrative procedures and political discussions. With applied research projects and e.g. joint students' planning workshops, bringing German and Filipino students together, they can support the local planning administration of coastal cities and present ideas without being exposed to day-by-day planning bureaucracy.

However, the timelines and agendas of both sides differ: university members often lack knowledge of the administrative side of planning and are bound to the semester schedule while planning office staff is often not used to work with universities and students. Even when openness from both sides is given, still challenges must be addressed, especially when it comes to international projects and different planning cultures.

This presentation will document and analyse the research and collaboration of TU Dortmund and its partners in city planning offices of coastal cities and local universities in the Philippines. Focus is on resilient planning interventions to address multiple hazards of fluvial, pluvial and maritime flooding, especially in informal settlements near rivers and coastlines. Research analyses flood levels, the livelihood needs of informal settlers, pros and cons of upgrading and/or retreat interventions, offer international knowledge transfer and identifies gaps between national policies and local capacities. It will highlight by real life examples, options for co-production for flood protection, mutual benefits but also cover limitations and restrictions.

991 | Michele Donnini, Age Poom

Identifying Knowledge for Active Urban Mobility: Exploring University–Municipality Collaboration in Tartu

European cities are increasingly reorienting mobility systems toward sustainability, seeking to reduce car dependency and promote active modes such as walking and cycling. Within this transition, mobility hubs have emerged as pivotal sites integrating technical innovation, spatial design, and governance experimentation. Their effectiveness, however, depends not only on infrastructure but on how knowledge and expertise circulate among diverse actors.

Focusing on Tartu, Estonia, this study explores how collaboration between universities, municipalities, private organizations and citizens shapes the planning and implementation of mobility hubs. Drawing on concepts from collaborative urban governance and policy mobilities, mobility hubs are approached as socio-technical arenas where institutional logics, political visions, and epistemic practices intersect.

Using document analysis and semi-structured interviews with municipal officials, researchers, and local stakeholders, the research examines how academic know-how and municipal priorities are aligned, translated, and occasionally contested in the pursuit of active mobility.

Preliminary findings suggest that the university–municipality relationship operates as a dynamic process of knowledge co-production, mediated by trust, organizational structures, and planning temporalities. While such collaboration fosters innovation and mutual learning, it also exposes tensions around legitimacy, power, and institutional capacity characteristic of medium-sized European cities. By tracing the micro-dynamics of knowledge exchange in Tartu's mobility hub initiative, the study contributes to understanding how collaborative governance can advance urban mobility transitions and support the uptake of the Sustainable Development Goals (SDGs).

SS4: City-University Collaboration

Thu 2.7.17:45-19:15, Special Session A, U401 | Session chair(s): Hanna Mattila, Sampo Ruoppila

1235 | Maria Raffaella Lamacchia, Nicola Martinelli, Giovanna Mangialardi

Assessing the strategic role of the Puglia University Region project in fostering city-university nexus

Based on the conviction that full right of citizenship is an essential aspect of the right to study, this contribution presents the results of the project 'Puglia University Region: Studying and Living in Welcoming and Sustainable Cities.'

The project, launched in February 2022 and promoted by ADISU Puglia (Regional Agency for the Right to University Study) and the Puglia Region, with the scientific coordination of Urban@it (National Center for Urban Policy Studies), pioneers an innovative research-action approach. Its core objectives are to redefine the university-urban relationship, ensure students' full right to citizenship, and enhance the attractiveness of Apulian academic institutions.

The research is multidisciplinary and multi-scalar, analysing and territorializing five crucial dimensions of the "right to the city" (Housing, Culture, Sustainability, Services, and Accessibility) across the Apulian university cities. The most significant innovation is the institutionalization of the regional relationship between the five Apulian Universities and their respective Municipalities through a signed Memorandum of Understanding, along with the aforementioned promoting institutions. This synergistic, supra-local cooperation prompted institutions to define active urban strategies serving students, thereby overcoming traditional operational silos.

The research, carried out with the continuous involvement of stakeholders and the student community, yielded three main outcomes: flagship projects (concrete and funded pilot initiatives); the creation of a consolidated network among regional actors; and the development of the New Agenda for the Right to Study. This agenda's key innovation lies in reallocating responsibilities by clarifying that all participating institutions also bear active duties concerning student needs and urban policies.

The project is currently in its second phase, focusing on further expanding synergy through the inclusion of institutions from the Tertiary and Professional Education sector. This phase will deepen the complex management models for new university residences, bolster psychological support for students, and establish an Observatory on the Right to Study.

1516 | Success Shaibu

The Role of Universities in Australia's City Deals

Universities and cities have a long-standing relationship, and governments at different levels are increasingly identifying universities as key urban actors capable of delivering specific projects that will trigger urban regeneration in cities. Scholars have argued that universities play key roles in revitalizing cities, including as economic actors, civic actors, and developers (Cenere et al., 2023; McCann et al., 2023; Perry & Wiewel, 2015; Ruming, 2023; Zasina, 2021). One way this is achieved is through a policy framework of City Deals. City Deals are strategies for urban development and have been used to "incentivize coalitions" of local state and non-state actors (O'Brien & Pike, 2015, p. 1), with the intention of driving the process of economic recovery, delivering infrastructure, and facilitating urban regeneration. Anchored on the concept of growth coalitions, this paper draws on the literature on City Deals and urban regeneration to examine Australian universities' involvement in City Deals and present insights into the complexities around the delivery of the City Deals commitments. There are 9 City Deals in Australia, with 13 universities partnering with governments and other stakeholders to deliver the objectives of these City Deals. The empirical data analysis from interviews, policy documents, and media articles shows that although the City Deals model is a relatively novel approach in Australia, universities' partnership with government and other stakeholders is at its strongest under this policy framework. Further, universities' involvement in Australia's City Deals can be classified into four themes, which are (i) Governance; (ii) Leadership; (iii) Economic Growth; and (iv) Funding. The paper explains the peculiarity of Australian City Deals when compared with the European case studies and provides useful insights into understanding universities' role in urban regeneration. It is recommended that this model be institutionalized to strengthen city-university collaboration for resilient and sustainable urban regeneration.

2040 | Alan Mabin

Challenges of university–city relationships: reflections from South Africa

This paper explores initiatives at between several South African universities and their respective cities to forge new connections and play new roles as urban actors. These represent efforts to do such relationships differently. It is also concerned with institutional relationships between universities, city governments and other organisations. The purpose of the paper is to examine the challenges that face those who seek to bring institutional (and physical) relationships closer together, with illustrations from often contradictory projects and results. Human and network relationships form a key element of the context. The paper seeks to identify factors that support success for innovative approaches and tactics within universities and beyond.

Sources of the paper include participation in practices at Wits on the part of the author, secondary material, and select websites and interviews. The paper intends to provide an informed account of developments in city-university relationships and to link that to wider questions on the general subject, not claiming a definitive account.

The paper comments briefly on aspects of the engagements of Fort Hare in Alice and East London, Western Cape and UCT in Cape Town, Nelson Mandela in Gqeberha, Pretoria in Tshwane and Witwatersrand (Wits) in Johannesburg (as well as in its Mpumalanga-Limpopo provincial contexts far from its main city campuses). These universities have much in common, but differ substantially nevertheless. All face enormous challenges in their primary functions as learning and research establishments, and also in relation to their surrounding communities.

The conclusion is preliminary and notes that contest over university roles is substantial - and seems likely to continue, though not to the extent of preventing some positive cases of universities as wider social actors.

2172 | Austin Barber, Adam Sheppard, Andrea Frank

Bridging the Divide? University Development and Co-provision of Public Benefits in a Regeneration Context – Lessons from Two English Cities

Traditionally, universities are considered to bring benefit to society through research impact, educational provision and a direct contribution to society through voluntary contributions (outreach and student activities). The place-based mission underpinning the founding of the UK's leading civic universities is a prominent example of this interface.

More contemporarily, the university sector has increasingly been seen as a source of local investment, as a provider/enabler of public goods, and as a placemaking/regeneration opportunity. Institutions have become more active in pursuing developments in prime city locations for new facilities that serve multiple functions. These particular forms of investment support both university and public functions, including co-provision of services and social benefits in conjunction with state actors. While such cases sit within a broadly positive narrative, questions persist: "benefits do not automatically accrue, and existing literature has failed to indicate the conditions under which partnerships can be mutually successful" (Benneworth, et al., 2010).

This paper critically examines this localised university – state – societal interface through

case study analysis of two prominent local university initiatives in medium sized English cities, Gloucester (City Campus) and Worcester (The Hive). In both cases the university ostensibly generates institutional benefits, civic benefits via high profile urban renewal, enabling of public goods provision, and facilitation of direct interaction between university staff/students and local communities, bridging the "town/gown" divide. But we also consider the sustainability of such in context of worsening financial pressures in the higher education sector and rollback of local state and service provision in climate of austerity. We investigate these examples to examine the enabling conditions, the impacts, and the challenges of these partnership initiatives.

We conclude by drawing lessons for future provision of city-university collaboration in challenging economic conditions, and consider the implications for city governance actors in maximising the associated opportunities amid competing priorities.

2473 | Giceane dos Santos Matos, Luciana Rodrigues Fagnoni Costa Travassos

City–University Cooperation as a Planning Strategy: Potentials, Limits and Institutional Innovations

This paper discusses the dynamics of technical-scientific cooperation between universities and municipal governments, analyzing their role in qualifying public policies and in the practice of urban planning, based on the partnership between the Federal University of ABC and the São Paulo Municipal Secretariat for the Environment in the development of a riverbank restoration program in the city of São Paulo (FAPESP process no. 2023/10072-0). The literature converges in recognizing that such cooperations not only exist but have become essential for strengthening institutional capacity, improving territorial diagnostics, and guiding structuring public policies. It is possible to affirm that interinstitutional collaborations demonstrate higher performance in the production of robust, integrated policies sensitive to local specificities. Studies also show that the articulation between territorial recognition, sectoral integration, and institutional continuity generates more consistent results than policies formulated in isolation or fragmentation. The latter tend to present lower social impact and weaknesses in evaluation, monitoring, and proximity to the population. In this context, technical-scientific cooperation manifests itself as a strategic instrument for addressing complex urban challenges. By providing qualified analyses, innovative methodologies, and support in moments of crisis, universities expand the decision-making and strategic capacity of governments. Part of the literature, however, warns that some cooperations may reinforce coalitions oriented toward urban growth, disregarding social demands. This paper, in contrast, seeks to demonstrate that, when well structured, city–university articulations strengthen public policies, enhance governmental capacity to address social and environmental challenges, and contribute to democratic, integrated, and context-sensitive planning practices.

937 | Giulia Oldani

Urban Campuses and the Production of Space: Applying the Theory of Change

University campuses are never neutral elements in urban space. When housing rents rise or students mobilize, the image of the university as an apolitical institution collapses. Universities emerge as public actors that shape urban environments, distributing visibility, power, and value.

This research understands universities as spatial and political institutions: by transforming space, they include or exclude actors and legitimize particular uses. Drawing on Lefebvre's theory of the production of space (1991) and Addie's argument (2018), it highlights universities' active role in urbanization, extending beyond education to real estate, infrastructure, and urban imaginaries (Marginson, 2008).

The study examines university campuses to explore how power operates through urban forms and to assess the social, political, economic, and territorial impacts of universities on surrounding areas. It proposes an evaluation framework conceived as a form of public responsibility rather than a technical

reporting tool, combining quantitative and qualitative approaches to capture both measurable changes and lived experiences.

The framework draws on the Theory of Change to reconstruct the causal chain linking university actions to urban transformations. It traces steps from objectives and planned actions to physical outputs, medium-term shifts in perceptions and uses (outcomes), and long-term territorial impacts. Quantitative indicators are complemented by interviews, focus groups, and ethnographic observations to reflect how changes are experienced by different actors.

Two analytical matrices operationalize this approach: the first maps campus projects across categories such as enabling works, accessibility, academic functions, housing, open spaces, and sustainability; the second applies the Theory of Change to follow objectives through outputs, outcomes, and impacts, identifying risks, blockages, and unintended effects.

The framework aims to support universities' accountability for the spatial transformations they trigger and to orient projects toward more just urban futures. This research aims to reposition the university not merely in the city but actively for the city.

SS5: Coastal Planning

SS5: Coastal Planning

Thu 2.7.11:00-12:30, Special Session H, U264 K-RYHMÄ | Session chair(s): Clare Melhuish, Francesca Paola Mondelli, Marta Rabazo Martin

1412 | Clare Melhuish, Francesca Paola Mondelli, Marta Rabazo Martin

Beyond Protection: Coastal Heritage as an Agent of Change

This presentation argues for the importance of cultural heritage in shaping new approaches to coastal adaptation capable of mobilising communities and shaping political will from the bottom up. It discusses how cultural heritage, understood as the practices, values, and symbols that communities attribute to their environment, shaping community identities, can act as a driver of climate adaptation policies and practices.

At a global level, this presentation addresses the urgent need for integrated approaches to climate resilience, highlighting the role of a conscious, enabling design in linking ecological, cultural, and social systems. Its multidisciplinary framework - bridging spatial design, social sciences, environmental studies, and heritage conservation - advances a vision of design as an active agent in shaping just and resilient futures.

While the relevance of cultural heritage for communities and broader coastal management and sustainable development is widely acknowledged (Vallega, 2003; Delaney, 2020), in climate change debates it is usually framed as a vulnerable asset to be protected (EU Commission, 2010; JPI Cultural Heritage & JPI Climate, 2022; Reimann, 2018) rather than as a resource for adaptation (Fatorić & Egberts,

2020). This is particularly the case in coastal areas, where archaeological, cultural, and natural heritage (Laino & Iglesias, 2023; van de Wal, 2024) are threatened by erosion and sea-level rise.

Yet institutional inertia, social resistance and competing economic interests have often led to fragmented emergency interventions rather than comprehensive strategies. We argue that integrating heritage and community engagement into adaptation policies can foster structured, long-term responses, adopting a comparative and translocal perspective between the Mediterranean and Northern Europe. Our case studies in Italy, Spain, and the UK demonstrate the scope for developing an inclusive and replicable research methodology to support heritage-based adaptation policies. The presentation proposes a novel, transferable model for integrating qualitative insights and spatial data into decision-making processes.

2162 | Noa Lachyani-Blumenfeld, Michelle E. Portman, Assaf Yasur-Landau

Integrating Marine Cultural Heritage into Coastal and Marine Spatial Planning: A Case Study from the Dor-Habonim Site

Coastal and near-shore marine zones are key areas where ecological values, cultural heritage assets, and diverse human uses often come into proximity. These intersections create both opportunities and tensions within planning processes, particularly when planning needs to consider ecological and cultural layers together within the same coastal space.

In Israel, the Dor-Habonim coastline represents a multi-use nearshore environment that includes rich and unique coastal and underwater archaeological remains, and distinctive ecological features, making it a relevant case for examining how Marine Cultural Heritage (MCH) can be incorporated within coastal planning and broader marine spatial planning (MSP) considerations.

This research applies a multi-method approach that includes field observations documenting human activities in coastal and marine areas, spatial analysis through GIS, and expert interviews. Together, these methods support the identification of zones where ecological attributes, heritage sites, and human uses overlap, interact, or generate pressures and conflicts.

Preliminary insights indicate that integrating ecological, heritage, and spatial activity data contributes to a clearer understanding of the interactions shaping the Dor-Habonim area. This combined perspective facilitates the identification of planning sensitivities, opportunities for co-existence, and site-specific considerations that are relevant for coastal management and can inform MSP-related processes. The methodological framework highlights how MCH can be incorporated in a structured manner that reflects the complexity of layered coastal systems.

By presenting an applied and spatially grounded case, the study demonstrates how detailed analysis of human activities, ecological features, and heritage assets can support more nuanced coastal planning. The study is intended to improve understanding of the relationships between ecological, heritage, and human-use layers and to explore how this knowledge may support coastal and marine spatial planning.

2390 | Ida Sofie Gøtzsche Lange, Jacob Bjerre Mikkelsen, Karoline Lund Pedersen, Sophie Bondgaard Poulsen, Søren Kristensen

Harbour Cities and the Split Urban Core: Insights from a National Survey of Danish Municipalities

Many Danish harbour cities are undergoing profound transformations as former port areas are converted into urban or recreational spaces. This process often creates a duality between the historic city centre and the redeveloped waterfront, raising questions about identity, cohesion, and long-term viability. At the same time, traditional city centres face increasing pressure, making this duality a critical challenge for municipalities seeking to balance diverse interests.

The research and development project “Harbour Cities and the Split Urban Core” explores what this transformation means for harbour cities and how renewed connections between harbour and city centre can be fostered. We ask: What is being transformed - from what and to what? How does this transformation occur, for whom, and with what value? Beyond physical change, we examine how these processes affect cultural identity and urban narratives.

This conference paper reports findings from the project’s first stage, National Insight. Through a nationwide survey of all Danish municipalities with one or more harbour cities, we map typologies and assess the current state of these cities, their potentials, and their challenges. Our analysis considers different forms of separation: spatial disconnection, where harbour and city centre are divided by infrastructure or distance; vertical separation, where elevated roads or bridges isolate waterfronts; horizontal barriers, such as industrial belts or fenced-off zones; and mental separation, rooted in cultural identity, historical narratives, and perceptions of the harbour as “other” than the city. Preliminary results indicate significant variation in approaches, with some municipalities viewing harbour transformation as a catalyst for urban synergy, while others struggle to overcome both physical and symbolic divides.

By presenting these insights, we aim to contribute to a broader discussion on sustainable and integrated development in harbour cities - ensuring that transformation strengthens rather than fragments the urban fabric.

2531 | Bhuvana Nanaiah, Slađana Lazarević

The Role of Heritage in the Post-Industrial Urban Regeneration of Trondheim, Norway and Izmir, Turkey

This study undertakes a comparative analysis of the role of heritage in urban planning policies and practice in two coastal urban regeneration cases, Trondheim, Norway and Izmir, Turkey. The compounding effects of cities transforming from industrial production regions into service-based agglomerations, the scarcity of land in cities, and the need to commodify space, all in the light of a changing climate, have been the driving force behind urban regeneration of post-industrial landscapes. While the act of transformation is future-oriented, it holds tangible and intangible elements of the past, which are irrevocable assemblages of this change-heritage. However, heritage is a concept that evolves over time, across space, in context, among people, and in utility. This paper, therefore, aims to conceptualize the changing nature of industrial heritage assemblages, and its role in coastal futures by

performing a comparative study of two post-industrial waterfront projects, currently in the early stages of urban regeneration- Nyhavna in Trondheim, Norway, and İzmirdeniz in Izmir, Turkey. The research undertakes a longitudinal study of the sites to map the genesis of these industrial sites along the coast, the causes and processes of transformation, and the role of industrial heritage in cities' future plans. A triangulation of secondary data from online historical archives, municipal documentation, and heritage evaluation reports provides the basis for conceptualizing future policies and land-use plans, along with primary data from stakeholder interviews, which are evaluated to support this investigation. The longitudinal change in post-industrial sites, transitioning from utility to heritage, and its impact on the coast is mapped using GIS. Finally, the research calls for planning practice to go beyond the protection of "industrial heritage" from an object-based or risk-based perspective. It presents scenarios where heritage is a regenerative pathway towards climate-responsive coastal urban transformation.

2978 | Angela Barbanente, Giulia Motta Zanin

Shifting paradigms in coastal planning: supporting regeneration through landscape heritage consciousness and collective action.

Within the variety of Mediterranean coastal regions, a significant portion consists of areas where pressures from vacation-related development and the resulting coastal erosion, storm surges, flooding and destruction of coastal ecosystems and natural defences combine with processes of abandonment that exacerbate degradation.

Our idea is that planning for the protection and regeneration of these regions requires raising people's consciousness of landscape heritage. This is understood as a dynamic and lived entity, shaped by long-term co-evolutionary processes between human settlements and the environment, and evolving also in relation to social consciousness of environmental and cultural values, as well as of the risks affecting a given place. In this perspective, citizen participation is considered the foundation for effective protection and management of landscape heritage, in accordance with the European Landscape Convention, which identifies social perception as a constituent component of landscape, as well as the Faro Convention, whose concept of "heritage community" points precisely to the people who value specific aspects of heritage.

Our research focuses on the coastal strip of Lecce, a city in southern Italy, characterised by the coexistence of overdevelopment and abandonment. This choice stems, on the one hand, from a process of mobilisation of social, cultural and political resources that is redefining the relationship between local populations and the coastal area. On the other hand, it is due to the existence of various spatial planning and public policy instruments, either recently developed or in progress, aimed at coastal protection and management. The analysis of these instruments, viewed in relation to local cultural processes and practices, offers insights into how the contents and processes of statutory planning can be rethought to support the possibility of protecting and regenerating coastal areas by relying on collective action that draws inspiration on the values attributed to landscape heritage.

SS5: Coastal Planning

Thu 2.7.14:00-15:30, Special Session H, U264 K-RYHMÄ | Session chair(s): Clare Melhuish, Francesca Paola Mondelli, Marta Rabazo Martin

1259 | Stefania Fiorentino

Planning for British coastal towns: is climate-led regeneration a possibility?

We reconnect to the literature on left-behind places, investigating regeneration policy and practices beyond the traditional urban scale of big cities. We look at regeneration in peripheral locations, and we use the case of British coastal towns to describe the effects, drivers and obstacles found in attempting to regenerate them and address the local socio-economic stagnation and environmental threats due to the impact of climate change.

Some of these coastal locations face a longstanding economic stagnation with a series of connected social issues spiralling into different types of deprivation. Their peripheral nature often imposes accessibility challenges, limited skills and labour pooling. Moreover, typical coastal issues due to climate change - e.g., coastal erosion, flooding and rising sea levels - call for a rethink of priorities in local policy agendas and to secure strategic cross-border cooperation agreements. The co-existence of overlapping challenges puts further pressure on often already overburdened local governments.

We look at a selection of different types of coastal towns, with various sizes and economic dedications (e.g., industrial ports, fishing hubs, seaside resorts) and we assess the lessons learnt, the nature and outcomes of different regeneration strategies put in place, as well as the challenges that remain to be addressed.

We conclude with a quest to re-think the notion of “urban regeneration”, replacing the currently common tourist-led approach with climate-led strategies, prioritising the threats imposed by climate change, adopting a more holistic approach, and imposing wider implications for the future of this discipline.

1315 | Alfredo David Zarazua Rodriguez, Robert Paterson

Wind hazard and the limits of building code adoption in coastal Texas

Across coastal hazard-prone regions, efforts to protect people and property often generate a paradoxical outcome: a false sense of security that encourages rapid development in vulnerable areas due to structural flood protection, amplifying exposure to climate risks that exceed design thresholds. In Texas, this moral hazard is intensified by a fragmented approach to building regulation. Although the state authorizes use of the 2012 International Residential Code (IRC) and International Building Code (IBC), cities are neither required to adopt nor enforce them. The absence of state sanctions or mandatory update requirements has produced a patchwork of uneven resilience standards across jurisdictions in face of climate change, with a major frequency of extreme events.

The Natural Hazard Mitigation Saves Report (2019) by the National Institute of Building Sciences demonstrates that proactive hazard mitigation through adopting and enforcing strong building codes yields significant economic and social benefits, often reflected in avoided losses for capital invested. Building codes remain one of the most effective policy tools for reducing losses from hurricanes, tropical

storms, and high-wind events, yet their power depends on consistent adoption and enforcement (Shapiro, 2016). As establishing statewide building codes strengthens the state's regulatory power, failure to update and apply them transforms progress in structural flood protection into a source of vulnerability (Go, 2014). The Texas case reveals how code governance relies on voluntary compliance that perpetuates the moral hazard of protection, where growth in hazard zones continues unchecked, and climate-driven wind risks intensify beyond the limits of existing designs.

This paper employs spatial diffusion and policy adoption theory framework alongside city-scale hazard data, using a wind-impact model to assess exposure in the context of the area and structural vulnerability. By pairing modeling description with a targeted literature review, the paper describes how code adoption practices shape patterns of resilience and risk.

1595 | Magaudda Stefano, Federica Di Pietrantonio, Carolina Pozzi

Multi-Level Collaborative Governance for climate change adaptation: testing coastal stewardship

Involving local communities in collaborative management practices aimed at preserving the natural heritage, and improving territorial resilience to climate change is a current trend that is strongly endorsed by EU policies. This contribution presents a critical reflection on the implementation of the Interreg Euro-MED project COASTRUST, which aimed to apply the land stewardship concept to coastal areas affected by multiple anthropic pressures and threatened by climate change, by establishing "coastal stewardship agreements", voluntary governance tools that engage public authorities and local organizations in the sustainable management and conservation of natural and cultural coastal landscapes through long-term commitments. In the coastal area of Province of Latina (IT), the project framed coastal stewardship agreements within the "Agro Pontino Coast Contract" developed through the previous Interreg Med project Coasting and regional funding programs, by outlining adaptive multi-stakeholders environmental governance systems integrating the formal regulatory framework, the contractual tool, and voluntary agreements and community-driven initiatives based on multi-level collaboration. The engagement of local stakeholders in heritage protection was intended as a capacity building process aimed at guiding them in the design of concrete stewardship actions based on collaboration and networking. The result was the definition of an overall shared stewardship strategy and the implementation of consistent bottom-up initiatives conceived to be sustainable over time. This contribution explores this experience from the perspective of the research group involved in the project, highlighting criticalities, challenges and opportunities for replicability, and further developments.

2332 | Vittoria Ridolfi

Rethinking coastal governance: managing complexity through adaptive planning approaches

Coastal territories concentrate ecological and socio-economic variability while facing acute climate hazards. Sea-level rise, erosion and intensifying extremes are reshaping coastal systems and escalating environmental, economic and social losses (IPCC, 2021; Oppenheimer et al., 2019;). In Mediterranean

settings, urbanisation, mass tourism and port development further amplify vulnerabilities and complicate decision-making across fragmented administrative and sectoral boundaries (Neumann et al., 2015; Cicin-Sain & Knecht, 1998). Moving beyond a defensive or protection-oriented logic, this contribution rethinks coastal planning through three interrelated and complementary assumptions.

First, the coast as a space of threshold: rather than a line to be delimited, the coast represents a field of relations, an in-between constantly redefined by ecological processes and human practices. Technical and administrative definitions seek to stabilise its limits, yet such attempts remain partial and contingent (Kay & Alder, 2005; Lamacchia, 2013). Second, the coast as a space of conflict: a paradigmatic arena where environmental fragilities, economic interests and settlement pressures overlap, producing tensions that manifest both ecologically and institutionally. Climate change interacts with urbanisation and tourism, generating cumulative risks and socio-territorial inequalities. This condition is reinforced by the fragmentation of legal and planning frameworks, whose multiple, uncoordinated instruments hinder integrated and adaptive governance (Cabana et al., 2023).

Finally, the coast as a space of negotiation: a trading zone (Galison, 1997; Balducci, 2011) where actors with different interests and languages collaborate through partial agreements and shared procedures. Within this setting, the notion of boundary objects (Star & Griesemer, 1989) offers an analytical cue to interpret how planning tools can act as mediating devices, holding together diverse worlds while preserving coherence within conflict.

A comparative lens on Sardinia (Italy) and Catalonia (Spain) explores how these principles can inform adaptive coastal governance and reposition planning beyond protection, towards a spatial practice capable of negotiating complexity and uncertainty.

SS5: Coastal Planning

Thu 2.7.16:00-17:30, Special Session H, U264 K-RYHMÄ | Session chair(s): Clare Melhuish, Francesca Paola Mondelli, Marta Rabazo Martin

1117 | David Mathewson

A Strategic View – Flood Infrastructure and the Effects on Urban Form Across Jakarta in the Context of Land Subsidence

This paper explores historic institutional responses to flooding and the influences of planning policies on the physical, spatial urban form of Jakarta, as well as the associated social development challenges at the strategic scale. This research considers recent changes to spatial development patterns across North Jakarta as new flood defences have been constructed or existing systems upgraded, part of a city-wide network of mitigation infrastructure currently being implemented by local and national government since 2012. Using the city's network of waterways and flood control systems, several kampung communities are analysed using urban morphology with GIS-based mapping and satellite imagery to understand the link between flood policy and changes to urban form as a result of decisions made by planning authorities. Utilising document analysis, literature review, newspaper articles and interviews with local stakeholders: Jakarta-based, Indonesian NGOs, government officials and academics involved in relevant projects, a historic institutionalist approach is used to understand the policy context and associated

decision-making processes and cultures involved with the practical realisation of flood-resiliency in the city, the impacts of this new infrastructure on the urban form of the Jakarta, as well as the consequences of the resulting spatial changes on local residents, their communities, homes and livelihoods. This paper reveals several important and unforeseen consequences from recent institutional responses to flooding in Jakarta, including the eviction of residents and demolition of their houses, problems with securing land tenure more generally, the severance of social networks and local livelihoods as a result of new barriers, as well as the utilisation of land formally allocated for flood mitigation instead for profit-driven urban development, rather than for public benefit. This paper illustrates long-term trends going back 400 years to the 17th-century Dutch colonial occupation of Jakarta, with consequences permeating up to today's flooding and social challenges facing the megacity.

1424 | Adrian Healy, Akinade Olatunji, Anna Taylor, Moshood Tijani

Thirsty Cities: Tackling the water supply 'crisis' in coastal cities

Access to freshwater is one of the fundamental challenges facing urban areas in the future. A combination of rising population, ageing infrastructure and a changing climate presents a potent nexus of risks. For coastal cities, the challenge is exacerbated by the potential for sea-level rise and the saline intrusion of groundwaters. Adopting a resilience lens this paper explores the contrasting responses of two coastal cities in the Global South to freshwater scarcity. Cape Town in South Africa demonstrates the potential of an integrated planning perspective which embraces the sub-surface realm and combines this with technological innovation. In contrast, Lagos in Nigeria, illustrates the potential for unplanned development to create neo-liberal pathways of adaptation which may prove maladaptive. In recent years, each city has been described as facing a crisis in 'water supply', but their responses have been very different. Drawing on qualitative interviews with policymakers and with households in each city, combined with secondary analysis of policy documents, the paper documents the response of each city to their water supply crisis and considers how different parties construe the 'crisis' and how this shapes their response. Whilst demonstrating difference, the two cities also illustrate common themes in how households respond to persistent water shortages. Our findings highlight the role of agency in enacting transformations in urban water supplies and demonstrate the important role played by hydrogeological contexts in shaping agencies for change. The findings raise important questions not just for equity but also what is being planned for in the resilience of coastal cities and how water resources are governed.

1801 | Honey Kumar, S Sreekesh

Climate Change Extremes and Coastal Groundwater: Building Urban Water Supply Resilience in the Megacity of Mumbai (India)

Climate change is impacting society and the environment in coastal regions, which face the threat of sea level rise, extreme sea levels, and extreme climate events, leading to the hazard of salinization of coastal aquifers. Coastal megacities with more than 10 million people are particularly vulnerable, as groundwater extraction to meet urban water supply intensifies the process of aquifer contamination. The current research aims to investigate the vulnerability of Mumbai's coastal aquifers to saltwater intrusion (SWI), assessing their suitability for potable water supply, and exploring the socio-economic dimensions to

provide policy recommendations for water supply management in Mumbai. The study uses chemical indicators, statistical tools, and empirical modelling (groundwater flow pattern mapping) to determine the incidence of SWI in Mumbai. Interestingly, the municipal corporation of Greater Mumbai has banned the use of groundwater for domestic purposes; however, this study supports the opposite, as we find no significant traces of SWI in Mumbai, and more than 95% of the water samples fall into the excellent water quality category according to the WHO drinking water standards. The groundwater quality in Mumbai has not deteriorated, and it could be a potential source of alternative/complementary water supply in the city. The study proposes the inclusion of groundwater as an integral part of urban water supply infrastructure in Mumbai, which can help build water resilience in the face of climate change. However, the regulated extraction of groundwater should be ensured through policy interventions to prevent SWI resulting from excessive groundwater extraction in the future.

2635 | Giovanna Ferramosca

THE MOVING TERRITORY OF THE CAMPI FLEGREI: A LANDSCAPE AT/OF RISK

The Campi Flegrei area is in constant motion (Berque et al., 2002). Conceptually, this motion should be understood as a process of constant rewriting of the relationship between humans and territory, which in turn leads to physical elements that manifest themselves in very different ways. Intrinsically, the movement is caused by volcanism and bradyseism, which cause the continuous raising or lowering of the ground and the sea (Bellucci et al., 2006); extrinsically, it is caused by the pervasive presence of humans and their activities, which have led to uncontrolled urbanization and infrastructure development. In Campi Flegrei are concentrated natural hazards (volcanic, seismic, landslides), exacerbated by human activities (high urbanization, consumption of non-renewable natural resources). These conditions interact with the effects of climate change (coastal erosion, SLR, intense rainfall, flooding), generating multiple risks. While from a geological point of view we are talking about a young territory, from another point of view we are also talking about a territory where human presence is long-standing (Ascione et al., 2020). This relationship has generated a condition of perennial co-existence with risks (Beck, 2011). The proposed study reports the results of an interpretative map developed for the PNRR_PE5_CHANGES research project, entitled “Landscapes at/of risk.” The map summarizes all natural and anthropogenic vulnerabilities, highlighting territorial elements (buildings, roads, public facilities) subject to one or more risks and superimposing the Civil Protection Emergency Plan. This operation makes the overall fragility more visible and, considering the intensification of bradyseismic activity over the last two years, serves to highlight the relevance of this issue to the discipline and practice of urban planning. The latter is called upon to find ways to intervene to regulate the processes of evolution in contemporary city, trying to make everyday public uses coexist with emergency uses in the same territorial infrastructure.

SS5: Coastal Planning

Thu 2.7.17:45-19:15, Special Session H, U264 K-RYHMÄ | Session chair(s): Clare Melhuish, Francesca Paola Mondelli, Marta Rabazo Martin

1475 | Isabella Traeger

Mediterranean Assemblages: an explorative reframing of maritime territorialization and planning

In the context of what has been termed the “Blue Gold Rush,” the sea has undergone unprecedented anthropization – simultaneously serving as circuit and frontier of extended urbanization, and as a fragile ‘commons’ demanding transnational and integrated stewardship. Against this backdrop, the research advances a critical reframing of maritime territorialization and Maritime Spatial Planning (MSP), exploring how the synergistic integration of sea-based and ‘borderscaping’ perspectives can foster more attuned and emancipatory understandings of water futures.

While MSP has been heralded as the go-to solution to the ‘wicked problem’ of maritime planning – advancing an ecosystem-based, cross-sectoral and participatory approach – it tends to (re)produce dominant neoliberal logics based on technoscientific abstraction and striation that fail to apprehend the sea’s specific ‘aqueousness’, reinforce ineffective planning approaches, and entrenching power asymmetries.

To transcend such shortcomings, the contribution proposes a ‘thicker’ and non-Anthropocentric understanding of maritime urbanization. It investigates how, far from being univocal, the (re)production of maritime space is shaped by heterogenous and sometimes unexpected more-than-human entanglements, contingencies, and agentialities. This reading seeks to unsettle traditional notions of spatiality, reframing the sea as a relational, politicized and intrinsically heterotopic assemblage in a state of constant emergence and churning. Within this assemblage, MSP emerges as an ambivalent tool, capable of both democratizing and gentrifying maritime space- and place-making.

The contribution articulates and spatialize this analytical lens by tracing a multi-sited constellation of ‘fault lines’ that reveal the interrelations and frictions of plural territorialization trajectories in the Adriatic context. Ultimately, this framing provides fertile ground to reimagine more attuned and integrated planning practices and governance forms that transcend rigid b/ordering mechanisms.

1902 | Tamara Shefer, Garyn Phillips

Engaging a hydrofemininst amphibious urbanism: Thinking cities from coastal spaces towards a radical reconceptualization of planning

‘What might the urban become if one challenged the proposition that cities are equated with land? How might urban theory be done differently if wetness was brought into centre stage in the politics of habitation?’ asks Maan Barua. This scholar promotes an amphibious urbanism as a way of thinking cities differently in current times of multiple crises, arguing that scholarly outlooks on infrastructure 'remain largely anthropocentric' (Barua, 2021, p. 1468). Responding to this provocation, we also deploy hydrofeminism that reminds us that we are all ‘bodies of water’, connected by our hydrocommons, ‘the lifeblood of humans and all other bodies on this planet’ which ‘is increasingly contaminated,

commodified and dangerously reorganised', as Astrida Neimanis (2013, pp. 27–28) puts it. We draw on contemporary empirical research and theoretical work such as that of decolonial feminist, Lesley Green, who has turned such a lens to interrogate Cape Town's urban materiality . We think about this South African city from the ocean, other bodies of water and the watery non-human, that speak both to environmental crises as well as social inequalities, located in histories of colonization, and current anthropogenic environmental injustices and crises. Sharing some examples of the impact of global patriarchal capitalism, ongoing extractivist and denialist approaches to water, we argue the imperative for thinking from coastal spaces, and facing the oceanic ghosts of the past and present, for planning educators and practitioners. Green and Farr (2024, p. 69) plea that: 'An ecopolitics for living on a damaged planet must begin with the reconfiguration of knowledge through a politics of attention to material flows that make for habitability or inhabitability'. Thinking the urban with oceanic and other water, across different entangled geopolitical spaces, in planning knowledges is especially significant in current times of growing climate crises and escalating intersecting social challenges.

2073 | Daniella Vatine

Between Vision and Limits in Marine Spatial Planning: From Land–Sea Interaction to Governance Capacity

Between Vision and Limits in Marine Spatial Planning: Applying the Double Negative Sustainability Framework

Marine Spatial Planning (MSP) aims to steer marine use toward sustainability through visions, goals, and operational objectives. However, a growing body of evidence indicates that objective-setting often remains strategically ambiguous, weakly measurable, and insufficiently adapted to local socio-ecological conditions. This study investigates the roots of this implementation gap and evaluates whether integrating a limit-based framework can strengthen MSP practice.

Preliminary results from a comparative content analysis of 20 approved MSPs reveal three recurring patterns: (1) Objectives are predominantly externally derived, drawing on EU directives or global targets, with limited local grounding. (2) coded objectives lack SMART components, particularly measurable indicators or time-bound elements, limiting evaluability.(3) Adaptive capacity is weak, with only a minority of plans linking objectives to monitoring triggers or threshold-based adjustments.

Complementing this, early findings from an international practitioner survey (N≈20) indicate broad recognition of ambiguity as a deliberate political tool that facilitates agreement across sectors, but at the cost of transparency and ecological accountability. Against this backdrop, the study pilots the Double Negative sustainability framework in the Gulf of Eilat—a highly sensitive and spatially constrained marine environment. Initial stakeholder workshops demonstrate that participants can more readily agree on thresholds to avoid (e.g., unacceptable ecological or social conditions) than on idealized target states. The co-produced limits offer clearer operational boundaries than existing objectives in the draft MSP for Eilat, suggesting that limit-setting can strengthen locality, measurability, and alignment with ecosystem-based management.

These emerging insights support a complementary pathway for MSP: expanding planning from asking "What should we achieve?" to also asking "What must we avoid?" The findings highlight the potential of limit-based tools to enhance objective-setting, improve evaluability, and support more adaptive, equitable marine planning.

2173 | Emine Ecem Kırtaş, Zeynep Enlil

Reproducing the Coast: How Top-Down Planning Produces Uneven Socio-Ecological Conditions in Northern Istanbul

Istanbul's northern coast -long treated as an ecological buffer and cultural landscape at the city's edge- has undergone profound socio-ecological restructuring over the past fifteen years. Northward urban expansion, state-led megaprojects and capital-driven infrastructures such as the Third Bridge, the Northern Marmara Motorway and the Istanbul Airport have reorganized hydrological systems, fragmented habitats and reshaped everyday coastal relations. Through these interventions, the coastline is not simply transformed but actively produced as a new, engineered nature, where ecological balances and social meanings are reorganized around state and market priorities.

Although upper-scale plans nominally protect this fragile coastal basin, these instruments are frequently bypassed, enabling interventions that erode both ecological integrity and the region's lived coastal heritage. Villages whose identities were shaped through forestry, fishing, gathering practices and everyday proximity to the sea now find themselves disconnected from it—materially, visually and symbolically. Mining pits, landfills and highway corridors have redefined what "coast" means, producing an artificialised environment that marginalizes local communities and erases collective attachments.

Against this backdrop, the research asks: How can coastal planning move beyond defensive or technocratic approaches when top-down frameworks fail to recognize the cultural, ecological and historical textures of coastal life? Drawing on spatial analysis, ecological observations and twenty-four interviews with residents and neighbourhood representatives, the study foregrounds the socio-ecological relations and place-based knowledge that conventional planning overlooks. It argues that more just and resilient coastal futures require planning practices that engage with coastal heritage, recognize everyday environmental practices and address the power relations that shape the production -and reproduction- of coastal space.

SS6: Cross-sectoral Co-creation

SS6: Cross-sectoral Co-creation

Tue 30.6.16:00-17:30, Special Session B, U406b | Session chair(s): Tiina Merikoski, Pilvi Nummi

1846 | Stefanie Rößler, Robert Knippschild

Transition towards urban climate neutrality – learnings from a real-world laboratory

Urban climate neutrality is a central sustainability transition topic. Established planning and governance approaches regularly fail to activate an urban innovation system in order to really support transformation. Transition management (Loorbach, 2010; Roorda, 2014; Wittmayer et al., 2018) is discussed as a

transformative and transdisciplinary research approach to initiate and accelerate transformative dynamics towards sustainable futures. To successfully implement transdisciplinary research and to aim at sustainability transformations, real-world laboratories are discussed as appropriate settings (Schäpke at al. 2024).

The contribution will present and reflect a process of implementing an urban innovation system being informed by the approach of transition management in order to co-create activities and structures for urban climate neutrality in a German medium-sized city. The process addressed multiple fields of urban development: mobility, energy, local economy, food and consumption, and housing. Cross-sectoral collaboration was aimed and local actors from city administration, civil society, the business community, and academia were involved in the co-design and co-creation process throughout. The process was facilitated by a local joint research and transfer facility which pursues a transdisciplinary and transformative approach, in terms of a real-world laboratory.

With the process coming to an end, questions of continuity and consolidation occurred, which we will discuss in detail: Relevance of diversity in rationales across the multiple professional arenas, dependence on political climate, secure and sufficient financing of continuing and professionalised coordination for urban climate governance. Additionally, we will reflect on the role of the real-world laboratory setting for recent and future activities.

1990 | Kaisa Jaalama, Timo Pyhälahti, Maria Ojanen, Simo Riikonen

Blockchain technologies in participatory environmental monitoring and management: Insights from a systematic review

Emerging blockchain technologies in crowdsourcing and citizen science pose both potential and challenges in environmental management and planning. These technologies, based on approaches such as incentive-based participatory monitoring and tokenized crowdsensing, may open richer insights into environmental data, increasing the ways citizens are involved in knowledge building and data management. At the same time, these emerging practices raise questions on agency, ownership, and accountability in how the data are produced and governed. Based on a systematic review of research literature, we critically examine how blockchain and related distributed ledger technologies have been developed and tested to support participatory environmental monitoring and data processes.

Following a multi-phase screening, articles (n=532) were retrieved from Scopus and Web of Science using combined search strings on blockchain, crowdsourcing, and environmental management. Core studies (n=17) and a complementary set of borderline records (n=159) were identified to form the review dataset. The core literature addresses diverse fields such as climate, pollution and heat monitoring, biodiversity and ecosystem monitoring, and water and waste management.

Early findings suggest that while an increasing number of studies explore how blockchain technologies could be applied to environmental and urban data management and examine their technical effectiveness, fewer show evidence-based evaluations of these solutions from the participatory planning practice point of view. The role of public participation varies from data collection and technical support to

active surveying of the data quality and ownership management of indigenous data. However, deeper meanings around civic agency remain in most studies unexplored; the participants are more often recruited to activities than in control of them. Our results highlight the necessity to further study the methodologies in which decentralized data production and management models can be adopted to support more inclusive and just participatory processes.

2222 | Li-Tzu Chang, Hsueh-Sheng Chang

A Spatial Planning Perspective on Climate-Resilient Development Pathways - Insights from Taiwan

In responding to climate change, mitigation and adaptation are often treated as conceptually distinct, yet in practice their boundaries are blurred, with many actions generating synergies, co-benefits, or conflicts across spatial and temporal scales. Climate-Resilient Development Pathways (CRDP) and the CRDAPP framework emphasize understanding these interactions across mitigation, adaptation, and sustainable development (AMD). Achieving CRD requires cross-sectoral and cross-scale coordination that no single sector can accomplish alone.

However, existing CRDAPP studies largely focus on identifying strategy options and action combinations, while paying limited attention to how pathways are spatially implemented, governed, or shaped by spatial configurations. As a result, the critical role of spatial planning in mediating feasibility, enhancing coherence, and preventing lock-in remains underexplored.

This gap is evident globally and particularly pronounced in Taiwan. Adaptation policies already position land use and national spatial planning as integrative platforms, whereas mitigation policies remain largely technology- and sector-driven (energy, transport, buildings), leaving spatial planning as a downstream coordinator rather than an upstream integrator. Such fragmentation risks reinforcing path dependence and reduces opportunities for synergistic mitigation–adaptation pathways.

This study proposes a spatial-planning interpretation of CRDAPP. First, a global Mitigation Strategy–Sector–Spatial Instruments–Time knowledge graph is constructed through a PRISMA-based systematic review, identifying AMD interactions in terms of feasibility, effectiveness, and side-effects. Second, text mining and network analysis are applied to Taiwan's mitigation, adaptation, and spatial planning policy documents to reveal cross-sector synergies, conflicts, and potential lock-ins within existing climate strategies.

The study contributes by transforming CRDAPP from a conceptual catalogue of measures into a spatially grounded climate-governance framework. It identifies technology-centered lock-in risks embedded in Taiwan's current mitigation policies, uncovers missing spatial synergies that could significantly strengthen cross-sector coherence, and advances integration recommendations by positioning spatial planning as a core platform for aligning mitigation and adaptation toward climate-resilient development.

2622 | Anke Hagemann, Anna Wilk-Pham, Jannis Meyer

Assembling Fluid Knowledges: Conducting transdisciplinary research across urban peripheries in India and Indonesia

Urban regions in the Global South face increasingly complex water challenges that transcend technical management and demand integrated, governance-oriented responses. This paper examines how different modes of knowledge production shape the possibilities for water-sensitive transformation in two peri-urban contexts: theory-guided research in Coimbatore (India) and a transdisciplinary living-lab process in Sleman (Indonesia). By comparing these approaches, we explore how plural forms of water knowledge—scientific, institutional, local, and experiential—can be mobilized to support resilient, equitable, and adaptive urban water governance.

In Coimbatore, an urban political ecology lens enabled a critical examination of hydrosocial dynamics, revealing how uneven power relations, differentiated water knowledges, and socio-material infrastructures co-produce vulnerabilities. This theory-driven approach highlighted the contested nature of water governance and identified actors, struggles, and leverage points relevant for long-term socio-ecological transformation. In Sleman, a transformative research process centered on co-production in a living lab facilitated practical experimentation with grey–blue–green infrastructure through participatory planning and multilevel stakeholder collaboration. Here, universities acted as intermediaries between community actors, local government, and scientific expertise, demonstrating the potential—and limits—of transdisciplinary facilitation within real-world planning arenas.

Our comparative analysis shows that both approaches are indispensable but limited in their capacities. Theory-driven research offers critical depth and a repoliticized vocabulary for recognizing structural constraints and governance tensions, while practice-oriented transdisciplinarity generates actionable, situated knowledge for integrated and adaptive water planning. Together, they outline a complementary pathway for building transformative capacity in water governance. We argue that advancing resilient and inclusive water futures requires bridging these modes of knowledge production, confronting institutional barriers such as political short-termism and fragmented competencies, and enabling universities to assume sustained roles as boundary-spanning institutions. These insights contribute to ongoing debates on integrated governance, inclusive planning tools, and the design of socio-ecological transformation pathways in metropolitan and peri-urban regions.

2714 | Eeva Aarrevaara

Exploring better integration between public art and urban planning

Professional artists are typically educated with an emphasis on individual competencies and personal development. While architectural education shares some similarities, urban planners in professional practice often face a strong need for collaboration with diverse professionals and stakeholders. This study challenges the prevailing practice to acquire public art in ready-made environments in limited areas and argues that artists could be better integrated in urban planning and cooperation in multidisciplinary groups to enhance integration of public art with urban environments more widely than usual. Key questions are how early the artists should be integrated with an urban planning process and how a cross-sectoral working process could be enhanced.

The research material has been collected through two pilot courses of continuing education for professional artists and planners during 2024-25 on university level. Cooperation in multidisciplinary groups was the main task in the courses. Environmental analysis was used as a common tool to observe urban environments by multidisciplinary groups and share their understanding and observations. The groups continued by working with proposals of art concepts to chosen urban areas. Experiences and feedback from participants were collected in different ways to document their impressions in different phases of the half-year course.

The process presented challenges but also yielded significant benefits

if the group continued intensively enough through the duration of the course. The arranged courses demonstrated also the existing differences in professional identity and challenges in collaboration. Real life improvements would need longer interaction as some previous projects have highlighted, for example Watershed+ project in Calgary, Canada. Collaboration between public art and urban planning can provide fruitful solutions for urban environments and landscapes when commenced in an early phase of a planning process.

2621 | Anna Moro, Grazia Concilio, Anna De Liddo

ORBIS Deliberative Pathways: Digital and Transdisciplinary Co-Creation for Planning and Governance

In contemporary society, viewed through socio-technical and spatial lenses, we increasingly observe a growing erosion of trust in institutions, heightened polarisation, and the oversimplification of public debates – factors that increasingly challenge democratic governance and evidence-based planning (Mouffe, 2000; Habermas, 1996). At the same time, cities are experiencing a proliferation of civic and community-driven initiatives that seek to reshape policy discourses and promote transformative agendas. Despite their experimental value, they often remain fragmented, insufficiently institutionalised, and difficult to scale (Geels & Schot, 2007).

Addressing these limitations, the Horizon Europe project ORBIS introduces a theoretical and operational framework that integrates transition studies (Geels, 2002; Loorbach et al., 2016), deliberative democracy (Dryzek, 2000), and participatory digital approaches (Fung, 2006). The contribution presents this framework and its three proposed scaling trajectories: fostering deeper collective learning within and across communities (scaling deep); innovating institutional norms and procedures (scaling up); and facilitating broader adoption of hybrid in-person and digital practices (scaling out).

The paper details tools and methodologies designed to enhance knowledge exchange, deliberation, and co-production – supported by deliberative AI-assisted platforms – across three distinct participatory types of ecosystems tested within ORBIS: (1) high-level policy actors, including lobbyists, facilitators engaged in policy recommendations co-creation; (2) insurgent, self-organised, issue-driven grassroots groups promoting new planning tools and pathways; and (3) under-engaged actors from productive and economic sectors promoting new regulative and governance. For each ecosystem, the paper describes the deliberative pathways activated and the associated scaling prospects, conceptualised as

experiments capable of expanding interaction and co-creation processes at different territorial levels: European (1), urban and local (2), and regional (3).

By enabling diverse communities to reflect on their actions and values within structured deliberative environments, the paper contributes insights into how hybrid, multi-actor co-creation processes can support more inclusive, sustainable, and adaptive democratic practices.

SS7: Demographic Shifts

SS7: Demographic Shifts

Tue 30.6.14:00-15:30, Special Session D, U406a | Session chair(s): Maxwell Hartt, Beatriz Fernandez, Manuel Wolff

1997 | Karina Pallagst

Crisis-Responsive Urban Development: Planning Paradigms for Smart Shrinkage and Smart Ageing

Although nation states respond differently to crises, the overlapping complexities require profound and coordinated transformation. In an interconnected world, solutions cannot be developed solely at the national level. Cities and regions, however, remain crucial arenas of change, as laboratories in which future-oriented approaches can be tested. Shrinking cities, in particular, possess distinct histories of managing decline, demographic change, and economic restructuring, positioning them as valuable contributors to current debates on resilience (Pallagst and Hammer 2022). This perspective rests on several guiding hypotheses: behavioral changes observed during the COVID-19 pandemic are likely to produce long-term socio-spatial effects; certain urban typologies, including shrinking cities, will demonstrate comparatively higher resilience due to existing adaptive capacities; overlapping crises will necessitate integrated rather than sectoral planning approaches; and planning cultures and paradigms will undergo significant transformation in response to these pressures.

Digitalization provides a potential pathway for addressing these emerging challenges. The project “Ageing Smart” is developing a decision support system designed to help municipalities adjust infrastructure and public services to the needs of older residents, especially the Baby Boomer generation. “Ageing Smart” supports cities in understanding these transformations and identifying appropriate responses.

The presentation outlines the specific challenges urban planning faces amid intertwined crises. Using shrinking cities as an example, it discusses the requirements for planning in an ageing society and offers a critical reflection on prevailing planning paradigms.

Reference:

Pallagst, K.; Hammer, P. (2022), Introduction: Shrinking cities research in times of COVID-19; in: Pallagst, K; Bontje, M; Cunningham-Sabot, E.; Fleschurz, R. (Eds.) (2022): Handbook on Shrinking Cities; Edward Elgar Publishers; Research handbooks in urban studies series. Cheltenham/UK, 1-8.

1211 | Yao Tong, Ying Long

A Review of Planning and Design Strategies for Shrinking Cities: Regional, Urban, and Neighborhood Perspectives

Amid overlapping demographic shifts such as population aging, out-migration, and declining birth rates, shrinking cities have emerged as a critical lens for understanding how global demographic transitions manifest locally. In China and many other countries, these processes expose profound spatial inequalities and challenge existing planning paradigms. This paper develops a multi-scale analytical framework encompassing the macro-, meso-, and micro-levels, and—through a systematic review—synthesizes the spatial manifestations, demographic dynamics, and planning responses of shrinking cities across regions, cities, and neighborhoods. The results reveal that regional polarization, aging populations, and uneven service accessibility jointly intensify urban shrinkage. At the local level, vacant land, underused facilities, and the spatial mismatch between infrastructure and demographic needs become key planning concerns. Building on these findings, the study proposes a set of practical planning toolkits at multiple scales to support adaptive, life-course-oriented, and resilient spatial governance systems under conditions of demographic decline and transformation.

1272 | Keiro Hattori

Yubari, a city of prosperity, decline and its shrinking policy.

Yubari is a former mining town located in Hokkaido, Japan. It lies about 60 km east of Sapporo, the largest city in Hokkaido. Yubari city is considered one of Japan's most striking examples of urban decline and demographic shrinkage.

The presentation will share how the city was formed and developed as a prosperous mining town, and the fall from its prosperity. The city peaked its population in the 1960s around 120,000 and currently its population is around 6000, the stunning decreasing rate of 95% with in the span of 65 years. The presentation will especially focus on the erroneous shrinking counter policy implemented by former mayor Tetsuji Nakata and the damage he has done to the city. The policy of Nakata eventually led to the bankruptcy of the municipality in 2007, which is quite rare in Japan. The presentation also articulates how the city has been recovering with controlled land use planning method since around 2010. The implementation of controlled land use planning is also very rare in Japan and its experiment has been quite unique in Japanese standard.

The case of Yubari is unique, but there are some findings that could be useful for other shrinking cities in terms of combating the shrinking issues.

1152 | Patrick Adler

Prosperity Without Growth: An Inventory of Leading Economic Development Frameworks

Most regional development frameworks presume population growth—explicitly through growth-machine logics or implicitly through firm- and talent-led strategies that rely on an expanding labor pool. As demographic aging and population decline accelerate across the United States and Greater China, these assumptions are becoming increasingly untenable. This paper examines how incumbent development

models—capital-attraction and talent-attraction strategies, growth-coalition planning, and infrastructure-led expansion—embed scale dependencies that weaken their effectiveness in aging regions. It then develops a comparative framework for prosperity without growth, identifying three mechanisms through which regions can sustain or enhance economic well-being amid demographic contraction: (i) productivity-led upgrading and structural reallocation, (ii) effective expansion of labor supply without population growth, and (iii) asset- and institution-based value creation. Drawing on cross-national evidence and illustrative cases, the paper specifies the policy instruments and measurable indicators associated with each mechanism and outlines a diagnostic matrix for assessing local preconditions. The framework advances a new generation of regional development theory that is resilient to demographic headwinds and provides actionable guidance for policymakers seeking to maintain prosperity in an era of population aging.

1815 | Rachel Barber

Left behind and out of the loop: The regional inequality of Canadian news outlet closures

News outlets are closing across Canada. The digitization and centralization of news outlets, combined with the financial pressures caused by the 2008 financial crisis and the COVID-19 pandemic, have accelerated the closure of local newspapers, radio stations and television stations. Between 2008 and June 2023, nearly 500 Canadian news outlets ceased operations. This has important ramifications, as news outlets maintain business and government accountability. Their closures have been shown to result in an increase in harmful emissions from industrial plants, corporate and municipal misconduct and polarizing voting behavior, and a decline in municipal voter turnout. The impacts of news outlet closures are not felt equally across the nation. A large city with multiple news outlets, for instance, would not experience the same impacts as a peripheral, left-behind community losing their only local news outlet. The latter often grapple with economic decline, putting them at risk of losing local businesses. This begs the question of whether news outlet closures are occurring disproportionately in left-behind places? This study determines the relationship between news outlet closures and left-behind places – communities shaped by regional economic inequality and that often experience severe, persistent socio-economic and political shifts. My findings confirm that municipalities with characteristics of left-behind places experience a disproportionate loss of news outlets. Municipalities that lost news outlets had smaller populations, lower household income and educational attainment, and were more remote, than municipalities that gained news outlets. A regression analysis confirmed that municipalities that experienced news outlet closures were likely to be more remote than municipalities that gained news outlets, and more likely to have a smaller population and a lower percentage of residents having completed formal education than municipalities that both lost and gained news outlets. Finally, I discuss the implications of these findings on the socio-political contexts of left-behind places.

SS7: Demographic Shifts

Tue 30.6.16:00-17:30, Special Session D, U406a | Session chair(s): Maxwell Hartt, Beatriz Fernandez, Manuel Wolff

1656 | Ebba Högström

The kaleidoscope of age: Negotiating policy, place and person through demographic shifts and urban transformation at local level

This paper explores the evolving concept of 'ageing in place,' through the lens of urban transformation at local level. While often focused on individual dwellings, ageing should also be understood as shaped by housing, outdoor spaces, neighbourhoods, and cities. This view is reinforced by WHO's Age-friendly Cities and Communities framework, advocating for environments that support older adults' independence, inclusion, and well-being.

Addressing ageing-in-place and urban transformation raises questions of localisation (why here?), architectural design (why this way?), and programming (for whom?). This paper focuses on Stora Sköndal, a historically significant institutional area in Stockholm, established in 1905 by the Swedish Deacon Society to train social workers and care for vulnerable populations. Over time, it included homes for pensioners alongside facilities for people with epilepsy or alcoholism. Today, the site faces transformation amid market-driven urban expansion, with plans for a socially and environmentally sustainable neighbourhood.

Stora Sköndal serves as a "kaleidoscope" of spaces and visions, reflecting shifting paradigms of care, education, spirituality and urban transformations. Drawing on Reinhart Koselleck's concept of time—linear progress versus circular memory—this paper examines how past experiences and future expectations are embedded not only in the built environment, but also in the hopes and challenges of planning of the new. As such, it explores on the one hand how ageing, care, and memory are spatially negotiated, and on the other hand, how planners and other actors involved in this urban transformation negotiate falling birth rates and ageing population.

Ultimately, the paper asks: What happens when a long-standing institutional site becomes a target for urban transformation? In what ways do planners and other actors involved engage in planning for the entire life course? And, in what way are ideas of ageing in place and age-friendly communities belonging to the new era of demographic urbanism?

2866 | Antti Rehunen

Developing age-friendly environments through geospatial analysis, integrative planning and improved co-operation

Ageing is one of biggest population changes in most of the countries. The number of older people is growing particularly rapidly in urban areas. The quickest rise in countries like Finland takes places in the group of over 75 years old, an age when everyday life and mobility starts to increasingly differ from younger age groups. Previous studies have identified attributes of urban environment that support age-friendly living and bring significant well-being and economic benefits. These qualities include walkability of the environment, access to green areas and services, social contacts, and availability of public

transport and affordable housing. During recent years, the development of geospatial data has enabled an effective assessment of quality factors. Despite of existing knowledge and guidelines provided by e.g. WHO, urban planning often fails to take age-friendly aspects into account sufficiently. In this paper, the aim is to find out how age-friendly objectives can be better integrated with other planning goals with the help of geospatial data and analysis and how age-friendly planning and development processes can be made more effective? The research methods include the spatial analysis of GIS and registry data, examination of age-friendly programs and planning documents, and content analysis of feedback gathered in four physical and three virtual workshops in biggest city-regions in Finland. The preliminary findings suggest that age-friendly impacts are usually identified in projects focusing on older people, but indirect impacts of other residential, infrastructure and service developments are often not properly recocnized. Mapping age-friendly factors and assessing changes caused by plans can provide shared knowledge for planning. In many cities, the development of age-friendliness has been selective, project-based and discontinuous. Conducting comprehensive assessments, upscaling successful pilots, increasing older people's participation and active engagement, and developing cooperation between stakeholders could make the planning more successful in meeting older people's needs.

1050 | Naka Matsumoto

Middle-Aged Single Women and Community Engagement: A case study from Tokyo, Japan

Japan is undergoing a demographic shift with declining birth rates and an aging population, while Tokyo's population continues to grow (Ronald, 2017). This growth has been primarily driven by the influx of younger population relocating to the city for educational and employment opportunities since Japan's high economic growth era (mid-1950s to early-1970s). It continues today and is particularly prominent among young women (Cabinet Office, 2021). Many of these individuals remain single and become middle-aged (Retherford et al., 2001), contributing to a single-person household rate for all household types exceeding 50% in Tokyo (Census 2020.)

These single women generally face lower incomes and higher rates of non-regular employment than men. Moreover, they often fight against the social and cultural norms that women staying singles are "losers." As a result, they tend to "hunker down" and avoid interaction with others in the neighborhood. At the same time, it becomes increasingly essential for single women to consider the social relationships outside the family and work, particularly in the neighborhood, for various forms of support that they may need for the future. Through in-depth interviews with 17 middle-aged single women in Tokyo, Japan, this study explores their social relationships and future concerns, focusing on their connections to the neighborhood. The findings reveal: (1) Although not opposed to community involvement and willing to become homeowners, participants feel it is unnecessary or lack opportunities to engage; (2) many community activities are family-centered, making them feel excluded; (3) participants experience anxiety about how they are perceived and judged by others. Regarding the third point, the study highlights the social pressures middle-aged single women face, as they often feel compelled to justify their lifestyle choices, which places an emotional burden on them to expand their social networks beyond their comfort zone.

1390 | Manuel Wolff, Maxwell Hartt, Beatriz Fernandez

Planning the Shifting City: Rethinking Aging through Spatial Justice, Demographic Change, and Governance

Demographic shifts driven by aging populations are among the most transformative forces shaping cities today. Yet, within urban and demographic research, aging remains an underexplored dimension—often confined to health and welfare concerns rather than recognized as a spatial, social, political process occurring in tandem with other demographic shifts. This paper argues for repositioning aging as a central theme in urban and planning studies, highlighting its cross-cutting relevance across environmental, social, and governance perspectives. Rather than viewing aging as a static condition, the paper conceptualizes it as a situational and relational process that unfolds within and through space over time. It stresses the diversity of older populations, the compounding nature of demographic shifts, and the need to move beyond homogenizing categories that obscure inequalities in exposure to climate risks, housing precarity, and social isolation. Against this background, the paper integrates conceptual reflection and empirical evidence to examine how planning can respond to the uneven implications of population aging across governance scales and urban contexts.

Drawing on the authors' research, it combines perspectives on spatial justice, intergenerational equity, and environmental vulnerability to discuss aging through multiple analytical lenses. Aging is understood as a dynamic process mediated by planning decisions, social norms, and territorial inequalities. Through this synthesis, the paper identifies conceptual entry points for integrating aging into broader debates on spatial justice and demographic governance, and discusses lessons learned regarding the contextual and methodological limits of current approaches in planning research. Ultimately, it calls for a shift from age-friendly to age-just planning: a framework that treats aging not as a societal burden but as a shared and spatially embedded life-course experience. Such an approach challenges structural biases and strengthens planning's role in shaping inclusive, equitable, and caring urban futures for all generations.

1520 | Hyein Kwon, Saehoon Kim

Redefining Commercial Power: Measuring Urban Resilience in the Era of Population Decline

In the era of population decline and urban shrinkage, commercial districts in many cities face not only economic downturn but also a profound transformation of their spatial and social roles. This study introduces and conceptualizes the notion of "Commercial Power" (CPI: Commercial Power Index) as an integrated indicator for assessing the resilience and sustainability of commercial areas in shrinking cities. Unlike conventional indices focused merely on sales growth or business survival rates, Commercial Power encompasses the economic, social, spatial, and cultural dimensions of commercial vitality.

Drawing upon national-scale datasets—including business registry, credit-card transactions, and mobile population flows—this research quantitatively evaluates 1,160 commercial districts across Korea. The analysis identifies patterns of paradoxical survival, where certain commercial areas continue to thrive despite demographic decline. Through spatial econometric modeling and qualitative fieldwork, the study explores how factors such as local attachment, functional diversity, digital visibility, and urban connectivity contribute to sustaining urbanity.

Ultimately, this research positions commercial areas not as passive victims of decline but as active agents in shaping the reconfiguration of shrinking cities. By redefining Commercial Power as a multidimensional measure of urban vitality, the study provides a new analytical framework and policy tool for understanding and guiding sustainable urban transformation.

SS8: Ec(h)otoning Urban Futures

SS8: Ec(h)otoning Urban Futures

Tue 30.6.14:00-15:30, Special Session G, M141 | Session chair(s): Wiwandari Handayani, Ines Martina Lersch, Kundani Makakavhule, Angela Million

953 | Adina-Iuliana Deacu

Healing the City: Ec(h)otoning Urban Futures through Daoist Environmental Psychology

This paper explores ec(h)otoning as a healing practice of urban refiguration, drawing on Daoist philosophy and environmental psychology to examine how cities can cultivate relational balance amid overlapping socio-ecological crises. Building on fieldwork and practice-based research in Hangzhou—voted several years in a row as the "City of Happiness"—the study investigates how transitional urban environments, such as riverfronts and historic canals, act as ecological and psychological ecotones where human and more-than-human systems continuously negotiate coexistence.

Rather than framing urban sustainability as a fixed target, the paper conceptualizes therapeutic urbanism as a process of tuning: a participatory, sensory, and affective recalibration between individuals and their environments. Inspired by Daoist notions of wu wei (effortless action) and ziran (naturalness), this approach reframes planning as a living dialogue—one that responds to uncertainty with attentiveness, rather than control. Drawing from participatory observation, sensory mapping, and co-creative reflection exercises conducted through Tianmei's World Academy learning programs, the research reveals how everyday spaces can foster self-regulation, collective belonging, and ecological empathy.

Theoretically, the paper extends the concept of ec(h)otoning to include not only spatial but also emotional and spiritual transitions, positioning cities as organisms engaged in continuous healing. Practically, it offers a methodological framework for planners and educators seeking to design environments that nurture well-being while respecting planetary boundaries. By situating Daoist environmental psychology within global planning debates, the paper argues that future urban resilience depends on cultivating resonance—between species, between systems, and between the visible and invisible layers of the city.

1168 | Marina de Castro Teixeira Maia

Urban ecotone: an umbrella term?

With its origins in the early twentieth-century ecology studies, the concept of "ecotone" – a transitional threshold between distinct ecosystems and an interface for energy and information flow – has recently

emerged in urban studies, either by designating peri-urban fringes, as a metaphor for zones of social tension that provide a reading of conflict in territorial relations, or as a framework informing designs aimed at integrating natural and built environments. The conceptual borrowing is appealing, be it for its potential for visualization or for its embeddedness in systems thinking, an established tradition in urban and planning. Yet, while such exchanges may yield creative analyses, when concepts travel across epistemes, caution and theoretical rigor are due. As Rip and Voß (2013) argue, such travelling notions often act as umbrella terms, facilitating connections among knowledge fields by packaging complexity into manageable promises. Ecologists have debated issues raised by such boundary notions. In Ecotechnology, Schwarz (2022) shows how this term has been used to "smooth over" environmental matters in economics, science, and policymaking. Therefore, questions arise about "urban ecotones". Are they addressing the challenges of heterogeneity and continuous restructuring that defy the logic of systems, or just suppressing "unruly complexity" (Taylor, 2005)? The borrowing of the ecotone seems to reproduce an old tension between the desire for order and the perception of socio-environmental processes as historically situated and open-ended. In this light, this essay examines the conceptual uses of ecotones in urban studies, particularly by placing them in tension with Doreen Massey's relational spatial theory and the conceptual performativity debate advanced by Rip and Voß. Do urban ecotones offer new insight, or do they quietly repackage the systemic paradigm? Is it an umbrella term? The call is for reflexivity rather than rejection, for a field's sustainability lies in its engagement with conceptual work.

2407 | Ignacio Castillo Ulloa

Thinking ec(h)otoning spatially: Bodily transects of spatial knowledge

Often an elusive concept, resisting a definitive and universal definition, the term ecotone – the conceptual root of ec(h)toning – emerged from attempts to establish ecology as a 'proper' field of research. Since then, it has cross-pollinated other areas of thought and research: planning and landscape architecture, sustainability research, urban development, and others. Similarly, ecotone has found its way into creative practices aimed at community activism and environmental awareness, complex readings of globalized societies and the "postcolonial city", and feminism. From more 'scientific and methodical' applications to more nuanced, even fairly allegorical, reinterpretations of ecotone, there is no clear-cut and definitive understanding of the term. However, despite the disparity in approaches to and uses of ecotone, a certain recurrent trait seems to emerge: the pervasive allusion to something that is seamlike, diffuse, fluid and ever-transitioning. While conceptual clarity is desirable, so too is conceptual ambiguity. That is where the conceptual power and potential of concepts such as ecotone resides: in its capacity to unravel analytical and interpretative possibilities unsuspectedly – being ec(h)toning one of them. Against this backdrop, this paper discusses that the knowledge ec(h)toning, as a variant of "ecotone-thinking" (Kahn 2021), betokens is invariably spatial. It also proposes the use of the transect walk method – accentuating the role of the body – to make the spatiality of ec(h)toning both visible and apt for research. All in all, by thinking ec(h)otoning spatially, a substantial contribution towards a coherent body of knowledge can be made to develop unconventional ways to tackle the numerous complex challenges with which urban and rural areas are increasingly and pressingly confronted. Now, far from folding ec(h)toning into, and thus reducing it to just one mode of, spatial

thinking, the point is to whet the search for alternatives that inform and enhance policymaking, planning and design.

2745 | Elina Alatalo, Hanna Kahrola, Tuija Touhunen, Anna Kupari

Peripheral artistic research for the embodied turn in planning

Hiedanranta district in Tampere Finland is under construction and undergoing dramatic scale change. It is on the threshold of a frightening new, in a liminal state, which can appear as chaos, but also as a phase of change with seeds of better future. In this liminal state, e.g. the embodied experience and awareness of the space as well as the power and social relations related to the space are redefined: an empathic connection can be unexpectedly experienced both towards urban non-humans and people that earlier were the others.

We present the ongoing work of a multiprofessional group developing joint practice of activistic dance and spatial research. This work is based on conscious moving exercises and norm-bending practices in the periphery of the city. Work is at the same time performative, participative, public and producing new scientific knowledge. The dancers' expertise helps to develop scientific methods for understanding embodied knowledge and spatial experience. From this knowledge, guidelines for urban planning and local place-making are produced, in international collaboration with spatial designers.

Through art and situated in the liminal space it is possible to explore new realms of data and ways of knowing. In relation to our emerging practice we ask, what could the embodied turn in planning mean? Following paradigm changes from the spatial turn in social sciences to the communicative turn in planning, is it possible to recognize something similar emerging in relation to embodiment in the urban? How do our experiments help to get hold of the embodied knowledge that transcends verbal expression and gets easily overridden in the pressures of urban life?

1528 | Bintang Septiarani, Walter Timo de Vries, Wiwandari Handayani, Iwan Rudiarto

Social Meanings of Land in Sayung, Indonesia Coastal Area Ecotone: A Q-Methodology Approach

The coastal area is one of the transitional zones, particularly when it is located in an urban setting. Sayung is one of the coastal areas that is located in the urbanized Semarang metropolitan area, a city 250 km east away from Jakarta, Indonesia. This area is facing numerous challenges in terms of its physical condition such as land that constantly sinking approximately 4-12 cm/year. As a coastal area, this place has undergone significant changes over the past 20 years. It once had a coastline, productive aquaculture, and farmland, however by 2015, the coastline had fragmented, seawater intrusion had begun, and the situation persists to this day. Despite the conditions, people are still living in harmony amidst the challenges they face every day. Livelihood changes, activity changes, and constant struggle of dealing with inundated land in the coastal area don’t make them leave or abandon their houses. This study undergo to examines the social meanings of land within the coastal ecotone of Sayung, Indonesia, employing a Q-methodology approach. Software such as QSortware (for the sorting) and Ken-Q (for the analysis) are used to process the data. By systematically capturing and categorizing diverse local

perspectives, the research reveals how communities interpret land not merely as a physical asset but as a socially embedded space shaped by values, experiences, and adaptive responses to environmental change. The findings will highlight distinct value orientations that influence land-use decisions and adaptation strategies, as well as offering empirical insights into the interplay between social cognition and spatial governance. The study will contributes a value-sensitive framework for planners and policymakers to integrate community-based perspectives into spatial and land-use planning, promoting more inclusive and context-responsive approaches to coastal resilience.

SS8: Ec(h)otoning Urban Futures

Tue 30.6.16:00-17:30, Special Session G, M141 | Session chair(s): Wiwandari Handayani, Ines Martina Lersch, Kundani Makakavhule, Angela Million

2384 | Retno Sari Dewi, Wiwandari Handayani b, Jenia Mukherjee

Harmonizing Nature-Based Solutions and Grey Infrastructure in Coastal Ecotones: Insights from Wonokerto, Indonesia

Coastal ecotones, which serve as the transitional zones between terrestrial and marine environments, play a crucial role in maintaining biodiversity, regulating carbon cycles, and supporting local livelihoods. Despite these benefits, they are among the most vulnerable areas to climate-related threats, including flooding, erosion, land subsidence, and sea-level rise. In response to these environmental challenges, Nature-based Solutions (NbS) have emerged as a promising long-term strategy for restoring ecological functions and enhancing socio-ecological resilience. However, the benefits of NbS often manifest slowly, requiring sustained commitment, community involvement, and adaptive governance. Consequently, decision-makers frequently rely on grey infrastructure, which provides immediate but often short-lived protection and may contribute to ecological degradation within ecotone systems.

The northern coast of Wonokerto District in Pekalongan, Indonesia, represents a critical ecotone where these tensions are visible. Since the early 2000s, the area has faced increasing coastal erosion and tidal inundation, with severe impacts reported after 2016. Government responses have focused on constructing sea walls, embankments, and other engineered structures, which have been expensive and, in some areas, have inadvertently disrupted mangrove ecosystems. Meanwhile, local actors have advanced NbS initiatives, including mangrove restoration and community-driven coastal protection, supported by transdisciplinary collaboration and knowledge co-production. However, the fragmented and uncoordinated implementation of both green and grey measures has limited their overall effectiveness.

This research explores how integrating NbS with grey infrastructure can enhance resilience within a coastal ecotone setting. It delves into: (1) the roles and interactions of stakeholders involved in both approaches; (2) the influence of community engagement and local knowledge on adaptation practices; and (3) the governance and institutional conditions that either enable or hinder sustainable, ecotone-based adaptation. Using a qualitative methodology, the study highlights the need for harmonized planning, multi-level coordination, and continuous community participation to achieve a resilient and ecologically functional coastal ecotone in Wonokerto.

2790 | Julia Koepper

Multi-Species-Mapping as Design Tool

Regarding territorial justice in the use of urban grounds as a resource, the concept of 'multispecies justice' calls for a shift away from human-centred knowledge production. This also has consequences for the designing and planning disciplines and their methods. A sustainable and regenerative urban design is required that incorporates other species and ecosystems into the design processes. Urban ground is considered a resource for both human and non-human needs in order to break down the hierarchical separation between humans and nature in architecture and urban planning.

Therefore we introduce mapping as a methodological tool to explore multi-species entanglements. The method was applied in two teaching-research formats in cooperation with urban ecologists and landscape architects within two different urban contexts: Ostbahnhof Berlin as a contested urban ground (CUD, TU Berlin) and Dessau-Süd as a neighbourhood characterised by decline and vacancy (Hochschule Anhalt).

Multi-species mappings were used in two ways: as an analytical tool to reveal unexpected multi-species relationships in the urban context and as a speculative practice illustrating the interspecific relationships of future urban cohabitation. To describe the relationships and dependencies, we used a series of sensitising concepts (e.g. food chains, routines, environmental pollution, use of soil, etc.). We also described the interaction between humans, animals, plants, etc. using the categories of interspecific interactions employed in ecology. The maps subsequently served as a resource for the conception of urban design proposals, which were considered as 'situated practices of response-ability' (Haraway, 2016) within human and non-human ecologies.

The research presentation is a re-reading of the circular flows and spatialities of co-habitation created in the resulting urban design proposals by a more-than-human perspective considering both the surface and the soil as a spatial and ecological resource.

Reference: Haraway, D. (2016). Staying with the Trouble. Making Kin in the Chthulucene. Durham: Duke University Press.

2892 | Boaz Peters, Fransje Hooimeijer, Taneha Kuzniecow Bacchin

Cartographies of Socioecological Landscapes Integrating Design and Ethnography for Green-Blue Infrastructure in Urbanizing Territories – A case study of Can Tho, Vietnam

Urban areas in low- and middle-income countries (LMICs) face significant environmental and social inequities, where green-blue infrastructure (GBI) is increasingly promoted for resilience by offering multifaceted benefits like stormwater management, heat mitigation, and habitat provision. However, current GBI planning and design favor engineered solutions over approaches that integrate ecological and social dynamics, limiting opportunities to structure infrastructures through a landscape logic. This oversight arises from insufficient insights into local socio-ecological dynamics – driven by a lack of fine-grained quantitative data and systematic qualitative observations, as well as a lack of harmonious consideration of qualitative and quantitative mapping.

Therefore, this paper advocates for a strategic integration of quantitative and qualitative approaches to develop a more comprehensive spatial understanding of GBI in peri-urban landscapes. This fusion enables the incorporation of both endogenous (local, experiential, and observational) and exogenous (external, numerical, and technical) forms of knowledge.

To operationalize this, the paper adopts a landscape socioecological lens, tested through a case study in Can Tho in the Mekong Delta, Vietnam. The method draws on landscape ecology principles – such as landscape metrics and spatio-temporal mapping – combined with ethnographic fieldwork (film, photography, interviews) within a research-by-design framework. Available quantitative datasets structure dialogue and contextualize local insights, while design mapping actively engages with and reconfigures complex urban relationships. By layering qualitative observations with quantitative metrics, the study reveals socio-ecological compositions and relationships otherwise overlooked, supporting more nuanced and resilient approaches to GBI planning. While exploratory, the paper lays the groundwork for future methodological innovations, including a comprehensive cartographic legend that integrates abiotic, biotic, and cultural elements alongside actual human uses of space - informing subsequent analysis, design, and scenario-building.

Ultimately, the paper advocates bridging siloed thinking and reconciling top-down and bottom-up approaches to foster adaptive urban resilience by reimagining GBI as more-than-infrastructure.

2043 | Mega Anggraeni, Wiwandari Handayani, Feri Prihantoro

Upstream Waste Management in Motion: Ec(h)otonal Dynamics in Peri-Urban Area of Semarang City - Indonesia

The urgency of improving waste management in Semarang City is underscored by the continued disposal of approximately 900 tons of waste per day, representing about 75% of total waste generation, into the landfill. This challenge reflects the multi-dimensional nature of waste governance, involving intertwined social, economic, spatial, and technical factors. This study focuses on the peri-urban area of Semarang, which represents a transitional zone in upstream waste management. In this setting, waste practices exhibit a dual and evolving character: on one hand, the community has begun adopting more “modern” urban-oriented waste management approaches; on the other hand, long-standing traditional methods such as burning, burying, and dumping waste into the surrounding environment and water bodies persist. The study using a mixed-methods approach that integrates qualitative and quantitative analysis through field observations, interviews, and Focus Group Discussions (FGDs), The study examines how behavioural patterns, motivations, socio-economic conditions, infrastructure, and environmental contexts influence this upstream waste management transition. The findings reveal that while community increasingly recognise the importance of waste sorting and improved handling, their participation and willingness to pay remain limited. The peri-urban shift toward centralised upstream management, including the operation of TPS3R (Waste Processing Area for Reduce, Reuse, and Recycling) facilities, is therefore constrained not only by infrastructure gaps but also by socio-behavioural dynamics tied to long-established practices. By framing the peri-urban area as an ec(h)otonal space within Semarang’s broader urbanising landscape, the study emphasize that upstream waste management challenges extend beyond

technical issues. They require participatory, transdisciplinary interventions that encourage behavioural change and support infrastructure development in contexts experiencing rapid yet uneven transitions.

SS8: Ec(h)otoning Urban Futures

Tue 30.6.17:45-19:15, Special Session G, M141 | Session chair(s): Wiwandari Handayani, Ines Martina Lersch, Kundani Makakavhule, Angela Million

1792 | Benjamin N. Vis

Making Mérida's Urban Landscape Viable: Can Regenerative Landscape-based Proposals Turn Wicked Peripheral Urban Expansion into Ecotones?

For three satellite cities of Mérida, Yucatán, we created heritage-led landscape-based spatial development strategies for establishing innovative vernacular urban landscapes that promote co-productive socio-ecological relationships. These strategic visions set out pathways to convert the dramatically expanding urban periphery into a thick ecotone.

We leverage the social-ecological potential of long-term indigenous urban principles and their adapted manifestation in vernacular residential centres, which are neglected by urban planning and undervalued by the population. Burgeoning research demonstrates the close-knit human-environment relations in precolonial lowland Maya urban landscapes, including environmental management, a culture of care, and harnessing interdependence. The mix of landesque capital and human occupation with open space in Maya urban landscapes suggests the deep penetration of ecotonal conditions. Maya practices persisting in elements of vernacular urban patterns constitute social-ecological spatial capital, which is useful as a launchpad for realising viable urban landscapes broadly guided by traditional ecological, archaeological, and historical knowledge.

Our proposals focus on increasing co-productive social-ecological opportunities through: controlled and deflective urban growth and intensification; improving the landscape ecological matrix for habitat formation through vernacular urban fabric; NbS providing ecological security; supporting healthy biodiversity (beta, gamma) with multi-size landscape (patch) heterogeneity, green corridors, and regional interconnectivity; planning tactics to encapsulate expansions; rearranging urban form to conserve and enhance green(-blue) space and soils at plot, block, and peripheral scales; urban planning and development advice to practitioners and residents; and stimulating stakeholder interest.

Demonstrating an alternative path towards sustainable and equitable urban form based on regionally specific evidence and cultural values should motivate and empower cross-sectorial stakeholders (political, policy-makers, practitioners, and local populations). Our proposals could serve as an emancipatory vehicle for piercing the wicked problem of uncontrolled urban land cover expansion generated by unawareness, socio-economic opportunism, tunnel vision, and land market corruption in respective agents of urban development.

1895 | Andriele da Silva Panosso, Luciana Miron, Marina Marina de Castro T. Maia, Josiane Andréia Scotton, Ana Aguirre Silveira da Silveira da Rosa

Bridging Readings: Community–Technical Convergence for Ecotonal Planning

This paper operationalizes the notion of ecotone thinking, submitting it to an empirical and conceptual test as a framework for planning. Drawing from existing ecotone literature, our objective is to examine how the proposed categories inform the analytical work and whether they qualify a specific method called “ec(h)otoning”, understood here as fine-tuning boundary conditions. The study is set in a flood-affected low-income area of Porto Alegre (Brazil). Focusing on Vila dos Ferroviários after the 2024 inundations, the work is embedded in an outreach project with +25 students and professors from UFRGS for housing provision and improvement, and builds a Convergence–Divergence Map that juxtaposes a community reading (participatory workshop) and a technical reading (public datasets) across six thematic layers: urban infrastructure, urban mobility, urban facilities, public services, cultural heritage, and popular demands. Ecotonal conditions are defined as localized transitions where at least two layers exhibit detectable frictions, signalling misaligned socio-ecological, institutional, or infrastructural boundaries. Our approach treats these frictions as testing grounds to understand what is genuinely “ecotonal” about the analytical practices and categories observed in the literature. Methodologically, we adopt an epistemically reflexive approach to boundary identification and to ec(h)otoning as the process that stabilizes beneficial feedback between everyday practices, public services, and spatial devices. The application of these strategies is then benchmarked against the conceptual layers of the ecotone, examining whether field practices and reasoning are, in fact, “ecotonal,” whether they reproduce or challenge systemic logics, and what this reveals about the epistemic work the concept performs in planning.

2206 | Intan Hapsari Surya Putri, Wiwandari Handayani

Shaping Urban Futures from the Uplands: An Ecotone Perspective on Water Balance and Water Governance in Ciliwung Cisadane River Basin

Ecotones, transitional zones where forests, agricultural areas, and emerging settlements intersect, play a pivotal role in regulating upstream-downstream water balance. This study focuses on the headwaters of the Ciliwung–Cisadane River Basin as one of the critical river systems on Java Island, where rapid land-use change has intensified hydrological vulnerability. In this landscape, ecotonal zones mediate key hydrological processes such as infiltration, surface runoff moderation, sediment retention, and surface–groundwater exchanges. Their ecological functions enable upland areas to buffer hydrological fluctuations and sustain flow regimes that support downstream water security. However, rapid land-use transitions driven by peri-urban expansion, tourism development, and slope fragmentation are increasingly disrupting these ecotonal mechanisms. The diminishing continuity of vegetated buffers, altered slope transitions, and weakened riparian zones have shifted the upstream water balance toward higher runoff and reduced groundwater recharge conditions that heighten hydrological risks in downstream areas.

Within this evolving landscape, water governance operates through a multi-level institutional framework involving district authorities, provincial planners, national watershed agencies, and community actors. Each carries distinct mandates related to land management, spatial planning, and water resource

regulation. At the same time, the interaction among these governance layers often unfolds independently of the ecological transitions occurring within ecotones, resulting in policy implementation that only partially reflects upstream hydrological dynamics. This study aims to use the ecotone perspective to examine how biophysical transitions and governance arrangements interact in shaping water balance outcomes across the Ciliwung-Cisadane River Basin, and to highlight the importance of integrating ecotonal functions into planning and regulatory processes. Embedding this perspective into governance frameworks is essential not only for sustaining water balance in the upstream area but also for shaping more resilient and adaptive urban futures in the downstream area, where ecological transitions and urban transformations are increasingly intertwined.

2367 | Iwan Rudiarto, Wiwandari Handayani, Tia Dianing Insani, Elisa Rahma Putri

Ec(h)otoning Planning and Governance in the Border Region: Ecotone as an Approach to Regional Development in Indonesian Cities

Ec(h)otoning reframes ecotone as a concept of a transitional zone by drawing attention to how boundaries are continually redefined following interactions beyond borders. We place ec(h)otoning lenses to dive into territorial governance cases of metropolitan areas that may fall under one administration but orient their activities and development toward a neighboring authority. The social-economic dynamics resulting from that interaction shape the community's livelihoods, mobility, and identities, which blur the role of the administrative governance to which they belong. Using Kawasan Strategis Nasional (National Strategic Areas – KSN) regulation from Indonesia, especially KSN Kedungsepur and KSN Mebidangro as focal cases, this paper examines how agglomeration-focused spatial planning can overlook these functional attachments and thereby produce gaps in service provision, planning misalignment, and weakened community. Three processes are highlighted:

1. How functional dependence across borders creates coordination challenges and incentives for free-riding;

2. How infrastructural and economic resonances reconfigure flows of people and resources toward neighboring administrations; and

3. And how shifting social affiliations can reduce engagement with formal institutions.

Drawing on policy analysis and empirical evidence, we argue that KSN frameworks and metropolitan planning would benefit from adopting ec(h)otoning lens by mapping functional transition zones, aligning regulatory tools with flow-based territories, and creating flexible co-governance arrangements that will allow iterative adjustment.

Practical recommendations found include cross-administrative service agreements, adaptive zoning that recognizes multiple service catchments, and participatory mechanisms that surface borderland priorities. Framing border regions as ec(h)otones shifts planning from fixed territorial lines to ongoing spatial tuning, improving resilience and equity by matching institutional forms to how people live, move, and access resources across administrative borders. It provides planners clear instruments for coordination and helps shape adaptive policies that reflect everyday needs.

SS9: Empty(ing) Spaces

SS9: Empty(ing) Spaces

Tue 30.6.14:00-15:30, Special Session J, M237 | Session chair(s): Laura Berger, Niklas Jensen-Eriksen, Katja Tikka

1393 | Wenyu Zhang

Demolition, Vacancy, and Reuse: Spatiotemporal Dynamics of Urban Village Transformation in China

Urban villages (UVs), informal settlements embedded within China's urban fabric, have undergone widespread demolition and redevelopment in recent decades. However, there remains a lack of systematic evaluation of whether the demolished land has been effectively reused, raising concerns about the efficacy and sustainability of current redevelopment practices. To address the gap, this study proposes a deep learning–based framework to monitor the spatiotemporal changes of UVs in China. Specifically, semantic segmentation of multi-temporal remote sensing imagery is first used to map evolving UV boundaries, and then post-demolition land use is classified into six categories based on the "remained–demolished–redeveloped" phase: incomplete demolition, vacant land, construction sites, buildings, green spaces, and others. Four representative cities from China's four economic regions were selected as the study areas, i.e., Guangzhou (East), Zhengzhou (Central), Xi'an (West), and Harbin (Northeast). The results indicate: (1) UV redevelopment processes were frequently prolonged—for example, in Zhengzhou, nearly 25% of the cleared UV land remained vacant even a decade after demolition; (2) redevelopment transitions primarily occurred in peripheral areas, whereas urban cores remained relatively stable; and (3) three spatiotemporal transformation pathways, i.e., synchronized redevelopment, delayed redevelopment, and gradual optimization, were revealed. This study highlights the fragmented, complex and nonlinear nature of UV redevelopment, underscoring the need for tiered and context-sensitive planning strategies. By linking spatial dynamics with the context of redevelopment policies, the findings offer valuable empirical insights that support more inclusive, efficient, and sustainable urban renewal, while also contributing to a broader global understanding of informal settlement transformations.

1563 | Paula Keppke, Carolin Schmidt

Rethinking embodied energy as socio-material resource and practice

In light of the accelerating climate crisis, the preserving and creative repurposing of our built environment is becoming increasingly important. In doing so, embodied energy is retained, contributing to the urgently needed reduction of emissions in the building and construction sector. While addressing embodied energy amid the ecological emergency is essential, the layered meanings of an object and the human and more-than-human relations it gathers and sustains — the very flows that stretch from the past into unfolding futures — tend to be overshadowed. However, our investigation of post-industrial rural areas in Germany shows that there is significant, multiscalar potential in turning toward embodied energy that goes beyond ecological dimensions.

Particularly in rural contexts, former industrial buildings are frequently consigned either to slow decay or to erasure through demolition. As an association — the Institute of Grey Energy e.V. — we advocate for a renewed valuation of existing buildings. Therefore, we are exploring different approaches and strategies to re-use building sites in living labs. For instance, a former nursery in Eastern Thuringia is being revitalized through the cultivation of mountain tea, while a former granary now houses the association. Alongside the institute's function as a platform for the exchange of experience and expertise, this allows us to gain insights into how challenging structures in rural areas can be revalued through socio-material engagement, generating new perspectives that extend from the local to the regional scale. Thus, a new knowledge base is being created that places the preservation of embodied energy at the forefront as a key driver of the holistic revitalization of places and regions.

Our contribution will elaborate on this based on the activities of the institute, presenting different examples that allow for a conceptualization of embodied energy as a socio-material resource in rural development.

2379 | Lucia Nucci

To give a name: reimagining empty spaces

In recent years, there has been raising interest in themes that address empty(ing) spaces, ranging from shrinking cities to (temporarily) vacant spaces.

The importance of this research field stems from the great availability in contemporary cities, coupled with the abandoned land, left over space remaining from the settlement process. Generally, the re-use of these spaces has been episodic, revealing of the types of processes that take place. Its motivations were mostly connected to the centrality land values, as well as to the agents' contingent intentions, purely for densification purposes ("to fill in gaps") or to protect the empty space.

Recent projects have shown how these residual spaces can be re-organized in a more comprehensive strategy for the contemporary city's regeneration in time of climate change.

The hypothesis is to re-use these areas (left over space, brownfield site, abandoned land) to built green chains viewed as an opportunity to give a unitary design to the whole city. This phenomenon could be perceived from different perspectives from urbanists, landscapers to architects. Multiple data, parameters and definition are in play. This multidisciplinarity produces an issue of terminology in the scientific body related to urbanism and landscape architecture both in todays and the historical context. The richness, and in some cases ambiguity, of the meaning attributed to the terms requires clarification in the research. It is indeed urgent to find some names to assign to these spaces. "To give a name" is the first act to recognize and to imagine the role of vacant spaces in the contemporary city.

The paper proposes to approach this large and concrete theme considering at the same time: the dimensional scales, ranging from regions to smaller plots and the types of processes that can be taken to re-use these spaces in an holistic approach.

1131 | Leo Bockelmann

Rethinking Vacant Buildings: A Paradigm Shift in Planning for Rural Development

My contribution argues for a paradigm shift in planning to address vacant built structures, recognizing their potential to drive rural development. This research is based on empirical findings from the Vogtland region, which includes semi-structured interviews on the perception of the industrial heritage and a discourse analysis on the debate about the development of certain areas. The Vogtland region, located on the German-Czech border, is experiencing deindustrialization and high vacancy rates, similar to many other European regions.

Especially larger built structures are often seen as obsolete and barriers to development, according to interview respondents. With few examples of successful adaptive reuse, demolition is often seen as the default solution for vacant buildings, disregarding the embodied energy stored in the structures and resulting in significant waste. However, the interviews also revealed positive emotions towards these buildings, driven by intangible factors like biographical connections to certain places. Therefore, existing buildings should be considered both ecological and social resources, providing opportunities for sustainable development and requiring a shift in planning priorities and practices. A deeper analysis of individual cases reveals that these personal connections might mobilize people to engage in urban development and reactivate vacant spaces.

Rather than relying on the linear path of demolition and reconstruction, planning should focus on incremental, low-threshold developments, such as repairing roofs, to prepare buildings for reuse over the medium to long term. However, this shift in planning requires a corresponding adjustment to the legislative and funding framework. In particular, current legal restrictions, such as building codes and energy efficiency standards that are often geared towards new construction, can create barriers to repurposing or reusing existing buildings. Furthermore, national and federal programs often provide significant subsidies for demolition, making it more attractive for owners to demolish buildings rather than preserve them.

2566 | Maria Rosaria Stufano Melone, Camilla Perrone, Stefano Borgo, Roberta Ferrario

Meaning beyond terminology: an ontological analysis of terrain vague

This contribution originates in the context of the COST-ACTION OBSERVISTA. It deals with clarifying the ‘terrain vague’ expression (and cognate terms like empty/marginal/waste/void/vacant space). This expression emerged in 1995 (Solà-Morales) and today is becoming central within works dealing with dichotomies like full/empty (this special session), clear/vague (in evolutionary studies), classified/unclassified (in urban design), and used/unused (in urban planning).

Such terminology may be seen as a toolbox, allowing one to focus on certain lands and their features, to choose a perspective, and to drive reasoning. Nonetheless, if the meaning of the term is left unsettled (for readers and authors alike), misunderstandings will likely arise. To avoid such issues, the semantics of technical language should be clearly addressed. A well-established methodology is still missing, and researchers express the meaning they ascribe to such terms in different ways: by exemplification (listing some cases), by authority (referencing earlier works), or by leveraging the reader’s intuition.

This lack of clarity is problematic, especially in complex and evolving domains, e.g. for the variety of aspects they present and for their dynamics. The methodologies of Applied Ontology, and in particular ontological analysis, may be of great help in clarifying the meaning of terminology and guiding its coherent use.

Briefly put, the term terrain vague addresses parcels of urban scenarios that fail to be satisfactorily defined or to be homogeneous w.r.t. defining features, such as intrinsic properties (abandonment, as in Greenberg), extrinsic properties (connection with the surroundings, as in Transit), historical properties (lost productive status, as in Lynch), etc.

Exploiting ontological analysis on the vague notion of 'terrain vague' (pun intended!), and applying the foundational ontology DOLCE as a reference system, we may characterize different meanings ascribed to the term based on the properties and relations used to describe them, possibly showing how different meanings overlap or depart.

SS9: Empty(ing) Spaces

Thu 2.7.16:00-17:30, Special Session J, M237 | Session chair(s): Laura Berger, Niklas Jensen-Eriksen, Katja Tikka

1660 | Lorenzo Stefano Iannizzotto, Krystallia Kamvasinou, Camilla Perrone, Alexandra Paio
The Socioecological Potential of Urban Vacant Land: Mapping the Urban Voids of Lisbon

We live in a world of cities facing urgent urban poly-crisis encompassing biodiversity loss, ecosystem pollution, natural disasters, and environmental injustice. Concurrently, several scholars argue for and demonstrate the socio-ecological value and potential of urban vacant land, or urban voids, in addressing these overlapping crises.

Urban voids are open urban spaces in states of suspension or abandonment, occurring at various scales, ranging from small plots to city-wide patterns. Though emptied of formal functions and productivity, they are often filled with informal uses, spontaneous ecologies, and life. These spaces result from multiple and overlapping processes and trajectories of emptying, such as patterns of abandonment, speculation, regulatory gaps, or physical constraints.

When not targeted for redevelopment, urban voids are often dismissed as 'wastelands', neither mapped nor officially recognized, and thus excluded from policies and planning instruments. This lack of recognition hinders the assessment of their current value and future potential. A systematic evaluation, grounded in data-driven and scientific criteria, is essential to integrate these spaces meaningfully into urban and planning systems.

To describe and assess the socio-ecological value and potential of urban voids, it is necessary to understand their spatial, physical, and intangible characteristics, along with their legislative and planning status, with innovative GIS-based methods for mapping and representing them.

This paper maps and assesses the socio-ecological potential of urban vacant land, providing insights for future urban strategies, proposing and testing an experimental methodology applied to Lisbon case, operating across multiple scales. The paper outlines a conceptual and theoretical framework to identify

and assess urban vacant land; maps and clusters urban vacant land in Lisbon, identifying patterns, based on physical characteristics, and social, environmental and economic context; assesses socio-ecological potential of selected sites. Finally, it cross-references findings with recent projects and strategies, offering a multidimensional perspective on reimagining and reintegrating urban voids.

1988 | Federico Camerin, Arturo Vicente Ruiz

Military empty(ing) spaces, what are we living for? Spatial planning as a trigger of an 'organised ruination'

This work illustrates the generation of ruins from the disposal and abandonment of military installations in Italian and Spanish cities through the lens of spatial planning. The fundamental premise is that military ruins are not merely the tangible remnants of outmoded paradigms of warfare and a multitude of socioeconomic, political, and environmental shifts that have occurred since the end of Cold War. Instead, this work demonstrates that the ruination of military sites, spanning from barracks to warehouses located in urban sectors, relies upon a profit-oriented urban development under capitalist urbanization. The research hypothesis is that the search for profitability in urban environments is related to the 'politics of abandonment' of city fragments and the ways it generates ruination. Examples of such dynamics are the Italian and Spanish state policies for the disposal of military land and its repurposing through more profitable uses for the capitalist system that forced the ruination of the defence installations.

The creative writing approach relies on the role played by "urban narratives" contained in local spatial plans in triggering the ruination. These appear to be the tools providing ideological justifications for the ruination of military sites. Furthermore, these narratives persuade the stakeholders to retain military land in a state of despair until the time is right to sell and redevelop. This approach is instrumental in establishing the fundamental conditions that substantiate the demolition of military ruins, thereby engendering a novel spatial order that aligns more closely with capitalist interests. This work elucidates the creation of military ruins by comparing and interpreting a number of military sites in current state of ruination in Italy (Milan and Rome) and Spain (Madrid and Valladolid) according to the role played by local spatial plans in triggering the 'organised ruination,' a concept inspired by David Harvey's concept of 'organised abandonment'.

2422 | Simone Parola, Jowita Aleksandra Tabak

Obsolescence and Voids: Subtraction in Architectural and Urban Design

Are obsolescence and void inevitably adverse conditions, or can they serve as potential design resources? Moreover, considering subtraction as the synthesis of these two conditions, is it possible to conceive it as a design opportunity?

These questions arise in the contemporary context, where unused, obsolete, and neglected areas require new approaches and new visions. In this scenario, two research projects within the Ph.D. programme in Architecture. History and Project at the Politecnico di Torino focus on these topics from seemingly distant

perspectives – urban transformations of empty spaces and the possibilities offered by industrial obsolescence – while highlighting some significant convergences.

This contribution explores these connections through the analysis of ten case studies where subtraction is investigated as a creative and proactive method of architecture and urban redesign. Considering interventions on different scales within urban, suburban, and rural contexts, and with different objectives and characteristics, the study presents subtraction as a versatile strategy for reimagining these obsolete spaces.

The analysed projects range from artistic interventions (e.g., Conical Intersect by Gordon Matta-Clark in Paris) to planned functional demolitions (e.g., Nakagin Capsule Tower in Tokyo); from the reuse and recycling of materials (e.g., the Warsaw Uprising Mound) to architectural and urban redevelopment (Parco Dora project in Turin); from technological or functional obsolescence as a design driver (e.g., decommissioning of Yankee Rowe NPP in Massachusetts) to cases of demolition due to abandonment caused by socioeconomic conditions (e.g., Pruitt-Igoe complex in St. Louis).

Collectively, these projects reflect the broad spectrum of motivations, methodologies, and results that characterize subtraction as a design practice and territorial process. Case-by-case analysis highlights the objects, their materials, and the processes that affected and transformed them. The project investigates both the subtracted and the subtracting elements of the action, defining a design approach capable of overcoming the usual additive attitude.

2431 | Joni Vainikka, Ville Turunen, Sampo Vesanen

Left cold places, emptying neighbourhoods: A building-level analysis of vacancy risks in decarbonising Finland

Empty buildings epitomise peripheral spaces and the effects of economic restructuring across many post-industrial countries. In Finland, the mass urbanisation of the 1960s and 1970s created a spacious suburban housing stock that is now facing extensive renovation needs. Now, metropolitanization and the concentration of the population in even larger urban areas mean that vacant housing stock can become an ecological and political problem for decarbonisation. Instead of claiming shrinkage of non-metropolitan localities, we conceptualise the ‘emptying spaces’ as the spaces left-behind, or left cold, that still offer possibilities for reuse. In this scheme, we aim to understand the transformative efficacy of the housing stock and specifically the role of heating modes in societal decarbonisation efforts. In this paper, we create a logistic regression model for vacancy at a building-level. We include key variables such as properties of the building, its relative location, neighbourhood demographics and continuity. We use data based on the Building and Apartment Registry from the Finnish Environmental Institute and the Grid Database from Statistics Finland. We find that the strongest risk factors for vacancy are wood heating, the age of the building and rurality whereas protective factors against emptying are geothermal heating, income level and the share of elderly people (over 70-year-old) living in the area and to some extent the continuity of settlement. While the increasing low-carbon urbanisation detaches from fossil-based heating modes, the modes of housing we leave behind, however, can drastically change the composition of societal structures. People are more mobile than buildings, but for efficiency questions it matters what we leave behind and cold.

1318 | Saehoon Kim

Beyond Preservation: Curating 'Deep Heritage' in Obsolete Urban Fabrics

Seoul's Bukchon Hanok Village, while a quintessential cultural asset, often faces challenges of superficial tourist consumption and the functional obsolescence of traditional residential structures. This study addresses the reimagining of emptying spaces by analyzing the recent transformation of underutilized Hanoks into high-end cultural platforms. Facilitated by the Seoul Metropolitan Government's deregulation allowing corporate-managed Hanok stays, the sector has surged from 33 to over 170 operational sites between 2020 and 2025.

We examine 'Nostalgia,' a premium stay brand that transcends mere accommodation to establish Bukchon as a global K-heritage hub. By integrating local breweries, craft showrooms, and planned tea houses, Nostalgia actively fills urban voids with deep cultural content. Their recent project, 'Double Jae,' exemplifies this through hyper-local material resourcing—collaborating with artisanal curators like Yunhyungsangjae and Onjium to incorporate specialized elements such as traditional lacquer paper and handcrafted ceramics.

Moreover, the 'Happy Traditional House' event, curated by Design House, demonstrates how private intermediaries can activate regional vitality. By temporarily opening exclusive houses and accommodations like Nostalgia to the public, it transforms static residential zones into dynamic cultural platforms. This suggests a future planning role that transcends zoning to actively facilitate such private, soft-curation events, ensuring they contribute to inclusive, sustainable placemaking.

This transformation highlights a misalignment between rigid, landscape-focused preservation policies and the dynamic material needs of contemporary spatial consumption. We argue for a new planning agenda where the planner shifts from a passive regulator to an active curator. This role involves orchestrating these complex, material-rich collaborations to revitalize obsolete urban fabrics, ensuring authentic cultural engagement rather than superficial gentrification in an era of poly-crisis.

SS10: Energy Transitions

SS10: Energy Transitions

Tue 30.6.16:00-17:30, Special Session E, M240 | Session chair(s): Enza Lissandrello, Laura Grassini

2028 | Stefano Cozzolino

Energy Renovation and Unprepared Neighborhoods: When Policy Ambitions Clash with Owners' Intentions

Densely populated urban areas with highly fragmented private ownership are often celebrated for their vibrancy, diversity, and urbanity. However, the distribution of decision-making power and responsibility among numerous small-scale stakeholders poses significant challenges for public urban regeneration initiatives, such as large-scale energy-efficient building renovations. These challenges are particularly

pronounced in low-income neighbourhoods with weak housing demand, where poor building conditions and the concentration of low-income households can hinder efforts to improve the building stock. While the literature highlights the difficulties of achieving energy renovations in privately owned buildings—especially in cases involving complex co-ownership arrangements, low-demand rental markets, and small-scale owners with limited financial resources—very little attention has been given to neighbourhoods with these combined characteristics.

This research addresses this gap by investigating Dortmund-Nordstadt, a long-stigmatised neighbourhood characterised by (i) widespread energy inefficiency in buildings, (ii) relatively low income levels, and (iii) high property ownership fragmentation. It examines the concrete challenges, motivations, and perspectives of building owners and reflects on the potential implications for planning strategies. Although the study adopts a neighbourhood-scale perspective, it places strong emphasis on understanding the individual circumstances of building owners.

The research was conducted in close collaboration with the local urban renewal office, Nordstadt district management, local energy consultants, and 30 building owners. The findings reveal a diversity of circumstances often obscured by generalised assumptions. They also highlight evolving trends within the neighbourhood, the potential disconnect between existing energy policies and incentives, and the varying willingness of private actors to undertake energy renovation projects in urban areas of this nature.

2258 | Beatriz Pineda Revilla, Ralph Horne, Nicola Willand

A Methodology for Accelerating Residential Energy Retrofit: Adapting the Change Points Approach for One Stop Shops

Energy transitions are often framed as technological challenges, yet household retrofit reveals a deeper social and political dimension. Technological approaches and behaviour change campaigns cannot deliver the deep decarbonization required to meet climate targets. However, alternatives and their operationalization remain underexplored. This paper presents a conceptual framework for integrating sufficiency into energy transition governance, through the involvement of a key intermediary organisation - one-stop-shops (OSS). We draw on Social Practice Theory to highlight the socio-cultural dimensions of demand reduction.

Empirical research is based on fieldwork in Pamplona, Spain, with owners' associations of multi-family buildings. Semi-structured interviews and focus groups with households provide insights into how OSS mediate between regulation, systems of (market) provision, and everyday practices, enabling collective decision-making and fostering trust. The paper examines the extent to which OSS can transform retrofit from an individual responsibility into a shared social endeavour, creating spaces for dialogue and co-production of solutions that (a) align material changes with the emergence of new meanings and competencies and (b) integrate sufficiency - reducing energy demand through shifting practices and norms - as a complementary pathway.

By situating retrofit within broader social practices of home making, retrofit is revealed as more-than-technical; as a civic exercise that can empower communities, build social capacity, and strengthen capabilities. The home, where care, community, and everyday life converge, becomes a critical site for

understanding energy transitions beyond energy use alone. Retrofit, therefore, emerges as a political act that can contribute to sufficiency-oriented governance and socially just energy futures. The paper concludes by outlining governance strategies for OSS that integrate technical guidance with participatory processes, positioning retrofit as a transformative pathway toward just and inclusive energy transitions.

2915 | Federica Rotondo, Marco Cremaschi, Tommaso Vitale

Assessing inequalities and socio-environmental trade-offs in housing retrofitting policies in Europe

While housing retrofitting policies have advanced rapidly and followed broadly similar trajectories across many European countries, they have also produced unequal effects. These policies tend to favor homeowners and higher-income groups, while often deepening energy poverty risks among tenants and low-income households. In several countries and contexts, these disparities have fueled social and political resistance to green transition policies, particularly under conditions of economic instability and inflation.

Drawing on the EU Horizon ReHousIn Project, covering nine countries and based on comparative qualitative research mostly, findings reveal recurring patterns shaped by social, institutional, and political mechanisms whose explanatory capacity we combine with a sociotechnical understanding of hybrid energy infrastructures.

Five main mechanisms emerge: multilevel governance, which often reproduces disparities due to institutional fragmentation; economic incentives, such as eco-loans and tax credits, that standardize policy models across contexts; regulatory and planning instruments, whose limited scope undermines long-term sustainability; local dynamics, insufficiently monitored and evaluated after renovation works; and public resources and institutional capacity, which can mitigate but rarely offset market effects.

Despite national differences, these configurations tend to yield similar outcomes, generating persistent trade-offs between environmental and social objectives. Unsatisfactory results often arise from the triplet of fragmentation, marketization, and deregulation, whereas more equitable outcomes correlate with effective multilevel governance and sustained public intervention. Two needed assessments stay strikingly neglected: how financial tools impact on households, firms, and local actors; how human and technological logics co-shape hybrid energy infrastructures.

Achieving a fairer transition requires rethinking the entire retrofitting chain. Current models remain overly focused on supporting the construction sector and individual homeowners, while neglecting systemic solutions such as district-scale energy systems. Advancing both sustainability and spatial justice demands a profound political reorientation, redesigned policies, and stronger citizen participation.

1401 | Carolin Seiberlich

Social vulnerabilities and the decarbonizing of the building stock in Germany

Increased costs for electricity and heating result, beside the finanzialisation of the housing market, in higher rents, which particularly affect low-income households in the lower middle class and people

affected by poverty in Germany. At the same time, EU directives such as the Renovation Wave and the European Green Deal aim to decarbonize the building sector. The establishment of a nationwide climate social fund, which provides for the differentiated distribution of funds to vulnerable households, is still pending in the Federal Republic of Germany. Empirical data has been collected at the Institute for Regional Science at the Karlsruhe Institute of Technology (KIT) as part of two ongoing research projects: the EU Horizon project Prefigure: Pathways to inclusive, affordable, and sustainable housing and the exploratory project Innovationscampus Baden-Württemberg (Sustainable-Housing-Collab). These enable an in-depth analysis and presentation of existing social vulnerabilities, which arise in the context of the socio-ecological transformation of the rental housing stock at the municipal level. The data basis comprises qualitative interviews with experts from housing companies, chambers, cooperatives, private-sector actors and municipal decision-makers from the Upper Rhine Region and Germany. I would like to present the findings for discussion in the context of the concept of environmental justice at the World Planning Congress in Helsinki in the end of june 2026.

2504 | Enza Lissandrello, Laura Grassini

Justice Literacy and Energy Transition in Social Housing and Neighbourhood Regeneration – Lessons from Aalborg and Bari

The transition towards climate-neutral cities increasingly intersects with Europe's deepening housing crisis. Urban planners and social housing providers face a dual imperative: advancing energy decarbonisation while safeguarding social justice, ensuring that the energy transition does not exacerbate inequality or displacement among vulnerable residents. Yet little is known about how justice literacy, understood as the capacity to deliberate conflicting interests and act across institutional and social boundaries, is cultivated and translated into planning for neighbourhood regeneration. Taking a critical view on how energy poverty, community agency, and the redistribution of socio-environmental benefits are addressed in energy interventions, the paper examines Aalborg (Denmark) and Bari (Italy) as case studies of how municipalities and social housing providers experiment with housing–energy governance aimed at embedding justice literacy in neighbourhood regeneration. Drawing on ongoing work within Positive Energy District (PED) initiatives, the study analyses how two different welfare and governance systems address the challenge of aligning energy transition, housing affordability, and democratic legitimacy. The research combines policy analysis with action research centred on energy transition in social housing and neighbourhood regeneration. Preliminary findings reveal rising justice awareness: in Denmark, a decentralised and cooperative housing system contends with fragmented energy-sector governance, while in Italy, longstanding weaknesses in the social housing system intersect with the disempowerment of municipalities in energy decision-making. Across both cases, justice literacy emerges as a situated competence developed through collaboration, contestation, and everyday negotiation and essential for navigating tensions between technical solutions and residents' lived realities. By situating these cases within a broader European context, the paper offers insights into how justice literacy can strengthen housing–energy governance and position energy as a catalyst for just urban regeneration. Strengthening justice literacy is vital for transitions in which residents become co-authors of sustainable and affordable futures rather than passive recipients of green technological upgrades.

SS10: Energy Transitions

Tue 30.6.17:45-19:15, Special Session E, M240 | Session chair(s): Enza Lissandrello, Laura Grassini

1282 | Antti Roose, Ly Lumiste

Phasing out and renewal: agency, governance and innovation in the just urban and energy transition of Kohtla Järve, Estonia

Post industrial cities experiencing sharp demographic decline face distinctive challenges in pursuing climate neutral transformations. Kohtla Järve, a former oil shale hub in north eastern Estonia, exemplifies the tensions between structural constraints, top down policy interventions, and community driven adaptation. This paper examines how collective agency, the capacity of residents, housing associations, and policy actors to act jointly, shapes the governance of just urban and energy transitions in shrinking contexts.

The study focuses on the interplay of ageing housing stock, socio-demographic vulnerability, and fragmented institutional responsibilities. Energy expenditure disproportionately burdens low-income and retired households, while vacancy in apartment blocks exacerbates technical inefficiencies and social fragility (Osunkoya & Partanen, 2024). At the same time, community identities sustain local vitality, resisting relocation and reinforcing attachment to place (Suitner et al., 2023).

The analysis situates Kohtla Järve within broader debates on transition governance, highlighting the need to move beyond competitive innovation models towards transformative, practice oriented approaches (Grillitsch & Sotarauta, 2020; de Kraker et al., 2024). Renovation and demolition emerge as dual strategies: renovation offers pathways to neighbourhood viability through energy efficient retrofitting, while demolition, if conducted empathetically and strategically, can catalyse green reuse and community re imagining. Both require collective agency to negotiate tensions between European and national policy frameworks and locally embedded practices. Cycles of policy interventions are not inherently progressive. Rather, they risk becoming counterproductive, producing bottlenecks and mismatches with local contexts and public perception. In practice, the rigidity of programmed interventions can entrench administrative inertia, divert resources from adaptive solutions, and erode trust between institutions and communities.

This paper reframes energy transition as a socio spatial opportunity for renewal, demonstrating that collective agency is a practical condition for aligning technological change with social resilience in post industrial shrinking cities such as Kohtla Järve.

1079 | Simon Vanhove

Energy Commons and community engagement: moving from buy-off to buy-in through planning for local renewable energy

Transitioning from fossil fuels to renewable energy production is a key measure in mitigating climate change. The rapid increase of utility-scale wind and solar power developments globally has, however, raised concerns over their accumulating impacts on nature and human habitats in peripheries, outside of densely populated urban or suburban areas. Accumulating environmental and social impacts of these

land intensive technologies contribute to local conflicts and tensions surrounding renewable energy production, influencing the social acceptability of projects as well as their timelines and likelihood of implementation. This study investigates the opportunities and challenges of regional land use planning in addressing and governing cumulative impacts (CIs) of the energy transition in Finnish regions. The data draws upon 24 interviews of regional planners and state and regional authorities in Finland. The findings indicate that regional land use plans can address and reconcile local concerns and needs over CIs; however, the governance context remains highly politically contested, shaped by both conflicts between addressing social and environmental consequences and promoting energy transition and economic growth, and limited vertical coherence in CI governance. This study contributes to academic debates on the role of regional planning and regional impact assessments in energy planning+K2 in the peripheries.

1799 | Oliver Pohl, Agnes Förster

Citizens as a key actor for local energy transformations

Citizens engage in various ways in local energy transitions, with energy communities being one of the most impactful collective modes. This approach enables citizens to become stakeholders in both formal and informal local planning processes.

We present initial results from the citizen science project CREATE:ENERGY, which focuses on citizen energy initiatives. The project employs an action research approach that supports citizens in developing and implementing their own energy projects. The spatial focus is on the Rhenish mining area, a region undergoing significant transformation in its identity as an energy region.

Our analysis draws on results from the first project stage, which includes seven workshops conducted in two municipalities. During these workshops, citizens designed renewable energy projects and planned their implementation. The study emphasizes their desired solutions along with the norms and visions for future energy associated with these projects. For analyzing the process, we use transformative knowledge and field theory while linking it to a context-sensitive and spatially aware perspective on energy regions and narratives.

By envisioning a decentralized energy system, citizens formulate a normative counter-narrative to the current centralized (fossil) energy supply model. They address critical issues related to power distribution, socio-technical practices, spatial concerns, and future prospects amid ongoing transformation processes. Based on their vision, citizens identify potential projects and acquire necessary knowledge. Furthermore, they strive to build coalitions with municipal actors to become stakeholders in local planning processes.

The article advocates for an expanded concept of participation in the energy transition that emphasizes citizens as key actors. It demonstrates how citizens gain agency through various types of energy projects while seeking innovative solutions tailored to local needs. This approach holds significant potential for interpreting the energy transition as a co-transformative local bottom-up negotiation process, particularly relevant during transformation processes.

2349 | Mirte Jepma, Maria Kaika, Mendel Giezen

Working for the Transition: Labour, Knowledge and Care in Planning for District Heating Energy Commons

Community-led energy initiatives are increasingly celebrated as pathways toward just energy transitions, yet planning frameworks continue to overlook the labour that enables such initiatives to function. This paper draws on ethnographic research into KetelhuisWG—a community-owned district heating cooperative in Amsterdam—to examine how labour operates as a critical, yet largely invisible, resource in establishing an energy commons. Introducing a feminist political ecology lens, the paper foregrounds the social and embodied forms of labour that sustain collective energy infrastructures but remain unacknowledged within dominant socio-technical framings of spatial energy planning.

The success of KetelhuisWG rested on extensive relational and organisational work: cultivating trust within the neighbourhood, conducting door-to-door conversations, preparing detailed insulation workbooks for each dwelling, and coordinating across residents, municipal actors, and housing corporations. These labour practices reveal forms of situated expertise that rarely register as "knowledge" in planning debates, yet they are foundational to the viability of community-led energy systems. The case also shows how historical trajectories of self-organisation and housing security shaped the availability of labour. A legacy of collective action and DIY renovation, combined with strong protections in the social housing sector, fostered deep neighbourhood ties and an ethic of care for place—conditions that made sustained volunteer labour possible.

By neglecting such situated labour, planning risks misunderstanding why some local energy infrastructures succeed while others fail, thereby inadvertently reinforcing centre–periphery hierarchies in energy governance. This case contributes to emerging scholarship on energy commoning as a social practice and extends research on the district heating technologies as commoning. Self-organised district heating requires different, long-term forms of labour that remain underexplored. The paper argues that planning for just energy transitions must recognise and support the labour of connection, community-building, and infrastructural care, and reconsider what counts as expertise in shaping alternative energy futures.

2272 | CHUAN-KAO-LIN

Whose Energy Future? Socio-Technical Imaginaries, Policy Narratives, and Energy–Land Politics in Taiwan's Solar Siting Practices.

Energy transitions are often accompanied by competing visions of the future, and these visions not only shape governance priorities but also determine which places and communities become the primary bearers of transition-related costs. Employing socio-technical imaginaries as the core analytical framework, this study examines how Taiwan's recent policy for ground-mounted photovoltaic (PV) development has been constructed, articulated, and contested across national and local scales. Through analysis of policy documents, media reports, advocacy discourses, and spatial datasets associated with designated solar zones, the research investigates how dominant energy imaginaries legitimize specific spatial governance instruments, while also exploring how marginalized groups employ counter-narratives to challenge or redirect the transition trajectory.

Preliminary materials indicate that official narratives emphasize technical reasoning, quantitative siting indicators, and energy security, collectively producing a top-down, decontextualized techno-economic imaginary. In contrast, communities located in rural areas, coastal regions, or land subsidence zones advance situated, place-based imaginaries grounded in land-use practices, livelihood needs, environmental protection, and cultural memory. These conflicting visions of the energy future reveal the epistemic violence embedded in decontextualized official metrics and highlight the power asymmetries and epistemic exclusions inherent in renewable energy spatial planning. By foregrounding these competing imaginaries, this study seeks to broaden the theoretical repertoire for understanding energy transitions, reconsider how planning might move beyond technocratic and rationalist modes of governance, and offer new perspectives for more situated and context-sensitive approaches to just energy transitions.

1416 | Tzuyuan Stessa Chao, Yihsuan Shen, Ling Wang, Haoyu Juan

From Citizen Power Plants to Positive Energy Districts: Institutional and Spatial Pathways for Urban Energy Transition in Tainan, Taiwan

While Taiwan has yet to introduce an explicit policy framework for Positive Energy Districts (PEDs), recent developments in citizen power plants offer an emerging foundation for localized and participatory energy governance. Building on the conceptual groundwork established in Charting the Path to Positive Energy Districts (Chao, Shen, & Juan, 2025), this study advances from theoretical reflection to institutional and spatial analysis, addressing the governance gap between community-based energy initiatives and the integrated PED model and examining how existing legal and planning systems in Tainan City could contribute to the transition toward a PED-supportive governance.

The research employs a two-stage comparative framework. First, it analyzes how Taiwan's renewable energy regulations align with international PED governance dimensions, such as multi-level coordination, spatial integration, and citizen participation. Examples include the Renewable Energy Development Act, local Green Energy Roof Promotion programs, and municipal energy ordinances. This step identifies governance gaps between citizen power plants and the PED model. Second, it explores the regulatory and spatial feasibility of PED practices across two contrasting urban contexts in Tainan: the historic core (Central-West District) and the new town area (Jiufenzi). Through such comparative analysis, the study identifies institutional barriers and planning tools necessary to operationalize community-scale energy initiatives.

Preliminary findings reveal that Tainan's planning system already provides procedural entry points—through urban regeneration mechanisms, zoning flexibility, and local participation platforms—that could accommodate PED-oriented projects. However, the absence of cross-departmental coordination and district-scale planning tools remains a major obstacle. These findings reflect the dual-layer governance challenge—where institutional fragmentation and operational limitations jointly constrain PED implementation. The paper concludes by proposing policy instruments and governance strategies to bridge renewable energy transition with urban planning practice, offering a grounded pathway for Taiwan's cities to localize PED principles.

SS10: Energy Transitions

Thu 2.7.16:00-17:30, Special Session E, M240 | Session chair(s): Lucas Barning, Meike Levin-Keitel, Johannes Suitner

1996 | Martina Massari

Spatial embedding of just energy transitions: mapping housing vulnerability and energy affordability risk in European Cities

Europe faces a dual crisis: housing affordability has collapsed, with prices surging over 50% since 2015 and rents rising 13% across the EU, while energy poverty compounds housing vulnerability for millions. However, this crisis is not simply the result of uncontrollable market forces, it reflects the shrinking role of planning authorities at European, national, and local levels in addressing housing and energy challenges. Fragmented policies, reduced social housing, deregulated short-term rental markets, and poor coordination between governance levels have disproportionately affected marginalized populations, who face stigmatization and socio-spatial barriers to access adequate, affordable housing.

This paper presents HouseInc's participatory spatial assessment framework, a methodological approach that addresses this governance gap through integrated mapping of housing vulnerability and energy poverty drivers. The framework synthesizes multidimensional data like housing characteristics (crowding, tenure, cost burden), socio-economic stress (unemployment, income), demographic sensitivity, and service accessibility, into composite indices and a master Energy Affordability Risk Index. Drawing on preliminary HouseInc research across four European contexts (Czech Republic, Germany, Italy, Romania), the assessment process operationalizes just transition principles by embedding local and plural knowledges through participatory workshops and community validation.

Rather than treating housing and energy as separate sectoral challenges, this work demonstrates how spatial assessment can reveal their interconnectedness and guide coordinated planning interventions. The framework can enable stakeholders to identify areas of compounded vulnerability, co-design targeted responses (retrofit programs, social support, improved service access), and measure equity impacts. The paper contributes to recent EU policy shifts toward housing-centered planning by offering a replicable methodological framework for coordinating fragmented governance levels and centering vulnerable populations' needs in energy transition planning.

2836 | Shahad Ahmad Khan

Energy Poverty in Disadvantaged Neighbourhoods: Towards a Socio-Spatial Conceptual Framework for Just Energy Transition Planning

Energy poverty is increasingly recognised as a socio-spatial challenge that intersects with housing conditions, income precarity, urban form, and infrastructural inequalities. While national-level measures of energy poverty exist, they rarely capture neighbourhood-scale patterns that affect how disadvantaged communities experience energy burdens in everyday life. This limits the ability of planning institutions to design transition policies that are socially equitable and territorially sensitive.

This paper proposes a preliminary socio-spatial conceptual framework for analysing neighbourhood-level energy poverty as an entry point toward just energy transition planning. The contribution synthesises

existing literature, policy definitions, and theoretical approaches to identify key dimensions influencing energy vulnerability, such as housing quality, energy expenditure burdens, accessibility of essential services, environmental exposures, and socio-demographic stressors. The paper outlines how these dimensions can be organised conceptually to support more situated and context-responsive assessments of urban energy vulnerability.

The analysis also reflects on how dominant definitions and measurements of energy poverty shape knowledge, visibility, and influence in transition processes. It discusses how conventional techno-economic indicators often obscure the lived realities of disadvantaged and peripheral neighbourhoods, and how more socially grounded perspectives can help planners recognise uneven burdens and overlooked communities.

By advancing a focused conceptual contribution, the paper aligns with special session 10 by foregrounding the socio-spatial nature of energy poverty, highlighting the importance of peripheral perspectives, and offering an initial analytical basis for future empirical or methodological development.

1822 | Linda Zardo, Alessandra Longo, Beatriz Daunt, Giulia Lucertini

Charting Equity in Urban Decarbonisation: Assessing Energy Poverty Factors into Mediterranean Cities Climate Mitigation Plans

Energy poverty (EP) is increasingly recognised as a crucial dimension of a just and effective energy transition, yet its integration into local climate mitigation strategies remains inconsistent and often superficial. This paper examines how a group of Mediterranean cities—contexts marked by high climatic vulnerability, socio-spatial inequalities, and ageing building stocks—address the multidimensional nature of EP within their climate action plans. The goal is to support the design of policies able to target different EP factors by assessing the extent to which existing local transition plans engage with them.

The research follows four methodological steps. First, we correlate vulnerability indicators with key EP factors to understand how household, spatial, and infrastructural conditions interact. Second, we link these EP factors to specific policy types that can mitigate them, ranging from building renovation measures to tariff support and community energy initiatives. Third, we develop a qualitative evaluation framework to gauge how comprehensively climate policies address the identified EP factors. Finally, we apply this framework to eleven climate action plans developed by cities participating in the NetZeroCities initiative, selected from EUROMED countries, specifically Spain and Italy.

Preliminary findings show substantial variation among cities in how they conceptualise and prioritise energy poverty. Some municipalities begin to integrate equity-oriented approaches—such as targeted renovation schemes, educational programmes or assistance to vulnerable households—while others rely on generic mitigation measures that risk reinforcing pre-existing disparities. Across the sample, recurrent gaps emerge; among these: limited operationalisation of justice principles, and insufficient coordination between climate, housing, and social policy departments.

By highlighting these gaps and identifying enabling institutional and analytical conditions, the paper contributes to debates on just energy transitions. It offers insights for Mediterranean cities aiming to align

their decarbonisation trajectories with social justice imperatives and ensure that climate mitigation planning does not overlook the most vulnerable groups.

2414 | Javier Ostos-Prieto, Christa Reicher

Striking the Balance: Sustainable European Urban Development in World Heritage Conservation

Embedded within broader global frameworks such as the 2030 Agenda and the Habitat III New Urban Agenda, World Heritage plays a crucial role in shaping sustainable and resilient cities. However, the presence of World Heritage properties within urban environments generates specific challenges, particularly due to the implementation of Buffer Zones. These areas, intended to safeguard the heritage values of designated sites, frequently impose substantial restrictions on urban transformation. Such limitations affect essential planning parameters and can lead to forms of "urban freeze," as observed in historic cities like Venice or Florence, where growth is displaced to the urban periphery.

A parallel and increasingly urgent conflict arises between heritage protection regulations and energy efficiency policies, a tension amplified by the current energy crisis and the accelerating need for renewable energy adoption. In cities where heritage occupies central and extensive areas, as in the emblematic case of Córdoba, Spain, Buffer Zone regulations have hindered the installation of solar panels despite the city's exceptional solar potential.

This research examines the urban implications of World Heritage and its Buffer Zones across European cities through a methodological framework based on georeferenced identification and comparative urban analysis. The study aims to understand the spatial and regulatory impacts of these protected areas, identify conflicts between heritage laws and energy transition policies, and propose integrated strategies to reconcile both agendas.

Expected findings suggest that while World Heritage status has contributed significantly to the preservation of historic urban cores, it has often constrained central urban development and delayed the implementation of renewable energy systems. The research proposes guidelines to modernise protection criteria and support integrated management models that balance heritage conservation, urban growth and sustainable energy production, thereby fostering resilient and future-ready cities aligned with contemporary Urban Agenda objectives.

2157 | Yağmur Aşçı Coşkun, Ceren Sezer

Reimagining Data Centre Development through Community Engagement in Europe's Net-Zero Transition

This research reviews current knowledge on the social acceptance of Net Zero energy transitions in Europe, with a particular focus on how public spaces shape community responses to emerging technologies, infrastructures, and policy frameworks. While the European Union's commitment to achieving climate neutrality by 2050 establishes an ambitious policy context for deep decarbonisation, the success of Net Zero pathways ultimately depends on societal willingness to adopt, co-create, and live

with transition measures in the everyday environments where energy and mobility transformations become tangible.

The literature identifies social acceptance as a multidimensional concept combining community, market, and socio-political acceptance with community acceptance increasingly central due to its ties to procedural justice, distributional justice, and trust in institutions and developers. Public spaces emerge as critical settings within this debate: they are the sites where renewable energy infrastructures become visible, mobility systems are reconfigured, and residents encounter the spatial consequences of transition policies. As open, shared, and socially meaningful environments, public spaces influence how communities perceive fairness, participate in decision-making, and negotiate the benefits and burdens of Net Zero interventions.

Drawing on case studies across Europe, the review synthesises how communities evaluate transitions involving renewable energy facilities, energy-sharing schemes, retrofitting programmes, and mobility changes as they manifest in public space. The analysis identifies recurrent challenges including, uneven participation, perceived inequities, limited transparency, and low trust while highlighting evidence that inclusive engagement, co-design approaches, and place-based governance innovations can strengthen acceptance and foster fairer outcomes.

By connecting these empirical insights with the EU's wider Net Zero policy framework, the paper demonstrates that social acceptance is not simply an obstacle to be managed, but a foundational condition for the societal and spatial transformations envisioned in Europe's climate-neutrality agenda.

2843 | Maria Rosaria Stufano Melone, Valeria Monno, Stefano Borgo, Domenico Camarda

Towards an Ontological Framework for Analyzing Territorial Transformations in Just Transition processes

This contribution lays the foundation for a theoretical framework to address the complex relationship between territorial transformations, land use, and ecological transition through ontological analysis. The adopted methodology aims to highlight and deconstruct the "intrinsic ambiguity" that enables unsustainable territorial transformations within energy transition processes. The goal is to provide tools for managing these dynamics from a spatial justice perspective in planning contexts that are often unprepared to deal with such complexity.

The framework draws on the criterion of co-evolutionary compatibility, which assesses whether territorial transformations align with the systemic evolution of the land–society relationship. Central to the ontological perspective adopted here is the idea of land as a complex entity with material agency (Bennett, 2010). This calls for an epistemological approach that integrates diverse knowledge forms within a relational perspective (Latour, 2005). The research aims to construct a knowledge base that includes both theoretical concepts and local perceptions, particularly those related to agri-photovoltaic transformations of rural systems. Understanding how these systems evolve—and whether they maintain or disrupt the internal coherence of the territory—is essential for achieving ecological transitions that are spatially just.

To gather relevant data, the methodology includes analyses involving territorial stakeholders. The aim is to elicit tacit knowledge and to clarify the perceptions, concerns, and assumptions held by different agents. The resulting methodological model supports the ontological definition of the land by outlining qualitative tools that coherently capture territorial knowledge.

The framework aims to overcome traditional disciplinary boundaries by integrating economic, normative, and spatial aspects into a unified analytical structure for evaluating the spatial justice of renewable energy development (Walker, 2012), especially in areas of conflict such as southern Italy. It is intended to contribute to the ongoing scientific debates on ecological planning linked to environmental justice, offering a methodological foundation for future research.

SS10: Energy Transitions

Thu 2.7.17:45-19:15, Special Session E, M240 | Session chair(s): Lucas Barning, Meike Levin-Keitel, Johannes Suitner

1734 | Asma Mehan

After Oil and the Politics of Knowledge: Planning for Just Energy Transitions and Socio-spatial Embedding

Spatial planning is increasingly tasked with accelerating decarbonisation and orchestrating energy transitions—but too often this occurs through a narrow technological or economic lens rather than one grounded in justice, knowledge and embeddedness. Drawing on the insights of After Oil: A Comparative Analysis of Oil Heritage, Urban Transformations, and Resilience Paradigms (Springer 2025), edited by Asma Mehan, which argues that a shift from fossil fuels demands not just new infrastructures but a wholesale transformation of the petroculture we inhabit, this session asks: Which knowledges enable socio-spatially embedded and just energy transitions? The framing addresses three analytic dimensions: first, epistemic politics, highlighting how dominant transition frameworks privilege metropolitan, techno-economic logics while marginalising peripheral, local, indigenous and experiential ways of knowing; second, socio-spatial justice, which interrogates how transition burdens and benefits are unevenly distributed across territories, and how planning might shift from distribution to recognition and agency; third, global interdependency and governance, focusing on how renewable infrastructures, critical-mineral extraction and planetary supply chains tie local planning to far-flung terrains and novel geographies of power. The session seeks contributions that move beyond siting metrics and modelled scenarios to examine how plural knowledges are constructed, how publics are included or excluded, and how power relations are negotiated through planning and energy practices. By re-centering planning around justice, difference and situated knowledges, we open pathways toward a transition after oil that is methodologically richer, politically attuned and spatially grounded.

2284 | Sanaz Alian, Daniel Boyce, Stephen Wood

Getting the most out of the planning system: Voluntary Planning Agreements and Renewable Energy Zones in NSW, Australia

In outline, this presentation aims to explore a key set of tensions that have arisen in relation to planning for renewable energy projects in New South Wales (NSW), Australia. On the one hand, these projects are responding to clear global imperatives to transition to carbon-neutral societies, along with the understanding that any further delays could prove disastrous for the planet. On the other hand, it is no less clear that these projects will significantly affect host communities and that wide-ranging community engagement and strategic planning is required to ensure that negative impacts are mitigated and positive impacts enhanced. On the one hand, there is an imperative to act 'now'; on the other hand, an imperative to conduct extensive and time-consuming strategic planning and community engagement processes.

Against this backdrop, this presentation will explore how Armidale Regional Council has sought to negotiate these tensions. While large-scale energy developments are framed as state or national priorities and mostly assessed through State Significant Development (SSD) pathways, local councils are often left negotiating outcomes with limited statutory power, resources, or certainty. Yet, despite these challenges, mechanisms like Voluntary Planning Agreements (VPAs) have become crucial tools for securing community benefit when used strategically and transparently.

1544 | Naomi C. Hanakata, Naomi Hanakata

Charged Landscapes in Southeast Asia's Renewable Energy Transition

This paper examines the entangled spatial practices of Southeast Asia's renewable energy transition through the lenses of governance, material infrastructures, and everyday experience. Using energy as an analytical entry point, it explores how extended urban territories — the dispersed hinterlands, coastlines, and peri-urban zones that sustain metropolitan life — are being reconfigured as new resource frontiers for renewable energy production.

Building on ongoing research on the socio-spatial implications of energy transition, the paper focuses on the emergence and intensification of center–periphery relations that sustain energy-intensive living in urban cores and ambitious, often centrally formulated decarbonization agendas. It investigates the land-use transformations and regulatory planning frameworks that enable renewable energy development, illuminating how global sustainability narratives are locally translated into situated practices that "charge" and revalue physical as much as socio-ecological landscapes.

By tracing these dynamics across diverse energy geographies — solar farms in agrarian plains, wind installations along coasts and upland territories — the paper reveals the territorial extensions of the urban condition through infrastructures of transitioning. In doing so, it highlights both the promises and contradictions of renewable energy transitions in the region, raising critical questions about sustainability, spatial justice, and the remaking of livelihoods and landscapes in an era of planetary urbanisation.

1975 | Hanna Paulomäki, Sonja Semeri, Eeva-Lotta Apajalahti, Ranja Hautamäki

Energy landscapes in green transition: integrating ecological and social impacts of renewable energy in green hydrogen production

The accelerated renewable energy transition is driving a significant re-industrialization process globally, crucial for addressing climate change. Finland has set a political goal to produce 10% of European Union's green hydrogen by 2050 increasing significantly the need for renewable energy production. Switching to renewable energy sources is critical, but it also generates new kinds of technological, ecological, and societal challenges that often stem from land use change in peripheral locations. Amongst the challenges are insufficient sustainability analyses of ecological, social, and cultural implications of re-industrialization causing deficit in social acceptability of energy projects. Also, current planning for renewable energy production often lacks integrating ecological, social, and landscape considerations, indicating a clear knowledge gap in understanding and applying holistic sustainability principles in the renewable energy transition management.

This presentation addresses this gap by identifying and synthesizing existing methodologies and evidence on land use planning, ecological sustainability, and social impacts of renewable energy. Our study is crucial to enhance the understanding of socio-ecological impacts, ultimately constructing a more holistic assessment framework to use in planning practices. We are interested in which synergies and trade-offs are reported between ecological sustainability and social acceptance in renewable energy projects. Our aim is to develop also numerical criteria for non-technical aspects, considering qualitative values of landscapes and socio-ecological factors to effectively apply theoretical insights into practical settings.

Our research is part of the H2EnergySCAPES project developing a science-based method that helps to convert traditional techno-economic analysis into a more comprehensive approach covering diverse sustainability aspects. The research hypothesizes that anchoring the energy transition in ecological, social, and cultural contexts can enhance sustainability and equity, while also fostering positive socio-ecological impacts and supporting spatial land use and economic efficiency.

2588 | Henk Wiechers

(Re-)Making the Hydrogen Region - Critical Perspectives on Narratives and Energy Futures in Lusatia

This presentation first critically examines how regional hydrogen narratives in Lusatia, Germany, reinforce and reproduce existing power inequalities within the region's energy transition. Building on this critique it then outlines conceptual entry points on how to imagine alternative regional energy futures, as well as regional planning and development processes that can lead to that.

Promoted as a "Hydrogen Mobility Model Region," and part of the emerging "Net-Zero-Valley," Lusatia is framed as a space of innovation, technological leadership, and regional renewal. Yet beneath these optimistic narratives lie enduring continuities of peripheralization and uneven power relations. Rather than signaling a structural break, hydrogen initiatives extend Lusatia's longstanding role as an "energy region," while ecological and social costs are externalized or spatially displaced. The research also shows

how the processes involved in imagining regional energy narratives largely focus growth-oriented development logics and neglect participatory frameworks.

Building on this critique, the presentation also considers how alternative regional energy futures might be imagined. It outlines constructive approaches for participatory, inclusive, and context-sensitive regional planning processes that acknowledge existing inequalities and foreground more equitable, socio-ecological forms of transformation. In doing so, it identifies key needs and openings for future governance strategies capable of supporting transformative regional energy pathways.

Empirically, the presentation draws on qualitative expert interviews conducted with actors in the energy sector, as well as actors working in local administration and regional planning across the region. Conceptually, the work is situated at the intersection of research on regional planning and development and Political Ecology, engaging critically with planning processes and regional governance frameworks. It links the empirical observations to broader debates in critical regional studies, emphasizing how regional transformations are shaped by power dynamics, institutional path dependencies, and structural inequalities.

1615 | Franziska Ulrich, Jörg Knieling

Inter-municipal cooperation in the regional energy transition: Insights from a comparative study of regional energy utilities in Germany (Bavaria and Baden-Württemberg)

The energy transition has placed new demands on spatial planning, requiring an integrated expansion of renewable energy, power grids and storage systems. Municipalities and districts located in rural or peripheral areas possess the land needed for the expansion of energy infrastructure. However, they often lack the financial means, knowledge and experienced staff to invest in renewable energy and related infrastructure. In recent years, a growing number of cooperative inter-municipal approaches for regional energy supply have emerged in response. Among these newer actors are regional energy utilities (Regionalwerke). These utility companies, uniting at least two municipalities, aim to ensure a sustainable regional energy supply, increase energy independence, strengthen regional value creation and pass on revenues to citizens. To this end, they engage in activities such as operating wind and solar farms and offering a regional electricity tariff. This is intended to combat urban–rural disparities as well as energy-related spatial and distributional conflicts between municipalities. Examining regional energy utilities as examples, this paper explores the barriers and potentials of such inter-municipal cooperation in advancing the regional energy transition. We present a qualitative comparative case study of four regional energy utilities in the German federal states of Bavaria and Baden-Württemberg, applying a conceptual lens of different governance approaches, such as multi-level governance, regional governance and collaborative governance. Results illustrate that different legal, political and regional planning frameworks influence the processes of inter-municipal cooperation. Disparate motivations and power relations shape the collaboration between actors and how conflicts are negotiated. We find that involvement of key actors, citizen participation and targeted communication facilitate inter-municipal cooperation. Conversely, restrictive legislation, limited municipal budgets and a lack of grid connection options constrain inter-municipal cooperation and, thus, restrict the potential to contribute to a more just and sustainable energy transition.

SS10: Energy Transitions

Fri 3.7.11:00-12:30, Special Session E, M240 | Session chair(s): Lucas Barning, Meike Levin-Keitel, Johannes Suitner

1055 | Tuulia Puustinen, Jakob Donner-Amnell, Lasse Peltonen, Rauno Sairinen

Governing cumulative impacts of the energy transition through regional land use planning: Challenges and opportunities in Finland

Transitioning from fossil fuels to renewable energy production is a key measure in mitigating climate change. The rapid increase of utility-scale wind and solar power developments globally has, however, raised concerns over their accumulating impacts on nature and human habitats in peripheries, outside of densely populated urban or suburban areas. Accumulating environmental and social impacts of these land intensive technologies contribute to local conflicts and tensions surrounding renewable energy production, influencing the social acceptability of projects as well as their timelines and likelihood of implementation. This study investigates the opportunities and challenges of regional land use planning in addressing and governing cumulative impacts (CIs) of the energy transition in Finnish regions. The data draws upon 24 interviews of regional planners and state and regional authorities in Finland. The findings indicate that regional land use plans can address and reconcile local concerns and needs over CIs; however, the governance context remains highly politically contested, shaped by both conflicts between addressing social and environmental consequences and promoting energy transition and economic growth, and limited vertical coherence in CI governance. This study contributes to academic debates on the role of regional planning and regional impact assessments in energy planning in the peripheries.

2901 | Fabio Giussani, Samuele Zilio, Giovanni Dalle Nogare, Daniele Vettorato

Mapping Positive Energy Districts for Just Urban Energy Transitions: A Multiscale GIS-Based Approach

As cities pursue decarbonisation while addressing social equity and territorial disparities, Positive Energy Districts (PEDs) have emerged as a promising framework for reshaping urban energy systems. Yet PED development is often dominated by techno-economic metrics that overlook socio-spatial inequalities, peripheral conditions, and the politics of knowledge shaping transition processes. This contribution, developed within the EU project KINETIC, presents a GIS-based mapping tool that supports PED identification and prioritisation while acknowledging the situated and contested nature of urban energy futures.

The tool integrates spatial analysis with a multi-criteria evaluation framework across city, neighbourhood, and building scales, combining datasets on energy supply, demand, population, social housing, and municipal infrastructure. First applied to Parma, Copenhagen, and Bucharest, it demonstrates adaptability to diverse governance contexts, data environments, and socio-spatial configurations. Its modular structure ensures full replicability for additional cities.

Using a 15-hectare hexagonal grid, the tool produces spatially balanced energy balance maps, reducing building-level distortions and revealing areas of concentration, vulnerability, and potential energy surplus. Multiple transition scenarios—ranging from efficiency upgrades to full photovoltaic deployment and combined interventions—allow exploration of alternative pathways toward surplus-energy districts.

A key component of the methodology is stakeholder-driven weighting of technological, economic, social, and governance criteria. This approach foregrounds epistemic justice by integrating local knowledge and community priorities into PED prioritisation. The resulting ranked lists of potential PED areas thus reflect not only technical feasibility but also uneven geographies of energy demand, the distribution of public and social infrastructures, and the communities most exposed to transition impacts.

By coupling spatial modelling with socially grounded evaluation, the tool provides municipalities with a planning instrument that moves beyond centre-focused, quantitative approaches. It supports more plural and situated energy transitions, strengthening peripheral perspectives and linking local energy planning to broader challenges of planetary governance.

1566 | Paola Clerici Maestosi, Michela Pirro, Claudia Meloni

Ravenna portual area as arena of Just Energy Transition in Darsena District located in Ravenna

Urban regeneration plays a central role to support just and sustainable energy transitions, particularly in peripheral or post-industrial territories. This paper investigates how the transformation of Ravenna's port area into a Positive Energy District (PED) can act as a catalyst for both climate neutrality and socio-spatial justice. PEDs represent a radical shift in planning, integrating renewable energy systems, digital infrastructures, and participatory governance to embed energy transition goals within urban fabrics.

The Darsena district, historically a commercial and industrial hub along the Candiano Canal, illustrates these tensions.

Following the relocation of port activities and the decline of industry, the area experienced functional obsolescence and social fragmentation. Nevertheless, its strategic location and distinctive spatial configuration position it as a potential catalyst for a just energy transition. Over recent decades, the Municipality of Ravenna has promoted multiple initiatives to reconnect the Darsena with the city and redefine its identity through sustainability-driven strategies.

Building on the Green Darsena Tactic, the study proposes the extension of this initiative into a virtual PED model, encompassing the industrial port areas managed by the Central-Northern Adriatic Sea Port Authority. Based on the Energy and Environmental Planning Document, this model—more suitable than Renewable Energy Communities under current regulations—promotes renewable energy generation, storage, smart infrastructure, and electric mobility. Beyond technical innovation, the project foregrounds knowledge of co-production, local stakeholder engagement, and new collaborations among municipal, industrial, and civic actors.

By linking energy planning with urban regeneration, the Darsena initiative reframes portual area as a laboratory for just energy transitions, where climate neutrality, social inclusion and economic renewal are considered as goals.

1249 | Mina Akhavan, Michael Rodrigues

Energy Transition in Ports and Port Cities: Challenges and Opportunities

This paper provides a systematic review of the literature on energy transition in ports and port cities, focusing on the period 2000–2025. Using a structured search across leading journals in transport geography, urban studies, sustainability transitions, and maritime policy, the review synthesises key debates on decarbonisation pathways, governance frameworks, and technological innovations in port ecosystems. It identifies recurring challenges, including fossil-fuel lock-ins, uneven regulatory environments, and infrastructural and financial barriers to large-scale adoption of renewables. At the same time, the chapter highlights opportunities where ports act as testbeds for innovation, from green shipping corridors and electrification of terminals to hydrogen hubs and circular energy systems. A cross-regional lens reveals differences between Northern and Southern European port cities in adopting transition strategies, pointing to broader socio-spatial inequalities. The review concludes by outlining research gaps, particularly in linking maritime decarbonisation targets with local urban and regional planning, and frames ports as laboratories for accelerating just and sustainable energy transitions.

2124 | Daiga Paršova, Age Poom

Uptake of electric vehicles and Vehicle-to-Grid systems: Barriers and enablers in high-density residential districts

The transition to electrified urban transport is often framed as a technical problem, yet in dense housing districts the barriers are complex: systemic, social, and attitudinal. The study explores residents' perceptions of electric vehicles (EVs) and Vehicle-to-Grid (V2G) technologies to uncover the specific socio-spatial conditions that influence technology uptake and transition towards Positive Energy Districts in such neighbourhoods.

The research presents the findings of focus groups in Annelinn, a large housing estate district in Tartu, Estonia, where the uptake of EVs is critically low. Findings show that housing estates form a specific spatial context for electric mobility uptake due to property ownership structures, diverse socio-economic profiles of residents, and limited parking facilities. While technological readiness and financial feasibility are necessary for EV uptake, then equally salient are citizen perceptions: low awareness and scepticism about the EV/V2G benefits, concerns about maintenance, insurance and EV use autonomy, and limited environmental motives do not foster the transition. Institutional, regulatory, and collaborative frameworks also exert a major influence: the collective ownership of land and apartment buildings, the absence of regulation about shared charging infrastructure, and low uptake of local renewable energy production systems constrain the uptake of EV and V2G technologies.

We argue that for V2G systems to form part of a climate-neutral and socially just transport ecosystem, implementation must follow a stepwise path. First, incentives for escalated EV uptake and scalable one-directional EV charging infrastructure tailored for housing estates are needed. Second, scalable V2G pilot projects, supported by strong policy, funding and awareness programmes support the transition. Situating transport electrification within urban energy transitions highlights how it can enhance local energy autonomy when integrated with on-site renewable generation and demonstrates the critical

importance of cooperation. The study contributes to the understanding of how emerging mobility technologies intersect with energy transition in urban contexts.

SS11: Extractivism

SS11: Extractivism

Thu 2.7.11:00-12:30, Special Session E, M240 | Session chair(s): Nina Gribat, Hannes Langguth, Helene Roth

2849 | Anke Hagemann

Urban metabolism and the land question in green transition. What role for urban professionals?

Land/soil is typically both the starting point (in the form of extraction) and the end point (in the form of landfill) of predominant linear commodity chains, and of metabolic urban exchange processes more generally. This applies to any conventional product or material – from food items and plastic packaging to steel and concrete. Following the emergence of a metabolic rift, which spatially separates the extraction of nutrients from their consumption and discharge, urban metabolism has been organized across city and countryside in an increasingly extensive geographical range.

However, even sustainable transition approaches to urban supplies are increasingly reliant on the utilization of rural land. Renewable energy generation, organic and regional food production, and the production of bio-based building materials compete for productive land as a limited resource that is further claimed by recreational and ecological functions. These new expectations and demands on rural land/soil raise questions about land use allocation and management: Which rationalities (markets, profits, subsidies, policies, laws, plans, and regulations, etc.) are guiding decisions on rural land use in the present day? Who benefits and who loses? Which costs and consequences are externalized? And how could land be organized differently for the common good? Can metabolic processes become more circular through a new relationship with land/soil? I will discuss these questions with reference to the conflicting rationalities between food and energy production in Germany.

The paper will connect discourses surrounding “extended urbanization”, “green sacrifice zones” and the “land question”, while offering a perspective on translocal urban-rural metabolism. Drawing on a literature review and intensive discussions with colleagues from soil science, hydro-ecology, planning and sociology, I will propose a research agenda from an urbanist perspective, and I will argue that urban planning professionals possess valuable skills and can foster agency in negotiating rural land use for the common good.

1082 | Yahya Shaker, Alberto Giacometti, Izabela Mironowicz

Just Green Transitions: Decolonising Power, Participation, and Territorial Governance in Upper Norrland

Within the framework of the European Green Deal, Just Green Transitions (JGT) aims to leave no person or region behind. Sweden's JGT focuses on revitalising Upper Norrland while enhancing its economic and demographic growth, as well as competitiveness. Yet, the current transitioning path might expose enduring tensions between green industrialism and Indigenous sovereignty. Green Mining rearticulate extractive logics under the guise of the green transition in peripheral and resource-rich Sámpi territories. A multi-methodology, including qualitative document and policy analysis, semi-structured interviews, and co-design workshops, has been found suitable for investigating a case study on Norrbotten and Västerbotten. This contribution discusses how JGT unfold as a contested socio-territorial multi-level governance process shaped by contrasting interpretations and perceptions of justness and greenness. Adopting a bounded-relativist ontological position, this contribution views the JGT as an issue of the commons, a situated and relational politics of transition beyond positivist top-down policy decisions. By bridging European governance and socio-territorial justice within Arctic perspectives, the contribution calls for pluriversal transition pathways that move beyond extractivist imperatives towards genuinely just and context-sensitive Arctic futures.

1508 | Ingrid Sarlöv Herlin, Graham Fairclough

Applying a Landscape Perspective to Reindeer Herding and Mining Conflicts in Northern Sweden

Reindeer herding in northern Sweden, practiced by the Indigenous Sámi people, is increasingly threatened by extractive industries. This paper explores how a landscape perspective that includes cultural and archaeological understandings of Indigenous land use can support holistic and just responses to the multifaceted pressures on reindeer herding today, including mining. Mining developments fragment grazing areas, sever migration routes, and erode both tangible and intangible cultural heritage. Instead of viewing land as a neutral or solely economic resource, this perspective recognizes landscapes as living cultural spaces shaped by long-term human-environment interactions, embedded knowledge systems, and spiritual significance.

Standard environmental assessments often fail to capture these complex and cumulative effects. In contrast, a landscape approach makes visible the deep time of Sámi land use manifested through sacred sites, traditional ecological knowledge, and material and intangible archaeological remain, and thus and can help reframe planning processes in culturally appropriate ways.

This paper also considers the potential of international frameworks—particularly the Council of Europe Landscape Convention (ELC)—to support more equitable planning. By emphasizing landscape as a shared cultural and environmental asset, and by requiring participatory, cross-sectoral governance, the ELC provides tools for integrating Sámi perspectives into decision-making. Coupled with Indigenous rights frameworks such as UNDRIP, a landscape-based approach can challenge extractivist narratives and strengthen claims for cultural continuity, legal recognition, and environmental justice.

2046 | Tom Mels

Extractivist boundary work in Swedish Sápmi

This paper analyzes extractivist boundary work in Swedish Sápmi, examining the material, ideological, and institutional labor that establishes and maintains structural divisions necessary for the expropriative appropriation of nature under capitalism. I contend that these reconfigurations of boundaries constitute a coherent structure of dispossession sustained by interlocking mechanisms that undermine sámi political agency, cultural integrity, and environmental sovereignty. The analysis employs three distinct vignettes. The first vignette explores how centuries of legislative and administrative history have recast Sámi customary claims, originally grounded in immemorial use, as narrowly defined legal entitlements, often reducing judicial victories to symbolic gesture insufficient to reverse material land loss. The second details how cartographic reasoning subordinates the relational territoriality of the traditional siida to fixed, abstract property logics, systematically devaluing sámi Indigenous Knowledge (árbediehtu) in favor of corporate scientific evidence—a process characterized as epistemic injustice. Finally, the third vignette investigates contemporary conflicts driven by the European Green Deal and the Critical Raw Materials Act, which accelerate accumulation by imposing acute cumulative environmental burdens on herding territories. Drawing on Nancy Fraser's framework, I conclude that this continuous boundary work results in interlocking injustices of misrepresentation, structural misrecognition, and acute material maldistribution, highlighting the fundamental contradictions inherent in green transition.

1498 | Colm Stockdale, Vasilis Avdikos

Decarbonizing the Core, Recolonizing the Periphery: Green Growth and Uneven Development under the EGD

The paper argues that the European Green Deal (EGD) operates as a socio-ecological fix that sustains capitalist growth imperatives while masking and deepening uneven spatial and ecological relations. Framed as a strategy to tackle both the climate crisis and the plight of 'left-behind' places, the EGD reproduces the developmentalist logic that created these crises in the first place. Peripheral regions are discursively constructed as deficient spaces in need of external intervention, legitimizing the imposition of large-scale renewable energy infrastructures that serve metropolitan centers and corporate interests rather than local needs. These projects generate negligible local benefit, degrade landscapes, intensify extractivism and displace alternative visions of rural futures, producing new "green sacrifice zones" within the Global North. By fetishizing carbon and promoting techno-managerial solutions, the EGD forecloses political debate over the socio-economic system driving ecological breakdown. We call for an explicit rejection of growth-based policy frameworks and argue instead for neo-endogenous, community-controlled forms of energy and development that valorize local knowledge and capacities, rather than subordinating peripheral territories to the green modernization of urban cores.

SS11: Extractivism

Thu 2.7.14:00-15:30, Special Session E, M240 | Session chair(s): Nina Gribat, Hannes Langguth, Helene Roth

962 | Daniela Faria

It Is Not the Lithium Valley: Reclaiming Jequitinhonha through Environmental Justice Stories

Lithium has become a cornerstone of the global energy transition, serving as a key component in batteries that power electric vehicles and renewable energy storage systems. As global demand accelerates, governments and corporations increasingly target lithium-rich territories, often framing them as indispensable to a sustainable future. In Brazil, the Jequitinhonha Valley has emerged as a focal point of this narrative, containing a significant share of the nation's lithium reserves. This framing has reinforced extractivist discourses that portray the region either as a site of poverty and underdevelopment or as a new "Lithium Valley" poised for economic transformation.

This research challenges such reductionist portrayals by centering the voices, knowledge, and lived experiences of quilombola communities, Indigenous peoples, and residents who have long stewarded and defended their territories. Drawing on qualitative methodologies, the study investigates how these communities confront, negotiate, and resist the social and environmental transformations driven by lithium extraction. It explores their practices of territorial care, ancestral land stewardship, and community-based resilience, positioning them as active producers of knowledge rather than passive victims of extraction.

By situating these perspectives within broader debates on energy justice and political ecology, this study argues that an energy transition detached from justice risks reproducing historical patterns of dispossession and inequality. True sustainability demands not only technological innovation but also social and epistemic transformation, one that recognizes the agency, rights, and environmental wisdom of those most affected by extractive industries. In short, a just energy transition in Brazil's Jequitinhonha Valley must move beyond resource exploitation to honor and learn from the plural futures envisioned by its people.

1239 | Hans Hortig, Eva Schwab

Lithium Dreams at the Koralpe: Extractive Speculation in the Context of the Green Transition

The lithium deposit in Austria's Koralpe offers a revealing lens into the ongoing reconfiguration of Europe's peripheralised territories under the green transition. Initially identified during Cold War–era uranium exploration, the growing global demand for lithium has led to a rebranding of the site as a lucrative asset, attracting a rotating cast of investment proposals and extractive ambitions. While exploratory drillings have been conducted, the mining rights have been repeatedly sold at exponentially rising prices, despite the absence of any actual extraction.

Recurring public announcements and cycles of speculative investment have kept the project in the spotlight, yet it remains in a state of suspension. An environmental impact assessment is still under

negotiation, and local engagement has shifted over time—from early enthusiasm and economic expectations to increasing scepticism, contestation, and changing political priorities.

Rather than becoming an extractive frontier, Koralpe has turned into a site of financial and bureaucratic anticipation, exemplifying how speculative operations of capital tie into longstanding local discourses of prosperity, local identity and nature conservation. In this context, local and regional planning agendas are not autonomous actors but are mobilised by diverse groups for their own, often conflicting, objectives, revealing their high malleability in the face of global financialised mining dynamics.

Drawing on Mezzadra and Neilson's notion of the politics of operations, the paper conceptualises the green transition as an operational project that reorganises Europe's peripheries. It argues that planning is recognised as a key operational technology by diverse actors such as owners, neighbouring landowners, politicians, and environmental ombuds offices (in favour or against extractive practices at Koralpe), and thus functions as the arena where their conflicts play out. Through the Koralpe lithium case, the paper traces how bureaucratic, financial, and epistemic operations render anticipatory accumulation and future extraction as a everlasting project.

1451 | Tanja Potežica, Victoria Grau, Grischa Bertram

Planning lithium extraction in Serbia: more-than-neoliberal practice?

Our contribution looks at the planning of the Lithium-mining project in Serbia's Jadar Valley. The case is often understood through the lens of neoliberalism, explaining extractivist practices in relation to capital accumulation. However, this may be misleading in the context of Eastern Europe and the current developments within the European Union. Our contribution questions to what extent the planning of the project can be explained through neoliberal practices, or whether it is an expression and tool of nation-state politics and autocratisation as well as geopolitical strategies. The case study, which involves different actors from Germany, Australia, the EU and Serbia, allows us to examine this question at various scales and in different spaces. By tracing the plans for Lithium extraction back through different scales and dimensions (institutional, political and economic), we contextualize extractivist speculations in the Jadar Valley within broader developments in Europe. To what extent can Western-centric theories explain the current developments? How are these dynamics reflected in spatial planning at different levels? What role does and can planning have in this context? Given that the case involves not only actors from Serbia but also the EU and especially Germany, we also pose the question in reverse: Do extractivist plans in the European periphery reveal a changing character of neoliberal practices in Western Europe?

2496 | Jakob Pesendorfer

Beyond coal phase out, spatial-functional relationships and circular practices in times of transitions

The steel industry remains a major contributor to global greenhouse gas emissions, accounting for 7.2% of worldwide emissions within the energy sector responsible for 73.2%. At the same time, the European steel sector faces increasing competitive pressure from low-price imports and tax policies, which may produce spillover effects across interlinked industries, particularly the already struggling European

automotive sector. While the EU aims to strengthen its circular economy in line with the Green Deal and the Critical Raw Materials Act, geopolitical instability and rising defence further influence these transitions.

The shift toward low-carbon production technologies, such as hydrogen-based electric arc furnaces, increases demand for steel scrap, a material not (yet) included in the EU's list of critical raw materials. This presents new challenges and opportunities for planning strategies as well, understanding where and how material flows will happen, where scrap will be stored and processed for further use and how these mechanisms can be combined with current land uses.

Employing a mixed-method approach, this paper examines how Green Deal ambitions affect multi-scalar spatial–functional relationships within steel-producing cities and regions. This approach is based on the authors concept of Steelscape metabolism, exploring how transitions towards circular economies extend beyond material flows to include spatial and territorial conditions seen in the light of circular societies. This aims for a holistic perspective including the socio-economic and socio-ecological dimension of the steel industry.

Despite advances in circular economy research, it has not yet been sufficiently translated into place-based strategies. Addressing this gap, the paper focuses on the spatial-functional dimension of steel scrap recycling within the case study region of Linz, Austria, highlighting its relevance for spatial demands beyond material flows. The findings can inform stakeholders, policymakers and politics for a more adaptive and flexible approach to spatial planning beyond current linear planning systems.

2884 | Alessandro Bonifazi, Angela Barbanente

Re-embedding renewable energy development in climate justice and territorial heritage: a focus on Puglia, Italy

Despite calls for diversified planning formats supporting renewable energy development across administrative levels, Italy's contemporary energy transition increasingly departs from critical planning insights.

National energy and climate plans, regional plans designating renewables acceleration zones, and territorial just transition plans push back the energy system within climate's planetary boundaries but fall short of addressing social justice and landscape integrity. Local experiments too—from voluntary climate action plans to the Covenant of Mayors' initiatives on energy poverty—appear powerless in the face of the unprecedented combination of stimulus policies and market dynamics that boost utility-scale renewables.

This research examines relationships between local energy system transformation and planning processes in Puglia, Italy's fastest-growing region for wind and solar installations. We rely on a conceptual framework (Sovacool et al., 2015) that draws on political economy to connect the material encroachment of renewable energy infrastructure over landscape and ecosystems to social and institutional exclusion, to the enclosure of public and common spaces, and to the entrenchment of deeply rooted and newly emerging inequalities.

We seek to identify emancipatory and regenerative spatial imaginaries and practices that challenge the all-too-topical energy sacrifice zone and energy plantation tropes (Stock, 2023), envisioning alternative, place-based, planning approaches to just energy transitions (Castàn Broto et al., 2024; Healey, 2022).

Castán Broto, V., Olazabal, M., & Ziervogel, G. (2024). Disrupting the imaginaries of urban action to deliver just adaptation. Buildings and Cities, 5(1), 199–214.

Healey, P. (2022). Caring for place-Community Development in Rural England. London: Routledge.

Sovacool B.K., Linnér B.O., Goodsite M.E. (2015), "The political economy of climate adaptation", in Nature Climate Change, no. 7, vol. 2, pp. 616–618.

Stock, R. (2023). Power for the Plantationocene: solar parks as the colonial form of an energy plantation. The Journal of Peasant Studies, 50(1), 162–184.

SS12: Feminism and Intersectionality

SS12: Feminism and Intersectionality

Tue 30.6.17:45-19:15, Special Session C, M232 M1 | Session chair(s): Phâmela Alves, Geisa Bugs, Liisa Horelli

1632 | Amanda Mendes de Lima, Ludmila Oliveira Matos Brasil Fernandes

Brasília Between Walls and Commons: Urban Art and Feminist Insurgencies

Contemporary cities are marked by tensions between formal planning and everyday practices that claim the right to exist and belong. In this context, dissident presences in urban artistic interventions, such as graffiti, collages, and visual performances, emerge as political gestures that reinscribe historically marginalized bodies in public space, producing new narratives about the city and its forms of coexistence.

This paper proposes a reflection on urban art as a feminist practice of planning and common-making. Based on examples of interventions carried out in Brasília, the capital of Brazil, the article analyzes how these actions create territories of affection, visibility, and solidarity, re-signifying walls, passages, and urban infrastructures as supports for collective expression.

These aesthetic practices establish a city of belonging, a feminist city built not only through technique, but through encounter. By reclaiming space through art, women propose another form of social dynamics, based on care, sharing, and the creation of bonds. Urban art, in this sense, becomes an instrument of sensitive and participatory planning, challenging the historical erasure of dissident presences in the urban imagination.

By understanding public space as a site of symbolic and material dispute, the article seeks to contribute to debates on feminist and decolonial epistemologies of urban planning, highlighting the power of art as a political language and a practice of cohabitation within the horizon of a city of the common good.

2090 | Benedetta Brun, Carolina Pacchi

Intersectionality and Gender-Sensitive Urban Planning: A Feminist Analysis of Milan

This research examines how gendered and intersectional inequalities are produced, represented, and lived in the contemporary city, focusing on Milan as its primary field of investigation. Building on feminist urban theory and the critical turn that emerged after 1968, the work challenges the assumption of urban planning's neutrality and highlights how space materializes relations of power, framing the city as a socio-political construct. The theoretical framework combines feminist critiques of modernist planning, the evolution of gender planning, and the rise of intersectionality as an analytical lens that captures how gender interacts with race, class, age, migration trajectories, and embodied experiences of space. Simultaneously, the epistemological approach embraces situated knowledge and the body as a site of meaning-making.

These theoretical elements constitute the foundation for the study of public space in Milan, guiding both the analytical framework and the interpretation of spatial and social inequalities across the city.

Methodologically, the research employs a mixed-methods design that integrates quantitative and qualitative methods. Quantitative analysis draws on multiple datasets to develop indicators for socioeconomics, housing, accessibility, and spatial quality. Historical series for 2001–2021 enable a long-term, intersectional reconstruction of Milan's transformations. The work moves forward by spatializing these vulnerabilities and highlighting significant intra-urban inequalities. These findings support the need for composite tools capable of capturing overlapping disadvantages.

The qualitative component, developed through feminist walks, collective mappings, and sensory-based methods, complements the statistical portrait by foregrounding lived experiences, emotional geographies, and the bodily negotiations of everyday urban movement. Together, these methods reveal how inequalities measured through data translate into concrete spatial practices, forms of discomfort, or strategies of resistance.

Ultimately, the work not only calls for rethinking gender mainstreaming through an intersectional, spatial, and embodied approach but also demonstrates how such a shift can transform the way cities are interpreted, governed, and designed.

2158 | Phâmela Alves, Rafael Bosa, Geisa Bugs

Body-territory as an act of epistemic disobedience: Towards a decolonial, feminist, and queer urbanism

The hegemonic model of urban planning, rooted in androcentric, universalist, and heteronormative assumptions, has systematically prioritized the interests of a standardized citizen, a white, male, middle-class subject. This perpetuates socio-spatial inequalities and relies heavily on foundational dualisms that are deeply embedded in the colonial matrix of power. Therefore, the paper seeks to analyse hegemonic urban planning from feminist, queer, and decolonial perspectives, highlighting how the concept of body-territory disrupts conventional separations between bodies and territories.

Feminist theory provides the theoretical and methodological basis to analyse gender contradictions in urban space, exposing urban planning as a tool that shapes people's everyday reality. Advocating for situated embodied as a locus of knowledge, dismantling scientific neutrality fallacies and valuing lived experiences as epistemic sources. Queer theory is a set of intense encounters between thoughts in constant reinvention with a political disposition. It deconstructs gender and sexuality norms, revealing the city as a heterocisnormative machine that regulates bodily intelligibility. Decolonial theory offers a fundamental critique of eurocentric bias and epistemic coloniality, which are essential for understanding the structures of power and domination and promotes the linking violence against territories to violence against racialized, sexualized and gendered bodies.

This framework politicizes the body as the primary site of resistance and knowledge production by recognizing the body as an extensive territory. Thus, the concept of body-territory, a synthesis of these contributions, offers a radical relational ontology and constitutes the core for a new epistemology of urban.

The paper advocates for urban environments that incorporate diverse spatial practices of dissident bodies. Such recognition challenges hegemonic norms and fosters pluriversal coexistence, emphasizing that urban knowledge is inseparable from the bodies that experience it. Ultimately, we argue that this transformative epistemology critiques and reimagines urban space, advocating for a city built upon the foundational connection between body and territory.

2803 | Rafael Bosa

Between norms and voices: Intersectionality and public participation in the review of Curitiba's Master Plan, Brazil

Although Brazil's Constitution require participation in Master Plan, critics argue that the process often becomes a democratic "illusion," failing to address complex urban realities. Therefore, this study examines this paradox.

This article examines the participatory process of the 2025 Revision of Curitiba's Master Plan in southern Brazil, coordinated by the Curitiba Institute for Urban Research and Planning (Ippuc). The revision is grounded in the principles of leaving no person, issue, or place behind, ensuring inclusion and effective engagement. It unfolds in two stages, Diagnosis and Proposals, through community, strategic, technical, open, and children-oriented workshops, as well as digital platforms.

The theoretical framework combines critical social theory, which seeks reform and democratize knowledge, with the concept of intersectionality. Intersectionality is understood as a field of study, an analytical strategy, and a critical praxis that enables examination of how forms of oppression, such as race, class, and gender, intersect to shape social experiences and access to the city. This perspective reveals that planning challenges are not merely technical but also involve layered social inequalities.

The article aims to analyze how diversity manifests itself in multiple dimensions and intersections (ethnicity, race, disability, gender, color, sexuality, age, and other forms of exclusion) within the agendas and demands of the participatory process. The methodology is qualitative, combining document

analysis, participant observation in workshops, and primary data collection through interviews and focus groups.

The participatory results of the Diagnosis Stage produced 2.886 contributions across 54 events and channels, leading to the identification of 50 Community Challenges. This stage generated broad and meaningful inputs for urban policy, ensuring that no person, place, or issue was left out. Residents' concerns aligned with Ippuc's Preliminary Challenges, while also introducing new and relevant themes. Consequently, the Master Plan's responses will be developed collaboratively with the population, strengthening democratic urban governance.

SS12: Feminism and Intersectionality

Thu 2.7.11:00-12:30, Special Session C, M232 M1 | Session chair(s): Phâmela Alves, Geisa Bugs

2930 | Johanna W. Looye, Johanna Looye

Campus Safety

Central Theme. Violence against women and other marginalized populations is a significant problem in cities and university campuses across the globe. The University of Cincinnati campus is no exception. On UC's Uptown Campus, according to the Department of Public Safety, 28 cases of rape were reported on campus (including residence facilities) in 2021, with aggravated assault reaching 5 the same year.

This project employs GIS of University of Cincinnati records to identify "hot spots" on or near campus. These results will eventually be compared to results from a cellphone mapping app that tracks respondents' perception of the safety of specific spaces on and around campus. Focused largely on the built environment, the official records and self-reporting will be compared to produce a data base of campus locations associated with violence.

The focus on the built environment reflects how elements are often designed and installed without adequate consideration of how they may increase potential for violence against women and other vulnerable populations.

Approach and Methodology. This phase of the research entails mapping crime data based on City of Cincinnati and the UC Department of Public Safety's records, beginning with on-campus incidents, and extending to near-campus incidents. All incidents are recorded and then filtered for gender-based events.

Main results. In addition to GIS results, qualitative analysis of photographic evidence identifies elements of the built environment that reveal patterns.

Relevance. This phase of the research examines the official data on crimes from university and municipal reports. Ultimately, the project will identify places that make persons feel vulnerable, recognizing that violence against vulnerable populations is facilitated by the physical environment in which they live. The project will eventually incorporate analytical approaches to examine patterns of crime and perceived risk and to develop strategies to advocate for mitigating problems and new construction on/near campus.

2166 | Giovanna Bruna Pozzati, Rodrigo José Firmino

Between safety, work, and surveillance: mapping the night-time body-territories of travestis and trans women in Brazil

The production of urban space through planning is never neutral: it determines which bodies are recognized, protected, or criminalized. In this sense, the experiences of travestis (a Latin America transfeminine identity) and trans women make evident how inequalities of gender, sexuality, and class are materialized in the territory on an everyday basis. As Joseli Maria Silva (2008) states, “travestis are beings who challenge the binary order of sex, gender, and desire, establishing complex spatial relations.” By articulating this perspective with the notion of body-territory - which understands body and territory as inseparable dimensions of individual and collective lived experience (Gago, 2020) - it becomes possible to grasp how these dissident bodies produce their own territorialities, which are frequently invisibilized, stigmatized, or ignored by patriarchal and cisheteronormative urban planning. Based on this conception, the study proposes to analyze the night-time urban territory as a simultaneous space of work, sociability, freedom, and violence for travestis and trans women. It seeks to identify how these subjects construct specific urban circuits, as well as the ways in which they are traversed by dynamics of surveillance, policing, and control. Methodologically, the study combines a literature review, analysis of scientific articles, advocacy reports and public policies, along with journalistic content and audiovisual productions. The aim is to map night-time circuits and spatialities, identifying places of work, points of encounter and support, as well as areas of surveillance and repression within the Brazilian urban context. We intend to understand whether such spatialities overlap or are configured as distinct zones of care and zones of exclusion. Ultimately, it seeks to contribute to feminist and intersectional debates by discussing strategies to strengthen safe spaces and technopolitical approaches capable of confronting the surveillance regimes imposed on dissident bodies.

1406 | Iris Andersson

The Anatomy of Safety - Architecture at the Intersection of Securitisation and Safe Space

Safe space and securitisation represent contrasting approaches to social and spatial justice in public spaces: the former is rooted in care and inclusion, while the latter focuses on control and exclusion. Although the concepts differ in origin and implications, both address tensions surrounding safety. Perceptions of safety shape how space is used and experienced.

Safety is essential for a sustainable city; safe mobility should be recognised as a human right. Transportation nodes, particularly railway stations, often evoke heightened fear, making them central to my research in architecture. The study explores how physical environments, socio-psychological and socio-demographic factors, and power structures intersect in the spatial experience of safety or fear. It introduces an intersectional perspective to architectural discourse and practice, emphasising the importance of inclusivity.

The safety of railway stations is not limited to one discipline; thus, it requires a multidisciplinary and ethnographic approach. Ethnographer Sarah Pink (2009) emphasises that in a sensory ethnographic approach, the researcher participates in the production of space, and the knowledge of the body is intertwined with the material and social world, power structures, memories, and future expectations.

The study employs ethnographic methods such as field observation through painting, multi-exposure photography, and writing, alongside a survey and interviews with users of Helsinki Central Station. The presentation will analyse field observations and survey and interview responses concerning intersecting narratives of perceived safety, examining experiences through the lenses of gender, place of birth, and varying levels of safety, and avoidance. The presentation moves through the physical space together with the different users of the station.

2037 | Toka Fahmy Aly, Toka Fahmy Aly Abdelmutleb

The Politics of Feeling Safe: Feminist Reframing of Women's Perceived Safety in Muslim-Majority Urban Spaces

A good city is one in which people can participate in public life while experiencing a stronger perceived safety and emotional connection to the urban environment. However, Dominant urban safety discourses are usually developed using Western narratives, which tend to reduce safety to measurable environmental factors such as lighting and accessibility. Such interpretations treat safety as an objective condition and overlook its emotional and affective dimensions through which women experience and negotiate urban life.

Therefore, a review study was conducted to examine existing scholarship on women's perceived safety in public spaces and to extend feminist theoretical frameworks to better understand their lived experiences, particularly within Muslim-majority contexts. It builds on critical, intersectional, Islamic, and postcolonial feminist theories and conceptualises perceived safety as an affective and socially constructed condition that is affected by intersectional identities, spatial design, cultural norms, and gendered power relations.

Findings indicate that much of the existing literature focuses on environmental deterministic factors of public spaces, providing limited engagement with issues of emotion, identity, or socio-cultural factors. In addition, in many Muslim-majority contexts, patriarchal interpretations of morality and visibility are among the main regulators of women's mobility and participation in public space; thus, producing a complex emotional geography of fear and adaptation.

The resulting framework situates perceived safety not only as a by-product of cities' physical state, but also as an embodied and emotional experience that is co-produced through women's interactions with the material city and its socio-cultural structures. Therefore, the study challenges universalised notions of urban safety and highlights women's emotional experience and adaptive strategies as forms of agency and spatial negotiation within local cultural and religious contexts. It calls for a decolonised understanding of inclusive urbanism that recognises women not as passive recipients of safety measures but as active co-producers of safer and more equitable cities.

SS12: Feminism and Intersectionality

Thu 2.7.14:00-15:30, Special Session C, M232 M1 | Session chair(s): Phâmela Alves, Geisa Bugs

2691 | Phâmela Alves

Evaluating urban planning from the gender+ perspective

Urban space reflects and is shaped by prevailing social dynamics. Thus, it is impractical to separate the urban from its current social context. This research is based on the premise that contemporary urban spaces mirror the inequalities generated by the patriarchal, capitalist, and colonial systems. These inequalities are perpetuated and legitimized through urban configuration, planning, and management. Addressing this systemic issue requires bridging the gap between theoretical advances in feminist planning and empirical application. Therefore, this emphasises the importance of developing methods that integrate feminist principles into urban planning and analysis practices, leading to the question of how to evaluate the urban planning process, content and the outcomes from the gender+ perspective. The gender+ approach entails a broader understanding of gender that recognizes its complexity in relation to intersecting factors such as race, class, and culture. The objective is to develop an evaluation framework for urban planning from the gender+ perspective. To achieve this, the research constructs an integrative theoretical framework drawing on concepts from urban planning, urban complexity theory, feminist/gender studies, and evaluation approaches. The resulting evaluation framework is structured into three main phases: Preparation and design, Data collection, and Data analysis and reporting. It is founded on principles synthesized from feminist evaluation, which emphasizing equity, social justice, and the political nature of evaluation, urban planning evaluation, which advocates for ex-ante, ongoing and ex-post evaluation across planning process, and critical systems heuristics boundary judgments, which ensures ethical, equitable framing. The framework is tested through its application to four distinct urban planning projects: the Manzanas del Cuidado in Bogotá, Colombia, the Myyrmäen kaupunkikulttuuritalon in Vantaa, Finland, the Bairro novo da Caximba in Curitiba, Brazil, and Superilles in Barcelona, Spain. This testing aims to analyse the framework's applicability in examining how projects address or impact gender-related issues, regardless of initial intent.

1444 | Anna Nikolaeva, Irene Gómez Varo

Rethinking the epistemic foundations of mobility planning from an intersectional feminist perspective in Amsterdam, Barcelona and Santiago de Chile

Although human geography, urban planning, and mobilities research acknowledge that mobility policy and planning is gender-insensitive, there is no systematic, detailed analysis of how knowledge production and use precondition this (intersectional) gender-insensitivity. For some decades scholars and practitioners strive towards producing more gender-disaggregated data and increasing diversity among planners and transport researchers as a prerequisite for making urban mobilities more just. Despite these efforts, a wide-scale transformation towards intersectional gender-sensitive planning has still not happened. Given this failure, simply collecting further data will likely prove futile without first understanding how the knowledge production in mobility planning works and how it can be changed. Analysing what we term 'mobility planning knowledge' through a feminist epistemological lens, we offer the first comprehensive analysis of the intersections between knowledge and gender insensitivity in mobility planning, building on a literature review (Nikolaeva and Shakthi, 2025) and on more than 70

interviews with activists and planners in three cities – Amsterdam (the Netherlands), Santiago de Chile (Chile) and Barcelona (Spain). We outline the gaps, biases and distortions in the mobility planning knowledge and their effects as seen by actors and communities striving for intersectional gender-sensitivity and broader mobility justice. In closing, we raise the question: how can mobility planning knowledge be commoned to center marginalised voices?

References:

Nikolaeva A. & S. Shakthi S. (2025). Moving Towards Gender-Sensitive Urban Mobility Planning: Unpacking the Role of Knowledge. Urban Studies.

1124 | Reem Elnady

Negotiating the City: Muslim Refugee Women's Everyday Practices of Mobility, Safety, and Belonging

Muslim refugee women encounter distinct and intersecting challenges in host cities, shaped by gendered norms, religious visibility, and structural inequalities. Their everyday urban experiences are marked by gendered Islamophobia, racism, and spatial marginalization that constrain mobility, restrict access to essential services, and heighten feelings of insecurity.

By foregrounding Muslim refugee women's lived experiences, this paper critically examines how urban life and planning decisions are experienced and negotiated by women with refugee backgrounds in Bristol, UK. It reveals how gender, religion, race, class, and refugee status intersect to shape their spatial experiences, mobility, and sense of belonging within the urban environment. Specifically, it explores how these women negotiate the city through embodied practices, social networks, and infrastructures of care, illuminating the complex ways they navigate and subtly reshape urban life. Drawing on feminist theory and qualitative data from six focus groups and in-depth interviews with Somali, Sudanese, Kurdish, and Arab women, the research situates participants as knowledge holders whose insights expose the unequal geographies of planning and everyday urbanism.

The findings demonstrate that urban daily life is continuously mediated by public disapproval, Islamophobia, and constrained access to transport and childcare—conditions that reflect how planning and housing policies reproduce inequality. Yet, women respond through resilience and everyday acts of negotiation, mobilizing caregiving networks, community groups, and informal infrastructures that serve as social front doors anchoring micro-belonging and solidarity while countering isolation and systemic exclusion.

The study argues that integration is not a top-down policy achievement, but a lived, situated, and embodied process negotiated daily through practices of care, mobility, and community. By reframing belonging as an active, gendered, and intersectional experience, this research illustrates how Muslim refugee women transform marginality into micro-belonging, cultivating solidarity and alternative forms of community that challenge dominant planning narratives.

2178 | Oxana Ivanova, Agnes Araujo

The Indigenous Saga: The Lived Geographies of Women's Mobility in Brazil and Finland

This work explores intersectional dynamics of gender, colonialism and socio-economic class that influence mobility of Indigenous women in Brazil and Finland. The juxtaposition between Global North and Global South creates transferable analysis of the colonial power dynamics and planning practices that shape mobility of marginalised groups regardless of their geographies. Using Kaufmann's motility framework - we conceptualise Indigenous women's movement through mobility potential, competences, cultural meanings and political circumstances. We aim to explain the motivations and constraints behind the spatio-social mobility produced through current planning practices.

The findings are based on qualitative in-depth semi-structured interviews in the Indigenous Kakané Porã Village in Curitiba, Brazil and Sápmi region in Lapland, Finland. The thematic analysis of the interviews is done through the lenses of Foucault's power-knowledge theory while incorporating feminist, intersectional and mobility justice approaches. By analysing the intersection of gender, class and coloniality - we hope to dissect the complex layers of constraints and vulnerabilities that shape everyday mobility of Indigenous women. The constraints can manifest themselves in racialised and gendered violence on public transport, unequal access to transit, colonial land use practices, legal and bureaucratic concerns and planning practices that reinforce power structures. To navigate the unjust system - the coping strategies of Indigenous women are addressed; community-based knowledge and resilience are the dominant approaches to bring the agency back to oppressed groups.

By contrasting two national contexts with distinct planning practices and mobility infrastructures, we are not trying to achieve symmetry in territorial scale, but rather seeks to understand how different spatial configurations reproduce structural inequalities and offers insight into how colonial and socio-economic structures operate across different geographies. The paper contributes to ongoing conversations on the right to the city, decolonial planning, and the redistribution of decision-making power in mobility systems, advancing debates on feminist and intersectional planning.

1977 | Emilia Suomalainen, Vuokko Heikinheimo, Antti Rehunen

Commuting gender gap and sustainable mobility: A case study for Finland

Gender is a blind spot in transport policy in Finland. While it is well-known that there are major gender-related inequalities in transport, the National Transport System Plan, setting the leading lines for the development of the country's transport system, does not mention gender at all. Many of these inequalities are linked to car dependence: Historically, women have had fewer driver's licences than men. Women own fewer cars on average. In single-car households, men typically have the car at their disposal more often than women. This gender-blindness of transport policy is problematic for two major reasons. Firstly, the current transport system in Finland is heavily car-based and those with less or no car-access are thus disadvantaged. Secondly, in the context of meeting the EU-level and national climate targets - or halving transport emissions by 2030 - there has been a heavy focus on technological solutions such as biofuels and electrification. Comparatively little effort has been put into promoting modal shift and improving access by public transport and active modes. However, in addition to gender, other blind spots also remain, notably with regard to disadvantaged groups and the carless population in general. It is

therefore of interest to investigate various intersections: older women, women living in rural areas, low-income or unemployed women, etc. This work explores the some of the potential gender-related transport disadvantages in Finland, with a focus on car dependency. Notably, we examine the possession of a driver's licence, car ownership, and car availability in selected population groups. Our preliminary results suggest that not all of these groups share the same mobility-related challenges. Lastly, as many occupations have notable gender imbalances, we explore differences in access to employment opportunities in the Helsinki region with and without a car.

SS12: Feminism and Intersectionality

Fri 3.7.09:00-10:30, Special Session C, M232 M1 | Session chair(s): Phâmela Alves, Geisa Bugs

1165 | Theresa Audrey O. Esteban

Of house and immigrants

Migration and climate change studies often focus on the movement of people due to environmental stressors but rarely examine immigrants and their residential locations post-migration. Immigrants' housing preferences vary based on factors like cultural background, proximity to work, and rental costs. Low-income immigrants' housing options may be limited to areas with low rental and property values but may also be locations vulnerable to climate-related hazards putting low-income immigrants at even greater precarity. As cities develop climate adaptation strategies, increased property values and displacement may emerge. The Rotterdam Act, a national policy in the Netherlands, restricts low-income and jobless newcomers from moving into disadvantaged areas and has been in effect in five neighbourhoods in Rotterdam South since 2006, where there is a high concentration of immigrants and residents with low socioeconomic levels. This policy framework provides a crucial backdrop for understanding how urban policies shape residential patterns while also intersecting with broader issues of social injustice and environmental challenges. In this paper, I offer a critical examination of inequality, climate change, and social justice as they relate to climate adaptation strategies and urban policies through an assessment of the history, demographic characteristics, climate challenges, and policies to demonstrate how these elements lead to increased insecurity for residents.

2223 | Yihui Huang

Reshaping Urban–Rural Health Spaces from a Household Perspective: Nonlinear Built-Environment Effects and Precision Planning Strategies for Diverse Populations

Using survey data from Shanghai residents and spatial analysis methods, this study applies the Extreme Gradient Boosting (XGBoost) model to examine how the built environment affects overweight risk, with a focus on subgroup heterogeneity from a family structure perspective. The results indicate: (1) the built environment plays a central role in explaining health disparities. Key indicators such as population density, green view index (GVI), and park accessibility show nonlinear patterns, suggesting the existence of optimal threshold ranges; (2) family effects significantly moderate health outcomes. Married men, benefiting from spousal support and regular lifestyles, gain more from environmental improvements, while married women face constraints from household responsibilities and limited use of public space, reducing their health benefits. Unmarried individuals are highly sensitive to environmental quality, but

lack of family support makes them more vulnerable to unhealthy behaviors. These findings suggest that urban and rural planning should integrate threshold thinking into indicator setting, attend to gender and family differences in service provision, and leverage digital technologies for dynamic monitoring and precise intervention, thereby promoting more equitable and sustainable spatial governance.

2187 | Mrudhula Koshy, Jenna Dutton, Milagros Hurtig, Daniela Schofield

Intersectional frontiers for reclaiming urban space: Ageing and gender-inclusive urban planning practices from the Global North and Global South

Intersectionality continues to be a prominent epistemic concept and relational framework (Collins et al., 2021) to dissect how diverse socio-cultural norms, preferences, positionalities and realities concerning age, gender, sexuality, race, ethnicity, caste, class, educational background, religious background, and economic status collude to dictate how and under what circumstances do urban spaces invite or negate inclusive usage (Dutton et al., 2025). The widespread recognition of the need for intersectional urban planning practices, as emphasised in key policy and planning documents (WHO, 2007; UN-Habitat, 2016), has prompted municipalities across the Global North and South to adopt participatory frameworks for public space design. These shifts challenge the long-standing notion of a “neutral” user - traditionally imagined as male, adult, white, and of productive age - by introducing consideration of diverse lived experiences and everyday realities (Kern, 2021). However, despite the integration of participatory strategies, significant gaps persist in their implementation. Scholars highlight that adopting intersectional approaches remains problematic due to the scarcity of concrete, context-specific measures to address age- and gender-related needs in public spaces across different geographies. This paper uses intersectionality as a conceptual and scalar lens to highlight the gap between policy, spatial planning, and participatory design strategies, presenting empirical insights from public space (participatory design) processes in Global North and Global South contexts. By doing so, the paper invites a renewed focus on the current limits of gender and age mainstreaming efforts in urban planning practice. These endure due to hierarchical and patriarchal norms, systemic oppression, deprioritisation stemming from resource constraints, the rise of conservative political ideologies, and a lack of diverse, plural, and multi-stakeholder perspectives. The paper, therefore, argues for foregrounding the ethics of care and solidarity (Ortiz & Franco, 2026) by gathering participatory, inclusive, and context-specific insights from marginalised and vulnerable groups to reclaim public space use.

2576 | Marcela RIVA de MONTI

Tokyo mutation. Women in the Japanese economy, new ways of living. Keywords: womenomics, family units, housing preferences, urban development

In Japan, women's access to housing is materialised under the traditional patriarchal system with the male as the head of household and female dependent on him. As the traditional saying goes, "女わ３回に家なし - Onna wa sankai ni ie nashi": women do not own a house during the three stages of their lives, neither as a daughter, nor as a wife, nor as a mother. These gendered social norms translate into gendered institutional structures that outline women's choices and access to housing.

The structural changes faced by post-growth societies alter the family system promoting a shift away from this conventional model, giving space to new family arrangements and ways of living. As a result, the theory of the man as the main economic support of the family unit is undermined, motivating the formation of diverse family units, such as professional and single women, who prefer centrally located small units rather than the suburban unit's representative of the patriarchal system. Likewise, as married women enter the full-time labour market, family dynamics change and so do the spatial needs. This new housing demands cannot be satisfied by the traditional model of periphery units but rather by greater density within the city.

At the same time, the city of Tokyo is undergoing a process of transforming its productive base into a service-based economy, leaving former industrial brown fields open to redevelopment. At the same time, the relocation government agencies make centrally located public land available for intervention.

Based on these social, economic and regulatory vectors, this paper examines the urban policies implemented to respond to this new paradigm and the transformation these new demand produces in the urban scene.

1248 | Ebru Sevik

Rethinking urban coexistence: Everyday peace as a lived, spatial and affective practice

In increasingly diverse urban contexts, everyday coexistence becomes a vital question amid deepening inequalities, social fragmentation, and contested urban imaginaries. This study reconsiders urban coexistence through the lens of everyday peace, framing peace not as a static condition of harmony but as a lived, relational, affective, and spatial experience shaped by everyday encounters and practices.

Drawing on ethnographic fieldwork and mental mapping in socially diverse urban settings in Turkey and Sweden, the study explores how individuals navigate their living environments through embodied routines, affective orientations, and spatial interactions that both sustain and challenge peaceful coexistence. It emphasizes that peace is not merely the absence of conflict, but a dynamic and situated process negotiated through how people feel, move, and relate in space and to others—one that can also reveal underlying tensions in everyday urban life. Practices such as proximity, distancing, approaching, and subtle forms of avoidance are examined as expressions of social and spatial navigation, reflecting affective orientations toward people and places and revealing deeper urban dynamics.

While prior research on everyday peace has largely focused on post-conflict societies and divided cities, this study invites rethinking peace in contemporary urban settings where intersectional inequalities and diverse social realities shape the everyday. It foregrounds the affective meaning-making and lived experiences that influence how individuals engage with and imagine their environments, offering insights into the emotional geographies of urban life.

By centering affect and experience, the study contributes to feminist and intersectional planning debates that call for more nuanced understandings of urban coexistence. It challenges dominant formal planning paradigms that overlook experiential realities, advocating for approaches that are responsive to everyday and attuned to the relational and emotional dimensions of urban life.

SS13: Food

SS13: Food

Fri 3.7.09:00-10:30, Special Session H, U264 K-RYHMÄ | Session chair(s): Bambang Hari Wibisono, Mark Scott, Coline Perrin, Sri Tuntung Pandangwati

1387 | Trimulyani Sunarharum, Sri Tuntung Pandangwati, Retno Widodo Dwi Pramono, Andrew Butt

Farmland protection policy in Indonesia: History, challenges and future directions

Indonesia continues to face significant pressure on its agricultural land due to rapid urban expansion, infrastructure development, and industrial growth. Farmland protection has therefore become a critical policy issue linked to food security, spatial planning, and land governance. This paper reviews the historical evolution, current challenges, and future directions of farmland protection policies in Indonesia, focusing on the Sustainable Food Agricultural Land (LP2B) Act and the Protected Paddy Field (LSD) policy. Both policies were designed to regulate farmland conversion and embed protection mechanisms within spatial planning instruments. However, implementation has been inconsistent due to weak coordination among ministries, overlapping spatial data, limited institutional capacity, and inadequate incentives for farmers. The governance fragmentation between the Ministry of Agrarian Affairs (responsible for LSD) and local governments (responsible for LP2B) often leads to data discrepancies and policy conflicts. Yogyakarta serves as an illustrative case where special land tenure arrangements, such as Sultan Ground land and regional autonomy funds, influence farmland governance outcomes. Despite the existence of legal frameworks, socio-economic pressures and land tenure systems continue to drive farmland conversion. The study argues that future farmland protection requires stronger institutional integration, adaptive policy instruments, and participatory mechanisms that connect spatial planning, technology, and community-based governance. Enhancing data interoperability, aligning fiscal incentives, and embedding farmland protection into broader sustainable development goals are essential to ensure long-term farmland resilience and food sovereignty in Indonesia.

1626 | Tianzhu LIU, TIANZHU LIU

Reshaping foodscapes through urban food commons-public partnerships: comparing three cases in Switzerland

Citizens' growing demand for high-quality, healthy, local, and environmentally friendly food clashes with the globalized food systems that are associated with diet-related diseases, exacerbated climate change, and food injustice. In response, collective agrifood initiatives, such as producer collectives and consumer purchase cooperatives, emerge in and around cities, providing opportunities to reterritorialize food systems and recreate the link between rural and urban areas, as well as between consumers and producers – thereby reshaping urban foodscapes. Conceptualized as urban food commons (UFCs), these initiatives represent an alternative to market- or state-led governance of food system resources, characterized by self-governance. Their establishment and maintenance depend critically on access to land, which remains constrained by economic and institutional barriers.

Municipalities, as local regulators and public landowners, are gaining importance in facilitating access to land for UFCs. Yet, it remains to explore how municipalities incorporate food into their political agendas and facilitate UFCs. This research draws on the theories of foodscapes and commons-public partnerships to answer the question: How do urban food commons–public (municipality) partnerships reshape urban foodscapes?

Empirically, we compare three representative and distinct cases in Switzerland: Ferme des Vergers (Meyrin), Les Paniers de la Mule (Prilly), and Meh Als Gmues (Zurich). The findings reveal three pathways of UFCs' access to municipal land: (1) proactive local policy-led, (2) strategic commoners engaging a responsive municipality, and (3) participatory urban development planning that prefigures food commons. Beyond land allocation, the UFCs-municipality partnerships involve favorable contract terms, in-cash or in-kind support, and co-management. These partnerships reshape urban foodscapes by defining localized rules of resource use that contest the urban–rural divide embedded in zoning practices.

The study highlights the transformative role of municipalities in countering land commodification and fostering place-based foodscapes. Policy implications include maintaining public land reserves and supporting UFCs through spatial planning and broader land policies.

1669 | Coline PERRIN, Nicolas BRICAS, Christophe SOULARD, Simon VONTHRON, Coline Perrin

A Decade of Agroecological and Food Policy in Montpellier: An Adaptive, Multi-Level and Partnership-Based Governance Model

This article offers a retrospective analysis of ten years of agroecological and food policy in the Montpellier metropolitan area (France). Between 2015 and 2025, the governance of this pioneering policy evolved from strong political leadership towards an increasingly networked, multi-level governance model.

Initially, a pact of trust between the metropolitan authority and the 31 municipal mayors ensured shared ownership and sustained political support. With limited resources, a small cross-sectoral team coordinated actions pragmatically, aligning ongoing initiatives under the common goal of agroecological and food transition.

Over time, the metropolis forged partnerships with both alternative and dominant agri-food actors, combining local experimentation with systemic influence. Gradually, more horizontal and project-based governance emerged, with the metropolis acting as a partner alongside civil society, academic and private stakeholders — notably in projects such as food social security, a mobile abattoir, and the wholesale market transformation.

From 2020 onwards, the establishment of a dedicated department with its own staff and budget strengthened institutionalisation and intersectoral integration, aided by post-Covid recovery funding.

Yet, significant uncertainties remain in a context of climate change, socio-environmental setbacks and growing protectionism. The trajectory now faces political renewal, as key leaders step back, risking a loss of strategic vision. The strength and originality of Montpellier's agroecological and food policy lie in its political anchorage, continuous collaboration with research, and participation in inter-municipal and

international networks — shaping an adaptive governance model that bridges institutional action and collective experimentation.

1742 | Joe Nasr, Andrew Adam-Bradford, Mary Njenga

Planning for Inclusive Urban Agriculture with the Forcibly Displaced: Agency and Empowerment for Resilient Food Systems

Emergencies and other shocks, particularly during and after conflicts, often generate forced displacement, resulting in increased vulnerability and food insecurity. Refugees and internally displaced persons find themselves clustered in camps and/or dispersed across hosting urban areas, relying on food aid and resulting in dependency and food inequities. Innovative humanitarian responses have emerged, utilising short food chains, bio-circular economy, agroforestry and urban agriculture (UA). Despite the presence of handbooks and guidelines related to the integration of UA in camps and settlements, UA is often not adequately planned for or supported by international agencies, NGOs, and government bodies. Moreover, the integration of resettled populations into cities is rarely planned in ways that enable these populations (many of them having farming backgrounds) to actively engage with the urban food system, particularly through food production.

This presentation discusses how UA can be planned so as to be incorporated into food strategies within the context of forced displacement, restoration and resettlement, going beyond conventional humanitarian food security approaches. Integrating UA into humanitarian assistance and development provides opportunities for empowering forcibly displaced persons and host communities while building agency, social cohesion and resilience in local food and energy systems. This talk will share a number of case studies based on empirical work from around the globe, part of a new volume currently in preparation entitled Urban Agriculture and Forced Displacement. It will address a number of planning issues, including access to land, infrastructure development, resource management, ecological impacts, social and economic empowerment, and participatory processes. Innovative planning efforts as well as implementation challenges will be discussed. Given the current scale of forced displacement, and the relevance of UA to challenges such as climate change, gender equity, and urban resilience, the cases discussed here will show the importance of connecting food system planning to post-crisis planning.

2822 | Husein Muhammad, Shafira Rizq

Towards Just and Resilient Food Systems: A Food Justice Evaluation of Regional Planning in Yogyakarta Using Nancy Fraser's Framework

Food is increasingly absent from Indonesian spatial and development planning, despite national policies ensuring universal food access, most notably the free school-meal programme, which should be translated into regional food governance. This mismatch creates an institutional gap that hinders efforts to build resilient food systems, especially where rapid urbanisation and land conversion threaten local production capacities. Recent data from the Provincial Statistics Agency (2024) indicate a 15.22% year-on-year decline in rice yield, showing how reduced local production heightens vulnerability when food governance and spatial planning remain disconnected. The Special Region of Yogyakarta illustrates this

challenge: it is the smallest province on Java Island that still maintains agricultural land, yet preserves productive farmland within the world's second most densely populated island.

This study evaluates the role of local spatial planning documents and the farmland preservation policy in supporting a resilient regional food system. Using qualitative content analysis, the research systematically examines how these documents articulate, allocate, and govern food-related planning to evaluate the existing policy. The analysis follows Nancy Fraser's Justice framework, focusing on (1) Redistribution, the extent to which planning secures equitable access to local food production; (2) Recognition, referring to how farmers, peri-urban communities, and local food cultures are acknowledged within policy narratives; and (3) Representation, meaning the degree of community involvement and voice in food and land-use decision-making. This framework is used because it moves beyond treating food as an economic good and captures the institutional conditions shaping justice in food systems.

Preliminary insights show that protected land policy offers a legal basis for farmland preservation but remains weakly connected to broader food governance. Farmers and local communities receive limited recognition, and representation is minimal. The study provides a justice-based evaluative approach for integrating spatial planning and food governance to strengthen food-system resilience in Yogyakarta.

SS13: Food

Fri 3.7.11:00-12:30, Special Session H, U264 K-RYHMÄ | Session chair(s): Bambang Hari Wibisono, Mark Scott, Coline Perrin, Sri Tuntung Pandangwati

1350 | Heloisa Costa

Urban Agriculture and access to healthy food as part of the right to the city: discussing a resilient metropolitan planning experience in Southeast Brazil

The paper aims to discuss and reinforce agroecological practices in the Metropolitan Region of Belo Horizonte (MRBH), Southeast Brazil, through a twin process: first, by giving visibility to small-scale food producers (specially women), their spaces, motives, and practices, usually unnoticed. This research has been carried out by our Urban Agriculture Study Group – AUÊ! - at the Federal University of Minas Gerais (UFMG), since 2013.

Secondly, the paper explores some outcomes of developing a metropolitan plan as an university extention project within UFMG, which adopted learning by doing and participation to integrate academic with popular/traditional knowledge. The plan showed clear environmental approach to the production of metropolitan space, and proposed special farmland uses for agroecological food productionpolicies, articulating economic, cultural, environmental, and nutritional issues. Farmland preservation is particularly relevant in face of intense land competition with real estate capital, industrial/services locations, and environmentally devastating iron ore mining activities. Participatory methodologies used in the planning process – field visits, debates, workshops, social cartography – were important tools to identify agricultural practices and suitable spaces for agroecological production. Zoning urban and rural areas, introducing food systems and small-scale production notions, associated to food security policies and popular economics issues are regarded as innovative elements in Brazilian territorial planning, still

too concerned with urbanized areas. The plan adopted the French inspired Green and Blue Weft, as territorial restructuring driver associating nature, (agri)culture and urbanization, with the necessary adaptations to the context of precariousness and incomplete urbanization of the metropolitan periphery. But peripheries are also seen for their creativity and resistance to hegemonic food systems, where urban agriculture plays a fundamental role as economic and social inclusion alternative. They are powerful social constructs, but need constant political and technical support. In lefebvrian terms they constitute differential spaces, experimental utopias towards environmental justice.

1425 | Pierre Gauthier, Teresa Marat Mendes, Jenni Partanen, Todor Stojanovski

Leveraging urban agriculture, short food circuits and light mobility towards socio-ecological transition: A conceptual framework for restorative urbanism.

Over the past century and a half, industrialization and urbanization trends have weakened the symbiotic relationship between the city and its nourishing countryside in favor of ever-enlarging global production-consumption circuits. Moreover, the introduction of motorized transportation has unfettered the spatial distribution of populations and economic activities from the constraints imposed by walking distances and temporalities while undermining long-term socio-spatial dynamics, as epitomized by the atomization observable in the city submitted to the diktats of the automobile. The environmental and social costs incurred by such developments are well known, bringing the question of the re-qualification of urban environments at the forefront of socio-ecological transition efforts. This research mobilizes tools from urban morphology, historical geography, social anthropology, and quantitative spatial analysis to conduct comparative analyses in Lisbon, Montréal, Stockholm and Tallinn. It delves more specifically into the socio-spatial dimensions of food circuits at different scales in conjunction with urban form and transport-land use seen as integrated dynamic systems. The empirical work is aimed to support urban retrofitting solutions that bring new forms of "restorative" urbanity, while leveraging urban agriculture, short food circuits and light mobility towards transition. A conceptual framework is proposed that maps key articulations between overlapping material, social and historical spatial dynamics, aiming at identifying areas presenting transformative opportunities towards that goal.

1603 | Giovanna Deltregia Martinelli, Filippo Magni

Resilient Food Systems in the Po Delta: Insights from the RES-MAB Project through a WEFE Nexus Approach to Aquaculture Governance under Climatic Stressors

The UNESCO Po Delta Biosphere Reserve, one of Europe’s most important wetlands, has its Food economy anchored by the mollusk farming industry, particularly Manila clams (Ruditapes philippinarum), which sustains local livelihoods and cultural identities. However, this sector is increasingly threatened by climatic stressors, including rising sea temperatures, declining water quality, and the spread of invasive species—notably the blue crab (Callinectes sapidus), which predates on clams and undermines ecosystem stability. These pressures endanger the food system’s socio-economic viability and ecological balance, revealing the need for integrative governance to ensure long-term resilience on rethinking the food system of the Po Delta. Drawing on the Water–Energy–Food–Ecosystem (WEFE) Nexus framework, this study examines the governance pathways developed within the PRIMA RES-MAB Project, adopting a

food-system perspective to address the intertwined socio-ecological challenges shaping resilience in the Po Delta. The project integrates insights from Mediterranean case studies and cross-references WEFE data categories with social perspectives to reveal systemic interdependencies. Findings indicate that climate-induced Water temperature rise and its suboptimal management exacerbate the spread of the blue crab and disrupt Ecosystem balance. Energy use in aquaculture is distinctive, as the territory depends on a historical land reclamation system that regulates the land–water interface through electrically powered pumps. Additionally, aquaculture operations simulate tidal dynamics, distinguishing them from other productive sectors. Complementing the analytical work, participatory governance processes involving diverse stakeholders were hosted. Through workshops, interviews, and co-design sessions, these actors collectively embraced the transition toward oyster farming, particularly the local "ostrica rosa", as a resilient alternative, as this species supports ecosystem restoration, social coherence and market diversification, supported by a business model enhancing transferability and long-term viability. The emerging governance framework fosters knowledge exchange, capacity building, and collaboration across sectors, offering a replicable model for adaptive aquaculture governance under climate stressors.

1678 | Lauren Chew

Indigenous Food Futures at Malaysia's Peri-Urban Frontier

Across Southeast Asia, rapid urban expansion is transforming Indigenous food systems by reducing access to forest resources, reconfiguring land use, and increasing dependence on purchased foods (Leitner et al., 2022). In Peninsular Malaysia, these dynamics are particularly evident in peri-urban districts such as Hulu Langat, where Temuan Indigenous communities face shrinking forest access, overlapping authorities, and accelerating land conversion that threaten both food security and cultural continuity (Diansyah et al., 2022). Historically reliant on forest-based food systems (Nicholas, 2000), Temuan households are increasingly navigating fragmented food landscapes shaped by development and insecure tenure. This research examines how one Temuan village reorganizes food production, foraging, and exchange under conditions of urban encroachment. It asks: How are Temuan households adapting food practices as forest access declines, and how does Indigenous knowledge guide these adaptations amid shifting land-use and governance systems? The study integrates qualitative ethnography with participatory rural appraisal (PRA) tools, including seasonal food calendars and counter-mapping of current and historical food spaces. These community-generated insights are paired with participant observation of food acquisition, interviews with elders and smallholder farmers, and analysis of land-use and planning documents. Preliminary findings reveal a mosaic of adaptive strategies: the continued tending of ancestral orchards; cultivation of banana, chili, and cassava on smallholder plots; seasonal foraging for forest vegetables and herbs; and increased reliance on purchased foods and wage income. Yet these adaptations occur within structural constraints, including land-use reclassification, limited recognition of Indigenous food spaces in planning, and diminishing access to customary territories. By mapping how food practices shift across forest, orchard, and market interfaces, this research highlights the need for food-sensitive planning and farmland preservation approaches that recognize Indigenous land rights, sustain agroecological diversity, and support community-led food futures in rapidly urbanizing regions.

2637 | Dugua Benoît, Schlur Myrtille

TERRITORIAL PLANNING THROUGH THE PRISM OF AGROECOLOGICAL URBANISM : EXAMPLES FROM LYON METROPOLITAN AREA AND GREATER REIMS IN FRANCE

Territorial Coherence Schemes (SCoTs) are a cornerstone of France's spatial planning system. However, they remain subject to many doubts and uncertainties. SCoTs are also crucial tools for preserving agricultural and natural areas from urban sprawl. The "Zero Net Artificialisation" (ZAN) trajectory encourages local authorities to rethink urban planning by integrating non-built areas into their considerations. Additionally, local authorities have become increasingly concerned with agricultural and food-related issues. This paper is part of the research-action project "Âge2SCoT: Adapting Planning to Agroecological, Landscape and Climate Challenges," led by the Habiter research unit at the University of Reims Champagne-Ardenne (URCA). It examines how agriculture and landscapes are taken into planning documents in a context of global change. The research explores the production process of these documents, the integration of the landscape concept and the involvement of agricultural stakeholders. Furthermore, it investigates how natural, agricultural et forestry lands are considered in the construction of territorial project. The study is based on two cases study in France where SCoT revisions are currently underway : the SCoT of Greater Reims (Grand Est region) and the SCoT of the Lyon metropolitan area (Auvergne-Rhône Alpes region). The results from the two case study areas reveal a weak link between planning, agriculture and landscape management. In both cases, the SCOTs struggle to incorporate a large-scale landscape approach into their territorial planning. In line with previous research, the results challenge the capacity of SCoTs to define a strategic vision on large-scale landscape and over the long term. This is particularly critical given the pressing climate and environmental challenges that require a sustainable and integrated approach to land management.

SS13: Food

Fri 3.7.14:00-15:30, Special Session H, U264 K-RYHMÄ | Session chair(s): Bambang Hari Wibisono, Mark Scott, Coline Perrin, Sri Tuntung Pandangwati

1386 | Bambang Hari Wibisono, Tri Mulyani Sunarharum, Sri Tuntung Pandangwati, Andrew Butt

Participatory mapping with local communities for agricultural land protection: Lessons from Yogyakarta, Indonesia

The existing farmland protection policy in Indonesia has been implemented through a top-down approach, resulting in limited effectiveness at the grassroots level. Despite formal designation as protected agricultural zones, many farmlands have been converted to non-agricultural uses. By examining multiple cases within the Yogyakarta Special Region, this study seeks to develop a deeper understanding of farmland protection and its inherent complexities from the perspective of local communities. The research employs a participatory mapping approach, which enhances public awareness and understanding of existing protected farmlands. The results reveal significant discrepancies between areas designated as protected farmland and actual on-the-ground conditions. Moreover, the findings highlight variations in local knowledge and perceptions concerning farmland

conversion phenomena, as well as differing priorities among stakeholders in defining and implementing farmland protection measures. These insights underscore the importance of strengthening community participation and integrating local perspectives into farmland protection policies to ensure more adaptive and context-sensitive implementation. The study concludes that a more collaborative and bottom-up approach is essential to bridge policy frameworks with local realities and to promote more sustainable agricultural land management.

2415 | Jost Buscher

How Urban Planning (Not) Uses Instruments for Urban Farming in German Cities

Global challenges such as climate change, supply chain instability, ongoing soil degradation and urban sprawl are threatening the food supply. At the same time, urbanization, population growth and rising prosperity in cities are leading to increased demand for food in urban areas. One approach to making the food system more resilient and climate-friendly is urban farming. However, urban farming faces challenges such as competing uses and low economic efficiency in cities. Despite an integrated planning approach in line with the New Leipzig Charta, urban planning largely neglects this type of land use.

These challenges are reflected in Germany: while 50 hectares of land, mainly used for agriculture, have been lost every day in recent years, demand for regional food is rising. The establishment of food councils and the development of food strategies in major German cities are examples of the growing importance of this issue. Nevertheless, there is only an implicit responsibility for urban planning, which influences the food system through formal and informal instruments for land use and urban development. However, there has been no systematic investigation of the instruments used to date and their application in urban planning.

This empirical research examines the current status of urban farming in German urban planning offices in cities with over 100,000 inhabitants. It shows where and how formal instruments such as land use and development plans, as well as informal instruments such as sustainability and food strategies, are used to promote urban farming, and what challenges exist in their application. The study is based on internet research on all 78 major German cities to identify the existing instruments, as well as an online survey among these cities on the current use or non-use of these instruments. To deepen the content, nine guided interviews were also conducted with responsible urban planners.

2607 | Irena Atkovska, Juulia Aliide Salulaid, Jenni Vilhelmiina Partanen

Morphological Analysis of Urban Agriculture Practices on the Examples of Community Gardens in Tallinn, Estonia

One of the urban issues today is the conflict of shifting between following normative, top-down planning of the urban environment and the emergent spontaneous development of the cities, despite the communication efforts from both sides. A possible way to collide the different approaches is through implementation of the food system into the urban area. Infiltration of urban agricultural (UA) during the planning phase can address a wide spectrum of challenges in this complex process.

The comprehensiveness of the subject is involving many actors, activities and spatial forms contributing to the difficulty of its investigation. Current research is mostly developed locally and its replicability on a different scale and location has limitations. The common disadvantage are the different impact factors that define the space and type of agricultural practices. However, another very important component into examining the best UA practice intervention is time – the period needed for planning, implementation and evaluation of actions. Grassroots UA initiatives that overgrown into long-term larger-scale design plans can offer appropriate attributes in consideration of the known challenges.

This research investigates implementation of UA practices and urban planning, through the example of community gardens in Tallinn, Estonia. The morphological variety of the city configuration and its proactive users and planners can show a pattern of implementation of UA into different spatial context. By making morphological analysis of the community gardens for their spatial, contextual and chronological characteristics, we look into the complexities of the integration of the food system in the urban context from different angles.

Through examination of case-studies, their establishing and successfulness; the impact on the policy making and city planning adaptation to land use changes, the aim of the research is to evaluate this methods' possibility of upscaling and replicability.

2764 | Sophia Arbara

The Potato as Territorial Diagnostic in the Rhine–Meuse Delta

This paper positions the potato as a territorial diagnostic to understand how food systems, soil–water infrastructures, and spatial development have co-evolved in the Rhine–Meuse delta. Although originating in the Andes, the potato became deeply entangled in the Dutch delta, where its cultivation exposes long-standing negotiations between engineered productivity and ecological fragility. By following the crop across successive phases of delta transformation from medieval soil–water assemblages and early reclamation to agro-industrial consolidation and contemporary climate pressures, the research shows that the potato is not simply a crop but a mediator of territorial change.

The analysis foregrounds research based on a revisiting of Boserupian and Malthusian food equations: shifting balances between caloric abundance and soil exhaustion, hydraulic control and ecological thresholds, and local cultivation and global dependency. The potato has repeatedly acted as both symptom and driver of these dynamics. Its high caloric yields under poor soil conditions enabled demographic expansion; its sensitivity to pathogens exposed the vulnerabilities of monoculture; and its integration into export-oriented infrastructures anchored a territorial model reliant on drainage networks, cold storage, breeding stations, and global trade corridors.

Methodologically, the paper brings together agroecological urbanism, delta urbanism, and political ecology with a research-by-design approach. Using layered territorial mapping (cropping regimes, hydrological systems, transportation networks, and the rural–urban interface), the study tracks how potato-based production systems have shaped spatial configurations and ecological processes over the longue durée. Treating the potato as a more-than-human actor enables a reading of the delta as a

an engineered socio-ecological system, where soils, infrastructures, and crops co-produce territorial futures.

The potato is framed as a diagnostic species, allowing the possibility to open a design-oriented perspective on agroecological transitions. It suggests that designing with crops can make visible the hidden dependencies between soil, water, and infrastructure, offering pathways toward climate-adaptive futures for the Rhine–Meuse delta.

2890 | Melis Yılmaz

Mapping Urban Agriculture: Open Data for Ecological and Accessible Cities

In the context of accelerating climate change and biodiversity loss, urban agriculture emerges as a crucial nature-based solution connecting ecology, urban design, and community well-being. This study investigates how mapping practices of urban agriculture can inform urban planning approaches to enhance accessibility, ecological connectivity, and social inclusion. By examining open-source datasets from cities such as Copenhagen, Amsterdam, and Rome, the research compares different methodologies of spatial mapping that identify, classify, and integrate urban gardening sites—ranging from community gardens to rooftop gardens—within urban green infrastructure plans. This study focuses on Istanbul, Türkiye a metropolis where rapid urbanization and deep historical layers coexist, to explore how spatial mapping can support sustainable and inclusive planning practices. The outcome of the research will be an interactive open-access map of Istanbul created on Google My Maps, providing a publicly available spatial inventory of urban agriculture initiatives across the city. This platform will allow users, researchers, and policymakers to explore urban agricultural areas, access photos, key information, relevant links, and learn about available volunteer programs, as well as how they can participate in them. The mapping process reveals how these scattered initiatives can collectively contribute to biodiversity, food resilience, and more equitable access to green infrastructure. This research argues that mapping is not only a descriptive but also a transformative practice. It allows planners and policymakers to perceive the city as an interconnected ecological system and to design interventions that bridge the gap between environmental and social sustainability. Moreover, by presenting all initiatives and their related contact or participation information in one accessible platform, the map aims to raise public awareness and encourage public involvement. It provides residents with clear guidance on how to join existing projects or start new ones, turning data visualization into an active tool for community engagement and collective ecological action.

SS15: Good City

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Thu 2.7.11:00-12:30, Special Session G, M141 | Session chair(s): Simin Davoudi, Mari Vaattovaara

1580 | Ying Wang, Jingyi Zhu, James White, Andy Inch

Retrofitting cities for sustainable futures: Towards a new planning research and policy agenda

Debates about what constituting a 'good city' have long been shaped by the growth logics, often using economic growth and GDP as indicators for success. However, these benchmarks have been increasingly challenged by a coalition of thoughts under the 'post-growth' banner, especially in the face of accelerating climate and ecological crises. Yet, debates about growth and post-growth are often disconnected from the socio-material fabrics of cities. At the same time, in the realm of planning policy and practice, actions for making a 'good city' - through, for instance, improving housing, transport, and green infrastructure - remain siloed without an integrated and strategic local vision, let alone exploring the structural drivers of these interventions.

In this paper, we propose 'urban retrofit' as both a conceptual lens and an analytical framework for reimagining the 'good city' and practicing place-based adaptations. We highlight 'urban retrofit' not as a simple rejection of growth, but as a critical re-orientation of planning and development towards repairing and renewing existing urban fabrics, maintaining critical infrastructure, and generating multi-layered social and environmental values in socially just ways. Drawing on an international evidence review and ongoing empirical investigation, we postulate a four-dimensional framework of thinking and practicing urban retrofit, namely modification, integration, implementation, and evaluation. By linking theory with practice and reconnecting climate actions to political-economic drivers, we offer 'urban retrofit' as a grounded pathway for rethinking 'good city' beyond growth, emphasising repair, justice, and collective wellbeing as key foundations of new urban futures.

2769 | Rodrigo Viseu Cardoso, Ana Poças Ribeiro, Birgit Hausleitner, Caroline Newton

Democratizing the 15-minute city: unorthodox imaginations of liveability, proximity and accessibility in peri-urban areas

As a reframing of long-standing ideas of what makes a good city, the success of the 15-minute city model in Europe has largely been linked to its implementation in core cities that possess the amenities, infrastructures and governance capacity needed to realise accessibility, proximity and liveability goals. Yet, a just urban transition requires engagement with other forms of urbanization, namely the fragmented and dispersed peri-urban areas where many Europeans live and work. Achieving comparable goals in these places is urgent but difficult, as these territories are often underserved in mobility and amenities, face social cohesion and governance constraints, and struggle to deliver a high quality of life. Drawing on an empirical analysis of four European peri-urban areas, this paper shows that these contexts exhibit limited alignment with the assumptions underpinning conventional 15-minute city solutions, and that

opportunities to improve accessibility, proximity and liveability lie beyond the orthodox planning repertoire associated with the model. Indeed, when morphological and functional conditions, institutional resources and priorities, and heterogeneous societal needs and aspirations are considered together, strong divergences emerge between the imaginaries of residents, planners and academics about the materialisation of 15-minute city principles. The paper discusses four key conceptual extensions that reposition the 15-minute city for peri-urban applicability, focusing on (1) recalibrating proximity to the extended regional scale foregrounding the role of public transport; (2) recognising the coexistence of distinct socio-spatial registers of functional and sociability-driven mobility; (3) enabling accessible amenity provision independently of high density clusters; and (4) developing integrated chains of amenities capable of producing lifecycle-proof environments. Revisiting 15-minute city principles in this way supports long-term habitability in peri-urban areas. It engages with the situated adaptations and shared meanings through which peri-urban communities articulate their visions not necessarily of the good city, but of what makes good places.

2928 | Michael Hayes

Rethinking Sustainable Urbanism: A Normative Framework for Contextualising the Compact City

The climate crisis has been closely tied to the design and operation of cities, with global estimate attributing 67-72% of greenhouse gases to urban areas. In response, a global consensus has emerged regarding the physical properties that constitute a good or sustainable city. While described under various terms – as the compact city, 15-minute city, or new urbanism – this model consistently promotes a set of key physical features: mid- to high-density development, integrated public transport, infrastructure for active travel, accessible green and blue spaces, and a fine-grained mix of land uses.

Since its emergence nearly four decades ago, this formulation of the compact city has attracted criticism regarding its claimed environmental benefits and potential obstacles to implementation. Nonetheless, an increasing body of empirical research supports its potential as one pathway to more sustainable urban form. However, given the diversity of existing settlement types – both with regard to their internal morphological structures and their roles within wider urban systems – this singular model is unlikely to achieve its stated aims at a global level.

Given the limitations presented by the internationalisation of the compact city as the default mode for good city form, this paper argues that the compact city model would benefit from contextualisation within a broader normative framework for understanding the relationship between built form and spatial objectives. To interrogate the compact city's proposed morphological features in relation to its intended outcomes, the study adopts the goal-form method first outlined by Lynch and Rodwin (1958) and further developed by Lynch (1981). This analysis will outline a framework for urban planners and policymakers to evaluate when and where the compact city model aligns with stated goals, and when alternative morphological strategies may be more appropriate.

2681 | Bojana Pjanović, Teodora Nikolić

Good City, Good Square? Social Functions, Culture, and Transformation of Belgrade's Urban Hearts

Urban squares have long played a pivotal social and cultural role, serving as gathering points, civic stages, and symbolic anchors of collective identity. In the ongoing global search for what constitutes a "good city" squares remain essential sites where ideals of sociability, heritage, wellbeing, and democratic life become tangible. This paper reconsiders the relationship between "good city" principles and contemporary square design by tracing the historical, cultural, and spatial evolution of key public squares in Belgrade. A historical overview of the social functions of squares highlights their role as both a space of encounter, exchange, and civic expression and a space that creates and maintains injustice. Building on this, the paper argues that squares must be understood not only as physical infrastructures but also as socio-cultural heritage, whose meanings shape and are reshaped by urban communities through everyday social practices. This socio-cultural perspective frames a critical review of current design tendencies in European and global square-making, including trends toward pedestrianisation, placemaking, multimodal integration, and aesthetic minimalism. Using the cases of Republic Square, Slavija Square, and Sava Square, the paper examines how recent transformations in Belgrade both reflect and diverge from contemporary international norms. Drawing on visual materials (archival photographs, media coverage, and satellite imagery), spatial analysis, field research and interviews, the study traces how these redesigns have reshaped sociability, accessibility, collective identity, and the everyday socio-cultural practices. Situating these findings within broader debates on urban wellbeing, heritage continuity, and inclusive public space, this paper argues that the pursuit of the "good city" requires re-centring human-scale social interaction and socio-cultural meaning-making in contemporary square design. The findings reveal a critical tension between modernisation imperatives and the preservation of social vibrancy. While specific interventions enhance physical connectivity and visual coherence, others risk producing dehumanised, overly monumentalised, or functionally ambiguous environments.

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Thu 2.7.16:00-17:30, Special Session G, M141 | Session chair(s): Simin Davoudi, Mari Vaattovaara

1503 | Elahe Karimnia

Dancing the Impossible City: Longing & Imaginaries for the Good City

What makes a city good when its spatial imaginaries are shaped by inequality, historical erasure, and uneven capacities to belong? This paper reimagines Bristol as an impossible city; a site where creative resistance and systemic constraint coexist. Drawing on my ongoing research, I approach choreography as a feminist and interdisciplinary methodology to explore how urban imaginaries can emerge from embodied practices of encountering the city, a set of sensorial navigations, co-presence, and negotiations, in which time is situated not as a linear trajectory of development but as lived, embodied experience of past and future.

The paper situates the good city not as an attainable ideal but as a continuous and relational process of rehearsing coexistence amid instability. My lived experiences frame the Impossible City as something to

be thought through elsewhere (Robinsson, 2016), decentring architectural and visual dominance in planning, while foregrounding marginal, ephemeral and performative practices of ordinary urbanisms. Through fieldwork, choreographic mapping, and dialogue, the study examines city's accountabilities for cohabitation and the construction of new imaginaries. Bristol's radical voices, colonial legacies and spatial inequalities offer a critical lens for questioning who defines goodness in the city, and whose spatialities are valued or erased. These tensions expose how inclusivity, central to urban policy and design, remains unevenly enacted and materialised in cities.

Dancing the Impossible City argues for choreographic ethics of city-making, where the ephemeral, the sensory, and the collective are treated as central to urban knowledge. This framework extends critical urban debates of cohabitation (Amin, Simone, Ahmed) by foregrounding movement as a way of thinking and designing otherwise. Ultimately, the paper proposes the impossible city as both critique and proposition: a refusal of singular trajectories of progress and an invitation to perform the not-yet; so the good city as an unfinished, reaching, co-habiting and resisting across difference.

1457 | Nadia Alaily-Mattar, Paul Jones

Commodifying the 'Good' City through Visual Narratives

This paper critically investigates narrative constructions of the 'good city' through contemporary visual urban imaginaries, focusing on how visual media—such as architectural renderings, and promotional videos— are deployed to shape public perception and political legitimacy about speculative urban projects. The paper argues that visuality is not only a representational device but a persuasive tool, mobilized to frame speculative urban projects as 'good cities' in order to support ideological, economic, and political agendas.

The paper draws on an ongoing research project developing a curated database of architectural urban projects presented as futuristic visions tied to supposedly innovative and better ways of life. These projects encompass city quarters or entire cities; they can be built, unbuilt, canceled, or indefinitely stalled. The database includes projects that have been launched over the past 30 years.

Drawing on urban theory and visual culture studies, the paper examines six projects selected from the database: Amaravati (India), California Forever (USA), Gelephu Mindfulness City (Bhutan), Telosa (USA), Akon City (Senegal), and The Line (Saudi Arabia). The analysis examines how these projects function as seductive visual performances that deflect underlying power dynamics. Images operate as cultural texts, they are mobilized to trigger affect and legitimize political actors.

The paper critiques the hijacking of the good city discourse embedded in speculative urbanism. Its contribution lies in highlighting three key insights: first, that while it is increasingly easy to produce visualizations of urban futures, imagining the future as a "cultural common", that is as a collective symbolic construct, remains elusive; second, that such visualizations are powerful devices not for shaping urban imaginaries, but for amplifying political propaganda and legitimizing economic agendas; and third, that the idea of what constitutes a good city is often hijacked and commodified for these purposes, underscoring the need to return to critical discourse and pluralistic debate.

1403 | Nina Berding, Agnes Förster

Sensing and Measuring Urban Qualities: Lived Experiences and Wellbeing in the Search for the Good City

Despite the existence of numerous urban models – including sustainable, equitable, resilient or climate-neutral cities – the concept of optimal urban living remains nebulous due to its relational character. Consequently, its translation into analytical categories is limited. Sensory experiences and everyday impressions – including sounds, smells, sightlines, chosen routes, transition zones in the city from quiet places to noisy everyday areas, climatic impressions, memories and emotions – have a decisive influence on urban well-being. In interviews, city walks or participatory mapping, people often describe their cities in terms of atmospheres, physical experiences and emotional reference points.

In this paper we present first insights into results gained in an exploratory research project in which subjective perceptions were systematically correlated with health-related measurement data, such as light exposure, body temperature and heart rate. The objective of this analysis was to map complex patterns between atmospheres, sensations and physical well-being in Aachen city centre. The examples demonstrate the ability to capture subtle interactions between urban space, perception and health. The abstract discusses how such data and voices can be considered as a complementary source of knowledge to align planning more closely with the everyday lives of city dwellers. This approach enables the capture of local specificities, as well as contradictions, invisible and marginalised aspects. The integration of subjective perceptions with physiological indicators not only expands the scope of planning knowledge but also calls for a re-thinking of the concept of the 'good city', as outlined in the call for proposals. This concept should be understood as an open, dialogical process in which diverse experiences and forms of knowledge contribute equally to enhancing urban coexistence. This approach is consistent with the session's objective of interrogating established perspectives on the concept of the good city and enriching them through the integration of multi-layered, participatory methodologies.

1785 | Tiina Rinne, Marketta Kyttä

Good cities through relational perspectives of environmental health promotion

Despite offering guidance on good city form, urban planning literature includes surprisingly limited references to public health. Yet, numerous contemporary public health challenges, including sedentary lifestyle, obesity and access to healthy nutrition, have been linked to particular characteristics of the urban environment. We argue that relational place-based approaches can enhance health-place research by connecting personal experiences with objective environmental characteristics.

While the socio-ecological models dominate the environmental health promotion research, their theoretical foundations remain underdeveloped. These nested models encompass various factors across individual, sociocultural, environmental and policy levels. Most empirical studies applying the socio-ecological models rely solely on subjective descriptions of the environment. Relational theories can assist in connecting the links between objective characteristics and subjective experiences. Examples of these theories include but are not limited to Gibson’s affordance theory, Barker’s ecological social psychology, social practice theory, Bourdieu’s habitus theory, assemblage theory and capabilities theory by Sen. These theories are interested in the dynamic and complex interplay between human behavior and

experiences and contextual features. They also provide a more appropriate ground for studying health outcomes related to actualized environmental opportunities rather than relying on a simplistic focus on potential resource accessibility.

Methodological advancements in the field of GIScience support empirical research applying relational approaches: recent developments in geospatial methods enable the study of human experiences and behavior in relation to place, dynamically connected to various temporal and contextual dimensions. Examples of such include passive and active sensing approaches that can be realized e.g. by applying mobile phone data and participatory mapping methods. We analyze recent examples of studies using relational theories and sensing approaches to learn whether relational theoretical and place-based methodological approaches can provide new building blocks and help shaping a more nuanced understanding of a good city form.

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Thu 2.7.17:45-19:15, Special Session G, M141 | Session chair(s): Simin Davoudi, Mari Vaattovaara

990 | Raoul van Stipriaan Luiscius

Performing the Ideal City: the Transformation of Urban Ideals in European New Towns

In the post-war decades, hundreds of new towns across Europe were designed as laboratories of the ideal city, planned experiments in how spatial order could produce social good. This paper argues that the “ideal city” is not a fixed blueprint but a recurring performance in which moral ideals are translated into planning instruments that later constrain their own renewal. Using Almere (NL) and contrasts with Milton Keynes (UK) and Cergy-Pontoise (FR), the study traces how urban ideals were materialized, eroded, and re-enacted through distinct governance designs and spatial instruments between the 1970s and 2020s.

New towns provide an exceptional vantage point. Lacking historical depth, they must continuously invent identity and meaning. The aspiration to become an ideal city is therefore constitutive: it shapes governance arrangements, design strategies, and civic narratives. This paper re-engages with the question of what makes a city ‘good’, by tracing how ideals of urban goodness are performed, contested, and reinterpreted through changing forms of governance. As governance compositions evolve, from centralized welfare-state control to marketized decentralization and participatory experiment, so too do the ideals of the city itself. These shifts generate conflict and contradiction but also hybrid forms in which older and newer moral vocabularies coexist.

Drawing on archival research and interviews, the paper develops a three-part framework - Order, Identity, and Experiment - to examine how planning regimes institutionalize and re-moralize the pursuit of the ideal city. Grounded in European cases, the framework traces how “ideal city” vocabularies travel and transform under differing fiscal and institutional regimes, as the trajectories of Milton Keynes, Cergy-Pontoise, and Almere reveal shared ambitions yet divergent outcomes shaped by local governance realities. By revealing how these shifting ideals affect both planning discourse and urban life, the paper contributes to renewed dialogues on what constitutes a ‘good’ city today.

1189 | Jonne Silonsaari

Child-friendly city as a concrete utopia. Prefigurative politics across policy, planning and activism.

Child-friendly cities (CFC) is the key framework for thinking what constitutes a 'good city' for the young generations. But as there is little concrete guidance on how they should be created (Chawla & van Vliet, 2015), policymakers and planners are struggling to translate universal ideas about children's rights and wellbeing into tangible measures (Cordero-Vinueza, 2025). CFC is an abstraction and 'an idea that can mobilize action rather than a reality that is comprehensively achieved at one point in time' (Chawla & Van Vliet, 2015, 545). How can such open ideas about a 'good city' lead to tangible infrastructures and locally meaningful practices?

This presentation is based on the idea of prefigurative politics. Generally, it means the political strategy of building future society in the here and now by proposing concrete alternatives to the current order (Jeffrey & Dyson, 2021, Yates, 2015). When goals are multiple and not predetermined, prefiguration is a particularly good strategy, because it is based in practice (Maeckelbergh, 2011) and making utopias concrete and realizable (Archer, 2019).

I discuss actions that prefigure CFCs across Europe from the mobility perspective – bike buses, the Kidical Mass movement and school/play street initiatives. I highlight how they merge prefigurative activism and prefigurative planning (Davoudi, 2023), and unpack the dynamics of prefigurative organizing across institutional, prefigurative and conflicting lines of action (Schiller-Merkens, 2022). I explain why prefiguration is a form of embodied and social learning, that alters people's ideas on what constitutes a 'good city' for children in a given time-space: CFC is not known in advance but comprehended through praxis.

While ideas about a 'good city' are often based on predefined rationalities, it is equally important to understand how they are made, because the actions we engage in alter our consciousness and drives when planning and advocating for alternative future(s).

1362 | Xiaoyi Li

Expanding Capabilities: Rethinking the 'Good City' for Older Adults in Urban China

China's rapid urbanisation and ageing population present pressing challenges in creating cities that support human well-being throughout the life course. Although urban development is often assessed by economic indicators and spatial efficiency, such measures tend to overlook the lived experiences and needs of older adults. This study re-examines what constitutes the 'good city' within the context of ageing, arguing that a truly good city should expand the capabilities, providing elderly residents with real opportunities and freedoms to access urban resources, maintain dignity, and meaningfully participate in urban life.

Drawing on empirical research in Nanjing, a rapidly ageing megacity in eastern China, this research combines the Capability Approach with Spatial Justice to explore how urban environments shape older adults' opportunities for social participation and governance engagement. Using semi-structured interviews, field observation, and local policy analysis, it investigates how multi-level urban governance

either enables or constrains the inclusion of older populations' voices in policymaking. This study further identifies capability gaps that limit their ability to transform urban resources into valued functionings.

Preliminary findings indicate that while Nanjing's age-friendly initiatives have improved accessibility and safety, older adults still face barriers of spatial exclusion, ageism, and institutional neglect. However, many actively navigate these constraints through everyday adaptation and resistance, demonstrating resilience and creativity in their struggle for urban resources, rights, and governance.

By revealing the gaps between resources, capabilities, and functionings, this study reimagines the 'good city' as one that emphasises care, justice, and participation for residents of all ages. Theoretically, it bridges capability and justice perspectives to advance the concept of the 'good city' for ageing populations in the Global South. Practically, it provides guidance for designing inclusive urban policies and governance that support ageing in place amid China's rapid demographic and spatial transformation.

2303 | Jialing Xie, Ian Woodcock, Rebecca McLaughlan

Age-Positive Urbanism: Rethinking the 'Good City' Through Later-Life Mobilities

This paper challenges idealised yet inconsistently realised narratives of 'active ageing' and 'independent living,' which often reduce later life to a period of decline or retreat from public urban life. While accessibility is now prioritised in Australian built environment disciplines, ageing-in-place policies in New South Wales continue to privilege seniors housing and institutional care over integrated urban and mobility solutions. Though a 'whole-of-life' approach has emerged in transport and mobility planning, this is often interpreted as universal or design, rather than active engagement with lived mobilities and how these experiences might meaningfully inform planning and design.

Drawing on semi-structured interviews with 65 older adults (aged 60+) and 25 professionals across planning, design and aged-care advocacy, this study examines how transit-oriented urban environments might contribute to a more expansive vision of the good city that recognises later life as mobile, visible, and relational process. Our findings reveal that transit-oriented planning and design in NSW remain procedural, fragmented, and siloed, limiting the integration of demographic realities and lived experience into built outcomes.

We argue that the 'good city' for ageing populations is not merely barrier-free, efficient, or service-rich; it is one that enables dignity, connection, and public presence through its everyday spaces. emotional wellbeing, and everyday freedom of movement. Transit-oriented public realms can function as urban infrastructures of care, supporting emotional wellbeing, civic participation, and a sense of belonging if designed with older adults' diverse mobilities and social rhythms in mind. Correspondingly, we ask whether the transit-oriented public realm and its mobility systems might play an active, age-positive role in future urbanism in enhancing the quality of life for older adults. Could cities help put "life into days, not just days into life," and transform wider societal stereotypes and prejudices about ageing?

2336 | Garyfallia Katsavounidou

“Like canaries in a coal mine”: Why a good city for children is a good city for all

Since the Enlightenment, childhood has been socially constructed as a period of human life in which human beings are still ‘under development’ and incomplete, thus not able to form informed opinions or judgements. Concurrently, children’s activities are considered unproductive, and their needs – especially those related to the built environment – of less importance than those of adults. However, from antiquity to our days, we can trace distinct cases in which children and play, which is their main activity, have been recognised as valuable for the welfare of the society as a whole. Pre-Socratic philosopher Heracleitus used children’s play as a metaphor for the true meaning of human existence. Plato noted that “even the walls of the city teach the children” to stress the importance of the built environment for children’s upbringing. In early 20th century Red Vienna, the socialist municipal government put forth the motto ‘All for the Children’, transforming the city through the provision of high-quality family-friendly social housing. In postwar Amsterdam, Aldo van Eyck’s more than 700 playgrounds created a network of public spaces that celebrated the value of play and children’s citizenship. In late 1960s Detroit, geographer William Bunge mapped the spatial inequalities reflected in the lives of children. This paper presents historic and contemporary examples of what I call ‘Spielraum’, an urban paradigm that puts children at the heart of city planning (Katsavounidou 2021). Recently, for example, London’s Hackney Borough drafted a Child-Friendly Places Supplementary Planning Document, recognising that child-friendly design improves neighbourhood characteristics holistically, from social cohesion and environmental quality to safe mobility and economic growth. Acknowledging children’s agency is key to envisioning living environments based on human-centred values. When we design cities and neighbourhoods with children in mind, we can promote urban liveability as well as long-term sustainability.

Katsavounidou, G. (2021). https://doi.org/10.1080/17549175.2021.2005120

2524 | Julio Paulos

The Good City Beyond Idealism: Moral Economies of Planning in Times of Polycrisis

As planning works through shifting and often unpredictable conditions, ideals of wellbeing, resilience and sustainability rise in prominence and weaken the dominance of modernist–technical categories such as functional zoning, procedural standardisation and infrastructural optimisation. This development reflects a deeper attunement to the uncertainties of late-modern democracies, where crisis looms and institutions seek forms of moral stability. To grasp this shift, the paper approaches planning as a moral economy in which vocabularies, indicators and procedural rituals organise what should matter as good. Political differences often become translated into moral alignment, which narrows rather than expands the field of shared planning approaches. European cities offer a particularly revealing site for examining this process, as a dense polycrisis across housing, mobility and migration becomes channelled into specific formats such as living labs and hackathons in which moral repertoires dominate. These repertoires, sustained by characteristic modes of reasoning and justification, help stabilise practice, yet they also reveal how the post-political city has moved from critique to everyday reality.

Drawing on Hartmut Rosa’s reflections on resonance and the good life beyond growth, together with Evelyn Ruppert’s work on the moral economy through which cities cultivate good citizens, the paper

shows how the good city is increasingly enacted through moral expectations in ways that reduce rather than expand possibilities for reimagining what a good city could be. Planning has moved toward forms of co-constituting problems in other experimental settings where shared concerns become the primary ground for collective action as punctual exercise. These spaces facilitate alignment but often dilute the political stakes of transformation. The good then operates as a circulating claim that reassures but cannot fully address the institutional ruins left by modernist structures. Recognising this limitation is essential for reopening democratic space and cultivating more plural and explorative ways of planning for the good.

SS16: Land and Soil

SS16: Land and Soil

Thu 2.7.17:45-19:15, Special Session I, Y229c | Session chair(s): Anke Hagemann, Natacha Quintero González, Johanna Hoerning, Eva Paton, Antoine Vialle

921 | Fabian Wenner, Andreas Hengstermann

In memory of Ben Davy - On the definition of Land Policy and "Bodenpolitik" in current planning literature

The concept of "land policy" (German: Bodenpolitik) occupies a central yet often underexplored position in German-speaking planning literature, despite lacking a direct equivalent in English-language discourse. This paper undertakes a comprehensive literature review to clarify the meaning, scope, and significance of Bodenpolitik, with particular emphasis on the pioneering work of Ben Davy. Drawing on Ben Davy's influential definition in the "Handwörterbuch der Raumplanung" and a representative selection of related academic publications, the study systematically delineates Bodenpolitik from related concepts such as land management, spatial planning, and land reform. Importantly, land policy serves as a conceptual bridge, connecting the land use dimension of planning with the land distribution aspect of property rights. The analysis is further enriched by biographical insights into Ben Davy's academic trajectory and his formative role at TU Dortmund's School of Spatial Planning, highlighting his advocacy for polyrationality and his engagement with international planning debates. By situating Bodenpolitik within both German and English planning traditions, this paper illuminates the unique intellectual legacy of Ben Davy and underscores the broader relevance of land policy for contemporary research and practice in spatial planning.

1445 | Nick Roberts-Robbins, Antoine Vialle

The Nature of Boden: Toward an Ecological Understanding of the Land Question

The Bodenfrage (the land question) has re-emerged in recent years as a critical debate on land ownership, distribution and social justice in Germany and globally[1]. The word Boden in German, however, has a double meaning which is rarely discussed, being translated into English alternatively as 'land' or as 'soil'. While debates on the Bodenfrage have typically focused on the socio-political and

socio-economic aspects of Boden as 'land'—as a legislative and juridical entity which can be sold as a commodity and owned as property—the discussion has rarely engaged with the notion of Boden as 'soil', as material body for the support of lifeforms and ecosystems, and as a site of interface and exchange for chemical and organic processes.

Under the conditions of the current and coming environmental crises, it is necessary to reassess the ‚land question' to address the nature of Boden from an ecological perspective: as material substance and active agent in the production, maintenance, and regulation of built and lived environments for human and non-human actors, and as a common resource for public good.

This presentation will look at three aspects of the Bodenfrage. First it will engage with current discourse to establish an overview of conventional perspectives on Boden as ‚land'[1]; secondly it will offer new perspectives on the function of Boden as ‚soil', as material agent in the transformation of (urban) environments[2]; finally it will propose a synergistic definition of Boden as a form of public ‚commons'[3], and will examine how models of cooperative and community land ownership and land-stewardship can support a shift away from extractive logics towards practices of care, regeneration and collective resilience.

Selected references:

1 Hertweck et al, Architecture on Common Ground. 2020

2 Salazar et al, Thinking With Soils. 2022

3 Bollier and Helfrich, Patterns of Commoning. 2015

1652 | Alexandre Bossard, Géry Leloutre, Chiara Cavalieri

Leveraging soil data for urban arbitration. A contextual and agile approach to planning in Brussels

A recent judicial ruling in Brussels (29th of October 2025), which suspended any construction project on undeveloped parcels exceeding half a hectare, illustrates the challenges of reconciling competing urban demands within a context of limited land and eroded trust in top-down planning. This paper explores how detailed documentation on soil, including pollution, geology, and historical use, may contribute to more informed and contextualised arbitrations in land-use conflicts. Soil data, when mapped in plan and section, provides a material basis for assessing trade-offs alongside social, economic, and ecological considerations.

Through microhistories in Brussels, we examine how historical data and 3D soil cartography can help objectify decisions, not by dictating outcomes, but by revealing constraints and opportunities often overlooked in conventional planning. For instance, the high costs of depolluting a contaminated urban garden underscore the financial implications of environmental legacies, while the presence of uncontaminated yet sealed soils raise questions about missed opportunities for unsealing. Such documentation does not replace political or social negotiation but offers a complementary, evidence-based layer to support adaptive, site-specific approaches.

This work draws on nature-based urbanism as a lens for understanding the importance of soil in urban contexts, positioning it as one of many interconnected factors in planning decisions. By integrating microhistories of urban transformation with technical data, the approach seeks to mitigate both the commodification of land and the risks of oversimplifying soil constraints. It does not advocate for soil as the sole arbiter of planning but as part of a pluralistic framework that acknowledges the complexity of urban grounds—their materialities, histories, and contested futures.

1949 | Imran Nurkovic, Antoine Vialle

Governing Soil in Podgorica: A Protocol for an Urban Soil Living Lab

Urban(ised) grounds in Podgorica are shaped by fragmented governance and investor-led developments that limit soil functions merely as a construction resource. This leads to its key ecosystem services, such as water infiltration, microclimate, and biodiversity, being left out of planning priorities. The objective of this research is to offer a clear, sustainable path for the implementation of soil in planning and climate adaptation through an Urban Soil Living Lab (USLL) as an operative protocol. The mixed-method approach includes policy analysis through the Spatial Planning and Design with Soil (SPADES) framework, to map formal criteria and gaps, semi-structured interviews with integrated participatory mapping to provide insights into processes and barriers, as well as revealing cared and neglected spots in Podgorica, and site analysis to identify where the needs are the biggest and the functions are restricted. By combining literature on urban soils, their ecosystem services, and USLL, with results from Podgorica, the research reveals a partial normative articulation of soil through the top-down governance, while on the local level, implementation gaps, weak intersectoral coordination, and rapid sealing of neighborhoods in Podgorica persist. Care practices remain institutionally invisible; site analysis showed that surfaces with the highest ecosystem services performance are the most neglected. From these insights, USLL emerges as a protocol where the public sector aligns planning and permits, academics lead monitoring and data analysis, citizens map and monitor, while the private sector designs and implements innovative designs. This configuration does not directly implement a solution, but rather defines pathways for implementing urban soils into politics and future pilot evaluation.

1673 | Barbara Maćkiewicz, Carolina Yacamán-Ochoa, Raúl Puente-Asuero

Private Allotment Gardens (AGs) and the Reconfiguration of Peri-Urban Land Use: Agroecology at the Margins

The global emergence of Urban Allotment Gardens (AGs) is historically rooted in philanthropy, offering support to families in rapidly industrializing cities. Traditionally, land for these gardens—often in difficult-to-develop urban margins or integrated into park layouts—was provided by wealthy patrons, local authorities, or parishes, and was distinct from areas designated for professional agricultural production.

In recent decades, however, growing demand, limited availability of public urban gardens, and their rigid organizational models have led landowners to recognize the potential for generating income by creating private urban AGs, particularly in peri-urban farmland. Although the land retains its agricultural designation, the activities differ substantially from traditional farming.

This study investigates this shift by documenting two privately managed AGs located within the Fuenlabrada Agrarian Park. Such parks are conceived as instruments for actively protecting agricultural land from urban encroachment, sustaining professional farming, and fostering balanced urban-rural relations.

Employing a qualitative, exploratory approach, the research examines the socioeconomic, ecological, and cultural dynamics of these spaces. It aims to determine whether establishing private AGs represents a mere market-driven adaptation or transcends simple commodification of farmland. The study analyses the synergies and conflicts between agrarian park management and private AG initiatives, and how current legal, urban, and governance frameworks facilitate or hinder this coexistence.

The findings suggest a new typology of hybrid agrarian spaces, where economic, ecological, and social interests converge. When integrated into agroecological management strategies and the agrarian park's overarching planning framework, private AGs could play significant roles in regenerating peri-urban agrarian systems, consolidating sustainable local economies, and fostering a more conscious and participatory food culture.

Nonetheless, challenges persist. These include commodification of land access, which threatens traditional professional agriculture, the absence of specific regulatory instruments, and the need to strengthen collaborative governance mechanisms among public and private actors.

2608 | Lorena Melgaço, Marilu Melo Zurita, Jenny Norrman, UNDER research team

Rendering the Underground Visible: Geosystem Services and the Politics of Resource- and Risk-Making

Urban planning is increasingly drawing attention to the subsurface as a domain requiring systematic and critical consideration. Often hidden from view and delegated to technical decision-making frameworks, the underground is simultaneously rendered visible and invisible through layers of conceptualisations, calculations, and models. In this work, we explore how the concept of geosystem services, goods and services derived from the subsurface that support human well-being, can help us navigate both uncertainty and potential by offering a lens to critically examine the underground as both a resource for urban development and a space of risk.

To advance this discussion, we engage with the notion of resource-making as the process through which the subsurface is made useful and visible, and introduce the complementary concept of risk-making, to highlight the socio-political nature of how risks in the underground are defined, neglected or averted, through planning practices. It is at the interface of these two processes that many planners navigate the uncertainties inherent in underground spaces. These considerations result from our ongoing collaboration with different municipalities in Sweden, since 2022 in the framework of the project UNDER. Such framework provides an analytical space where geosystem services become a powerful tool for making these hidden spaces 'known' and acknowledged within planning processes.

SS16: Land and Soil

Fri 3.7.09:00-10:30, Special Session I, Y229c | Session chair(s): Anke Hagemann, Natacha Quintero González, Johanna Hoerning, Eva Paton, Antoine Vialle

1081 | Lukas Madl

Renaturing French Cities: Rethinking Established Practices by Integrating Soil Knowledge

With the proclamation of the 'Net Zero Artificialisation' (ZAN) objective in France, soil is at the heart of political debate for the first time. Urban development policies are set to change, with so-called renaturation operations, defined by law as actions that aim at the improvement or restoration of the ecological functions of soil, expected to play a central role in this paradigm shift. However, current renaturation practices in urban areas must themselves evolve, since agricultural topsoil, until now a common resource for such projects, is likely to diminish significantly as local authorities are required to align their development strategies with the ZAN objective.

By reviewing technical guidelines and examining five French case studies in which alternative approaches to the common "dig-and-haul" method are implemented, this contribution aims to shed light on the transformation of renaturation practices currently underway in France. A survey designed to test these observations against a larger sample of stakeholders subsequently allows to assess to what extent the paradigm shift is being translated into concrete action in the field.

This contribution reveals, on the one hand, tensions between technical recommendations and practices on the ground, which struggle to break away from habits long regarded as best practices. On the other hand, selected projects demonstrating principles of reuse and material frugality put the spotlight on how interventions can be more finely adapted to the local ecological context, integrating soil knowledge into the project planning and implementation. These examples highlight the conditions necessary for the implementation of such approaches, as well as constraints encountered, and can ultimately serve as models for rethinking the role of soils in greening projects and the design of public space.

2058 | Heini-Emilia Saari

Planning from the ground up: History, materiality, and the limits of urban carbon control

Regulating the carbon cost of urban development is a core feature of contemporary climate strategies. In response, a proliferating range of environmental management and carbon accounting software promises to reconcile the gap between cities' carbon neutrality aspirations and the inherited landscapes of urban growth and housing production. These tools are being readily adopted by municipalities and planning agencies, but the totalising visions of carbon control land unevenly on the material and historical contours of urban landscapes. Scholars in geography and urban studies have begun to critically interrogate the abstraction of complex material movements into calculable development schemes, but the interplay between carbon accounting and the everyday politics and materialities of urban transformation remain understudied and inadequately conceptualised. Drawing on feminist (counter)topographies, this research critically unpacks the deliberations and knowledges produced at the interface of carbon control and planning as a social and environmental praxis. Based on fieldwork with municipal planners and environmental experts in Helsinki, Finland, the geological strata, polluted landfills and unstable soils that make up urban land consistently resist experts' attempts to translate low-

carbon programmes into future urban forms. In parallel with these complications, however, the research also reveals how individual experts are actively mobilizing these situated 'topographies' to push back against the commodifying and abstracting impulses dominating urban land use. In place of manifesting linear progress or wholesale rejection, this work 'stays with' the ruptures and contradictions of urban decarbonization as a social, political and material process.

2078 | Niklas Müller, Fabian Stolpe, Sebastian Scheuer, Jessica Jache

Co-Creating Climate-Resilient Grounds: Nature-Based Solutions and Territorial Democracy in Huế, Vietnam

Urban regions, especially in tropical and subtropical contexts like Vietnam, face escalating challenges through climate change, social inequality and environmental degradation. These pressures are exacerbated by dominant planning paradigms that treat urban lands and soils as resources for extraction and commodification, often neglecting their role as living systems and shared commons. The GreenCityLabHuế project challenges this anthropocentric and extractive approach by promoting Nature-based solutions (NbS) such as Green-blue infrastructure (GBI) to reconceptualize urban ground towards heat adaptation, air quality improvement and recreational value.

Through co-creation methods, the project engages stakeholders from science, politics, administration and civil society, fostering integrative and holistic planning processes sensitive to climate change. Policy roundtables, surveys and public events have revealed knowledge, demands, and preferences, enabling the development of an urban strategy for NbS governance and a best-practice handbook for their design, implementation, and management. These outputs not only provide practical tools but also reclaim urban grounds as sites of collective agency and ecological care.

The project four "showcases"– a schoolyard, roof top, riverbank and brownfield site – demonstrate how NbS can transform urban soils and spaces into multifunctional commons. At these sites greenery mitigates heat and improves air quality while permeable surfaces enable rain water retention, illustrating the material and relational potential of urban grounds. Residents, schools and neighbourhood groups actively maintain these spaces, reinforcing their role as shared infrastructures for climate adaptation and social coherence. By centring NbS approaches, the project highlights urban grounds not merely as ecological resources but as co-constitutive elements in more-than-human infrastructural relations. It offers a model for territorial democracy, challenging top-down planning and advocating for regenerative relations with urban land. The results underscore the need to rethink planning with and through urban ground, moving beyond urban land as mere building space, toward collective stewardship and climate resilience.

2740 | Sophia Arbara

Designing from the Ground: Soil as an Agent in Rethinking Rural Spatial Futures

This paper proposes a design-led framework that positions soil as both a biophysical foundation and an active agent in reconfiguring land systems undergoing ecological and agricultural transitions. Within rural territories, soil shapes production, hydrology, biodiversity, and long-term land-use trajectories. Yet,

spatial design has rarely engaged with soil's capacities in an explicit or systemic way, particularly in rural contexts. The work builds on ongoing research developed in the EU SPADES (Spatial Planning and Design with Soil) project and the pilot of Ooststellingwerf, a rural municipality in the northern part of the Netherlands. The first component develops a genealogy of soil imaginaries within design cultures. By tracing shifts from soil being historically embedded in vernacular traditions and settlements, to becoming an extractive substrate during industrialization, a background material in modernism, and only recently reframed as ecological infrastructure and shared resource, the research reveals how dominant imaginaries have shaped land configurations and constrained spatial possibilities. The second component explores rural zones for soil-based transitions, focusing on landscapes lying in-between ecological thresholds and intensive agriculture. These spaces are reframed as critical buffer zones. The third component employs research-by-design to test soil-inclusive strategies at both plot and transitional-zone scales. Two lenses guide the spatial experiments: soil performance, grounded in agroecological regeneration; and soil quantity, addressed through land-sharing models, spatial configuration, and reallocation of land functions. These design explorations prototype multifunctional rural landscapes that allow ecological connectivity, climate resilience and productive landscapes to coexist. In the Ooststellingwerf pilot, such strategies are being integrated into emerging spatial and environmental plans, using transitional zones between natural areas and intense grazing areas as key areas to revisit land - soil relations. By combining genealogical understanding, territorial analysis, and design experimentation, the paper positions soil-inclusive spatial design as an emerging contribution to the reimagining of rural futures.

1884 | Laura Thomas, Catherine Vroon, Nafsika Efklidou, Marie Benninghoven

Rooted in Soil: rethinking soil in planning through grounded practices

Research at the interface of planning and soils has shown that soils are often treated as manageable, passive substrates or storage spaces, with limited recognition of their social-ecological dynamics. As a result, planning decisions frequently rely on technical expertise while overlooking the broader roles soils play in society. This research addresses this gap by examining soil processes as both material and social phenomena, drawing on diverse literature and ethnographic fieldwork.

The research centres on one urban and one peri-urban, community-driven food-growing site. Over five months, it explores how local communities cultivate soil while simultaneously producing knowledge about it. The research asks how planners might help bring this situated soil knowledge into planning conversations.

Working with a team of planners, designers, and ethnographers, the project foregrounds an approach that is future-oriented yet socially and locally grounded. Engaging with what the research calls "soil workers" allows us to read soils through practice. Inspired by the approach of Bonvehi Rosich and Denizen (2025), insights from fieldwork are translated into "soil characters": living and non-living beings and things that shape soil formation. These characters are mapped into relational diagrams, showing soil formation as a web of relationships rather than a purely technical process.

Through participatory design exercises, the research asks: what happens if we replace some characters or change their relationships? This work highlights alternative ways of "planning beyond the map,"

centering local knowledge and relational thinking. Making soil legible through practice-based insights and relational diagrams opens up a space in which soils become publicly negotiable rather than confined to technical domains. In doing so, the project contributes to planning approaches that treat soils not as expert-controlled substrates, but as active participants in social and material processes whose care and use should be shaped through dialogue with the communities that depend on them.

2317 | Leen Vansteenkiste, Liesbeth Huybrechts, Stefan Devoldere

Designing-with urbanised grounds: a nomadic participatory design perspective on soil

How can we rethink the critical role of soil in large-scale infrastructural spatial planning and design projects through care-based soil practices? In spatial planning and design processes, urbanised grounds are often perceived as mere, static resources as part of a human-centred timeline of planned soil disruptions and movements, reinforced by top-down planning approaches which can disturb centuries of soil life in an instant. The position of this paper is that urbanised grounds, as vital, dynamic and situated living environments, call for more careful, bottom-up and participatory design approaches in which they can be addressed as urgent matters of care, as vital companions in climate adaptation, and as agents for adopting multiple more-than-human timescales (e.g., soil-forming processes, seasonality) and actors (e.g., soils, trees) in human spatial planning processes.

We introduce Project Noord-Zuid Limburg (NZL) as a case study of a large-scale infrastructural transition project in Flanders, Belgium, which aims to address urbanised grounds in its spatial planning and design processes. Project NZL concerns the redesign of a road and the construction of tunnels, which requires the expropriation and demolition of gardens and buildings, along with the entities (e.g., soils, shrubs, bricks) they comprise, and the reuse of excavated soils in the design of public spaces and landscapes. In this context, we introduce a “nomadic” participatory design methodology that aims to rethink the role of soil through the “nomadic practices” of walking-in-soil and working-in-soil. We delve deeper into one case of working-in-soil called “struikroven”: a participatory workshop where participants (e.g., former owners, inhabitants, collectives) are invited to uproot small greenery (e.g., shrubs, flowers) from a selection of expropriated gardens along the NZL trajectory, to replant in their own gardens. Prototyping the workshop enables rethinking and negotiating the planning processes of Project NZL through and with urbanised grounds.

SS16: Land and Soil

Fri 3.7.11:00-12:30, Special Session I, Y229c | Session chair(s): Anke Hagemann, Natacha Quintero González, Johanna Hoerning, Eva Paton, Antoine Vialle

1560 | Luciana Varkulja

Grounding the City: Forest Territories and the Politics of Material Supply

Urban land is often read from above—through zoning, ownership, and planning maps that treat the ground as a static terrain. Forests are read similarly: the canopy hides the ground-level activities that reshape ecological and social systems. Yet city soils and the forests that sustain them are entangled in

extractive and metabolic networks. To rethink urban(ised) grounds is to see city soil as continuous with the forest territories that sustain its material life.

Drawing on ongoing research that connects forest ecologies, timber economies, and construction in Brazil and the United States, the paper situates forests as displaced grounds of urbanization—sites where materials, labor, and cycles are reorganized to sustain building elsewhere. Through mapping and visual analysis, it traces how logging fronts, plantations, and "restoration" zones operate as off-site urban infrastructures.

By bridging the bird's-eye gaze of planning with a forest-ground perspective from territorial design, the paper proposes methods for reading soils as both archives of extraction and agents of repair. The aim is to challenge the separation between forest and urban ecologies, and to propose a rooted, political continuum of grounds. The work calls for planning approaches that recognize forest territories as co-constitutive of urban life, foregrounding material accountability, soil care, and regenerative reciprocity as the basis for territorial justice.

1689 | Hans Hortig

Reclaimed Futures: Speculative and Extractive Urban Grounds in Singapore

Singapore's rapid urban expansion has transformed one-quarter of its territory through state-led land reclamation, converting transnational sand imports into engineered urban soils. This process illustrates the entanglement of urbanised grounds with extractive infrastructures, geopolitical networks, and political-economic imperatives. Sand, sourced from as far as the Maldives, becomes both a material reality and a signifier: it mediates Singapore's national identity, underpins industrial and infrastructural development, and embodies the translocal consequences of urbanisation processes. Land reclamation, justified through narratives of land scarcity and economic growth, exemplifies the commodification of soil (both as sand and property) and the exclusionary production of territory, where newly created land is predominantly allocated to industrial, infrastructural, or high-value private uses, leaving minimal public access.

This contribution critically interrogates these processes while exploring alternative, projective readings of reclaimed land. Beyond critique, we consider the material and ecological potential of reclaimed land: temporary and adaptive land uses, urban ecologies, and experimental infrastructures that challenge anthropocentric and profit-driven paradigms. By examining the metabolic relations between extraction, import, and territorial expansion, the paper situates Singapore's practice within broader regional and global contexts, where land reclamation continues to functions as a dominant mode of urban expansion.

Engaging with the dual lens of extractive critique and speculative futures, this work frames urbanised grounds not only as instruments of state power and economic accumulation but also as sites of potential regeneration, more-than-human inhabitation, and socio-ecological experimentation. Singapore's case reveals how engineered land operates as both a material and political medium, highlighting the need for planning approaches that account for translocal ecological impacts, social inequalities, and the imaginative possibilities of urban soils. In doing so, it contributes to discussions on planetary urbanism, territorial justice, and the regenerative capacities of urbanised ground.

2486 | Alejandro Orduz, Lisa Babette Diedrich, Alejandro Orduz Trujillo

Transecting the Global Grounds of the European Green Energy Transition: Uncovering the uneven Land and Soil Relationships between Germany's energy-greedy Metropolises and Argentina's Lithium Extraction Peripheries

This contribution unpacks the multifaceted relationships between the metropolises of Northern European energy-greedy metropolises and Southern Hemisphere soils from which the materials enabling Europe's 'green energy transition' are extracted. With its increased reliance on renewable energy systems, the European markets' demand for rare earths reorganizes territorial relations across continents, transforming planetary corridors of extraction and urbanization, and creating new colonial dependencies, often obscured by hegemonic transition discourses. This work studies lithium earths' travel from extraction sites in the salt flats of north-western Argentina to the port of Hamburg as crucial place of arrival, manufacturing and distribution in Europe.

Wielding in a landscape architectural perspective, this paper treats lithium soils not as passive substrates but as socio-ecological agents that register the geopolitical pressures, material displacements, and more-than-human transformations embedded in extraction-driven transitions across continents and cultures. Referencing the historical Silk Road, this paper suggests depicting a contemporary version, the Lithium Road, as a string of interrelated landscapes en route, along which soils are the bearers of crucial transformations. Lithium soils link geographically distinct yet economically close energy landscapes on the move, which need to be better understood in order to stage an ecologically sound and socially just future for energy transition. To do so, this work aims to foreground how transitions are lived, negotiated, and resisted, to ultimately provide a base to activate relational spatial horizons for just transitions.

To counteract hegemonic urbanization patterns driven by climate-colonialist motives, this paper contributes cross-continental landscape imaginaries of interrelated transition landscapes. These imaginaries complement established debates of planetary and extended urbanization with discourses emerging in the Southern hemisphere. Following Southern scholars, this paper argues that the spatial agency of extractivist landscapes can only be decolonized by shifting the perspective: from a dominant narrative of 'the energy transition' to plural, situated understandings of differential transitions.

2595 | Tim Martens, Antoine Vialle, E-Werk Luckenwalde Team

Healing Urbanism: Regeneration of Post-Industrial Territories Through Soil Regenerative Design Prototyping

This work investigates how the technosols of post-industrial Berlin-Brandenburg can inform a new territorial metabolism grounded in remediation and circularity. By considering the E-Werk Luckenwalde as a living lab within a larger territorial project, this study establishes a cross-scalar link from local actions to the vision of a post-fossil regionalism and vice versa.

The transformed electricity plant in Luckenwalde emerges as a first critical node within an evolving territorial network. Inhabiting post-industrial heritage calls for care toward its soil conditions and the inherent layers of artifacts, infrastructures and pollutants. At the E-Werk, however, this soil engagement

becomes a performative process in which local and circular production supports both community and cultural practice. Here, technosols act as active agents in the regional energy transition, socio-cultural development and epistemological re-learning. As power begins to feed the grid, a workshop takes shape; a group is examining foundations beneath the solar umbrellas — the site functions as a living laboratory for a nascent regionalism.

Energy governance was a central act of the GDR's political apparatus. Forced into autarky and ideological assertion, this era inscribed vast industrial patterns across the territory. Drilling, digging, pouring — these fossil operations have left an imprint of thermodynamic excess that now forms an integral stratum of the geography of Berlin-Brandenburg. As the remediation of technosols remains an intensive process, vast terrains are often left abandoned. However, the E-Werk reveals a glimpse of the latent prosperity embedded in the long-burdened landscape. Through a research-by-design approach to the specific technosols of the E-Werk, this work seeks to outline a territorial metabolism that can enable the transition from terrain vague to terrain vivant.

2782 | Kristine Lien Skog, Gunnhild Storbekkrønning Solli, Kristin Marie Berg, Ole Jørgen Hanssen

Creating a Circular Future: Enhancing Sustainable Management of Surplus Materials in Land Use Planning

There are considerable challenges associated with achieving sustainable management of surplus materials (sustainable material management), such as soil and rock, in construction and development projects. Preliminary investigations reveal that these materials are often handled illegally or transported unnecessarily long distances to disposal sites, resulting in significant environmental degradation and greenhouse gas emissions. Furthermore, current systems for minimizing, sorting, and reusing materials are inadequate. In the absence of systematic planning, the responsibilities and management of surplus materials are frequently left to individual contractors.

This study investigates how regional plans for material management are integrated into municipal planning processes in Norway, and whether planning and implementation practices sufficiently promote sustainable management in accordance with the principles of sustainability and circular economy. The research employs a mixed-methods approach, including document analysis, qualitative interviews, and legal analysis. The findings yield explicit recommendations for strengthening legal frameworks and planning practices to facilitate more circular and sustainable management of materials and land use. Additionally, the study offers guidance on enhancing collaboration between national, regional, and local levels of governance.

SS16: Land and Soil

Fri 3.7.14:00-15:30, Special Session I, Y229c | Session chair(s): Anke Hagemann, Natacha Quintero González, Johanna Hoerning, Eva Paton, Antoine Vialle

1617 | Jan H.M. Lim, Jolein Bergers, Jan Lim

Common ground, living land: Participatory experiments for more-than-human thinking with soils in the city

Within capitalist planning and development processes, soils are often treated as inert substrates that are mindlessly excavated, disposed, compacted, and sealed. In cities in particular, soils are poorly understood and commonly approached through standardized assessment and remediation frameworks that flatten their site-specific qualities. Policy initiatives and systems-based solutions for enhancing soil functions and ecosystem services often risk reinforcing technocratic planning approaches, obscuring situated characteristics of urban soils. Concurrently, soils have also become the focus of more-than-human participatory experiments by planners, landscape architects, artists, ecologists, anthropologists, farmers, gardeners, and soil literacy groups. These initiatives emphasise soil's liveliness, specificity and complexities, supporting situated, relational knowledge practices grounded in particular geographies, histories and embodied experiences.

This paper examines the Common Ground programme in Leuven, Belgium, a year-long multi-actor initiative aimed at cultivating soil literacy and transforming human perceptions of the ground. Taking place across three neighbourhoods, the programme reveals how particular planning histories and soil management practices have shaped – and often simplified - human-soil relations on-site. As collaborators in this initiative, we reflect on how our methods – including a mobile soil lab, speculative soil archive, and other participatory research processes – make soils perceptible, discussable, and relatable among diverse publics. We explore how these practices foster situated, emancipatory knowledge practices about urban soils. How do these experimental approaches cultivate more-than-human relational perspectives of soil among local communities and stakeholders? What new socioecological narratives and imaginaries do they generate, and how might these challenge institutional planning practices and discourses regarding soils? We argue that such experiments, however modest, can lay the groundwork for resisting extractivist or anthropocentric understandings of land, while foregrounding the value of situated knowledges of soil's specific qualities to catalyse new ecological modes of urban planning and stakeholder involvement.

1620 | Marina Resende Santos, İnci Nazlıcan Sağırbaş

Epistemic depaving: doing and naming everyday insurgent land practices

The study group 'The earth we tread' is dedicated to understanding and mapping modes of relating to land that are not based on property, commodity exchange and extraction, at the scale of everyday practices and primarily in Berlin, the group's immediate environment. The multiple meanings of the word 'land,' and its non-synonymous translations in other languages, betray the contentious epistemological diversity that surrounds this topic. While hegemonic categories frame many lived practices (rent, zoning, botany, distance from the 'land we live from' [Latour]), insurgent practices create relations to ground and resources that fall out of the hegemonic dictum while guaranteeing actual survival– often bundled as

commoning, belonging, stewardship, gardening. Often, it is those who are excluded from property or legal self-determination that build upon affective, unalienated relationships to land. Besides documenting and performing practices in Berlin territory, the study group has thus created a glossary of 'land practices,' indexing terms such as 'third commoning', 'neighbour-nonhuman cooperation' and 'mutual aid,' each defined upon concrete sites and experiences.

Looking at land in this way is an exercise in epistemic depaving. As we unlearn the land regime imposed by disciplinary expertise and the land market, we begin to see the bare and dynamic land beneath tarmac and law: an interaction of social relations and affects, uses, bio- and geological life that is continuously co-constructed and negotiated (not unlike Latour's "critical zone"). Depaving is meant to improve cities' climatic and ecological resilience; epistemic depaving releases practices that pre-figure more resilient ways of relating to the immediate world and the planet.

This presentation proposes epistemic depaving as a pedagogical and philosophical tool. The glossary will offer practices that are invisible or marginal to standard planning language, but which attuned planners can protect, foster, and give designing power, to enable more (eco-)systemically just spaces.

2580 | Philipp Misselwitz, Anke Hagemann, Natacha Quintero González

Grounding discourses and future orientations for land and soil research in urbanism and planning

In this contribution, we offer an overview of various discourses on soil and land in relation to spatial disciplines and urban theory. We highlight how dominant discourses have historically defined different human-soil relations and forms of urban production, and we discuss how they represent the basis for new research questions and directions. In an era of planetary urbanisation and simultaneous climate, social, economic and biodiversity crises, soils and land are at the centre of conflicting agendas and multidimensional contestations. Cities and urbanised regions remain arenas where speculation, neoliberal production, overbuilding and anthropocentric planning conflict with the demand for affordable housing, spaces for public socialisation, for climate adaptation, and for the flourishing of nonhuman life. At the same time, urban grounds thrive on inputs from food, energy and other material supply networks, effectively connecting them to multiple soil communities across the planet and, very often, to extractive economies and the exploitation of other lands and territorialities. Although many approaches to sustainable urban development offer hope for the transformation of cities, we are interested in how a ground (soil-land-territory) perspective can highlight the relationality of urban production and its connected environments. We find this perspective relevant whether the focus is on incorporating soils in city-making, on more democratic land distribution and stewardship, on how soils enable human and nonhuman life, or even on pointing out the gaps and tensions in local solutions in terms of how they leave out certain actors or set in motion conflicting processes. We argue that situating soils and land in multiple disciplinary discourses helps us understand how we have arrived at this juncture and, at the same time, creates fertile ground for knowledge dialogues that take soils seriously as a transformative and lively agent in urban production.

2520 | Aki Kadulin, Raneli Müllerson, Evelin Jürgenson

Land take and soil sealing in Estonia: environmental implications and evidence from the Tartu Parish

Land take and soil sealing have become important challenges for spatial planning and sustainable land management in Europe. The European Union has established the long-term objective of achieving no net land take by 2050, reflecting growing concerns about the loss of agricultural land, ecosystem fragmentation, declining land-use efficiency and increasing pressure on ecosystem services. Despite these concerns, land take continues in many regions, including Estonia, where artificial land has expanded despite periods of population decline and significant regional demographic disparities. At the same time, growing suburbanisation around larger urban centres has increased pressure on agricultural and natural land, raising questions about the long-term sustainability of current spatial development patterns.

This paper examines land take and soil sealing in Estonia from a spatial planning perspective, combining evidence from recent studies on land take, soil sealing and land-use efficiency with a local case study from Tartu Parish. The analysis is based on literature and policy review, documentary analysis, demographic and land-use statistics, and spatial analysis using GIS-based datasets. Particular attention is given to the evolution of land take in Estonia since 1991, recent soil sealing trends, and the relationship between settlement expansion and land-use efficiency.

The Tartu region is used as an example of one of Estonia's fastest-growing suburban areas. Spatial analysis of residential development between 2011 and 2024, based on the Estonian Topographic Database and soil data models, reveals that new housing has primarily expanded into previously natural areas surrounding existing settlements, transport corridors and the urban area of Tartu. The results show how residential expansion contributes to land take even in a sparsely populated country and demonstrate the environmental consequences of converting natural land into built-up areas. The case study further shows that land take associated with residential development resulted in an estimated loss of more than 10,000 tonnes of soil carbon, highlighting the broader implications of spatial planning decisions for ecosystem services and climate regulation.

The findings suggest that land take should be understood not only as an environmental concern but also as a challenge for territorial governance, infrastructure planning and sustainable regional development. The Estonian experience demonstrates the need for stronger monitoring systems, improved land-use efficiency indicators, prioritisation of brownfield redevelopment, and greater integration of soil functions into planning processes. The Tartu Parish case illustrates how local-level evidence can support the implementation of the European no net land take objective while promoting more sustainable spatial development practices.

2875 | Elias Grinzinger, Barbara Steinbrunner

Soil walks: a participatory method to strengthen local dialogue and awareness on sustainable land use

Soil Walks are a participatory method developed to initiate public dialogue and support collaborative planning processes within municipalities. Through guided on-site walks, residents, researchers and local decision makers jointly explore areas of interest to discuss current challenges and opportunities in land use. The approach combines scientific insights with local knowledge and municipal planning perspectives, fostering a shared understanding of how land resources are used, valued and contested. Findings generated during these walks provide a basis for informed and forward looking planning decisions and can serve as starting points for subsequent community or regional initiatives.

A careful and transparent approach to land use has become increasingly important, as the demand for space and the pressures on soil ecosystems continue to grow. Unsealed and functional soils provide essential societal and environmental benefits, from supporting biodiversity to improving local microclimates and maintaining natural water cycles. Yet planning decisions at municipal level often accelerate soil sealing, highlighting the need for tools that promote awareness and dialogue.

The Soil Walks project addresses this gap by offering an open access method that encourages broad engagement with land use issues. Its development followed a design thinking framework, which structured the process from problem exploration to concept development and implementation, ensuring that the final method meets the needs of diverse user groups.

The method was tested in four pilot municipalities. Insights from these pilots informed the development of a training video and a handbook that enable municipalities across Austria to organise Soil Walks independently. The method is supported by a newly developed data dashboard that visualises key indicators on land use and soil sealing at municipal, regional and national levels, making complex spatial information accessible to a broad audience.

1943 | Nilra Zoraloglu

Urban Soil as Relational Ground: Artistic Research Across Johannesburg and Berlin

This presentation examines urban soil as a relational, expressive medium through artistic research conducted across Johannesburg and Berlin. Drawing on Francis D. Hole's proposition that the earth is not terra firma but terra vibrata, and on relational soil theory by Krzywoszynska and Marchesi, the project approaches soil as a dynamic assemblage—an active collaborator in urban life rather than an inert substrate. Through soil chromatography, field sampling, and situated observation, the research visualizes how geology, contamination, water, microbes, and human activity co-produce the ground's material and symbolic conditions.

In Johannesburg, soil was gathered from mine dumps, chemically stressed urban edges, and extraction-scarred terrains where gold mining has left persistent residues. Chromatographic prints from these samples reveal dense, dark cores, restricted diffusion, and mineral-heavy patterns that act as material witnesses to environmental violence. They expose the ground's capacity to store and circulate the spatial afterlives of extraction, inequality, and toxicity.

In Berlin, sampling focused on swamplands, wetlands, and transitional moist grounds, alongside post-industrial reuse sites shaped by gardening, composting, and informal stewardship. Here, the chromatographies show diffused rings, organic gradients, and high microbial activity, reflecting slower ecologies of decomposition, saturation, and renewal. These soils register forms of urban care—small, everyday acts that reorganize ground conditions beyond formal planning structures.

Chromatography functions as speculative translation rather than scientific measurement: a way of attending to exchanges between mineral, microbe, solvent, and residue. Across both cities, the prints reveal soils as tellers of extractive translocal relations—signifying how mining, industrialization, and urban transformation produce shared patterns of disturbance across distant contexts. At the same time, the research highlights care-based, regenerative practices as counter-relations. These situated acts propose alternative urban futures grounded not in extraction but in reciprocal, soil-oriented repair.

SS17: Nordic Planning

SS17: Nordic Planning

Fri 3.7.09:00-10:30, Special Session G, M141 | Session chair(s): Carsten Jahn Hansen, Kristina L. Nilsson, Harpa Stefánsdóttir

1839 | Harpa Stefánsdóttir, Sebastian Peters

Planning for walking in the context of the small Nordic city

Small cities (in this study defined as with populations of roughly 10,000–15,000 inhabitants) are common across the Nordic countries. In these settings, walking policies tend to be less formalized than in larger cities and are often constrained by limited planning capacity, modest budgets, and car-dependent urban structures. Although policy frameworks promote equitable accessibility and high-quality urban environments, their implementation tends to favour metropolitan areas where walking is already a more feasible mode of transport.

Planning for walkability in small cities is shaped by contextual conditions that distinguish them from larger urban areas. Research highlights the interplay of structural, institutional, and behavioral factors that affect both the built environment and planning processes. Dispersed urban forms and fragmented street networks can impede efforts to establish continuous, attractive walking routes. At the same time, entrenched car-oriented travel habits and long-standing planning traditions reinforce reliance on private vehicles, making it difficult to shift everyday mobility patterns.

Despite strong evidence that distance is a central determinant of travel mode choice, short car trips for routine purposes remain widespread. A recent study of Kongsvinger, Steinkjer and Narvik revealed a clear mismatch between the potential for walking and actual walking activity in these small Norwegian cities. Understanding how planning can help close this gap is essential for advancing sustainable mobility in similar contexts.

Unlocking walkability potential requires more nuanced insights into the obstacles perceived by both planners and pedestrians. Bringing these perspectives together can clarify which planning strategies and processes are most effective in addressing perceived barriers and, ultimately, in translating favourable conditions into actual walking behaviour.

1962 | Sigríður Kristjánsdóttir

Echoes of the Land: Icelandic Settlement Wisdom for Today's Nordic Planning

This paper explores how Icelandic settlement traditions offer guidance for designing Nordic communities that respond more sensitively to landscape conditions. Drawing on historical examples from rural settlements and contemporary planning efforts in Reykjavík, the research examines how early Icelandic practices—shaped by volcanic terrain, harsh climate, and cultural adaptation—produced settlement patterns that worked with the land rather than reshaping it. Central to this perspective is the Icelandic concept of landsleg, which describes how the land lies by nature and implies human adaptation to existing forms rather than imposing new ones.

The study identifies four variables—place, built form, time, and space—that together define how Icelandic settlements historically emerged in dialogue with their environment. These variables reveal that cultural identity, environmental limits, and incremental change were embedded in earlier planning logic. The findings show that this traditional landscape-based approach is increasingly displaced by contemporary pressures such as rapid urbanization, tourism, and land consumption. Settlements are often treated as designable from the ground up, neglecting natural processes and weakening cultural continuity.

By revisiting earlier methods of working with terrain, microclimate, and local materials, the research argues for a renewed Nordic planning framework grounded in site specificity, ecological restraint, and cultural meaning. Such a framework can support sustainable development while maintaining the distinctive relationship between people and landscape that has long shaped the region. Although rooted in Iceland, the principles highlighted here—respect for natural form, incremental growth, and planning as adaptation—offer insights for other Nordic and Arctic contexts facing similar tensions between modernization, environmental vulnerability, and heritage. The presentation calls for a planning practice that recognizes landscape as an active partner in settlement formation and uses historical knowledge as a foundation for future-oriented, resilient Nordic planning.

2057 | Kjersti Straume, Ingvild Sande Lillebø

Knowledge-Based Spatial Planning: Identifying Key Characteristics in a Nordic Context

In digital and knowledge-based spatial planning, both planners and politicians increasingly rely on experts and data-driven models to inform planning practices. Critical geography underscores that all knowledge is socially and politically situated, challenging the notion of objectivity. The production and application of knowledge in planning are never neutral; the knowledge base can simultaneously foster democratic participation and reinforce existing power structures.

This article investigates knowledge production within spatial planning. We adopt an interdisciplinary approach, integrating legal and social science perspectives. The aim is to critically examine how knowledge bases are utilized in planning processes. Specifically, we analyse the tension between legal frameworks, the intended role of knowledge in planning documents, and its pragmatic application in case processing.

The empirical material comprises legislation, legal guidelines, planning documents, and case reports. These sources are examined using legal methodology and document analysis. The findings are discussed through the lens of critical geography theory to reveal which forms of knowledge are prioritized—and why.

2855 | Kristina L Nilsson

Planning for Climate Change in Nordic Arctic towns

Nordic Arctic towns have several positive connotations, they are mostly small located in unique natural landscape, having intriguing winter conditions, rich natural resources. These towns also experience several challenges with the small communities, outmigration of young people causing ageing population, long distances between the settlements, harsh climate, long winters with snow and ice.

The so called 'Green transition' initiates new industrialisation and outtake of more natural resources. This is the reason for the local authorities' strivings to increase the population for labour to improve economic stability, to both keep and attract more young residents. However, the inhabitants since generations have other social situation than new inhabitants.

The local and regional planning activities strive to overcome the often contradictory objectives to integrate local planning with adaptation to climate change threats in a type of nature-based strategies of green-blue-white planning. White planning aims to manage the winter conditions with snow, ice and darkness. Nature and eco-system values of green and blue areas will be mapped as basic information for climate adaptation planning. Such strategies need to be integrated into local planning.

2972 | Slađana Lazarević

Innovations and Research-based Teaching as a Driver to Cities' Regeneration Readiness for Climate Neutrality

Achieving radical changes in climate neutrality by 2050 requires coordinated international, transdisciplinary efforts. The pressure on higher education to support pedagogical and reflective practices is increasing rapidly. Recent studies of European planning schools reveal that while sustainability topics are widely integrated across curricula, transformative planning is addressed implicitly and inconsistently (Farhangi et al. 2023). There is no common, adaptive, transformative teaching pathway or framework to prepare experts and practitioners to address complex urban challenges, including cities' readiness for decarbonisation, systematically considering all aspects of sustainability.

The findings of the comparison study of decarbonisation pathways in the building sector across two distinct European regions, the Nordic Region and the Western Balkans, examining a comprehensive range

of scenarios, from conservative to nearly utopian, indicated that neither the current pace of transition nor the implementation of highly ambitious hypothetical scenarios is sufficient to achieve the desired climate goals in both regions (Lazarević et al. 2025). At the same time, a Danish study on forward-looking life cycle analysis of new construction up to 2050 concluded that "four out of five new constructions must be stopped" (Horup et al. 2025). These challenges have to be primarily addressed through planning strategies and practices, as well as through further urban regeneration processes. Therefore, existing curricula and teaching practices will be systematically mapped, and a conceptual framework for "regeneration readiness" will be tested. This paper will further examine whether academic master planning programmes in Nordic and Western Balkan countries prepare future planning and design professionals with the expertise to promote the transformation and radical regeneration of cities and regions toward climate neutrality. The study will suggest needed adjustments to the knowledge areas and pedagogical framework, emphasising a research-based teaching model and systems thinking as drivers of adaptive teaching, learning, and practice-oriented approaches to changing needs.

SS17: Nordic Planning

Fri 3.7.11:00-12:30, Special Session G, M141 | Session chair(s): Carsten Jahn Hansen, Kristina L. Nilsson, Harpa Stefánsdóttir

2114 | Ellen Strøm Synnevåg, Gro Anita Bårdseth

Mapping the Planner-Politician Relationship in Spatial Planning: A Scoping Review

The relationship between planners and politicians lies at the core of spatial planning. In the Norwegian context, there is a strong expectation of co-creation and collaboration between these actors, yet politicians often perceive this as challenging. Although research has explored the roles of planners and politicians, there is currently no systematic review focusing on their relationship within spatial planning. This paper aims to identify and describe the nature and extent of research on this relationship through a scoping review of international peer-reviewed literature, following Arksey and O'Malley's framework. The scoping review is guided by two research questions: (1) What characterizes the planner–politician relationship in spatial planning? (2) What characterizes the state of knowledge regarding methods, theories, and geographical contexts? The study seeks to contribute to planning research and inform a Nordic research project on the planner–politician relationship in Nordic spatial planning.

2266 | Bjarte Folkestad

Local planning strategies – does municipal size and political affiliation matter?

Norwegian municipalities are legally required to develop and adopt a municipal planning strategy. Municipal councils in Norway are elected for a fixed four-year term with no option for early elections. Within one year after the council is constituted, it must adopt a planning strategy. According to the Norwegian Planning and Building Act, the planning strategy should include a "discussion" of the municipality's strategic choices regarding land use, environmental considerations, and planning needs for the subsequent three to four years.

Previous research has largely confirmed that these plans are decoupled from everyday political activities and debates. This study seeks to determine whether municipal planning strategies reflect structural and political characteristics, thereby shedding light on the extent to which local planning is influenced by institutional and political contexts rather than being a purely technical exercise.

The empirical foundation of the paper consists of planning strategy documents from all Norwegian municipalities (N = 357) for the 2023–2027 election period. The dependent variable is constructed by identifying key elements in the planning strategy documents: priority areas, document length (word count), topics covered, and potential political affiliation (e.g., whether the document uses keywords associated with certain political ideologies).

We examine if variations in these documents can be explained by variables such as: Size of municipalities (both area and population size); Demographic characteristics; Municipal economy (level of fiscal capacity); Political factors, including: Size of municipal council; Party affiliation of political leader (mayor); Degree of political competition

2610 | Carsten Jahn Hansen

New and innovative planning spaces for local and regional development in Denmark – dealing with grand challenges in small places

The Danish spatial planning system is regarded to be decentralized with strong local planning powers that include statutory municipal and local planning with both wider strategic elements and more specific land use regulatory instruments. As such, the system is apparently geared for the adaption of grand challenges into local contexts. Also, in the Planning Act, new issues and themes, reflecting such challenges, have been added continuously to local level planning responsibilities.

However, many smaller municipalities find it increasingly difficult to simultaneously deal with a widening set of bigger challenges, in effect a multi-crisis perspective, that also reflects major differences in agendas such as growth, social indignation, environmental management, nature preservation and restoration, climate change adaption, etc. A key challenge in including such a variety of wider and often top-down perspectives into formalised municipal and local planning is its heritage in traditional land use-oriented planning and regulation. Statutory municipal and local planning is basically tailored towards creating very specific technical and judicially bulletproof guidelines for landowners. In effect, this often results in a delimitation and narrowing down of original intentions when more overall strategies meet the reality of the formalised instruments for local planning.

Local authorities and communities in Denmark have, largely in response to the above-mentioned, therefore experimented with innovating and developing many new kinds of 'softer' holistic local and sometimes regional planning spaces for dealing with both grand challenges while at the same time trying to take into account various place-sensitive aspects.

To illuminate this further, this presentation provides an overview, results and theoretical implications of such planning spaces from the Aalborg University research project 'Development planning in Denmark – planning spaces for sustainable place development'. In addition, an illustrative example of attempts to deal with climate change locally through new kinds of plans is provided.

1995 | Erik Hofsbro

Place analysis - a potential method for sustainable place development?

Within the field of planning, various methods have long existed for how to investigate, analyse and produce contextual knowledge about our cities and settlements. In Norway, these methods are commonly referred to as “place analysis” and received increased attention during the 1990s where they emerged as a potential means for improving the visual and aesthetic qualities of the built environment. Since then, major changes have occurred in the planning and development of our places, but the role of “place analysis” in modern planning has not been particularly explored or discussed. This doctoral research examines the development and use of “place analysis” in Norwegian municipal planning, and explores how these relate to contemporary sustainability challenges and topics such as demographic development, local democracy and social inclusion, resource and area usage, climatic adaptation, spatial and architectural development, tourism and attractivity, place and identity etc. The research has shown, among other things, that “place analysis” is still a widely used method in today’s planning, but that little is known about how these are carried out and which effects they might have in the planning and development of the places where they are done. In addition, many of the current methods and guides for “place analysis” are primarily aimed towards the use in urban areas, while many smaller municipalities and towns requests methods and guides which are more suitable and tailored towards their situation and needs. Drawing on a qualitative case study of four municipalities and their use of “place analysis” in planning, this research project provides new insight for how the methods and use of “place analysis” in modern planning can be improved and developed to better contribute towards a more sustainable (place) development, and highlights potential effects and uses which previously have not been properly utilised or communicated.

SS18: Open City

SS18: Open City

Tue 30.6.17:45-19:15, Special Session B, U406b | Session chair(s): Anita De Franco, Kang Cao, Paulo Nascimento Neto

2125 | Stefano Moroni, Ian Carter

What is “Open” in the Open City? Towards a Conceptual Map

The theme of the “open city” features with increasing prominence both in academic discourse and in public debate. However, discussions about the nature and justification of the “open city” are often ambiguous, partly because the very concept of “openness” has remained under-analyzed and partly because different uses of the concept refer to different features of the city. Within both the existing literature and public discussions, it is indeed possible to identify several distinct interpretations of what it means for a city to be “open”. This paper first seeks to clarify and analyze these different interpretations; subsequently, it explores the values underlying them, grouping the various elements characterizing the open city into two main categories with distinct normative foundations.

2118 | Anita De Franco

The Value of Openness: Epistemic, Systemic, and Empirical Issues

The growing complexity of contemporary society demands, ever more insistently, that policy-makers and citizens remain open to the unexpected. This claim is not easily embraced, especially when governance systems prove unable to manage both ordinary and extraordinary issues for citizens. Yet, beyond rhetorical considerations, many scholars in social and economic theory have demonstrated the importance of the concept of openness – mental/epistemic, operational/systemic, and experiential/empirical – which warrants more systematic reflection. Through a critical review of the literature, this paper illustrates the various interpretations that the value of openness can assume and how these are often hindered by certain contemporary public and planning policies. The central argument is that, even when one hypothetically accepts the desirability of openness, there exist mechanisms (often acritical, self-preserving, and biased) that make the sub-optimal option of closure easier and more convenient. This becomes evident in issues related to pluralism, economic inequalities, and cases of protectionism and prescriptivism that persist within certain planning cultures. The aim is to shed new light on the topic and to provide an analytical framework for discussing openness as a guiding value for enhancing the quality of life in urban environments across different regions of the world.

References

Gattei, S. (2006). Respect as the Ethic of the Open Society. Learning for Democracy, 2(3), 5-20.

McInnes, N. (2002). Popper's return engagement: The open society in an era of globalization. The National Interest, (67), 72-80.

North, D. C. (2016). Institutions and economic theory. The american economist, 61(1), 72-76.

North, D.C., Wallis, J.J., & Weingast, B. R. (2009). Violence and the rise of open-access orders. Journal of democracy, 20(1), 55-68.

Turner, P.N. (2023). Open society as an achievement: Popper, Gaus, and the liberal tradition.

Ul Haq, M. (1992). Human development in a changing world. UN Development Programme, Human Development Report Office.

1156 | Christine Mady

Negotiating openness through social infrastructure: A case from Helsinki City

This research examines how evolving forms of social infrastructure contribute to advancing the open city ideal, namely accessibility and inclusivity within a context supported by public policy and participatory planning approaches. It builds on UN-HABITAT's (2020) definition, which states, “Social infrastructure includes the institutions and spaces that provide social services and promote social interaction, cohesion, and inclusion in cities.” This definition is pertinent to open cities as it refers to equity, inclusion, and sustainable communities amidst rapid urbanisation, and uncertainties. Within this study, public spaces and public libraries are examined to explore whether and how social infrastructure mediates between policy intentions and everyday practices and contributes to the implementation of the open city

ideal. This framework explores the capacity of these categories to foster social interaction, cultural diversity, and collective agency, thereby contributing to the realisation of the open city. In Helsinki, urban planning has evolved under the welfare state model in Finland and embodies ideals including accessibility and prioritising collective wellbeing. The research examines specifically cases of Helsinki's public library participatory management models as practised by librarians, and experimental park design and placemaking initiatives, and participatory budgeting for public projects as promoted by the planning authorities. Document analysis and participant observations are employed to examine how policy and planning approaches are enacted in these public space initiatives. Initial findings indicate that public policy, as reflected in the revised Library Act of 2016, together with the introduction of design thinking, experimentation, and the development of participatory platforms within planning for public spaces, contribute to creating more inclusive and accessible public spaces for the city's evolving and diversifying communities. Nevertheless, the long-term sustainability and adaptability of these approaches amid future uncertainties remain unclear and warrant further investigation.

1113 | Nurit Alfasi

Liberal-Democratic Principles: from Pre-Modern to Contemporary Urban Planning

This research proposes a conceptual framework for understanding Open City planning through the lens of liberal-democratic principles. It argues that many pre-modern urban planning systems, despite operating under non-democratic regimes, embodied procedural values later formalized within liberal democracy: rule-governed development, civic involvement in rule setting, transparency, and adaptability. Drawing on cases from the Mediterranean and Near East, Mesoamerica, and medieval Europe, the paper demonstrates how planning codes, customary negotiations, and collective maintenance practices produced resilient, inclusive, and just urban environments. These historical precedents are contrasted with contemporary Closed City conditions, represented by anti-adaptive neighborhoods on one hand and unregulated ultra-orthodox enclaves on the other, both of which distort the balance between freedom and order. Reinterpreting liberal democracy as a procedural logic rather than a political ideology, the study suggests that the vitality of cities depends on maintaining open, culturally sensitive, and environmentally aware planning principles that evolve over time. It concludes that democratic urbanism is rooted in humanity's oldest civic wisdom: cities thrive when governed by fair, transparent, and adaptable rules that protect both individuality and the common good.

1829 | Riina Lundman

Neuro-accessibility and the experiences of urban public spaces by neurodivergent individuals

Neurodivergent individuals often perceive, experience, and sense their surroundings differently from neurotypical people. Although urban space is part of their everyday environment, the various sensory stimuli of cities can overload the brain, and the normative rules of urban public spaces may lead to misunderstandings. In addition, some participatory methods in urban planning do not always suit neurodivergent individuals in the best possible way.

In this presentation, I introduce my research on a more neurodiverse city. I have conducted walking interviews in four Finnish cities with neurodivergent individuals diagnosed with autism spectrum or ADHD. I reflect the interviews against my earlier research on neuro-accessible urban planning (Lundman 2024). My theoretical framework draws on (feminist) relational ethics and neurodiversity paradigm. One key result is that the so-called 'Design for All' approach is not a sufficient perspective for planning neuro-accessible urban public spaces. It is essential to understand and include the specific needs of neurodivergent individuals in planning, while accepting the variation and diversity of people's neurological characteristics in urban space. As one of my interviewees stated: "A shared city - it doesn't necessarily mean the same route, the same city, the same space."

Lundman, R. (2024). Kohti neuromoninaisempaa kaupunkia: lähtökohtia yhdenvertaisemmalle ja neuroesteettömälle kaupunkisuunnittelulle (Toward a more neurodiverse city: Proposals for more inclusive and neuro-accessible urban planning). Terra, 136(1), 25-36.

SS18: Open City

Thu 2.7.16:00-17:30, Special Session B, U406b | Session chair(s): Anita De Franco, Kang Cao, Paulo Nascimento Neto

1162 | Ignacio Castillo Ulloa, Sarah Friedel, Anna Juliane Heinrich, Angela Million

The Openness of the Hybrid City: Young People's Contested Spatialities in Lima (Peru) and Berlin (Germany)

The ideal of the 'open city' presupposes accessibility, and inclusion for all. Yet, for young people, navigating the openness of cities entails grappling with a contested reality shaped by intersecting physical, social, and digital boundaries. Across the world, youths are pushed out of public spaces: they withdraw from them because their antics are frowned upon, or because they are labelled as troublemakers. Thus, while streets, squares, and parks become adult-centred spaces, young people are secluded in child- and youth-dedicated spaces—supervised and pedagogically framed. In addition, parental fears regarding traffic safety and 'stranger danger' restrict young people's independent mobility and unsupervised play, thereby narrowing their spatialities.

Against this background, virtual realms once appeared to offer a gateway to self-determination and unmonitored sociality. However, young people's practices are also restricted in virtual realms, as cultural norms extend into digital domains and practices of digital fencing emerge.

This contribution questions how open the 'hybrid city' is for young people by examining how digital technologies interweave physical (co-)presence with networked interaction, creating hybrid spaces: dynamic figurations in which material settings, social relations, and digital connectivity are imbricated.

Drawing on empirical research conducted in Lima (Peru) and Berlin (Germany), distinct youth types were developed based on their spatialities' hybridization. These reveal how urban openness unfolds for young people and is conditioned by e.g., gender, parental regulation, socio-spatial context.

These findings are discussed in light of current debates on digital governance and urban policy. With many countries designing or already implementing age-based restrictions on smartphone use and social

media access, the question of what constitutes a child- and youth-friendly city, and how to envision it, must be revisited. Reflecting the theme “Peripheral Visions – Rethinking Planning”, the concept of the ‘open city’ must therefore be reconsidered regarding hybridisation and from the perspective of its youngest citizens.

1937 | Melinda Benkő, Gergő Pődör

Open City Futures: A Comparative Study of Masterplans for Budapest’s Rákosrendező Station Neighborhood

In 2022, the Hungarian capital adopted a new Integrated Urban Development Strategy built around three core objectives: an empowering, green, and open Budapest. The notion of an “open city” is interpreted in both social and economic terms, emphasizing the importance of a proactive and inclusive urban governance. In this spirit, in 2025, the Municipality of Budapest launched the Rákosrendező masterplan competition to create a “diverse, inclusive and sustainable” 250-hectare new district composed of a station neighborhood, an urban park, and several housing development areas. Indeed, the area surrounding intermodal hubs is, by nature, the most accessible and publicly used part of any city: stations are urban places where anyone may appear at any time. Therefore, the degree of openness in the planned urban fabric would be a key factor in the design proposals for the housing areas of the station neighborhood.

The research is based on open city concepts in both social and urban design theories, and the comparative analysis of the winning masterplan proposals provides an opportunity to explore its importance in actual planning practice. The competition focuses exclusively on the physical environment, defining new urban form and public spaces. The planning process is necessarily top-down, as the area is not yet inhabited, and most of the international designers have no detailed knowledge of the local socio-economic conditions. Like all plans, these visions remain fictional. They imagine a future without the residents whose everyday presence and practices will ultimately shape and redefine the planned urban space. Hopefully, the European concept of the open city will be maintained in the future Rákosrendező district.

2054 | Cui Liu, Fuyi Lai, Zhiyu Gu

Assessing Hybrid Publicness in the Digital Era: A Physical-Virtual Framework and Empirical Insights from Hangzhou

Publicness in contemporary cities increasingly emerges through the intertwined operation of physical environments and digital platforms, producing hybrid public spaces whose form, function, management, and meaning are co-constituted across both realms. Building on conceptual advances in physical-virtual spatiality and diverse models of publicness evaluation, this study develops a comprehensive assessment framework that reconceptualizes publicness as a multidimensional construct shaped through spatiotemporal hybridization, digital mediation, cyborg engagement, and technocapital differentiation. The framework operationalizes four key dimensions (accessibility, affordance, vitality, and inclusiveness) to evaluate how public spaces perform simultaneously in physical settings and online environments.

To demonstrate the analytical value of the framework, it is applied to Qiaoxi Historical District in Hangzhou, China, a heritage water-town area experiencing intensified online visibility. Using multi-source data, including spatial network metrics, point-of-interest distributions, pedestrian flows, and digital indicators from mapping platforms and social media, the study employs spatial syntax, visibility graph analysis, and kernel density estimation to examine patterns of physical and virtual publicness. Findings reveal marked divergences: physical publicness concentrates along landmark corridors with dense amenities and affordable services, whereas virtual publicness peaks in commercial clusters and symbolic nodes with strong online exposure. Non-commercial and deep-alley areas remain weak in both realms. A comparative analysis identifies four publicness types (high-high, low-low, physical-strong/virtual-weak, and virtual-strong/physical-weak) highlighting the relational and uneven nature of hybrid public space.

Overall, the study offers both a theoretical reframing and an operational tool for assessing the hybrid publicness of contemporary urban spaces. It underscores the need to balance physical and virtual realms in heritage revitalization and public space governance, advancing a more integrated, equitable, and context-sensitive approach to managing publicness in the digital age.

2654 | Jihee Park

What Makes a Neighborhood 'Liveable' for Digital Natives? Re-defining Youth Environments through the Right to Dwell

The adage "It takes a village to raise a child" underscores that growth is deeply rooted in daily life and community relations. However, modern urban youths often lack opportunities to grow in streets, alleys, or parks. Amid parental control, safety concerns, commercialized spaces, and screen-centric lifestyles, physical community experiences are replaced by indoor, digital routines. For "Digital Natives" who are always online, social interactions have expanded digitally, but direct physical engagement with the environment has diminished. The WHO reports that over 80% of adolescents fail to meet physical activity guidelines, framing this as a structural rather than individual issue. In Korea, intense academic pressure exacerbates this, confining youths to homes or cram schools, with urban usage limited to purpose-driven commercial spots like convenience stores.

Adolescence marks a critical expansion of independent mobility, making the outdoor environment as vital as the home. While youth mobility is a key indicator of a healthy city, urban planning often focuses on designated facilities that teens ignore, overlooking the everyday streets they actually frequent.

Focusing on Jongno-gu, Seoul's historical center, this study examines how teenagers navigate spaces shared with tourists and workers. Using photovoice, cognitive mapping, and interviews, the research identifies necessary everyday spaces and environmental conditions for youth well-being. Analyzing functional, social, and emotional affordances, this study aims to reframe youth-friendly environments not as a matter of providing amenities, but as a question of the "right to dwell," emotional safety, and hospitality within ordinary neighborhoods.

SS18: Open City

Fri 3.7.09:00-10:30, Special Session B, U406b | Session chair(s): Anita De Franco, Kang Cao, Paulo Nascimento Neto

2021 | Stefano Cozzolino

The Open City: Bridging Institutional Conditions and Socio-spatial Outcomes

The planning literature on the open city appears scattered and unstructured. Yet, when recent publications and debates are interpreted and reorganised, most contributions seem to cluster around two main narratives, which are generally treated separately. One focuses on the enabling institutional framework for the open city (e.g., planning rules and policies), while the other concentrates on the experience of the open city. This raises two key questions: How can these narratives be related? And can the divide between them be overcome to offer a more comprehensive understanding?

The primary aim of this presentation is to examine whether and how these two narratives can be critically revised and integrated into a unified perspective. Such an attempt is currently lacking in the literature and may open new interpretative pathways with stimulating theoretical and practical implications. The challenge is addressed through the presentation and discussion of four hypothetical cases, which help clarify key concepts—isolating variables and conditions in a simplified way—and explore scenarios that reduce empirical complexity.

The analysis demonstrates that scenarios in which either openness in the conditions (i.e., the enabling institutional framework) or openness in the outcomes (i.e., the lived urban experience) is absent reveal the limitations of single-focus approaches. The presentation concludes by proposing a unified framework that bridges the divide between the two narratives, offering both theoretical insights and practical guidance for discussing, interpreting, and fostering truly open cities.

1890 | Benedetta Masiani, Camilla Perrone

Urban Pedagogy: From Variable City to Open City

This paper revisits the concept of the “variable city” developed by the twentieth-century Italian architect Giovanni Michelucci, by reframing it through the lens of urban pedagogy to advance a renewed understanding of the more recent concept of “open city” introduced by the sociologist Richard Sennett. Michelucci’s formulation anticipates contemporary debates on openness, emphasising the city’s capacity to remain adaptable, porous, and educative.

Urban pedagogy finds its early roots in the work of Patrick Geddes, one of the first spatial planners of the early twentieth century. Geddes’s pedagogy frames the city as a generator of knowledge and civic agency. His understanding of the city as a civic laboratory, where observation, movement, and everyday experience constitute the first acts of citizenship and learning, resonates with Richard Sennett’s reflections on cooperation, informality, and the educational value of open systems.

Drawing on these perspectives, the paper argues that the variable city acquires pedagogical depth, enabling it to evolve into an open city understood as a continuous pedagogical infrastructure. This perspective challenges the reduction of education to enclosed, institutionalised settings, advocating

instead diffuse, networked, and experiential forms of learning, in line with contemporary notions of distributed and lifelong learning promoted by UNESCO Learning Cities.

Against this backdrop, the paper presents three European case studies that exemplify open-school and learning-city approaches, illustrating how urban planning operationalises openness as a relational and pedagogical practice.

In conclusion, the paper demonstrates that urban pedagogy offers a critical pathway from the variable city to the open city, positioning openness not as a rhetorical ideal but as a situated, co-produced and educational condition. By foregrounding learning as an urban practice, the open city emerges as a lived and operational principle for planning in times of complexity and uncertainty.

2012 | Paulo Nascimento Neto

BOUNDED OPENNESS IN DEAL-MAKING CITIES: Right to the City in recent Brazilian urban renewal projects

The ideal of the open city assumes that urban space should be accessible, plural, and collectively shared. This notion resonates with Lefebvre's formulation of the right to the city, a demand for appropriation of urban space beyond its exchange value. Yet in contemporary Latin American cities, this ideal coexists with a growing reliance on negotiated, market-aligned planning instruments and the increasing dominance of private actors in decision-making. Such dynamics reconfigure not only the organisation of planning systems but also the moral foundations through which openness is invoked and operationalised. This paper interrogates the ethical mobilisation of openness in Brazil, focusing on a recent renovation project in São Paulo implemented through a new negotiation-based planning instrument. While the project discursively embraces inclusion and shared public use, it simultaneously introduces questionable forms of management that delimit who may use renovated Spaces and under what conditions. Driven by public–private agreements, the project exemplifies how openness can be selectively articulated to legitimise interventions that enhance exclusivity, aesthetic control, and commodified urban experience. By examining this case through the lens of the right to the city, the paper highlights the tensions between openness as an ethical aspiration and openness as an instrumentally deployed rhetoric within deal-making cities. The findings show that negotiated strategies may consolidate bounded forms of openness, governed by private values that regulate public life through subtle spatial and behavioural filters. In doing so, the paper contributes to debates by exploring how the right to the city might be reclaimed as a normative compass for planning and urban projects.

2321 | Büşra İnce, Anita de Franco

Place-based religious communities of contemporary urban societies: socio-spatial signs of openness and closure

Religious intentional communities are place-based entities that operate through distinctive logics of integration-segregation and openness-closeness to a varying degree. Decisions regarding location and spatial materialization emerge as practical manifestations of the religious teachings these communities embrace. Their principles of separation or integration significantly influence where they posit themselves

(whether in urban, rural, or peripheral settings) and how they configure their lived environments. This research develops an analytical framework to examine the spatial manifestations of such religious communal formations grounded in Christianity, Judaism, Islam, and Buddhism-based spiritualities. It investigates their location choices, boundary-making practices, and material configurations in relation to the wider society, and further decodes the built environment typologies they produce within the urban macroform (i.e., building, building complex, neighborhood). Methodologically, the study combines a critical literature review with qualitative case selection, GIS analyses, and complementary mapping techniques to uncover how these communities negotiate isolation, proximity, and co-presence with broader society. Eventually, this study demonstrates that patterns of openness/closeness and proximity/distance are neither uniform nor incidental; rather, they function as fundamental structuring principles through which religious teachings and practices shape territoriality and spatial resilience.

2668 | Danilo Di Donato, Kasia Piskorek

From Accessibility to Agency: Universal Design, Veteran Empowerment and Participatory Territorial Recovery in Post-War Ukraine

The Russian war of aggression against Ukraine has profoundly reshaped the country's social and territorial landscape, leaving a growing population of injured veterans facing long-term spatial, social, and institutional barriers. This paper argues that universal design should be understood not merely as a technical standard of accessibility, but as a strategic framework for inclusive recovery and territorial resilience, capable of translating humanitarian imperatives into durable spatial practices.

Positioning universal design within theories of spatial justice and post-war reconstruction, the study conceptualises accessibility as a precondition for dignity, autonomy, and civic agency. Central to this argument is the necessity of recognising veterans not as passive recipients of support, but as active co-producers of post-war environments. Enhancing veterans' agency requires institutionalising inclusive communication practices and participatory planning frameworks that enable meaningful involvement in decision-making processes shaping housing, public space, mobility, and service provision.

Drawing on comparative European experiences and emerging Ukrainian practices, the paper examines how communication, co-design, and socially inclusive governance can be operationalised through city-to-city partnerships, knowledge transfer mechanisms, and multi-level coordination. Particular attention is paid to the alignment between Ukraine's EU integration trajectory and European accessibility and cohesion standards, highlighting how these frameworks can support democratic and socially embedded reconstruction.

The analysis demonstrates that inclusive recovery depends not only on physical accessibility but also on the quality of dialogue between institutions, communities, and those most affected by war. In this context, participatory processes function as both a technical instrument of planning and a political practice of democratic renewal. By embedding universal design, inclusive communication, and social participation into recovery policies, the reconstruction of Ukraine can strengthen territorial resilience, social cohesion, and long-term institutional capacity, ensuring that post-war development is human-centred, equitable, and collectively owned.

SS19: Peripheral Centralities

SS19: Peripheral Centralities

Thu 2.7.14:00-15:30, Special Session D, U406a | Session chair(s): Paul J. Maginn, Nicholas Phelps, Roger Keil

1167 | Gernot Grabher

Thriving at the edge. Rewriting the urban creativity canon from the margins

The celebration of cities as "man's greatest invention" habitually confirms that mankind, as a sort of ultimate civilizational achievement, has entered the "urban age". The current urban-age doxa draws on a register of theorems on the primary centripetal forces that, underpinned by the scientific authority of key urban thinkers from Simmel over Jacobs to Glaeser have become synonymous with urbanity.

By mobilizing insights from sparsely populated Scandinavia over remote Alpine valleys to the fringes of New Zealand, we seek to challenge the urban-age perspective through which peripheries either are not seen at all or appear in the distorted shape of the other of the center.

BEYOND DEFICIENCY. The term periphery routinely amounts to hardly more than a residual category for all those pitiable places that, despite their specificities, share a syndrome, not to say a destiny. They represent the areas that are left over by urban centers, lacking the quintessential urban attributes that fuel creativity: Simmel-diversity, Jacobs-externalities, Florida-amenities.

BEYOND TERRITORIALITY. Rather than in purely territorial terms, peripherality also has to be conceived in a relational sense: periphery is both, the remote location (i.e., the province) and a distinct relational position (i.e., the outsider). Building on the problematizations of the duality of territorial vs. relational and, phrased differently, topographical vs. topological vocabularies, interrelating these dimensions have produced elaborate conceptions of positions "at the edge" that nurture creativity.

BEYOND DESTINY. Rather than perceiving peripherality as unavoidable fate sealed by geography and history, actors might deliberately choose a peripheral location or marginal position. Peripheries, rather than inescapable enclosures, might in fact be attractive destinations for actors who seek to shield their creativity from the isomorphic pressures of the field. In this perspective, peripherality does not equal backwardness resulting from ignorance of the mainstream, but a deliberate dissociation from the orthodoxy to leverage novelty.

1856 | Paula Meth, Sarah Charlton, Alison Todes

Homeland centralities: rethinking inherited peripheries in South Africa

Recent literature on African urban peripheries points to their diversity, complexity and dynamism (e.g. Bloch et al 2022; Mercer, 2024; Meth et al, 2024; Sawyer, 2014). In South Africa new forms of investment are emerging, counter-intuitively, in distant parts of metropolitan areas intended under apartheid as self-governing ethnic territories, including in places recently conceptualised as 'inherited peripheries' requiring redress by the contemporary state (Meth et al 2021, 2024). Whilst post-apartheid policy

acknowledged the need for essential service delivery in these legacy sites it did not anticipate these as future growth areas, striving rather for urban compaction. Instead, a significant degree of individual household investment in housing is occurring on land under dual governance of metropolitan and traditional authorities, resonating partially with patterns on African urban peripheries elsewhere such as middle-class investment in Ghana (Bartels, 2018) and Dar es Salaam (Mercer, 2024). Retail investment and forms of place-making have emerged, constituting what Mosiane and Gotz (2022) term displaced urbanism, chiming partially with reconceptualisations of the centrality of urban peripheries as places of 'imaginative, anticipatory and purposeful instances of urbanism' (Phelps et al, 2025: 11).

Such peripheral centralities are both symbolic and material, as sites of investment, status, and class formation (Bank, 2025), where flows of money, consumption and people converge. Symbolically, they can represent a resistance to apartheid's marginalisation, reflecting the agencies exerted in the imagination and production of such spaces (Phelps et al, 2023). These emerging centralities provoke a more complex reading of the logic of the inherited peripheries (in Meth et al, 2021, 2024). Yet they are fundamentally challenging of governance and planning strategies and management, particularly for the municipal authorities tasked with servicing these growing spaces. This paper draws on two large research projects on urban peripheries (2016-19) and extended urbanisation in South Africa's former homelands (2025-6).

2899 | Birgit Hausleitner, Rodrigo Ordonhas Viseu Cardoso, Ana Poças Ribeiro, Caroline Newton

Patterns of Peri-Urban Centrality

Peri-urban areas are often characterised as amorphous, transitional or structurally weak, yet emerging scholarship shows they are complex terrains where local planning cultures, the historical–geographical structure of the landscape and infrastructural networks intersect to configure new spatial logics. Building on this shift, the paper argues that peripheral centralities arise from the co-constitution of tangible spatial structures and intangible structuring forces such as local, regional and national planning cultures.

The paper proposes a conceptual framework that positions peri-urban centralities as relational and structurally patterned phenomena shaped by the alignment - or misalignment - of settlement form, infrastructural logics and planning culture. By foregrounding this interplay, the paper challenges dominant core - periphery binaries and contributes to theorising alternative, context-sensitive models of centrality emerging at the metropolitan edge.

The research investigates a spectrum of peri-urban settlement forms across four European case studies from Austria, Belgium, the Netherlands and Portugal. These cases range from compact but distant village cores, whose historical centralities persist despite their peripheral position, to diffuse fabrics of peri-urban development, where dispersed settlement and fragmented land-use patterns interweave more ambiguously.

All case studies are predominantly low-density populated and embedded within differing planning cultures. While all four countries operate within multi-level planning frameworks, they differ significantly in which level dominates. Austria presents the most decentralised governance model, whereas the

Netherlands combines decentralisation with a strong national strategic capacity rooted in integrated planning.

The four most common spatial types, accounting for 60% of all peri-urban locations, vary widely in street-network centrality - from highly decentralised to strongly centralised configurations. Despite these differences, both formal and informal emergent forms of local centrality can be observed, appearing in either line-based or point-based configurations. These configurations significantly affect the share of peri-urban population that has access to local centres.

1826 | Ofri Peretz, Efrat Eizenberg

Negotiating Urban Transformation: Talpiot Vendor Market as a Relational Anchor

Urban vendor markets are often portrayed as peripheral within contemporary planning discourse—sites of local commerce rather than metropolitan anchors with transformative potential. Yet such environments function as infrastructural, economic, and symbolic nodes shaping urban development trajectories. This paper examines Talpiot Market in Haifa, Israel, as an off-centre urban node that continues to organize metropolitan life despite prolonged neglect. Once a key food distribution hub and social landmark, the market was gradually displaced from the city's symbolic and economic foreground through changing consumption patterns, the rise of shopping malls, and strategic disinvestment favouring other renewal projects. Yet Talpiot did not simply decline. Through everyday coping practices, improvised business initiatives, and cultural activity, the market generated its own "organic" renewal long before the municipality officially declared it a site of regeneration.

Drawing on semi-structured interviews, planning documents, media coverage, and on-site observation, this study approaches spatial change as ongoing negotiation rather than discrete planning events. It focuses on the negotiation table—both literal and metaphorical—as the site where hierarchies of voices are continuously drawn and redrawn. The composition of this table, who is invited and who remains outside, becomes diagnostic for tracing how legitimacy is assigned to particular actors, claims, and ways of knowing the market. In Talpiot, whose commercial identity is rooted in bargaining, the negotiation table acquires additional layers: formal planning procedures, legal instruments, and expert discourses intersect with internal hierarchies, market vernacular, and informal power relations.

By following negotiations under successive municipal administrations, the paper explores how urban governance attempts to "re-centralise" peripheral actors through planning instruments while simultaneously reproducing new forms of peripherality. It links debates on peripheral centralities with the formal–informal nexus in vendor markets, proposing the negotiation table as an analytical lens for understanding how metropolitan cores and peripheries are co-produced in practice.

1892 | Camilla Perrone, Laura Fortuna, Lorenzo Iannizzotto

Peripheral Centralities at the Prison–City Edge: Mapping Urban Intersticies as Sites of Mediation and Spatial Justice

Urban peripheries often host ambiguous, overlooked and structurally marginal spaces that nevertheless play central roles in shaping metropolitan dynamics. This contribution examines the periphery surrounding the Sollicciano prison in Florence, where a constellation of urban interstices, conceived as terrain vague, reveals a paradoxical form of "peripheral centrality." Through a mapping process involving site visits, interviews, perceptual surveys, and planning analysis, the paper constructs a critical repository of suspended spaces located between abandonment and possibility, documenting their material conditions and the socio-spatial tensions that shape them.

The resulting atlas of cases exposes these interstices as mediating environments that negotiate the fractured relationship between the city and the prison, revealing how peripheral spaces absorb, filter and translate the impacts of both total institutions' presence and everyday urban life. Using the interpretive lenses of equity, sociability, imaginability and urban metabolism, the study explores strategies of repurposing and light-touch regeneration that reposition these marginal spaces as testing grounds for spatial justice and new socio-ecological practices. Particular attention is given to incremental interventions and low-intensity uses that preserve the open-endedness of these areas while activating their latent potential.

In doing so, the paper shows how the mapping becomes both a reflective and a design device, capable of translating situated observation into a transformative vision for reimagining peripheral territories as new centralities. The process not only documents existing conditions but also outlines possible trajectories for re-signifying these interstitial spaces within broader metropolitan dynamics.

By foregrounding the strategic relevance of these overlooked spaces, the paper contributes to debates on peripheral (sub)urbanism, governance and the epistemologies of the periphery, demonstrating how urban interstices at the prison–city edge can act as central agents in redefining metropolitan futures and in expanding the conceptual and practical vocabulary through which peripheries are understood.

SS19: Peripheral Centralities

Thu 2.7.16:00-17:30, Special Session D, U406a | Session chair(s): Paul J. Maginn, Nicholas Phelps, Roger Keil

1216 | Anna Growe, Thomas Terfrüchte

Ready for Multiple Crises? Rethinking Resilience and Spatial Structure in Europe's Urban Systems

National urban systems in Europe have evolved historically and display distinct spatial structures. Some are highly centralised, with dominant primate cities (e.g. France), while others—such as Germany—developed more decentralised patterns. The European Commission has long promoted decentralised territorial development to strengthen regional cohesion.

Amidst the current era of multiple crises, including climate-related disasters and geopolitical conflicts, questions arise about how spatial planning can contribute to regional resilience. Natural hazards such as floods, heavy rainfall or wildfires can temporarily disable urban functions or disrupt access to essential services due to damaged infrastructure or interrupted transport routes. At the same time, Russia's war

against Ukraine has highlighted the vulnerability of critical infrastructure, which is indispensable for maintaining urban functionality.

This paper explores how the resilience of urban systems can be conceptualised and empirically assessed through measures of polycentricity and specialisation. We propose a methodology to assess polycentricity and spatial division of labour (specialisation) across European urban systems, linking these structural characteristics to resilience. Our findings challenge the assumption of a linear relationship between centrality, specialisation and resilience. Instead, we identify a horseshoe-shaped relationship, where resilience—captured through the interplay of redundancy and self-sufficiency—peaks at intermediate levels of centralisation and specialisation.

From a planning perspective, this implies that infrastructure investment should prioritise areas with low redundancy, while promoting multifunctional, decentralised concentrations in central places to enhance self-sufficiency. Recognising these structural dynamics can help spatial planners design more resilient, adaptable urban systems capable of withstanding compound crises.

1223 | Zhao Shengbo

International Cooperation Projects and the Reconfiguration of Metropolitan Polycentricity: Evidence from the Peripheries of Addis Ababa, Ethiopia

Peripheral areas of metropolitan regions in Ethiopia have long been constrained by the expansion of informal settlements, limited industrial attractiveness, and weak governance capacity, resulting in a predominantly monocentric urban structure characterized by strong urban cores and underdeveloped peripheries. In recent years, however, the spatial concentration of international cooperation projects—including large-scale infrastructure such as railways, expressways, and airports, as well as various industrial parks—has begun to reshape the urban development trajectories of these metropolitan peripheries.

This study examines the Addis Ababa Metropolitan Region as a representative case. Drawing on extensive field investigations of major international cooperation–driven infrastructure projects and industrial development platforms, the research identifies emerging functional nodes in the metropolitan periphery and analyzes their role in catalyzing a transition toward metropolitan polycentricity.

The findings show that infrastructure projects have significantly reduced commuting and logistics costs, stimulating the expansion of logistics, wholesale, and residential development along key corridors and facilitating the outward relocation of selected central-city functions. Industrial development projects, supported by inflows of international capital, industrial clustering, and job creation, have attracted labor migration and concentration in outer suburban areas, resulting in new growth-pole-like nodes. Meanwhile, the government-led Addis Ababa Corridor Development Strategy has further integrated core and peripheral international cooperation projects, strengthening multi-nodal spatial linkages across the metropolitan region.

Using a three-dimensional analytical framework of functional, morphological, and governance polycentricity, the study provides a comprehensive assessment of Addis Ababa’s polycentric transformation. Results indicate that international cooperation projects have markedly advanced

morphological polycentricity, while progress in *functional* and *governance* polycentricity remains limited. The research concludes by proposing planning and policy strategies—including enhanced interjurisdictional coordination, improved public service provision, integrated transport systems, and stronger industry–city linkages—to support a more balanced and sustainable polycentric transition in the Addis Ababa Metropolitan Region.

2256 | Nicholas Phelps, Jia Zhang, Julie T. Miao

Side by side with Shanghai: real estate development and the structure of residential preference in the YRDR

This paper reports on initial desk-based research on the urban fortunes of the counties and cities bordering Shanghai municipality in China. We concentrate specifically on Jiaxing and Kunshan. We focus on what the marketing text and imagery of residential developments reveals of the centrality of Shanghai's urban penumbra. In particular, we expect to observe how residential real estate developments reflect the possibilities for residents to benefit from borrowed size and function (Meijers and Burger, 2015; Phelps, 2004) effects associated with nearby Shanghai municipality. However, we also explore whether, to what extent and in what ways these developments can be considered 'interplaces' (Pheps, 2017; Damyuk et al, 2025) born of residential preferences within the wider Yangtze River Delta Region.

2820 | Edmondo Pietrangeli

Peripheral Corridors as Central Territories in the Wider Milan Region

Rural and peri-urban landscapes across the Lombardy's central plain in northern Italy have become primary locations for logistics, data centres, intensive agriculture and other highly impactful functions at multiple scales. These "operational landscapes" are managed as mere service backyards of the urban–regional system (Armondi et al., 2024; Brenner & Katsikis, 2020; Balducci et al., 2017; Brenner & Schmid, 2015), despite geo-historical stratifications and local identities (Dematteis, 1995). These corridors resonate with current debates on suburban infrastructures and "peripheral centralities" (Keil, 2018; Phelps, 2015), which reconceptualise non-core territories as structurally central to metropolitan reproduction. Infrastructural and functional layering produces fragmentation (Graham & Marvin, 2001), ecological and social ruptures (Larkin, 2013; Halbwachs, 1992; Connerton, 1989) and a systematic neglect of landscape quality in planning and policy debates concerning these peripheral territories.

Nonetheless, they function as central spaces, operating as social infrastructures where the reorganisation of labour and logistics reshapes everyday mobility, access to welfare and local forms of inhabiting. New allochthonous communities live alongside entrenched local memories, reshaping meanings of places and belongings (Neilson & Rossiter, 2021; Cowen, 2014; Castells, 2010; Sassen, 2001; Nora, 1989) and reconfiguring civic networks that sustain collective action (Putnam, 1993).

This PhD research takes infrastructural corridors as its main entry point. It examines how analytical frameworks and governance instruments can be configured to relate landscapes, memories and social relations, and how changing labour geographies and the arrival of new populations reshape everyday accessibility and demand for welfare services in these peripheral centralities.

In methodological terms, the study combines analysis of governance arrangements with a qualitative reading of narratives, conflicts and public representations of these landscapes. The material produced supports interpretive frameworks that guide reflexive planning and governance of operational landscapes and connect debates on peripheral centralities with everyday mobility and accessibility in metropolitan regions.

2834 | Anna Kholina

Tracing Urbanity in the Urban Periphery: Unpacking the Emergence of Alternative Centrality in the Helsinki Metropolitan Region

Finnish capital region has a complicated relationship between the dense and compact central inner city and the geographically extended periphery. In 2020, only 15% of the total population of Helsinki metropolitan region lived in the inner city, while the remaining 85% were located in the suburban fringe. As the urban periphery continues to develop, more questions emerge on what constitutes urban life for 85% of the population. Attempts to mimic a dense city on the periphery creates 'density without delight', while low-density environments demand more resources per capita and threaten the strategy of the Helsinki region which envisions a polycentric urban agglomeration with several active nodes concentrating people, activities and jobs.

This research looked at alternative forms of urbanity or centrality emerging in the urban periphery, distinct from the traditional patterns of town blocks, squares and streets. Using a longitudinal case-study, it traced how a suburban campus area transformed into a dense cluster thanks to new construction, transport connections and population growth. The study focused on the process of urban transformation using Lefebvre's approach to the production of space as an analytical lens to "trace urbanity", meaning, to uncover the conflicts and contradictions which determine its emergence and forms in a given location.

The research began with the assumption that it's possible to orchestrate the emergence of centrality in a spatially deterministic, top-down manner by means of clever architecture or design choices in combination with the right infrastructure. Instead, the study captured how a place develops new, alternative forms of centrality and urbanity (backstage urbanity) without top-down orchestration, how these new forms exist outside of established ideas about physical design conducive to social life and how easy it is to overlook the significance of these new forms in an attempt to control and plan the development of public realm.

SS19: Peripheral Centralities

Thu 2.7.17:45-19:15, Special Session D, U406a | Session chair(s): Paul J. Maginn, Nicholas Phelps, Roger Keil

2232 | Paul Maginn

Archipelagos and Continents of Consumption and (P)Leisure: Retail Landscapes in (Sub)Urban Perth, Western Australia 2015-2025

Despite being a major land use, source of employment and contributor to local economies within metropolitan regions, there is a paucity of scholarly urban planning research on retail spaces. This paper

draws on a unique dataset - Shopping Centres Online (2015, 2020 and 2025) obtained from the Property Council of Australia - to explore the changing geographies, structure and dynamics of retail spaces – e.g. neighbourhood centres, town centres, high streets, and suburban shopping centres - within the Perth metropolitan region. By analysing data over three time points - 2015 (pre-COVID), 2020 (during COVID); and 2025 (post-COVID) - this paper will highlight the patterns, trends and transformations within the retail sector across urban and suburban contexts. The last decade has witnessed significant investment and expansion of suburban shopping centres/malls in Perth and Australia more widely. This, plus the impacts of COVID-19 in terms of working from home have given rise to a complex retail landscape characterised by archipelagos and cathedrals of consumption and (p)leisure. That is to say, suburban shopping centres are no longer merely spaces of retail consumption. They are experiential centres. From a planning policy perspective, the WA government's activity centres policy seeks to direct certain landuses, especially retail, to particular areas. This paper will also explore the extent to which this policy objective has been successful. Finally, the paper will consider the implication of online retailing on physical retailing.

2906 | Luisa Sotomayor

Building Vertical Peripheries: Everyday Livability and Planning Blind Spots in Colombia's VIS Developments

This study examines three often-overlooked dimensions of everyday livability—time, heat, and smells—in relation to planning blind spots and climate vulnerabilities in Colombia's large-scale peri-urban VIS (financialized social housing) developments. Since 2006, the Colombian government has sought to address its national housing crisis through a market-oriented policy of partially subsidized, mass-produced, financialized apartments. Built on inexpensive land in the metropolitan borders with standardized architecture, the VIS policy has significantly expanded the housing supply, accounting for 73% of all units sold nationally in 2023. Given the scale and mandate from above, these developments now represent a distinct form of "formal" (sub)urbanization that operates outside the legal frameworks of territorial planning, environmental regulations and citizen participation. Despite their commercial success, these developments often disregard urban integration and the lived experiences of residents, revealing critical blind spots in urban and regional planning.

Drawing on three years of interdisciplinary research—spanning planning, anthropology and ecological economics— in the borders of Bogotá, Barranquilla and Medellín, this article explores how the sensory and temporal dimensions of daily life and the embodied costs of social housing financialization expose tensions between top-down planning models, localized socio-spatial injustices, and the lived experiences of residents amidst growing climate vulnerabilities. By interrogating the city "from the outside looking in", the findings advocate for comprehensive, context-sensitive planning approaches that integrate climate adaptation and prioritize residents' socio-economic well-being and citizenship. Amidst the global housing crisis, we provide lessons for other contexts where planning is increasingly subordinated to market-driven, supply-oriented housing solutions.

2093 | Chen Chen, Anna Growe

Emerging Edge Cities and the Dynamics of Polycentric Development: A Comparative Study of 'Frankfurt/Rhein-Main Metropolregion' in Germany and 'Shanghai Dàdūshìquān' in China

Cities—especially mega-cities—do not grow by themselves; rather, they integrate morphologically and/or functionally with their vast hinterlands. As recognized domestic and international financial and economic hubs, Frankfurt am Main in Germany and Shanghai in China have witnessed processes of regionalization and suburbanization over the past decades along with the designations of the Frankfurt/Rhein-Main Metropolitan region (Metropolregion in German, FRM) and the Shanghai Metropolitan Area (dàdūshìquān in Chinese, SMA) over the past decades. Instead of highlighting national systemic differences, this study narrows the lens to compare where and how peripheral cities and functional nodes form and evolve in two case regions with similar core city positioning, analyzing functional characteristics within their respective regional contexts. We employ spatio-temporal analysis to map spatial distributions and assess functional polycentricity of both cases. A range of indicators—including but not limited to population and employment dynamics, land use changes, patent cooperative networks, and traffic flows—were collected to compare the changes of these regions and to capture the functional integration among different (sub)centers. The findings reveal spatial diffusion, spillover process, functional specialization, and evidence of polycentric development in both regions. Moreover, the positive spillover effects observed in peripheral cities indicate that the FRM as a regional brand to gain competitive advantages in attracting global enterprises and investors—represented by the peripheralization of knowledge-intensive employment. In contrast, the SMA distributes the industrial spillovers primarily through upstream and downstream integration within embedded regional industrial chains. In the latter's development, national industrial development zones (oriented toward high-end manufacturing) and extensive high-speed rail and information infrastructure construction have further strengthened this effect. Ultimately, the study concludes with a call for in-depth analysis of effects of regional land policies and governance instruments to better understand the drivers of functional integration and polycentric restructuring to address (mega-) regional sprawl challenges.

1348 | Christos Thomaidis, Evangelia Athanassiou

Ephemeral Peripheral Centralities in Insular Contexts: Airport-Driven Urban Expansion and Spatial Reconfiguration in Greek Islands

Airports are increasingly recognized as agents of urban transformation rather than isolated transport infrastructures. Across metropolitan regions, airport zones often evolve into dynamic sub-centers, attracting commercial, service, and residential functions that reshape peri-urban territories. In insular contexts, however, this process unfolds within spatially constrained and environmentally vulnerable landscapes, where the balance between connectivity, development, and limited land availability becomes particularly fragile. The relationship between airports and urbanization thus acquires distinctive characteristics in islands, revealing new spatial hierarchies and forms of centrality at the periphery.

This study investigates how airports in Greek islands generate ephemeral peripheral centralities—localized concentrations of activity that emerge from the interplay between tourism, infrastructure, and spatial constraint. Focusing on Mykonos, Santorini, Rhodes, and Kos, it compares their airport-induced morphologies with metropolitan references (Athens and Thessaloniki), highlighting how the insular

condition produces more compact, linear, and highly seasonal patterns of urban expansion that exert visible pressure on limited land resources and occur within environmentally fragile landscapes.

Through GIS-based mapping and land-use classification within a buffer zone around each airport, the study analyzes spatial structures along the main road corridor linking the airport to the island's primary urban core. Particular attention is given to tourism-related land uses—car-rental and parking areas, hospitality and retail services, ancillary airport facilities, and temporary housing for airport staff—whose spatial intensity and temporal dynamics illustrate the dual logic of accessibility and seasonality.

The analysis reveals that these airport-adjacent zones operate as ephemeral centralities: spaces of concentrated activity that appear, expand, and recede with the tourist season. They embody a paradoxical urban condition—simultaneously central and peripheral, vibrant and vacant. By uncovering this temporality of island urbanization, the paper challenges conventional understandings of centrality and calls for planning frameworks that acknowledge both the spatial and temporal dimensions of airport-driven development in insular territories.

1349 | Hossam Hewidy, Christine Mady

Public Libraries as multipurpose hubs mitigating marginalisation: Peripheral Cases from Helsinki

Public libraries in Finland have evolved into hybrid civic hubs that expose both the strengths and tensions of Finnish planning culture. No longer limited to book-lending, they now operate as multifunctional venues that host work, leisure, culture, and civic dialogue (Kolehmainen, 2024). In doing so, they provide accessible platforms for interaction, learning, and inclusion—embodying values rooted in the Nordic welfare state (Koizumi & Larsen, 2023). Their openness, flexible architecture, and participatory governance support a wide range of everyday uses, extending social, cultural, and knowledge capital across communities (Mady & Hewidy, 2025).

This study examines three libraries located in peripheral Helsinki—Itäkeskus, Maunula, and Vuosaari—each situated in neighbourhoods marked by socioeconomic disadvantage and cultural diversity. These cases illustrate how multipurpose libraries contribute to urban regeneration by anchoring community life, countering territorial stigma, and providing safe, non-commercial environments for equal interaction. Through their low-threshold accessibility and integration with public services, they foster inclusion, trust, and civic participation in areas often marginalised from mainstream urban development.

Findings indicate that libraries animate their surroundings by connecting heterogeneous populations and reinforcing neighbourhood identity, yet they face ongoing challenges in balancing openness and flexibility with limited resources. Tensions also arise between competing spatial needs—quiet study versus active social engagement.

By positioning libraries as critical multipurpose hubs within urban planning, the article argues that they sustain democratic ideals, nurture social encounters, and mitigate urban inequalities. Finnish public libraries thus exemplify how welfare-state institutions can adapt to contemporary urban pressures while preserving their foundational civic mission.

References
Koizumi, M. & Larsen, H. (2023). Journal of Librarianship and Information Science, 55(1), 208–217.
Kolehmainen, A. (2024). The role of public libraries in society.
Mady, C. & Hewidy, H. (2025). City, Culture and Society, 40, 100610.

SS19: Peripheral Centralities

Fri 3.7.09:00-10:30, Special Session D, U406a | Session chair(s): Paul J. Maginn, Nicholas Phelps, Roger Keil

1418 | Gergő PŐDÖR, Melinda BENKŐ

The Relationship Between Budapest's Peripheral Centres and the High-Capacity Railway Network

Urban centrality has traditionally been defined by two simultaneous factors: density, meaning the quantitative and intensity, meaning the qualitative characteristics of urban centres. Even though pioneer works on central place theory from the 20th century evolved also by underlining the importance of mobility and several concepts are built upon the priority of rail-based mobility, the triadic basis for forming and supporting urban subcentres has not yet been declared. Such a paradigm suggests equal importance of density, intensity and mobility in creating a successful urban subcentre network where the static concept of central places is completed by the necessity of dynamic connections.

In 2021, the Budapest Railway Node Study (BRNS) was published as a key supporting study and strategy for reshaping high-capacity railroad networks and their role in forming a new urban subcentre system in the Hungarian capital city. The transport-oriented document operates with the metro, suburban railway and railway services on metropolitan level, highlighting also the possible outcomes of developing regional railroad lines within the administrative border of Budapest. Despite its overall approach, BRNS mentions density only twice while intensity does not appear in the document in any context. How could transport development concepts be more effectively connected with the existing conditions and urban development potential of the peripherical centres of Budapest?

The paper investigates where density, intensity and mobility could intersect in the Hungarian capital. Problematic in this regard is that the designated subcentres only provide questionable inherited mobility options and mono-characteristic, often residential built density while intensity is usually a missing factor. The comparative analysis and interpretation of current and planned built density maps and high-capacity railway network maps more, the intensity challenges of Budapest peripherical centres are key steps to identify problems and find a better common strategic framework to develop urban form, centrality, and rail-based mobility.

1497 | Soo Yeon Lim

Flower Farming in the Green Belt Land: Everyday Peripheral Urbanism in the Seoul Metropolitan Region

This paper argues that flower production in the green belt – often considered a non-urban and less ideal activity in popular planning discourses in South Korea – has been a fundamentally urban phenomenon in

the Seoul Metropolitan Region (SMR). The vertical and horizontal shifts of cities have made peripheral space the contemporary scene of urban dispossession, marginalisation and contestation. In South Korea, green belt land development has been at the centre of urban politics. As state-led developments have constructed high-rises through over 100 housing projects for the past two decades, local communities in the SMR continue to be displaced. Current planning and policy debates have primarily taken a macro-level approach, treating the green belt as a uniform space of the state's rationalities unfolding while flattening diverse local contexts. Instead, this research foregrounds the lived experiences within the green belt and asks how flower farming has become a prevalent way of pursuing livelihoods in urban peripheries. I explore this question through a case study of Gwacheon, a small city in the SMR, and historicise the variegated geographies of the green belt. Drawing on local archival research, land-use analysis, and semi-structured interviews, I argue that flower farming embodies everyday urbanism pursued by ordinary peripheral migrants seeking better economic opportunities from the rapidly urbanising societies since the 1980s. As the country embarked on urban beautification projects, many migrants arrived in Gwacheon to cultivate potted flowers, which are commonly planted in streetscapes and public spaces. Farmers specialised in growing 'annuals' to pursue greater productivity and afford higher land prices compared to the countryside. The neglect of flower farming as a way of urban living in peripheries and the ongoing displacement of flower farmers raise further questions about what constitutes an 'urban ideal' and whose perspectives matter in the politics of urban epistemology.

1736 | Sofia Moresca de Lacerda, Agnes Silva de Araujo

The trajectories of segregation between 2000 and 2022 in Curitiba, Brazil

Between 2000 and 2022, the socio-spatial structure of Curitiba, Brazil, and its conurbated municipalities underwent a profound reorganization that challenges long-standing center-periphery paradigms. Using Global and Local Moran's I, for the years 2000, 2010 and 2022 , this research examines the evolution of socio-economic clustering dimension of segregation and reveals the emergence of new peripheral centralities anchored in selective urban development, real-estate expansion, and the diffusion of gated communities.

Results show a clear intensification of spatial autocorrelation of high-income clusters, which expanded from historically centralized zones toward previously peripheral sectors, forming new high–high clusters along strategic mobility corridors and in areas of metropolitan interface. Simultaneously, low-income concentrations consolidated and spread across the southern and eastern peripheries, revealing a shift from a single polarized periphery to a mosaic of fragmented territories.

These patterns indicate that fragmentation is no longer a by-product of metropolitan expansion, but a structuring principle of urban production. The proliferation of gated communities and privatized urban fabrics has created insulated microcentralities that reorganize everyday flows, redefine accessibility, and reshape opportunities.

Peripheral centralities gain prominence yet reinforce separation through differentiated governance, unequal infrastructural provision, and persistent spatial barriers. The comparison of clusters demonstrates how formerly continuous peripheral belts have been fractured into islands of exclusivity and pockets of entrenched deprivation. These findings highlight the coexistence of macro-segregation

processes with increasingly fine-grained micro-segregation, suggesting that Curitiba's recent urban trajectory is characterized by centrifugal elite movement, reinforced peripheral clustering, and the consolidation of segregated polycentricity.

By linking spatial autocorrelation metrics to broader political-economic dynamics, the research argues that planning in Curitiba must confront not only socio-spatial inequality but an emerging regime of fragmented peripheral urbanism, in which new centralities amplify rather than mitigate segregation.

2208 | Victor Alegria

Emerging peripheries: mapping semi-formal urbanism in Latin American cities

Informal urbanism is widely recognised as a major force in the shaping of Latin American cities. The various forms of land occupation, construction techniques and community organisation produce distinct urban outcomes with different levels of inclusion and integration with the rest of the city. While the intertwined, close relationship between informal practices and formal planning has been noted, there is a limited understanding of how these dynamics play out on the ground. Through a comparative approach and multi-scalar mapping techniques, this work investigates the continuous interplay between formal and informal practices in the production of the peripheries of Greater Valparaiso (Chile), Rosario (Argentina) and Montevideo (Uruguay). The study delves into the evolution of semi-formal settlement, the semi-regular morphologies that are neither completely informal nor formal, where bottom-up and top-down design and planning intersect. At the metropolitan level, the findings reveal the extensive influence of hybrid, mixed modes of urbanisation in the urban periphery, rarely captured by binary distinctions or categorisations such as 'slum'. At the meso and micro scales, it reveals the incremental production of public space and urban infrastructure, with varying degrees of state intervention across the different contexts. Rather than a singular, discrete urban process, semi-formal urbanism unfolds as multiple, evolving, and interrelated processes, in which incremental, emergent practices converge with formal planning frameworks and state-led interventions in numerous ways. Those interactions can lead to various urban outcomes, such as anticipation of regularisation, infrastructure upgrades, transgressions of urban codes and public space encroachment.

2879 | Laura E Taylor, Maria Clara Mendonça Santos Ferreira

The fragmented periphery of Rio de Janeiro: Brazil's interior through an exurban lens

The periphery of the megacity of Rio de Janeiro, Brazil, is a contradiction. Peripheral urbanization in Brazil (as with many other cities in the global South) is often represented as a process of informal settlement driven by poverty, inaccessible city housing, and subsistence farming (Caldeira, 2000; Roy, 2005). But exurbanization is also taking place. The interior of Rio de Janeiro is a territory shaped by exurbanization as the foothills of the mountain wilderness are increasingly imagined as a refuge, where metropolitan residents seek a different pace of life. Drawing on Cadieux & Taylor's (2013) insight that ideologies of nature shape exurban residential choice, in regions such as Vale das Videiras, Araras, Secretário and Miguel Pereira, we study how rural landscapes once tied to coffee plantations are being re-imagined as desirable places to live. Spaces once associated with rural labour now become spaces of scenic

promise. The scenic imagery of the Atlantic Forest influences decisions on land and entices home-seekers. The processes produce a distinct form of elite informality— where houses appear through irregular subdivisions and planning exceptions privilege ideologies of nature over ecological limits and the rights of local residents living and working in the landscape (de Melo Monte-Mór et al., 2020). Exurbia is a symptom of urban disconnection and metropolitan decline in Brazil marked by a desire for self-sufficiency and control. Our study traces how Rio de Janeiro's interior came to be governed and inhabited as a space of nature rather than labour. We contribute to understandings of the fragmented periphery (Keil, 2018), adding the exurban perspective of the ideology of nature, global influences, and rejection of the urban. Using Phelps et al. (2022) framework of peripheral centralities, we analyse the interior as a form of extended urbanization, where environmental imaginaries, elite mobility and real estate circuits converge.

SS19: Peripheral Centralities

Fri 3.7.11:00-12:30, Special Session D, U406a | Session chair(s): Paul J. Maginn, Nicholas Phelps, Roger Keil

1330 | Eva Schwab

Reimaging Public Space in the Periphery

As in other countries, recent urban development in Austria is characterised by an influx of people to the country's metropolitan areas, resulting in the creation of a suburban residential fabric around the core, as well as the urbanisation of existing mid-sized municipalities at the peri-urban fringe. This reinforces the dynamic nature which is characteristic for peri-urban areas, not only spatially but also demographically. Population growth nowadays is increasingly driven by international migration. Concurrently, the demographic shift towards an ageing population is becoming progressively evident in these municipalities. Both dynamics increase diversity in mid-sized cities, highlighting the pivotal role public space can play for social integration – especially in an urban fabric that is characterised by private plots for single family houses. The actual public spaces in these areas, however, are limited and ill-equipped for social functions like interaction and recreation, as they primarily consist of street space designed for the needs of automobility. Drawing on urban design literature, this paper looks at the (lacking) public space qualities of traffic spaces in three selected Austrian peri-urban intermediate cities (Felbach, Wels and Feldkirch), which hardly offer even basic qualities like pedestrian accessibility, seating or thermal comfort. The current state of these spaces contributes to increasing socio-spatial inequalities rather than providing the needed opportunities. Adopting Robinson's assertion that urban theory can begin anywhere, the article contends that, if public space is to live up to these mid-sized cities ´ peripheral centrality function in face of growing diversity (and a changing climate), it needs to be reconceptualised and retrofitted to contain social and ecological functions.

1611 | Marie Mamen, Marie Louise Mamen

‘Everyday public space’ beyond the city: a case study in Rotnes and Tranby

While planners tend to theorise ‘public space’ from within the city, “suburbs are imagined as lacking any appreciable public realm” (Airas & Hall, 2019, p. 5). Gehl’s (2011) critique of car-based, modernist

planning principles seems to continue to shape our imaginaries of suburban 'public space' across and beyond the city.

However, the "polymorphic and multi-scalar" (Schmid et al., 2018, p. 22) processes reshaping the urban fringe also brings with it an "increasingly complex mixture" (Mantey & Kępkowicz, 2018, p. 633) of public space within the suburban realm – ranging from neoliberal, privately owned and managed spaces, to informal spaces in-between parking lots and playgrounds, municipal schools and libraries, to openly accessible spaces.

Moving towards a broader definition of 'public space' building on Crawford's notion of everyday public spaces (2011), this presentation explores how the feminist notion of 'social reproduction' can help us understand and explore otherwise invisible public spaces beyond the urban core. Through a case study of two ex-urban small towns at the outer fringe of Oslo metropolitan – Rotnes and Tranby – I investigate how people make use of their everyday surroundings to carve out their own public spaces, for a range of different spatial needs and desires, care work and kinship. By bridging methods from spatial ethnography with planning theory this presentation explores care-based, and often invisible 'everyday public spaces.'

Both Rotnes and Tranby are about to develop new central squares, in accordance with 'the compact city model,' redefining themselves in terms of both physical and social density. In this time of unprecedented spatial dispersion, displacement due to gentrification, and neoliberal enclosure of previously public spaces, working with local communities and their care-based, and often invisible practices can potentially show the way to more inclusive and just public space planning.

2005 | Stella De Luca

Water Infrastructures and the Politics of Peripheralisation: Value, Extraction and the Reordering of Territorial Hierarchies

Dams, water-retention basins and the complex distribution networks that sustain them have long been presented as essential infrastructures for the development of marginal regions – and of the urban centres they serve. They also embody one of the central paradoxes of the European ecological transition: territories institutionally classified as peripheral are, at the same time, structurally central to energy production, agricultural irrigation, industrial supply, domestic consumption, ecological flows and - no less significant - value generation. Today, in many European peripheries, these infrastructures operate as extractive devices: they mediate unequal flows of water, energy and capital, reshape territorial value, and reproduce hierarchical relations between the places of production and the decision-making centres where extracted value is ultimately territorialised.

This contribution examines how hydrosocial infrastructures in two mountain regions - Val di Lei on the Italian-Swiss Alps and the Camastra reservoir in the southern Apennines - function as complex enviro-technical systems capable of generating scalar strategies and asymmetric circulations of hydropower surplus.

Drawing on historical–geographical materialism, urban political ecology, and peripheralisation studies, the analysis shows how concession regimes and ownership arrangements consolidate processes of peripheralisation. In this context, drought events, concession disputes and infrastructural vulnerabilities

open spaces of contestation that unsettle the marginal position of these areas, revealing the role of local counter-narratives and the tensions between technocratic expertise and situated knowledge.

The contribution engages with territorial planning by advancing a structuralist approach that recognises the ambivalence of these territories: peripheral within governmental architectures yet central in the material production of value. Interpreting infrastructures and concessions as rent-generating assets makes visible how the extraterritorial capture of hydric surplus not only fuels processes of peripheralisation, but turns them into systemic and institutionally entrenched arrangements, stabilising a distance that is neither neutral nor inevitable.

2131 | Sofia Morgado

Quality of Life and Public Spaces: Defining a Metropolitan Small-Town Identity

This abstract presents a study examining the function and identity of small towns within metropolitan areas. It argues that these towns are integral components of the urban system rather than mere suburbs. Focusing on the small town of Queijas in the municipality of Oeiras near Lisbon, the research explores the vital role of three key concepts — quality of life, public space design and presence (particularly green areas), and urban regeneration efforts — in shaping local identity, well-being, and resilience. These themes reflect a community's sense of ownership and place-making.

The study finds that green spaces and urban rehabilitation efforts significantly enhance urban well-being, quality of life and spatial equity, emphasising their critical role in community resilience and inclusivity.

To validate the hypothesis that these concepts contribute to a distinctive small-town identity, a mixed-methods approach was employed. This methodology included a review of existing literature and the collection and systematisation of urban planning documentation. Spatial and urban planning were analysed using official statistics and municipal tools, as well as community survey data and fieldwork.

Applying this framework to Queijas reveals that intra-municipal disparities persist despite regional growth. The findings emphasise the importance of understanding these communities, which offer a unique urban lifestyle and network of services.

The research advocates moving beyond the rural–urban dichotomy to promote integrated planning and inclusive territorial management, thereby realising the full potential of small towns within the broader metropolitan context.

2487 | Meng Meng, Xueliang Liu, Linzhen Yang, Marcin Dabrowski

Beyond the Core: Unpacking Growth, Decline, and Inequity in the GBA's Cross-border Periphery

With the free flow of capital and economic integration, cross-boundary development has arisen in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Cross-border infrastructure, public service sharing, as well as personnel exchanges and industrial cooperation are (re)shaping the fringes of cities, areas traditionally recognized as marginal, secondary, or subordinate spaces.

To gain a deeper understanding of this phenomenon, this study first explores how the policy frameworks across the three regions of Guangdong, Hong Kong, and Macao have evolved to promote seamless collaboration while respecting their distinct political and administrative systems.

It then conducts dynamic monitoring and quantitative measurements of the entire GBA and various boundary regions over the past 20 years. It explores the dynamics of socio-economic features, such as population distribution, business layouts, urban vitality, and the distribution of scientific, cultural, and healthcare services. The analysis identifies the rise of certain peripheral regions, the relative decline of some central areas, and underlying socio-economic inequities.

The findings demonstrate that these emerging "peripheral centralities" are not merely ancillary but are critical, symbiotic components of the metropolitan system, fundamentally challenging the core-periphery dichotomy in urban studies. This research provides a novel empirical framework for analyzing peripheral urbanization and offers critical insights for planning and governance aimed at fostering more equitable and integrated development in the GBA and similar mega-regions.

2151 | Semire Bayatli

Where the Maps End: Decoding the Institutional Peripheries, Spatial Gaps, and Inclusive Housing Futures for Refugee Families in Norway

In an era defined by intensifying global displacement, contemporary spatial planning increasingly operates under rigid administrative constraints, often marginalizing the qualitative and sensory dimensions of human experience. In progressive welfare states like Norway, a critical paradox emerges: sophisticated macro-level integration frameworks systematically fail to translate into micro-scale spatial quality at the neighborhood and dwelling level. This structural failure pushes resettled refugee families into the invisible institutional and spatial peripheries of the built environment. This paper argues that the true narrative of urban integration begins where traditional planning maps and masterplans end.

Drawing on the theoretical intersection of architectural anthropology and salutogenesis, this study decodes the fragmented decision-making ecology enacted by siloed municipal actors whose structural disconnect produces oppressive closed-box housing typologies. To expose these institutional cracks, the research implements a design-led qualitative methodology that positions refugee children as active diagnostic sensors of spatial quality. Through creative participatory methods, including Photovoice and participatory mapping, marginalized families articulate non-visual, sensory knowledge regarding threshold boundaries, visibility lines, and neighborhood affordances.

By bridging rigorous policy critique with architectural inquiry, this paper demonstrates how spatial justice must move beyond the mere distribution of material resources to honor the distribution of lived experience. Ultimately, it introduces the Silo-Breaking Workshop as a transformative planning model to co-create municipality-ready design guidelines, realigning top-down governance with sensorially rich, equitable, and profoundly human urban futures.

SS19: Peripheral Centralities

Fri 3.7.14:00-15:30, Special Session D, U406a | Session chair(s): Paul J. Maginn, Nicholas Phelps, Roger Keil

1398 | Özlem Altınkaya Genel, Tong Cheng, ChengHe Guan, Eda Ünlü Yücesoy

Peripheral Centralities or Megacity Growth?: Modelling Governance Scenarios for Türkiye's Marmara Region

Peripheries of the Global South urban regions increasingly function as peripheral centralities—where speculative land and infrastructural development stemming from fragmented planning practices shape regional urbanization dynamics. This paper explores the Marmara Region of Türkiye, home to the megacity of Istanbul, as a paradigmatic case where megacity growth, fragmented governance, and market-driven land development transform peri-urban landscapes into peripheral centralities. Using the SLEUTH cellular automata model and CORINE Land Cover data (2000–2018), the study simulates fragmented and unified urban growth trajectories to 2040 under two policy scenarios: the integrated regional scenario and independent Regional Development Authorities (RDA) scenario.

Results demonstrate the impact of contrasting scenarios generating divergent trajectories for the governance of Global South peripheral centralities: the independent RDA approach increases the megacity growth, leading to spatially uneven, environmentally detrimental urbanization—particularly concentrated in Istanbul's northern periphery—while the integrated scenario fosters more coherent but expansive regional urbanization. These divergent trajectories underscore the key vulnerabilities of the peripheries in the process of centralization: a site of speculative investment, environmental risk, and institutional neglect.

The paper situates these findings within debates on the Global South urban regions, uncovering the Marmara Region's peripheral processes where formal planning practices and speculative urbanism intersect. By integrating urban growth modelling with critical urban theory, the research advances an empirically grounded understanding of how governance and policy should comprehend the sustainable planning of peripheral centralities in the Global South.

Ultimately, the study calls for multi-scalar and data-driven planning frameworks and decision-making processes that recognize the key role of peripheral centralities in the sustainable futures of megaregions—spaces where innovative forms of governance and urbanization models must be imagined and operationalized.

1944 | Jiaxin Gu, Qifeng Yuan, Wei Zhan, Zhe Huang

Embedded in Metropolitan Areas ： Centralization Strategy from peripheral multi-level local governance in Pearl River Delta

In the urbanization process shaped by China's reform and opening-up, two major metropolitan regions have gradually emerged in the Pearl River Delta (PRD), centering on Guangzhou and the Shenzhen–Hong Kong corridor. The wider peripheral areas these metropolitan cores have been commonly conceptualized as desakota, a term defined by T. G. McGee（1991）to describe mixed urban–rural zones characterized by high density and spatial flattening in rapidly industrializing Asian regions. While confronted with strong

village-level power and being structure by metropolitan center, multi-level local governments in these peripheral regions have proactively sought to embed the place into the metropolitan functional structure through centralization strategies.

This study selects the development strategies and implementation of Dongguan city and Nanhai district after the 2000s as typical cases, to reveal the centralization strategies, including: (1) Spatial Integration for "strategic functional zones" through top-down strategic and territorial planning; (2) Spacial Rescaling through functional zone reorganization and inter-governmental coordination; (3) "Institutional Thickness" creation by mobilizing fiscal tools, employing innovation policies, and factor coordination in specific area; (4) Proactive Formalization, transforming land practices from informal to formal regimes. Through these approaches, local governments actively construct "strategic functional zones," creating functional centers and proactively embedding themselves within the metropolitan functional system.

The research seeks to explore the endogenous resilience of local governmental intervention in metropolitan-edge regions under the exogenous forces of regional centers. It contributes to understanding the agency and entrepreneurialism of local governments in China's peripheral areas, and expands empirical insights into the study of peripheral governance in the global South.

2072 | Cornelia Roboger

Preserving or transforming suburbia? Insights into private landowners' interests in suburban densification

The densification of suburban areas presents a significant yet often underexplored opportunity for sustainable urban development. While municipalities and developers focus on large- or medium-scale development projects in urban cores, suburban areas are changing mostly through small, incremental decisions made by private landowners. Recent research highlights the importance of private landowners and their growing influence in shaping suburban areas through incremental changes to land use. These developments often occur without significant municipal intervention and are motivated by a variety of landowners' interests, ranging from family needs to long-term financial considerations. Although each project may appear minor, their cumulative effects can substantially transform suburban areas over time.

Private individual landowners therefore hold a central position in suburban densification processes, acting both as initiators of new developments and as the ultimate decision-makers regarding how their land is used. Yet the specific interests, emotional attachments, and value orientations that guide their responses to the possibility of densification remain insufficiently understood.

To explore these dynamics, problem-centred qualitative interviews were conducted with suburban landowners in Germany. The sample included individuals who had already densified their plots as well as those who owned land with densification potential but had chosen not to act. This approach allowed for insights into contrasting perspectives, experiences, and decision pathways. The aim of the research is to examine how personal motivations, emotional bonds to place, and individual perceptions of change influence landowners' views on densification and their eventual development decisions.

The findings provide important insights into how private landowners' subjective interests and reasoning influence suburban change and transformation. A deeper understanding of these perspectives can help

municipalities engage more effectively with landowners and design strategies that align individual interests with broader goals of sustainable and socially balanced suburban growth.

2586 | Teresa Marat-Mendes, Sara Silva Lopes, Rui del Pino Fernandes

RETHINKING THE PLANNING OF THE METROPOLITAN REGION FROM THE PERIPHERY: The central role of the Food Systems.

Urban peripheries have been interpreted through dichotomous lenses privileging the metropolitan core, framing peripheral territories as residual or functionally dependent spaces. Recent research, however, has exposed the limitations of these assumptions, highlighting the periphery as a dynamic landscape shaped by processes of innovation, adaptation, and transformation, surpassing planning limitations. This presentation argues the need to rethink the planning of the metropolitan region from the periphery, while examining the role of the food system to provide a critical perspective. Given its inherently territorial, multi-scalar, and cyclical nature the food system — from production, processing, distribution, retail, and consumption to disposal — provides an asset for interrogating spatial hierarchies and rethinking planning approaches beyond the traditional centre-periphery split.

This research analyses whether established definitions of centrality and periphery continue to make sense when interpreted at different stages of the food system, each characterised by distinct spatial and socio-economic dynamics. Preliminary results suggest that the spatial configuration of food-related activities often overturns conventional expectations: peripheral areas emerge as central nodes for production, and logistics (processing to distribution and disposal), while central urban districts often depend on peripheral flows to sustain their metabolic and economic functions (retail and consumption) (Marat-Mendes et al., 2022).

This presentation discusses some preliminary results of an ongoing investigation, that while focused of the metropolitan area of Lisbon, aims to question how the food system can help reshape current planning practices, while redefining the several ‘centres’ of the periphery to promote a more productive region. By revealing how food-related processes redistribute centralities across metropolitan space, the food system becomes not only an analytical framework but also a strategic tool for planning. Thereby, the study contributes to broader efforts to reframe the meaning of the periphery and develop planning paradigms capable of addressing contemporary metropolitan regions complexities.

1195 | Svenja Bochinski, Markus Leibenath

When a ‘Green Capital’ Grows: Contested sustainabilities and collective identities in a major suburban development project in Freiburg, Germany

The growing demand for housing and the limited availability of space in central locations are directing planners’ attention in Germany towards suburban areas. Although urban expansion is being presented as a 'sustainable' response to the climate crisis and housing shortage, it encroaches on landscapes that form a key part of residents' collective political identities, making many current suburban development processes in Germany politically controversial. While previous research has oscillated between the 'lock-in' of place-based identities and their rearticulation with regard to sustainable transformations, little

attention has been paid to suburban contexts, despite these spaces often being characterised by great heterogeneity and dynamic change.

This is particularly interesting to examine in Freiburg, Germany, a city that has built a strong local identity around sustainability and has grown over several decades thanks to this reputation. This contribution explores the Dietenbach urban expansion project in Freiburg to analyse how places, collective political identities, and understandings of sustainability are discursively co-constituted and contested.

The theoretical framework combines discourse theoretical approaches (Laclau/Mouffe 1985; Hajer 1995) with the concept of place attachment (Altman/Low 1992). Methodologically, a qualitative discourse analysis of planning documents, media coverage and problem-centred interviews including autodriven photo elicitation are carried out. The analysis shows that conflicts are intensifying between nature- or agriculture-oriented place attachments and smart growth-oriented city-wide planning discourses – revealing how suburban open spaces currently becoming 'peripheral centralities' for struggles about sustainability policies in metropolitan spatial planning. The contribution is based on the project “City-regional, participation-oriented landscape policy 'in the making': a discourse-theoretical, praxeological perspective”, funded by the German Research Foundation (DFG, project nr. 466529662).

Altman, Irwin; Low, Setha (Hg.) (1992): Place attachment. New York: Plenum Press.

Hajer, Maarten A. (1995): The politics of environmental discourse. Oxford: Univ. Press.

Laclau, Ernesto; Mouffe, Chantal (1985): Hegemony and socialist strategy. London: Verso Press.

SS20: Planetary Boundaries

SS20: Planetary Boundaries

Tue 30.6.16:00-17:30, Special Session A, U401 | Session chair(s): Kaisa Schmidt-Thomé, Oya Duman, Timo von Wirth

1562 | Razieh Rafiei, Aditi Ajay

Urban Planning Transformation through Doughnut Economics: Lessons from Prior Implementations for Päijät-Häme, Finland

The Doughnut Model is a visual framework proposed by Kate Raworth for urban planning that incorporates social and planetary boundaries. Numerous cities have adopted this approach to transition their planning into a framework that examines the effects of urban initiatives outside municipal boundaries. Päijät-Häme, a region in Southern Finland, is the first Finnish region that prepared an innovative roadmap towards circular economy and aspires to achieve carbon neutrality by 2030.

This study seeks to determine the potential for integrating the Doughnut Economics model into the planning process of Päijät-Häme. We performed qualitative research emphasizing content analysis and case study assessment. This study examines the experiences of all cities that implemented this approach to identify challenges and lessons learned. A comparative analysis was conducted in two cities -Glasgow

and Grenoble- and two regions- Cornwall and Brussels- utilizing a benchmarking framework to determine the employed tools and methods. A strategy has been established for the Paijat-Hame region, informed by prior projects and insights gained from the study.

The results indicate that while facing barriers in participation and support, the majority of cities have seen organizational transformation following the integration of this model into their planning systems. A primary lesson learned is that involving senior leadership and various stakeholders is crucial, and this change should be regarded as a sustained effort.

The proposed roadmap comprises four primary steps: 1) Establishing fundamental development objectives for the City Portrait, 2) Visualizing the portrait, 3) Conducting stakeholder workshops, and 4) Scaling and integrating into policy. Long-term capacity building and the integration of formal instruments with participatory methods are the core priorities for this region.

This study contributes to the current surge of innovative urban governance approaches. This concept offers a valuable foundation for cities with established circular economy and nature positive aims to accomplish their goals.

2456 | Ignacio Castillo Ulloa

Sustain-urbanity: Reframing an unremitting and paradoxical challenge through tmesis

Oftentimes the outcomes of crises prompted by urban agglomeration dynamics are exclusively addressed through, and thus ended up trapped in, overtly technocratic framings. Provided the demands that late-modern lifestyle brought about, monolithic solutions such as intensive agricultural practices, infrastructural megaprojects (dams, highways, tunnels, and bridges) and the intensification of fossil fuels exploration and exploitation, were introduced as some sort of ‘miraculous’ and definitive solutions. In time, however, given their unexpected and unwanted consequences (soil and water bodies contamination, air pollution, massive displacement of people, amid others), these ‘ultimate’ solutions proved shortsighted, unnecessarily labyrinthine and even antithetical to sustainability. Against this background, and echoing the session’s advocacy, this paper contends that overarching, overriding, and formulaic solutions ought to be destabilized and incrementally phased out, to then give way to strategies that are joint (emerging from knowledge transfer, exchange, and implementation), multidimensional (conflating a variety of disciplines, expertise, and methods), context-responsive (highlighting local knowledge and the spatiality of contextual circumstances) and iterative (learning from experience). To catalyze this transition, it is proposed to refocus “wicked problems” (Rittel and Webber 1973) and break out of the solution-resolution predicament by emphasizing their groundedness. To center the attention on the contextual groundedness of wicked problems, and to stress how paradoxical the attainment of urban sustainability actually is, the notion of wicked urban problems is put forward. More than just a linguistic device, interpolating “urban” serves to frame and accentuate the singular quality that wicked problems have in urban areas. Also, improving living conditions in communities and cities may too be seen as “sustain-urbanity”. However, rather than a yet another neologism or mondegreen, “sustain-urbanity” should be regarded as an eggcorn whose attainment can be pursued through the exploration of wicked urban problems guided by combining transdisciplinary practice, spatial research and social learning (Castillo Ulloa 2025).

2717 | Ambra Tieghi

Reinventing the Territorial Section for Post-Sustainable Planning: From Geddes' Stability to Amphibious Epistemologies

Planning's representational tools — maps, sections, plans — have historically been conceived for territories perceived as relatively stable: fixed morphologies, clear boundaries, systems tending toward equilibrium. These assumptions proved remarkably productive throughout the twentieth century. However, the post-sustainable condition — understood here as a context where ecological damage is no longer fully preventable, and planning must operate within already compromised systems rather than toward idealised equilibria — poses new challenges: altered ecosystems, thresholds being crossed, futures radically uncertain. This shifting context invites a critical reconsideration of whether inherited tools remain fully adequate, or whether they require adaptation to operate within permanent instability.

This paper interrogates the territorial section as a foundational device of modern planning thought. Taking Patrick Geddes' Valley Section as paradigmatic case, the contribution explicates the implicit axioms that made this tool operative for over a century: morphological stability, gravitational linearity, sharp boundaries, dynamic equilibrium, and functional anthropocentrism.

Rather than dismissing these axioms, the paper asks how they might be translated for post-sustainable contexts characterised by systemic instability. Through genealogical analysis and critical deconstruction, it explores what could be destabilised in the Geddesian paradigm and what might emerge in its place.

As contribution, the paper outlines the amphibious section: a modified tool that does not simplify complexity but organises it, capable of representing dynamic gradients, multiple temporalities, tipping points, and multi-agent processes. The land-sea interface — where tidal rhythms, seasonal cycles, and long-term climate dynamics coexist — serves as epistemological laboratory for testing these propositions.

The contribution is methodological: rather than offering design solutions, it explores how a foundational instrument might be rethought to operate within radically altered conditions. The amphibious section suggests a shift from designing stable forms toward designing relations in transformation — a paradigm for operating within crisis rather than merely responding to it.

2011 | Rianne Janssen, Luca Bertolini, Peter Pelzer, Maarten Hajer

Transformative Imagination for Futures of Mobility, Energy, and Housing

This paper addresses the ‘crisis of the imagination’ (Ghosh, 2016) in planning sustainable socio-spatial futures in the nexus of mobility, energy, and housing. Although planning is inherently engaged with imagining and developing ‘better places’ (Healey, 2009; Savini, 2018), the futures currently being planned often lack the transformations needed to respond to urgent social and environmental crises (Davoudi, 2023; Stead & Albrechts, 2023).

Thus, this paper argues that we need new practices to stimulate transformative imagination: “seeing, sensing, thinking and dreaming against and beyond the status quo of presentist concerns and past narratives that creates the conditions for ethical and just material interventions in and political

sensibilities of the world (adapted from Yusoff & Gabrys, 2011, p. 516)." Building on literature about imagination and futuring, we articulate five practices that make processes of imagination transformative: (1) unlearning dominant assumptions, (2) constructing alternative imaginaries, (3) challenging power dynamics in imagining, (4) embedding imagination in the dynamics of lived realities, and (5) connecting imagination to prefigurative experimentation. This paper asks how these practices of transformative imagination might benefit planning for just sustainability transitions.

We explore this question through the case of planning initiatives in the nexus of mobility, energy, and housing in the Netherlands. Examples show that the holistic lens of nexus-thinking creates space for alternative imaginaries and practices to emerge, yet still often reproduces dominant assumptions and lacks attention to the politics of imagination. By unpacking what the 'crisis of the imagination' in planning entails, we can identify opportunities for interventions that might make planning more transformative.

SS21: Public Interest

SS21: Public Interest

Tue 30.6.14:00-15:30, Special Session F, M140 Majakka | Session chair(s): Michael Lennon, Christopher Maidment

1031 | Ida Nilsson, Sabrina Fredin

Assembling Mineral Extraction as a 'Public Interest' – Spatial Planning as a Territorializing Practice in the Iron Ore Establishment in Pajala Municipality

Mineral extraction is deeply entwined with dominant narratives of "development" and increasingly framed as serving the public interest, particularly as global mineral demand accelerates under climate change mitigation. Despite sustained critique, the notion of public interest continues to shape spatial planning in many Western countries. In Sweden, where mineral-rich lands abound, extraction plays a central role in constructing public interests.

This article reconceptualizes how public interest operates within spatial planning. Drawing on assemblage thinking, we view spatial planning as an active, assembling practice that territorializes extractive land uses under the guise of serving a "public interest." We identify three forms of territorialization: institutional, symbolic, and material. Institutional territorialization legitimizes extraction of minerals through narratives of continuity in regional or national development and crisis, framing it as "natural" and "urgent." Symbolic territorialization performs land as "filled" with untapped potential through official acts. Material territorialization deploys technical artefacts—surveys, forecasts—to shape land value around extractability.

By examining the rapid, seemingly uncontested establishment of an iron ore mine in Pajala municipality in northern Sweden, we argue that public interests are not pre-existing aggregates of societal needs or ideals, but contingent stabilizations of possibility. Tracing these practices reveals how public interest serves as a powerful vehicle for legitimizing mineral extraction, obscuring alternative futures for land and

community. This reconceptualization thus reveals how planning enactments of the public interest actively produce extractive landscapes, rather than merely responding to them.

1485 | Georgia Gemenetzi, Anestis Gourgiotis

Public interest versus special interests in spatial planning: the case of urban regeneration project in Hellinikon, Greece

The public interest is the core concept of spatial planning. However, it is difficult to define it in a commonly accepted way within planning theory and practice, since its meaning may vary accordingly to the socio-economic context and the cultural background. A key example of this is the reorientation of spatial planning in many European countries, particularly in the aftermath of the 2008 fiscal crisis. Under austerity measures, spatial planning became more entrepreneurial and market-led, aimed at facilitating private investments and exploiting public land to increase the inflow of public revenues used for the repayment of public debt investments. In any case, the public interest remains central to the legitimacy of planning. This paper discusses the concept of emerging special interests (whether special purpose or private-led projects) advanced by private agents taking a leading role, versus the concept of the public interest which is traditionally associated to the civic society. The discussion Is based on the case study of the development of the 600-hectare public land asset of the former Hellinikon airport in Greece, one of the largest urban regeneration projects in Europe. It is worth noting that discussion for the development of this public land has been preceded by forty years of maturation and adversarial debates among various stakeholders, with no consensus reached. Finally, the valorisation of this public land was put forward in 2012 through an intervention in the planning system which was requested by international creditors. As the Hellinikon project continues to unfold, it remains a contentious issue. The paper examines the scope of planning, the actors involved and the planning practices through the lens of public interest and special interests as applied to the Hellinikon project.

2301 | Angela Subedi, Jens Kaae Fisker

The relational aspect of co-research on inhabitant participation in urban planning and development

Abstract: Inhabitant participation in urban planning and development praxis requires collaborative relations to be forged between municipal officials and inhabitants. This article explores three ongoing, interrelated co-research processes on participation in urban planning and development in Stavanger, Norway, involving inhabitants, planners, and academic researchers. The approach to co-research is inspired by participatory action research and anti-oppressive research. Since the nurturing of relationships plays a key role in this kind of research, analytical attention is directed at the relational aspect of the processes under study. Findings shed light on internal relations among co-researchers, relations between different forms of knowledge, external relations with the wider community, and external relations with more powerful actors and key decision-makers. Based on these findings, we argue for a shift from research design to research preparation, while providing navigational tools to differentiate between co-research processes. We also reaffirm the importance of committing to a relational

epistemology. Please note: This paper will be published soon in Nordic Journal of Innovation in Public Sector.

2707 | Angelique Chettiparamb

Public Interest and Social Justice

Public interest is a nebulous concept hard to pin down in practice. Whilst theoretical reflections have delineated ways in which the notion of public interest can be mobilized to mean different things (Campbell and Marshall, 2002; Alexander, 2002), advocacy for particular values to be embedded in public interest have also been advanced. For instance, Moroni (2004) argues for an egalitarian liberal position and Lennon (2016) argues for the need to acknowledge inter-subjectively received moral traditions.

Ongoing attempts to refine the concept in the light of different theoretical conceptions, have also turned to planning practice for empirical investigations. For instance, Maidment, (2016), and Chettiparamb (2016) have argued that a notion of public interest cannot be conceived independent of scale and that paying attention to scale, might be a way of reconciling different public interests. Others have argued that the notion of 'generalizable interests' can help navigate different locally defined public interests (Mattila, 2016).

Despite the difficulty in defining 'public interest', planning academics have also vehemently claimed that an idea of what constitutes the 'public interest' is required for the profession (Flathman, 1966; Moroni, 2004). Lennon, (2019), for instance, argues that even when the public interest is not explicitly under discussion, it might appear in different guises such as 'justice', 'rights' or 'capability'.

Building on Lennon (2019), this presentation explores 'public interest', by delineating it against one other notion - 'social justice' - which seemingly also embodies a notion of public interest. It is another approach to define the parameters of what constitutes 'public interest'. Perceptions of housing for internal migrants in the state of Kerala, India and what it means for the migrants themselves are explored. Using the case study, overlaps and differences between the notions of social justice and public interest and the consequent trade-offs that can result are advanced.

2545 | Katie McClymont

Planning and the Public Interest- dignity in life and death?

The public interest remains a key topic of debate, research and professional reflection in both planning theory and practice. Planning for cemeteries and 'deathscapes', despite some increasing interest (Grabalov & Nordh, 2022), does not. This paper aims to draw insights from the latter to expand thinking about the former; in particular asking whether the concept of dignity (Davy, 2020) can aid and expand our understanding of what the public interest might mean for planners.

Challenges emerging from planning for 'deathscapes' raise core questions which resonate with planning dilemmas more broadly including who benefits from the allocation of space for certain activities and how can environmental, economic and social needs be balanced. However, the provision and appropriate maintenance of cemetery space raises questions of non-instrumental values, and where or if planning

has the vocabulary to articulate these. Here is where the notion of dignity may have traction. It encapsulates a less tangible set of needs, one which may be communally and interpersonally constructed or upheld. Moreover, dignity as a concept allows for the agency of people or collectives in the face of state or market (in)decisions. The paper explores whether planning in the public interest could be more meaningfully understood if it were to include planning for human dignity, and what issues, beyond the sphere of deathscapes may arise,

References

Davy, B. (2020). Human dignity: Is there a place for it in planning? Transactions of the Association of European Schools of Planning, 4(1), 7–21. https://doi.org/10.24306/TrAESOP.2020.01.002

Grabalov, P., & Nordh, H. (2022). The Future of Urban Cemeteries as Public Spaces: Insights from Oslo and Copenhagen. Planning Theory & Practice, 23(1), 81–98. https://doi.org/10.1080/14649357.2021.1993973

SS21: Public Interest

Tue 30.6.16:00-17:30, Special Session F, M140 Majakka | Session chair(s): Michael Lennon, Christopher Maidment

1039 | Harriet Dunn

Invoking in the public interest

With this contribution, I wish to argue for the continued relevance of the term 'public interest', not necessarily as a guiding light for planning, but as way of understanding the contemporary planning condition. In recent years, the rise of right-wing reactionary populist movements has been marked by strategic invocations of the ’public interest’, as a way to position antagonistically against a perceived ’elite interest’. This narrative has gained significant political traction, capitalizing on the discontent stirred by post-political and neoliberal planning regimes. Whilst some populist reactionary movements adopt more authoritarian stances, other groups advocate for increased democratic engagement and public participation in planning decisions. For some planning practitioners, populist politics may resonate with embedded professional ideals valuing democratic planning that privileges local voices, as well as those who are critical towards profit-/market-oriented planning regimes. For others, who rather see the public interest as a utilitarian ideal, reactionary populist movements threaten principles of equitable and sustainable urban development. This conflict has the potential to create internal frictions as planners attempt to navigate between competing definitions of the public interest. Further, it is therefore important to question whether reactionary populist claims do indeed encapsulate a broader public interest or merely represent a compelling narrative for an increasingly frustrated and vocal minority. In building this argument, I draw on empirical research conducted in Sweden, as well as the broader literature documenting populist politics and resistance to urban development.

1160 | Juliane Biehl, Gesa Geißler

From Exception to Principle? Re-Legitimating Planning through Public Interest in the German Energy Transition

The rapid acceleration of Germany's energy transition has been accompanied by a notable normative and legal shift since 2021: infrastructure planning for renewable energy generation, grid expansion, hydrogen, and negative emissions technologies is increasingly framed as a matter of 'overriding public interest'. This contribution critically examines how this framing functions as both a normative imperative and governance tool in planning, using Germany as a primary example.

Firstly, we trace the legal and institutional embedding of the concept of overriding public interest in spatial and energy planning. Recent amendments to federal laws codify renewable energy projects and ancillary facilities as serving the overriding public interest and public safety. Subsequent policy developments, e.g. reforms for carbon capture and storage, transport infrastructure, hydrogen networks, and housing development, extend this status to entire supply-chain infrastructures.

Secondly, this shift carries a normative imperative for planners and policymakers. Declaring a project to be in the public interest does more than accelerate approval—it weaves strategic aims (decarbonization, affordability, and energy security) into the core of planning practice. In doing so, it reveals an emerging hierarchy in which certain land-use, environmental, and participatory priorities may be reorganised to accommodate infrastructure deemed vital to the energy transition.

Thirdly, we discuss implications for planning theory and practice, including legitimacy, public participation, spatial justice, and multi-scalar governance. By prioritising acceleration and public interest over environmental assessments and public participation, planning may drift toward technocratic expediency. As 'public interests' expand, does the term retain normative force? What constitutes the 'public,' and who defines or represents it? The German experience illustrates both the power and pitfalls of reviving public interest as a guiding principle for planning. Its reliance turns what was once an exceptional justification into a routine claim to legitimacy, calling for renewed theoretical and ethical scrutiny of its boundaries and relevance.

1876 | Mick Lennon, Linda Fox-Rogers, Richard Waldron

Recalibrating temporalities of the public interest to tame planning

The public interest (PI) is a difficult to dislodge concept in planning. It is the implicit foundation of planning education and the grounding of practice in modern liberal democracies. It is thereby hard to see how the PI could be dispensed with as a core justification for what planning does in such contexts. This begs the question of who defines who constitutes the 'public' and what constitutes their 'interest'? Planning scholarship has traditionally analysed issues around conflicts over space when approaching the PI. This paper takes a different tack. It examines recent reforms of planning in Ireland to reveal how 'time' is now being used by certain actors to recalibrate perceptions of the PI that favour their interests at the expense of the public. The paper shows how in acknowledging the inescapability of the PI, certain actors have sought to change its meaning rather than contest it. The result is to weaken the force of opposition before it can be voiced. This is achieved by placing such opposition against the common sensical

understanding of what the PI entails. The case highlights two conundrums: (1) If the PI justifies planning, but ostensibly delivering it obliquely undermines the PI, is planning a justified activity? (2) If the PI is informed by a broadly (but not universally) shared common sensical view within a polity, what justification does planning/planners have for contravening this?

2686 | Clarice Misoczky de Oliveira

From Public Interest to Authoritarianism Planning: the case of Porto Alegre, Brazil

In the 1990's, the city of Porto Alegre became an international symbol of democracy and popular organization, based on the experience of the Participatory Budget. Harvey (2012) identified the southernmost capital city of Brazil as a "rebel city" for its struggle to fashion on alternative globalization, creating popular mobilization as new cultural forms between citizens and the municipality. Over the past 20 years, the city has been led down an opposite path. Since the 2014 FIFA World Cup, various forms of neoliberal urban planning have been developed. This can be addressed as one of the impacts of hosting the megaevent.

Baeten (2018) highlighted that neoliberal urban planning involves understanding regulatory forms of the neoliberal State, including disrupting urban regulations imposed on market construction. It is a hegemonic ideology that promotes the superiority of market solutions and imposes the limits of State interventions. Could a market-led planning operate in defense of the public interest?

Even after the major flooding in 2024 at Porto Alegre, public interest has been pushed to its limits. Public-private partnerships are the usual response to public urban services. For the comprehensive planning process, the interests of the dominant coalitions override the people's right to the city. This paper presents the process of urban planning reconfiguration that has been taking place over the last decade, defying the federal laws on which Brazilian urban planning is based, thereby compromising the public interest it seeks to preserve. The research takes a qualitative approach, with data covering the approved municipal laws during that period and various forms of resistance by many actors against the neoliberal project, preoccupied with the future and the possibility of justice and quality of life in the city.

SS21: Public Interest

Tue 30.6.17:45-19:15, Special Session F, M140 Majakka | Session chair(s): Michael Lennon, Christopher Maidment

2342 | Anna Örman

Generating publicness: rethinking public interest through early welfare urban planning

The concept of the public interest has long been central to planning's democratic legitimacy, yet its meaning and implications remain open to interpretation. This paper approaches the question of the public not through the idea of serving the public interest (Moroni, 2017; Mukhtar- Landgren, 2012), nor through participation and political claims (Fraser, 1990; Habermas, 1989; Sager, 2018). Instead, it examines how planning practices can generate publicness, and how that publicness, in turn, shapes the conditions of planning.

In this study, publicness is conceived through Hannah Arendt's notion of worldliness, as a shared and tangible world that people care about and act within together.(Arendt, 1958) The paper also draws on Bonnie Honig's theory of public things (Honig, 2017) and Steven Klein's interpretation of welfare institutions as worldly mediators (Klein, 2020), both of which develop Arendt's ideas about how democratic life depends on material and institutional infrastructures. Empirically, the paper studies early welfare municipal planning in Lund, Sweden, during the 1930s and 1940s, a formative period when neither planning as a profession nor local democracy was established. Municipal actors were experimenting with how social welfare, housing, and everyday life could be organized. In this context, planning became a way of shaping the shared world of local democracy. By revisiting this historical moment, the paper contributes to ongoing debates about the public interest and the role of planning under changing political and economic conditions. In a time when planning's legitimacy is challenged by neoliberal market logics, examining how planning once helped to constitute publicness offers a lens for rethinking its contemporary relevance.

Bibliography available upon request.

2885 | Chris Maidment

Toward a Practicable Meta-theory of the Public Interest: Planning 'expertise' as an ability to situate the day-to-day within the abstract

The public interest continues to sit in the background of planning theory; continually recognised as important but, arguably, without the clarity of practical impact necessary for it to act as an organising concept, and with a continued healthy suspicion about the motives of those citing it as a justification. This is contextualised by contemporary trends in theory, which has tended to avoid theorising the role of the professional planner, and practice, where the changing institutional context is accompanied by the ongoing fragmentation of the planning profession. Taken together, these trends suggest a concerning future for planning that doesn't characterise the generations of planners that planning schools seek to educate as an active, coherent component of the discipline.

To counter this, the presentation aims to reinforce the concept's relevance, proceeding in three parts. The first positions the public interest in the context of post-foundational politics, drawing on theories that acknowledge a diversity of actors and actants, and in the context of contemporary trends toward the fragmentation of planning practice. The second part draws on, and further develops, recent scholarship around the public interest to highlight a convergence around how it might be practically realised, in order to highlight how such a convergence may clarify the role of the 'professional' spatial planner within the post-foundational context. In turn, the final part sets this within the context of scholarship that has addressed the role of the planner, to argue for the concept's practicability in giving a clear role to planners when theorising at the meta-level. Finally, the arguments are drawn together through conclusions that try to position the planner within a complex web of relations, with an emphasis on the core aims of planning, rather than trying to draw an artificial boundary around the discipline.

2649 | Raine Mäntysalo

Public interest – a boundary object of deliberation?

The rationales for conceiving the public interest vary. It may be understood, e.g., as distributive fairness, avoidance of negative externalities, a pareto-optimal alignment of particular interests, or a solution arrived at through a deliberative process. This open-endedness makes the concept vulnerable to manipulative uses where the dominating regime, with its vested interests, makes shallow appeals to the public interest to justify its development projects. For this reason, some critics would rather dismiss the whole concept as a floating, or even empty, signifier. However, for the legitimacy of the mandate of public planning in liberal-democratic contexts, public interest is an unavoidable point of reference. Instead of conceiving its conceptual vagueness as a problem to be resolved, it should rather be seen as a strategic resource for planners (Buhler, 2021) – be it motivated by manipulative justification of undisclosed interests, or making sense of the multiplicity of approaches.

'Boundary object' is a concept coined by Star and Griemer (1989, 393), by which they mean conceptual-material objects that "have different meanings in different social worlds (while) their structure is common enough to more than one world to make them recognizable, a means of translation". They can be employed as means to coordinate different understandings and intentions associated with issues that avoid being settled on any single plane. A critical task for a public planner is to turn the stakeholders' attention to the perspective of the public interest as regards a given planning issue, while acknowledging its multifaceted character that demands collaborative clarification. Addressing the concept of public interest as a boundary object may help the planner to orientate to the planning task as a task of coordinating different conceptions of the public interest, with their differing place-related implications - to jointly deliberate how different conceptions of the public-interest-in-this-place can be brought together.

2432 | James White, Dan Durrant, Andy Inch

From growth dependent to growth-critical planning?

Neoliberal regimes have reshaped the corporatist pact between state planning agencies and private sector development interests, deepening planners' commitment to a 'capitalist realism' where the facilitation of market-led development contributes to the pursuit of the economic growth considered synonymous with the public interest (Clifford, et al, 2024; Chapman and Tait, 2023).

However, the dependent relationship between planning and economic growth has long been criticised for contributing to uneven spatial development whilst deepening inequalities and environmental harms. Growth-critical planning thought has gained renewed impetus in the context of the climate emergency. Post and de-growth debates have argued planning must be repurposed beyond the resource intensive pursuit of GDP (e.g. Savini et al, 2022). Key questions remain, however, about the scope for reworking growth-orientated planning, including the levels at which change can be realised (political economic; ideological; institutional etc), how these map onto the agency of planning actors, and their willingness to engage with growth critical thinking given its uncomfortable implications for the work they do (Lamker, 2022; Durrant et al, 2023).

This paper responds to these questions with insights from a series of interviews with senior planners and officials in five regional cities in the UK. Each city has formally declared a climate emergency and all are bound by national legislation and policy that formally commit them to reducing greenhouse gas emissions in line with nationally agreed targets for realising net zero. However, their existing growth-orientated policy commitments are clearly incompatible with these objectives and it remains unclear how decision-making is accounting for greenhouse gas emissions. By exploring how actors make sense of these disjuncts and what they are trying to do about them, we will examine their imbrication within growth-dependent planning regimes and the implications for developing more growth-critical conceptions of the public interest.

1467 | Janice Barry, Joelle McNeil

RECONCILING RECONCILIATION WITH THE PUBLIC INTEREST?

Settler-colonial planning is challenged to reconsider and repair its relationships with Indigenous peoples. In Canada, this challenge is often framed as one of reconciliation. Reconciliation was described in the final report of Truth and Reconciliation Commission of Canada (2015) as “not an Aboriginal problem” but “a Canadian one”, in which “[v]irtually all aspects of Canadian society may need to be reconsidered” (p. vi). For the planning profession, this reconsideration will demand quite foundational shifts in how it conceptualizes its work. Our paper begins by examining how the professional planning institutes across Canada tend to frame their commitments to reconciliation as a question of the public interest. Having established the empirical context, we then move to a more conceptual discussion of the inherent limits of attempts reconcile Indigenous interests within existing constructs of the public interest. We develop this argument in two parts. First, we outline a methodological concern with how the public interest is determined, illustrating how both utilitarian and procedural approaches are ill-positioned to produce just outcomes for Indigenous peoples. The deontic, or rights-based, approach is equally flawed as it centres the settler-state as the bestower and arbiter of rights, reproducing the “colonial politics of recognition” (Coulthard, 2014). We use critiques of recognition to transition to the second part of our argument: a more discursive interrogation of the words “public” and “interest” and the deeply colonial onto-epistemologies that underlay them. We argue, instead, for a more relational form of reconciliation that holds space for Indigenous resurgence and nationhood, or what Asch, Borrows and Tully (2018) have termed “transformative reconciliation”.

SS22: Regional Design

SS22: Regional Design

Fri 3.7.09:00-10:30, Special Session A, U401 | Session chair(s): Valeria Lingua, Cristina Cavaco, Verena Balz

2295 | Hilde Solli, Per Gunnar Røe

Regional planning for both sustainable and just mobility?

Cities are at the heart of the climate crisis. They are both vulnerable and important places for climate change mitigation solutions. Built on decades of research, The International Panel on Climate Change

(IPCC) last synthesis report draws forward a compact urban form to support public transport and active mobility. Rationales for compact cities strategies have included not only sustainable mobility, but also to promote economic growth, countering sprawl, improving the efficiency of public transport, and the preserving green areas. While the compact city strategy has successfully reduced car travels and contributed to more sustainable lifestyles in cities, a possible flip side is that this sustainable lifestyle is not necessarily available to everyone, as the attractiveness of the compact cities may contribute to rising housing prices and possible uneven access to climate friendly mobility. Oslo and its neighbouring county are currently renewing its regional plan and aim to enhance the social aspects of it. This includes seeing accessibility to everyday functions and mobility as a key element, a challenge however is housing as a key element and that housing policies are either national or local, but not regional. Access to housing close to mobility infrastructure and housing is a key element to provide access for everyone and is in this manner a part of social sustainability and a key element in mobility justice. We will explore how issues related to mobility justice are made relevant and articulated in the regional plan for land use and mobility in Oslo and Akershus.

2639 | Angioletta Voghera, Camilo Vladimir de Lima Amaral, Irene Ardito

Integrating sense of place into the co-design of socio-ecological futures in post-flood territories

In a context where planning is increasingly challenged by climate crises and socio-ecological vulnerabilities, this paper explores how sense of place can serve as a tool for visioning and co-imagining regional futures. The research focuses on the province of Valencia, severely affected by the catastrophic 29 October 2024 floods, where traditional top-down planning has struggled to address the social, ecological, and emotional dimensions of planning social-ecological territorial infrastructures.

Drawing from emerging debates on the role of imagination, co-creation, and inclusive futuring practices, the study proposes a methodology that integrates participatory mapping (PPGIS), Likert-scale surveys on place attachment, and qualitative interviews on place meanings. This mixed approach enables residents to identify “significant places,” articulate the values embedded within them, and reveal forgotten, transformed, or destroyed spaces following the flood.

Preliminary results indicate that while residents consistently identify shared meaningful places, other flood areas emerges as “non-places”, rarely mentioned or emotionally represented, despite being the spatial core of the disaster. This absence suggests a profound disconnection between hydraulic infrastructures and everyday socio-ecological experience, but also highlights an opportunity: activating non-places as imaginative spaces for future regeneration.

The paper argues that embedding sense-of-place data into planning processes allows municipalities to articulate alternative socio-environmental futures, improve dialogue with communities, and strengthen regional resilience. It demonstrates how subjective territorial knowledge (such as memories, attachments, and losses) can become actionable in designing regional futures, particularly in landscapes where climate change demands new forms of collective imagination for socio-ecological transition.

2929 | Chiara Farné Fratini

Co-Creating Water-Resilient Regional Futures: Lessons from Fifteen Years of Empirical Application of the Three Points Approach (3PA)

The Three Points Approach (3PA) is a strategic framework for collaborative planning that supports the development of water-resilient cities (Fratini et al., 2012). Widely applied by national and local governments in countries such as the Netherlands, Denmark, the United States, China, and Norway, the 3PA draws on complexity theory and the self-organizing dynamics of natural hazards. Originally developed to structure urban climate adaptation, it has evolved into a multi-scalar tool supporting water-resilience strategies from neighbourhood to regional scales (van de Ven et al., 2024).

The 3PA structures decision-making across three interrelated knowledge domains:

1. Water Infrastructure Design, focused on regulatory performance standards (typically 5–10-year return period rainfall events);

2. Spatial Planning, integrating water management and land-use planning (30–100-year return periods);

3. Urban Renewal, aligning with New European Bauhaus principles and targeting socio-ecological vulnerabilities (0–5-year return periods).

By bridging these domains, the 3PA moves beyond narrow, utility-focused approaches limited by conservative design standards and costly, socio-ecologically inefficient infrastructure. It supports landscape-based strategies and the mainstreaming of Nature-Based Solutions (NBS) to enhance socio-ecological sustainability, maximize local benefits, and address the needs of vulnerable groups.

This paper synthesizes lessons from over fifteen years of empirical 3PA application, with the goal of systematically synthesizing emerging lessons, refining the definition of the three domains, and advancing methods for co-creation within each of them. It analyses the outputs from a transition governance process in Copenhagen, where an advanced version of the 3PA framework has been tested to facilitate multi-stakeholder engagement and future-oriented water-resilience planning. Ultimately, the study contributes to the development of transition arenas capable of enacting water-resilience imaginaries across neighbourhood, city, and regional scales, linking empirical practice with theoretical insights from transition governance and regional design.

2919 | Valeria Lingua

The river as a commons: care and stewardship in the Elsa river agreement

This contribution offers a reflection on the concept of stewardship in relation to river contracts, which often see the need to integrate sectoral planning in order to respond to the need for hydraulic risk mitigation as a triggering factor, at a time when climate change is causing instability and flooding.

Starting from the case study of the Elsa River Contract in Tuscany (provinces of Siena and Pisa and the Metropolitan City of Florence) and the participatory process activated by the leading municipality, we propose an examination of the role of the river as a territorial trait d'union and its perception as a common

good, which in this case was the key to activating the 12 riverside municipalities, two universities and more than fifty associations and citizens. The territorial vision developed as part of co-design activities in the territories has made it possible to define integrated policies and actions that go well beyond risk mitigation and relate to the sphere of care and stewardship in conflictual contexts.

The action plan concerns tangible and intangible actions, ranging from urban regeneration pilot projects to environmental education actions.

The Elsa river contract is currently in the implementation phase and the conclusions highlight critical issues and opportunities related to the continuity of the soft governance experience: what governance structure, what resources, how activate communities for the common good?

2676 | Verena Elisabeth Balz, Ioana Forgaci, Neli Georgieva, Cristina Cavaco

Community vs. policy futures: Towards negotiated conceptions of development in spatial planning and place-based policymaking

The world is grappling with a range of interlinked challenges, including climate change, environmental degradation, and a resurgence of populism, nationalism, and authoritarianism. As a result, our era is marked by uncertainty, and anxiety—conditions that intensify polarization and tensions between competing visions of the future. Simultaneously, this polycrisis has prompted significant efforts to rethink the role of futures in regional development policy and spatial planning. There is also a rising recognition that cultivating alternative futures is essential to community-building and mobilization, and democratic representation and deliberation—particularly when these futures are grounded not in dominant expert, policy, or planning discourses, but in the lived experiences and social capital of the communities themselves.

Against this background, this paper explores the different futures articulated during experiments conducted within the Horizon Europe project Democratising jUst Sustainability Transitions (DUST), as part of the 'Regional Futures Literacy Labs' (RFLLs) in transition regions of Bulgaria, Germany, Poland, and Sweden. We begin by distinguishing between three types of futures: (1) Futures that are expected or preferred by communities affected by transitions but often underrepresented in policymaking; (2) futures that are used to motivate place-based policy initiatives; and (3) futures that are appreciated by the broader public. A subsequent systematic comparison of these envisioned futures enables us to, first, understand the values attached to different place-based development potentials within the regions; and second, to identify and explain the alignments and tensions between the various associated development imaginaries. The RFLLs aimed to strategically position community concerns within the multi-level deliberative governance of sustainability transitions. In the final part of the paper, we discuss the regional design approach employed for this purpose. In particular, we highlight the importance of a discretionary interplay between community-led and policy-led conceptions of development for negotiated shared futures and just place-based sustainability transition policymaking.

1337 | Miriam de Oliveira Goncalves, Cristina Cavaco

Navigating the contested field of Community Development: Place-based approaches, Co-creation, and Soft Outcomes in CLLD's Implementation

In the 2014–2020 programming cycle, the European Commission launched the multi-fund, place-based initiative Community-Led Local Development (CLLD), extending the LEADER programme — originally designed for rural areas and later expanded to coastal territories — to include urban settings for the first time. CLLD seeks to foster empowerment, participation, and capacity development through locally driven strategies. It operationalizes governance at the community scale via Local Action Groups (LAGs), hybrid territorial polities that unite public and private actors to co-create and implement Local Development Strategies — a performative imaginary that articulates territorially grounded objectives and actions. Positioned within a global trajectory of community development, CLLD reflects an ambition to institutionalize participatory governance and strengthen place-based territorial development.

This article examines how CLLD has been implemented in an urban context through a Lisbon-based LAG, analysing its capacity to translate these principles into practice. CLLD and its predecessor, LEADER, are understood here as part of a long-standing lineage of community development approaches aimed at enhancing citizens' well-being and reinforcing local agency through participatory decision-making and co-creation. The Lisbon case study enables an exploration of how these ambitions are reframed within urban governance systems.

Empirical findings reveal only partial fulfilment of CLLD's participatory and empowerment objectives. Key challenges include the direct transposition of the LEADER methodology into cities without sufficient contextual adaptation, governance tensions within the multi-level institutional framework, and the emergence of power asymmetries that shape co-creation processes. Despite these constraints, CLLD in Lisbon has produced valuable soft outcomes—such as social cohesion, network-building, and knowledge exchange — although its transformative potential remains limited by institutional rigidity and policy fragmentation.

By interrogating the spatial politics of CLLD, the paper contributes to broader debates on participatory governance, local empowerment, and the evolving role of place-based instruments in shaping urban and regional development.

SS22: Regional Design

Fri 3.7.11:00-12:30, Special Session A, U401 | Session chair(s): Valeria Lingua, Cristina Cavaco, Verena Balz

2380 | Carlo Pisano, Valeria Lingua, Giuseppe De Luca

Approaches of Regional Design in Times of Polycrisis

Regional Design has emerged as a promising approach to spatial planning and governance in contexts marked by institutional fragmentation, social inequalities, climate emergencies and pandemic disruption—what can be described as a condition of polycrisis. Drawing on ten years of action-research conducted by the Regional Design Laboratory at the University of Florence, the paper discusses how Regional Design mobilises spatial representations, visioning practices and experimental planning tools to

reframe territorial problems and open up spaces for collective action. Rather than providing fixed blueprints, visions are constructed as iterative, negotiable frameworks that connect analytical investigation, normative orientation and discursive arenas, allowing actors with divergent interests, rules and temporalities to converge around shared images of possible futures.

The contribution is organised around five intertwined fields of practice. First, metropolitan visioning processes are examined as devices that articulate long-term strategic directions while remaining adaptable to shocks such as the Covid-19 pandemic. Second, Regional Design is explored as a means to "make the region visible", going beyond administrative boundaries to foreground socio-ecological systems and relational geographies that are crucial under conditions of climate and environmental crisis. Third, case studies of urban regeneration show how wide-area strategies can be translated into place-specific design experiments, using existing landscapes and built heritage as resources for just transitions. Fourth, the integration of Regional Design into ordinary planning instruments demonstrates how soft, multilevel governance can steer change without relying solely on hierarchical regulation. Finally, socially innovative practices—such as river contracts, healthy neighbourhood programmes and community-based projects—illustrate how spatial imaginaries support new forms of cooperation and solidarity.

Overall, the contribution argues that Regional Design offers a reflexive, multi-scalar and imagistic toolbox for navigating polycrisis, enhancing the capacity of institutions and communities to learn, negotiate and act across urban and regional scales.

2715 | Lukas Pappert, Anna Wilk-Pham, Anke Hagemann

Tools for Collaborative Vision Building in Dynamic Urban-Rural Regions

In times of multiple crises and profound transformation challenges, territorial visions can be a key element in proactively shaping sustainable and socially just transitions. The (urban-rural) region is a particularly effective scale for such visioning: It is relatable to everyday life while expansive enough to meaningfully represent ecological, metabolic, and socio-economic interdependencies such as water and material cycles, mobility patterns and social disparities.

Collaborative processes are essential for producing robust and widely supported regional visions. When diverse actors participate – across sectors, governance levels, and knowledge domains – visions become richer, more communicable and better anchored in local realities.

Yet, comparative case studies reveal wide variations in how such participatory processes are designed, facilitated, and equipped with tools. In our paper, we present insights from two transdisciplinary, large-scale research projects: PolyUrbanWaters (PUW, 2019–2027, funded by the BMBFTR) and Urban-Rural Assembly (URA, 2019–2025, funded by the BMBFTR) - which explore spatial transformation in the rapidly urbanizing regions of Huangyan (China) and Sleman (Indonesia). Both projects use collaborative vision-building to generate action-oriented knowledge for sustainable regional futures.

Across the two contexts, a broad range of tools was developed, tested and evaluated, including collaborative mapping and sketching tools, voting tools, narration tools to the use of film and audio formats. We analyse selected tools in detail, assessing their strengths, limitations and transferability.

Particular attention is given to how context-specific tools must be, how they support imagination and co-creation, and how they mediate between short-term community concerns and long-term regional transitions.

By comparing experiences from China and Indonesia, the paper contributes to debates on regional design, futuring, and co-creation. It highlights how universities, through transdisciplinary research and teaching formats, can act as laboratories for experimenting with new tools of imagination, supporting inclusive and transformative regional governance in times of polycrisis.

2006 | Sascha Rentzsch, Luisa Geldbach, Richard Pantzier, Leonard Weiß

Caring Regions - shaping regional visions in the AlterPerimentale Initiative

The rural areas in the German-Polish border region are particularly effected by demographic change. At the same time, the Lusatian mining region is undergoing a profound structural process due to the planned coal phase-out by 2038. The simultaneity of these dynamics poses significant challenges for society, politics, and planning. While state-led structural policy strategies strongly focus on promoting economic infrastructure, issues of social cohesion and care tend to be neglected. In contrast, even the economically oriented evaluation research on the structural transformation process lately recommends shifting the focus from alternative employment opportunities toward “interventions of public care”.

The concept of “Caring Regions” opens up new perspectives in this context. Building on the urban-centered concept of “Caring Communities,” it critically examines new care relationships in rural areas and, in doing so, outlines alternative visions for regional futures. The publicly funded transfer initiative “AlterPerimentale,” draws on the practice of Caring by using experimental formats to examine the conditions for good living in old age in rural areas, thereby contributing to this goal. In its vision, welfare state care services are complemented by networks that are predominantly civil society-driven and professionally supported. These care communities are conceived as cross-generational and cross-sectoral innovation networks, in which regional and supra-regional actors come together to develop and test new forms of carefully living together based on situated knowledge and through participatory and co-creative formats.

In our presentation, we discuss the contributions of the various projects under the umbrella of AlterPerimentale to the design of regional futures, and the role that co-creative work with older adults and practitioners plays in developing these regional visions. To this end, we present the work of various sub-projects that contribute to one of AlterPerimentale's central areas of activity: the development of new, constructive narratives on aging, structural transformation, and rurality.

2402 | Mikko Airikkala

Futuring as continuous activity in strategic spatial planning

Among the key features of strategic spatial planning are its focus on the long term and its nature as continuous activity that is driving change. Concurrently with the proliferation of strategic spatial planning, the use of futuring has become increasingly common. However, the existing literature usually approaches

futuring from a process or project point of view. In practice, futures work often plays a supplementary role and is rarely integrated into the flow of planning activities over time. In the world of polycrisis and sustainability transformation, futuring should be developed as an evolving, continuous activity that supports the continuous activity of strategic spatial planning and is integrated into the flow of planning processes to support action towards desired future(s). To this end, a comprehensive perspective on the elements and functioning of continuous futuring is needed. Futuring as a continuous, organizationally integrated activity has been studied in futures studies, corporate management, and innovation management. Yet, research on spatial planning-related applications remains underdeveloped.

In this study, I extend the literature from futures studies to strategic spatial planning and examine how futuring can be conceptualized and developed as a continuous activity in strategic spatial planning context. I investigate two cases that consider the scales of the city, region, and state: 1) the development process of the Tripla commercial and transport complex in Helsinki, Finland and 2) the development process of the Finnish monitoring and anticipating system of urban and regional development. The research is qualitative and utilizes varied material such as policy documents, scenario and workshop materials, survey results, and interviews. The study offers a framework 1) for understanding how foresight capabilities and futures orientated culture grow over time and 2) for utilizing futuring as an evolving, continuous activity as part of the continuous activity of strategic spatial planning.

2934 | Karolina Krośnicka, Anna Golędzinowska

Cooperative Planning for Uncertain Times: A Case Study of the New Spatial Development Plan for the Pomorskie Region

The aim of the presentation is to present a method for involving new social groups in creating a new spatial development plan for the Pomorskie Region (Voivodeship) and to indicate the potential and limitations of its universal application.

The focus of this case is the coastal region of Poland, where the potential for development – both in reality and in planning – has been centred on the Gdańsk-Gdynia port complex. This area is experiencing significant urbanisation and has been identified as a prime location for the creation of a metropolitan area, supported by relatively positive demographic trends.

Recent events, such as the full-scale invasion of Ukraine, the associated wave of migration and geopolitical risks, the pandemic, and the decision to build the country's first nuclear power plant, led to revising the province's current spatial development plan. Alongside the formal application process, a new form of participation was introduced: interdisciplinary workshops for young people (aged 16–25) to gather their thoughts, visions, and ideas on future directions for the region (looking ahead to 2050). Each workshop was preceded by a thematic expert panel open to all residents and allowing them to ask questions. The following issues were addressed: functional and spatial structure amid geopolitical challenges; demography; climate and biodiversity protection; energy security and climate neutrality; the volatility of economic processes; and transport needs and mobility challenges. Despite concerns that holding the workshops in the regional capital would overemphasise the largest centre, the proposals shared one theme: clear recommendations for decentralisation to increase the region's resilience and ensure a fair distribution of development benefits.

1504 | Johan Woltjer, Ward Rauws, Jorrit Noortman

Applying Relational Ecosystem Thinking to a 2050 Urban Region: Creating a Vision for Groningen, Netherlands

Ecosystem-oriented thinking has played an increasing role in cities seeking to establish useful long-term spatial plans. A focus on natural systems and also innovation systems has been influential. This paper recognises this kind of thinking, yet it seeks to clarify relational interdependencies embedded in newly emerging priorities for future urban regions, particularly those around nature, food, infrastructure facilities, and new town urban development projects.

This paper explores how relational ecosystem thinking can inform the process of establishing a long-term urban and regional strategic vision. The paper applies the concept of regional ecosystems, conceptualising an urban region as a dynamic spatial system of people interacting with their social, economic, and ecological environment to realise public values.

Using exploratory mapping and expert-informed methodologies, the paper identifies relational ecosystems illustrative to the case of creating a vision for the urban region of Groningen, the Netherlands. The case shows how reciprocal interactions between people generate strong public values, linking nature to connection, food to awareness, infrastructure facilities to inclusion, and urban development to care.

The findings suggest that relational ecosystem thinking offers a useful framework for 'good' urban and regional policy. The paper points to the importance of recognizing urban issues as part of its regional system of human relations. It also points to broader planning tools inviting people to share, contribute and to take responsibility, thereby expanding existing theoretical debate about systems thinking, including governance and entrepreneurial network approaches to urban and regional development.

SS23: Small Towns

SS23: Small Towns

Thu 2.7.16:00-17:30, Special Session F, M140 Majakka | Session chair(s): Silke Weidner, Agnes Förster, Mina Di Marino

2427 | Christian Fertner

Small town centres in transition. Dynamics, functions and plans in Danish small towns.

In this contribution we examine dynamics, functions and plans in Danish towns with 4,000 to 50,000 inhabitants and their town centres. The development of small and medium-sized towns in Denmark has been closely tied to their regional location in the past decades. Towns within commuting distance to the largest cities have expanded, while those located outside have often stagnated or declined in population. Changes in the towns are not occurring at the same speed, and other dynamics (like in-migration from rural areas) partially cushion these tendencies.

Parallel to this development, the towns' centres are also in transition. What earlier has be centres for retail and central services in many towns, are today often characterized by a loss in functions. Of course,

transitions are diverse and taking place at different speed. Historic town centres in smaller towns that are strongly driven by tourism face very different challenges than town centres in suburban towns from the 1970s. Even though retail is challenged everywhere, there are differences in the challenges for different town sizes and the towns' position in a regional context.

We will present preliminary findings from a combination of a (1) quantitative analysis across the 146 small towns and their centres and (2) case studies to address questions like which relevance has town size, density, growth, jobs and functions, commuting, housing prices, and regional structure region for town and town centre and why do some towns show different development trajectories than their region? A critical transition is underway: moving from purely retail-driven development towards a more integrated development with housing as a new and important focal point. But which urban qualities can towns work with to attract more citizens and what does that mean for a town's identity when housing is in focus?

2570 | Claus Theodor Müller, Kristin Wellner

The dissocialisation of wealthy small towns: Spatial factors beyond marginalisation

To this day, urban and housing research, and the debates it has fuelled, such as the "right to the city" and the sustainable transformation of cities, have been based predominantly on metropolitan concepts of urbanity. These concepts rarely do justice to the challenges faced by small towns, which are increasingly embedded in translocal and transregional contexts like migration, financialisation and labour market dynamics. Small town-specific parameters such as comparatively high home ownership rates with low population density and historical and social continuities lead to particular spatial and distributional conflicts, and thus to unique manifestations of social cohesion but also political radicalisation dynamics, which cannot be adequately captured by the methodological and theoretical approaches derived from previous research on large cities.

Research on small towns in Germany has often focused on marginalisation and infrastructural deficiencies, though many German small towns are also characterised by wealth, not only in an economic sense, but also in terms of amenities, as well as the natural and built environment. Recent elections have revealed a high level of dissatisfaction, which manifested in high vote shares for (mostly right wing) populist parties, this dissatisfaction is particularly evident in small towns and rural areas and cannot be explained solely by marginalisation dynamics.

In a proposed research group, we aim to explore the spatial factors of the dissocialisation of wealthy small towns by focusing on spatial and distribution conflicts surrounding the acceptance of sustainable transformations (e.g. energy and heating transition, construction transition, migration, resources) and opportunities for participation in planning and development processes by small-town populations and communication between the various political and planning levels.

2936 | Anna Golędzinowska

Baltic spa towns: decaying heritage or a strategy for the future?

Spa towns are a defining feature of the southern Baltic Sea region's settlement network. In most cases, they are small and medium-sized towns. Some have grown into larger urban functional areas, including

metropolitan areas, while others are located in recreational areas far from economically vibrant centres. For this purpose, certain features provided by peripherality are desirable, such as peace and quiet, intimacy, and green public spaces. However, peripherality can also lead to stagnation and decline. Consequently, local governments often face the dilemma of choosing between quality tourism and tourism that provides a secure income. Nevertheless, this phenomenon has a strong supra-local context: regardless of the financial, infrastructural, and organisational capabilities of resorts, public demand for health-promoting services will continue to grow.

Using the example of the Pomorskie Region in Poland, the study presents the characteristics of spaces that predispose them to the development of spa functions. It also indicates the effectiveness of local and regional policies in protecting this potential for sustainable development.

2871 | Hanna Obracht-Prondzynska

Climate responsive urban design for small towns – lesson learnt from the Netherlands

Progressive metropolitan governments increasingly advance climate mitigation, yet many municipalities-especially small ones - undertake limited action. The adaptive capacity of small settlements varies significantly (Lehman et al., 2021). These communities remain at an early stage of climate adaptation, often lacking external support for planning, mainstreaming, and responding to hazards. Academic attention also disproportionately focuses on metropolitan areas (Hoppe et al., 2016), despite evidence that small towns are highly vulnerable to climate impacts. Adaptation at the small-town scale has never been prioritised nor equipped with implementation tools. Although local representatives in Central Europe recognise the importance of climate action (Sima et al., 2016), insufficient climate information hampers implementation (Hamin et al., 2014), reinforcing the need for accessible, design-oriented guidance (Cortesão, 2020).

Urban morphology strongly shapes resilience and mitigation capacity (Sharifi, 2019), and climate vulnerability is shown to depend on both settlement size and form (Zhou et al., 2017). Providing small municipalities with evidence-based, applicable design knowledge can help bridge the gap between research and practice.

This research aims to introduce a toolkit of climate-responsive urban design solutions derived from good practices implemented in small Dutch towns. The study is based on systematic field visits to 90 towns, using an eight-step framework to document and classify climate-oriented interventions. The resulting catalogue of over 400 design guidelines translates observed practices into transferable lessons for towns.

The findings offer recommendations for climate-positive urban transformation, supported by model solutions visualised in VR and mixed-reality environments. The guidelines address: (1) pedestrian-oriented (2) cycling-focused mobility solutions, (3) mechanisms reducing car dependency, (4) compact, well-connected urban form, (5) local service provision (6) heat-island mitigation, (7) nature-based management, (8) healthy microclimates, and (9) integrated human-nature development.

The proposed framework supports municipalities in shifting from sprawling, emissive patterns toward compact, climate-resilient urban environments, offering a practical toolbox for climate-oriented transformation.

2735 | Jeanette Fitzsimons

Town Centre First policy in Ireland: does the delivery of this new policy approach address the challenges of urban infill and vacancy?

In recent years Irish town centres, which traditionally were the hub of their hinterland and thrived within a regional spatial settlement network, have been in decline. Traditional town centres have been hollowed out due to, inter alia, an increase in out-of-town shopping outlets and the sprawl of suburban housing estates. Less people live above the small shop on main streets and some traditional retail units have closed their doors. Vacancy is at an all time high with pre-Covid surveys demonstrating retail vacancy levels of 26% in Tipperary Town, 25% in Tralee and 24% in Dundalk (www.heritagecouncil.ie) and in response to these findings by the Heritage Council, a number of interest groups lobbied government to include national policies to reinvigorate town centres in the incoming coalition's Programme for Government (2020) and in national spatial planning policy. The Department of Housing, Local Government and Heritage and the Department of Rural and Community Development published Town Centre First: A policy approach for Irish Towns in 2022. The first set of pilot plans are now completed. Addressing vacancy and increasing vibrancy were core aims of the overarching policy, as was recognising that each town is unique with individual challenges. This research will investigate if these important issues of public interest; vacancy, infill development, and delivery of town centre homes, were directly discussed and addressed in the stakeholder consultations and if they are incorporated in the resulting plans.

Key questions that this research will investigate include; is this policy scalable and how much are local residents engaged in the plan making process and the project delivery? Are the outcomes of the Town Centre First policy aligned with existing statutory spatial planning policies for that town? Is there learnings for settlements of other sizes and in other countries from the Irish Town Centre First policy approach?

SS23: Small Towns

Fri 3.7.09:00-10:30, Special Session F, M140 Majakka | Session chair(s): Silke Weidner, Agnes Förster, Mina Di Marino

2335 | Sachi Abe

Staying small: Postgrowth strategic planning in the case of Manazuru, Japan

There has recently been increasing research interest in the intersection of postgrowth planning and shrinking city planning. As postgrowth planning is scarcely observed in reality, shrinking cities are acknowledged as precious examples of planning practices dissociated with the growth-oriented planning paradigm. This paper conducts a case study of Manazuru, Japan, a small coastal town who deliberately chose to stay small amidst speculative developments in the nearby towns in the 1980s-90s. Throughout the 1990 and 2000s, the town of Manazuru enacted strong regulations against large-scale speculative

second house developments, incorporated “aesthetic guidelines” in their planning documents to preserve its traditional landscape, and through a referendum, chose not to merge with nearby towns and cities. Today, the town aims to become a “Small, Slow and Smart” town through endorsing compact planning paired with improved public transport and walkability, smart city technologies, and local currency. The town has been exhibiting a postgrowth approach for several decades, a rarity in Japanese planning context, to preserve its landscape and cultural identity. At the same time, like the majority of municipalities in Japan, it is experiencing urban shrinkage and its accompanying issues such as increase in vacant housings and limited financial resources.

By conducting a content analysis of policy documents, as well as interviews of local decision makers, this paper 1) examines the process in which the town of Manazuru came to develop its preference for smallness, 2) assesses the demographic, economic, and cultural influences of this decision by comparing with nearby towns who chose a more growth-oriented path, and 3) analyzes how the town balances its postgrowth strategy with growth-oriented national level planning policy.

By analyzing the case of Manazuru, the study provides empirical evidence of the impacts of a postgrowth approach in a small town, and offers insights applicable to other shrinking municipalities.

2049 | Alan Mabin

Politics of left behind small towns in South Africa

Despite the victory of struggle against apartheid and advent of democracy in 1994, three decades later South Africa tops the list of global inequality and experiences continually rising lack of formal employment, with poverty alleviated to an extent by ‘social grants’ that form a major portion of government’s national budget. The geography of inequality and unemployment is complicated and far from static, particularly due to persistent but evolving circular migration; yet there remain and may be deepening groupings and places that are ‘left behind’ while others are moving up. As elsewhere, small towns divide between these two categories. This paper is concerned with small towns that appear to be ‘left behind’.

The political scene has unsurprisingly shifted substantially since electoral democracy in 1994. Populist movements emerged, the Economic Freedom Fighters (EFF) and Patriotic Alliance in 2013, MK Party in 2023/4, and in 2021 and 2024 local, national and provincial elections produced dramatic shifts. Some of those shifts relate closely to politics in small towns that appear left behind.

The paper will explore in particular small town difficulties and contests. It will contribute to discussion of the extent to which these developments parallel or differ from experiences in other parts of the world. Are ‘the populations of left-behind places revolting against metropolitan elites’ (Amarouche et al. 2024)? Is populism associated with being ‘left behind’? What alternative causalities can be postulated? – for example as Tups et al (2024) put it, ‘hope rather than hopelessness can prevail in ‘left-behind’ places’ – perhaps via populism but possibly via other relationships.

1768 | Nomin Enkhtamir

Economic base and demographic change in Mongolia's rural small towns (2015–2023)

This study examines the spatial and economic dimensions of 247 rural small towns, across Mongolia between 2015 and 2023, focusing on the interplay between traditional mainstay economic base types, livestock herding, sown area, enterprise activity (including mining, business, etc), and changes in total population and age structure. We track demographic outcomes as changes in total population and the working-age share; component processes (births, deaths, migration) are not decomposed. Nonetheless, the spatial patterns we observe near transport corridors and mining towns are consistent with net in-migration. Drawing on economic base theory and functional rurality, the research uses standardized spatial datasets to classify settlements and track population structure in relation to economic specialization and infrastructure access. The findings reveal that livestock remains the most widespread economic base, particularly in central and western Mongolia, though increasingly vulnerable to environmental shocks. Enterprise activity has expanded significantly, especially in towns with access to rail and road networks, contributing to labor retention and demographic growth. Sown area intensity has remained concentrated in traditional grain-producing regions, with only modest expansion observed in some central and western provinces. Towns dependent on a single economic base, especially livestock or aging mining, experienced working age population decline, while towns with diversified or infrastructure-linked economies showed demographic resilience. These results contribute to the understanding of rural transformation in Mongolia and offer insights for targeted, decentralized development planning. Findings highlight the need for coordinated investment in diversified local economies to support demographic sustainability in rural small towns.

2368 | Sri Utami Purwaningati, Jeongseob Kim

The Influence of Urban Development Typologies on Migration Patterns in South Korean Small and Medium-sized Cities

This study examines how typologies of city development patterns influence age-specific migration flows in South Korean small and medium-sized cities (SMCs), which face challenges of population decline and significant youth outmigration. Although migration dynamics have been widely studied, the role of distinct urban development characteristics in shaping these flows remains underexplored. This research aims to clarify how varying development types within SMCs relate to migration patterns and contribute to population retention strategies.

The study hypothesizes that SMCs characterized by infill residential development experience lower youth out-migration due to improved access to housing and amenities, while infill non-residential development attracts working-age populations by providing employment opportunities. Conversely, non-infill residential development may appeal to families but exhibits higher youth out-migration owing to peripheral locations; and non-infill non-residential development primarily influences migration through employment availability. Additionally, large metropolitan cities exert strong pull effects on youth and working-age migrants regardless of SMC typology.

The objective is to develop a robust, data-driven typology of South Korean SMCs based on longitudinal urban development data spanning from 2000 to 2024, and to analyze the relationship between these

typologies and age-specific migration flows observed from 2019 to 2024. This study employs k-means clustering to classify cities by their development characteristics and utilizes the Multiplicative Competitive Interaction (MCI) model that integrates typology dummy variables for both origin and destination cities, supplemented with controls and accessibility indices derived from inter-city travel distances.

Expected outcomes include the identification of significant heterogeneity in migration patterns across development typologies and age groups, providing insight into how specific urban development characteristics can support population retention in shrinking cities. This integrative analysis contributes to academic discourse on urban development and demographic change, providing valuable guidance for policymakers targeting sustainable urban renewal and population stabilization in small and medium-sized cities.

1571 | Hyeonjoo Kim, Saehoon Kim

Beyond Agglomeration: Low-Density Economies and the Adaptation of Small Cities

This study explores how small and mid-sized cities can sustain and expand their urban economies through “low-density economies” despite population stagnation. Evidence from OECD countries, along with Korean cases in which peripheral small cities have grown despite demographic decline, indicates that urban growth is possible without high-density agglomeration. Building on these insights, the study proposes the low-density economy as an urban concept suited to an era of depopulation. The empirical analysis focuses on Korean cities, particularly those experiencing population decline. It addresses the following questions: (Q1) How can low-density economic spaces be identified, and where are they distributed in Korea? (Q2) Which external and internal factors drive growth, and which cities demonstrate the capacity for self-sustaining operation? (Q3) Do low-density economies contribute to livable urban environments?

Methodologically, the study proceeds in three steps. First, it constructs a national typology based on population, density, and economic indicators and analyzes clustering patterns, thereby clarifying the spatial contours of low-density economies and establishing an analytical baseline. It establishes an analytical baseline. Second, it selects cities with low population density but measurable economic rebounds and estimates regression models to identify growth drivers, synthesizing these factors to elucidate the growth mechanisms of low-density cities. Third, recognizing that economic gains do not automatically translate into qualitative urban improvements, it operationalizes evaluation metrics to assess urban vitality and tests whether low-density urban structures align with everyday well-being, thereby linking statistical findings to resident-focused outcomes.

Ultimately, the study departs from the expansionary-era paradigm—characterized by high density and agglomeration—and proposes an alternative urban model adapted to the structural shifts of the low-growth era. Its contributions extend beyond the Korean case and have broad applicability to international contexts.

SS23: Small Towns

Fri 3.7.11:00-12:30, Special Session F, M140 Majakka | Session chair(s): Silke Weidner, Agnes Förster, Mina Di Marino

2865 | Hanna Obracht-Prondzynska

Climate-Aligned Urban Design for Europe's Small Towns

Small towns make up the majority of the world's urban settlements, yet climate-aligned urban planning research remains predominantly centred on metropolitan areas. Although small towns face comparable climate pressures, they remain at early stages of adaptation and lack targeted policy support. At the same time, evidence suggests that smaller urban centres can emit up to half the emissions of metropolitan regions, revealing an underexplored mitigation potential. This imbalance highlights the need to understand how urban form in small towns shapes climate outcomes.

This paper responds to this gap by grounding climate-aligned urban design within small-town contexts. Drawing on Gehl & RMI's (2023) six design dimensions - mobility, embodied carbon, energy, food systems, carbon sinks, and urban overheating - it examines how these mechanisms operate in small settlements that require context-sensitive planning approaches.

The study has two aims: to identify the urban form variables that most strongly influence climate vulnerability and mitigation potential in small towns, and to develop a data-driven framework supporting climate-transformative design decisions. It addresses the following research questions: Can the climate impact of urban design be predicted using data-informed methods? Which spatial factors should be measured to guide climate-aligned design in small towns?

The research integrates bibliometric analysis with an empirical study of 70 European towns, using open spatial datasets processed through GIS, K-means clustering, and Random Forest modelling. This approach uncovers spatial patterns linking settlement morphology with climate risks and ecological potential.

The findings demonstrate that measurable aspects of spatial configuration - such as compactness, land-use mix, green-blue infrastructures, and proximity patterns - substantially shape both vulnerability and mitigation potential.

The novelty of the study lies in offering the first integrated, data-driven framework tailored to small towns, operationalising climate-aligned design principles to shape more resilient, biodiverse, and low-carbon urban futures.

2665 | Dominic Behde

Capacities and Actors for Health-Promoting Planning in Small Towns

The design of the built environment and human health are closely intertwined, yet the link between spatial planning and public health remains limited in small towns. Small towns often lack dedicated health departments and face difficulties implementing strategic, integrated planning approaches, as promoted by normative concepts like Health in All Policies. Recently, small towns have attracted attention in spatial research, reflecting their demographic significance and the need to address health

inequities, but empirical knowledge on the capacities and actors that enable health-promoting planning is scarce.

The research aims to identify capacities and actors in health-promoting spatial planning and development in small towns. It focuses on 42 small towns in a geographically bounded, heterogeneous region of North Rhine-Westphalia (Germany).

The study uses a sequential explanatory mixed-methods approach. In the first step, an online survey of municipal administrations was conducted in late summer 2025, which resulted in descriptive statistics and demonstrated correlations suggestive of further investigation. Therefore, in the second step, detailed case studies will be conducted in selected small towns to contextualise the survey results, using interviews and qualitative content analysis.

The survey achieved a municipal response rate of 76.2 % (32/42). Participation rates were 53.7 % for building authority managers (n = 41) and 69 % for climate protection managers (n = 29). The preliminary results underscore the importance of spatial planning instruments for integrating (public) health aspects into planning. Meanwhile, the survey results also provide insights into patterns of local and regional cooperation between actors, and knowledge generation in small towns.

These results are expected to lead to recommendations for action on more resilient planning, which could be implemented even with rather limited resources available to many small towns. More generally, this study contributes to bridging the gap between spatial planning and public health scholars.

1832 | Hélène ROTH, Madeleine WAGNER

Methodological Challenges and Geographical Patterns of Housing Structures in Small Towns in France and Germany

The paper aims to present exploratory research on the geography of housing structures and trends in small towns in France and Germany. This research is part of the research agenda of the international Working Group Housing in Small Towns of the German Academy for Territorial Development.

Firstly, the paper outlines the methodological challenges of conducting cross-national comparison between France and Germany. The initial challenge is the definition and delimitation of the category “small town”. The second issue pertains to the comparability of the categories employed in national censuses for the purpose of caputuring housing characteristics and the issue of data scarcity at small scales. Our approach is to address this second methodological challenge itself as an indicator of the national differences in housing forms and in the various ways of conceptualizing, planning and governing housing in Europe.

Secondly, the paper will present the findings of exploratory quantitative analyses conducted by the authors on housing structures and markets in small towns in France and Germany. The focus will be on three geographical questions for each country:

(i) The extent to which location-specific characteristics vary between small towns within large city regions and those located outside such regions

(ii) The identification of regional patterns of housing structures in small towns

(iii) The identification of differences between smaller and larger small towns

The objective of this study is to identify the specific national characteristics and/or common trends in housing structures in France and Germany.

1240 | Valeria Francioli

(Re)Inhabiting the Margins. New Models of Territorial Cohesion and Local Regeneration

The global "poly-crisis" demands a multidimensional rethink of urban and territorial regeneration. National planning systems, unable to capture the contemporary complexity, are being challenged by new models that seek territorial cohesion, environmental sustainability and social justice—particularly in peripheral areas. Despite neoliberal dynamics that heighten polarisation and systemic asymmetries, numerous bottom-up initiatives are mobilising local resources, strengthening community bonds, inventing welfare solutions and fostering novel forms of coexistence, thereby reshaping the meaning of residing in a place. In Italy's internal and mountainous regions, (re)-habiting has become a central issue. Small peripheral towns are still viewed through an exceptionalist lens that treats their needs as special cases warranting compensatory policies. A closer territorial analysis reveals these needs as universal rights shared by urban and rural contexts, with dwelling acting as a fundamental social right that depends on both hard and soft infrastructures. Today, (re)inhabiting is a fluid, multimodal, multilocational practice that goes beyond a single address. It intertwines daily life, work, personal and collective projects across multiple sites, creating a socio spatial device that shapes local economies, proximity networks and cooperative, adaptable living arrangements. The debate also pivots on the active choice between "staying" and "returning," rejecting passive inertia and affirming the right to decide where and how to live. A mosaic of actors—permanent residents, intermittent users and returnees—generates complex, sometimes conflicting, territorial configurations. These actors blend preservation with innovation, launching cooperative, self managed, locally designed initiatives that reshape collective dwelling rules. Across all (re)inhabiting models, space intertwines with social practices and local economies; effective "good governance" therefore requires a relational reading of territory. Lorenzetti's "beautiful and healthy" medieval cities in the Allegoria del Buon Governo (1339) can today serve as a metaphor—or a foreshadowing—of territories where proximity, equity, and sustainability merge into a systemic vision of local development.

1101 | Alp Yilmaz, Dennis Rolfes, Lutz Robbers

From Leitbilder to Ecologies of Planning: Rethinking Planning in Small-towns - The Case of "K"

Located in the small town of Esens, "K" is a 1960s social-housing complex of three- to four-storey buildings with 54 units, built by the public agency Niedersächsische Heimstätte. Emblematic of postwar welfare-state architecture, K follows the Leitbild gegliederte und aufgelockerte Stadt, later replaced by the kompakte und durchmischte Stadt, and more recently inclusive, sustainable paradigm of the Neue Leipzig Charta. In the particular context of small-towns, these ideals condensed as Innenentwicklung. Yet

the case study of Esens suggests a contrasting picture: peripheral expansion coincides with K's decay and stigmatization.

Despite shifting content, Leitbilder remain planning's epistemic-operative medium, reflecting a representational, post-political rationality that reduces complex, contingent, conflictual socio-spatial realities to idealized and static representations. They manifest an epistemic closure that stabilizes their boundaries of abstraction. Concepts and images such as Europäische Stadt or Innenstadt sustain consensus, but are detached from their material, social, and mental ecologies, foreclosing analytical, critical, and creative inquiry. This closure translates "politically and ideologically mediated, socially contested and therefore malleable" (Brenner) small-town conditions into technocratic tasks solvable through market forces or participatory means, reinforcing the belief that more data or regulation empower planning.

Drawing on our on-site design-lab, we present "K" as exemplary of planning's operative failure: the disjunction between Leitbilder and small-town realities (conflictual political subjectivation, opaque ownership and allocation, selective middle-class ethic, and a contingent trajectory of concealed multi-scalar relations), reveals the misrecognition of planning's object, role, and methods. Overcoming this impasse requires an ecological understanding of space (Bateson, Lefebvre) and a methodological confrontation with the epistemic closure sustained by hidden and rigid boundaries of abstraction. Rather than perfecting its representational means, planning must adopt reflexive, diagrammatic methods of negotiating relevance, e.g. levels of abstraction (Floridi), boundary critique (Ulrich), design games (Tan), capable of exposing relations and probing alternative futures of small-town ecologies.

SS23: Small Towns

Fri 3.7.14:00-15:30, Special Session F, M140 Majakka | Session chair(s): Silke Weidner, Agnes Förster, Mina Di Marino

1889 | Lea Petrović Krajnik, Damir Krajnik, Tamara Zaninović

What is the Future Development of Small Towns? Visions for the City of Čakovec

The topic of small towns is addressed by numerous experts in professional and academic circles, researching them in various contexts, from spatial planning, environmental, demographic, social to urban. European documents and policies particularly emphasize the importance of small and medium-sized towns for the urban systems of the member states and EU. Those types of towns in Europe are implementing new policies in order to strategically transform themselves and become drivers of regional development. The most common areas of policy intervention are the regeneration of public buildings, business development and innovation, connectivity with the region, housing, and culture, education, and social services, that allows them to become magnets for future development and growth.

Čakovec is a small city located in the north of the Republic of Croatia along the A4 motorway, which is one of the elements of the important EU transport corridors, the Mediterranean and the Baltic-Adriatic corridors, providing it with good transport connections at all levels. According to the established hierarchy of central settlements and the criteria for determining centrality, Čakovec is a regional centre that has particular significance for the surrounding rural settlements that gravitate towards it. As early as

the 1940s, studies were made on the development of the city based on its relationship with the wider region, as well as a regulatory basis that laid the foundation for further planning and future spatial development of the city.

The aim of this paper is to show possible spatial visions of the city of Čakovec from the perspective of future experts. Selected student works made within the Urban Planning Workshop 1: Settlement Planning at the Graduate Study Program in Architecture and Urban Planning, at the Faculty of Architecture, University of Zagreb are presented, and are placed in the context of existing spatial planning documentation and strategic development plans.

1873 | Mainet Helene, Roth Helene

Integrating young people into local public action in small towns: the example of Saint-Eloy-les-Mines (France)

It may seem paradoxical to consider young people as an issue for public action in small towns. In fact, demographic trends often focus on population decline and ageing. Young people (15-24 age group) represent only a small proportion of the population. Similarly, local action focuses on revitalisation strategies aimed at the categories of permanent residents in the area, and young people often have to leave the area, either temporarily or permanently.

However, based on research carried out in Saint-Eloy-les-Mines, a small town in France, we will highlight the strategic and cross-cutting dimension of initiatives aimed at young people. They play a full part in the territorial integration of small towns. First, this concerns the polarisation of the small town (young people from Saint-Eloy and its catchment area, and even beyond for school facilities, frequent the shops and services of the small town and contribute to its centrality). It also concerns the integration of the small town into wider geographical networks (through their outward mobility, towards the surrounding countryside or the larger towns in the region). In addition, beyond specific issues, taking young people into account in local action makes it possible to consider issues that concern the whole population. Among the main results to be discussed, we propose to focus on mobility and local sociability. Getting around is a major constraint for young people, but it is also the case for residents who do not have a driving licence or do not have a car. The initiatives put in place by local players do not focus solely on issues specific to young people. A study of young people's social practices shows that they are strongly attached to the place. Acting on these social ties is important for local players. Young people in small towns, they matter!

2048 | Federico Camerin, Miguel Fernández Maroto, Juan Luis de las Rivaz Sanz

Towards a planning culture in a peripheral region: the implementation of the Spanish Urban Agenda in Castile and León Region (Spain)

This work relates the challenges tied to the experience of elaborating a provincial-scale, place-based and integrated strategic planning for and in small towns located in the Spanish region of Castile and León (CyL). This provincial strategic planning regards the elaboration of the so-called Action Plans (AP) according to the Spanish Urban Agenda (SUA) enacted by the national government in 2019. The work

demonstrates how to adapt the predominately city-centric approach of the specific methodology proposed by the SUA in rural territories with dispersed urban fabrics and demographic decline like CyL. With 2,385,223 inhabitants (5.03% of Spain), 94,226 km^2 (18.6% of Spain) and an average density of 25.21 inhabitants/km^2, the administrative structure of the region consists of 9 provinces and 2,248 municipalities, with 5,929 inhabited centres. Only 16 municipalities have more than 20,000 inhabitants, while 1,799 have fewer than 500 inhabitants. What we argue is that the SUA lacks a proper rural component that can enable the establishment of a proper basis from which developing resilient planning strategies that create more liveable small towns in rural environments, which is one of the CyL's main features and pillars. To do so, this proposal scrutinises the only two Action Plans (AP) approved by the provincial entities of Palencia and Segovia, respectively the 2022 Palencia Rural Agenda (PRA) and the 2021 Segovia Sustainable Rural Agenda (SSRA). By highlighting their strategies for resilient small towns, this work demonstrates that PRA and SSRA implementation strongly depends on severely limited financial and technical resources, but both AP hold (unexpected) institutional capacities that can help to create a place-based planning culture to face today's polycrisis. Such aspects can represent strategic springboards for a broader implementation in the other seven provinces of CyL, with a certain degree of replicability in similar Spanish regions (e.g., Castilla-La Mancha and Extremadura).

1321 | Hadi Kiani

Small-Town Renaissance in Sweden and the United Kingdom: Comparative Insights and Lessons for Finland

Across Finland, many small towns are implementing revitalisation and rebranding projects to reverse decline and attract new residents and businesses. However, these initiatives; often steered by planners, consultants, and external investors tend to privilege growth narratives over local realities, leading to contested planning outcomes and fragile results.

This study explores how alternative planning philosophies developed in Sweden and the United Kingdom can inform a more locally grounded approach to small-town policy in Finland. Through comparative qualitative analysis of academic literature, policy documents, and case studies, the research investigates how the concept of Small-Town Renaissance is framed and implemented in both countries.

Findings show that in Sweden, small-town renaissance is embedded in welfare-state traditions of adaptive and participatory planning. Shrinkage is treated as a permanent structural condition that requires smart adaptation; flexible, sustainable, and community-based approaches that improve quality of life rather than chase growth. In the United Kingdom, the concept evolved from design-led regeneration into more pragmatic, community-driven renewal, illustrated by the Upper Calder Valley Renaissance. The comparison reveals that while Sweden integrates adaptation into welfare-state planning and territorial balance, the UK emphasises locally driven experimentation, civic creativity, and pragmatic resilience.

The findings suggest that Finnish small towns would benefit from a hybrid model; combining Sweden's adaptive welfare-oriented strategies with the UK's participatory and design-led renewal to move beyond growth dependency toward context-sensitive revitalisation. Such an approach reframes small towns as living laboratories for adaptive urbanism, where proximity, local agency, and social cohesion become strategic assets for sustainable transformation.

Ultimately, the Small-Town Renaissance is not about restoring past prosperity but about reimagining the peripheries as resilient, digitalised, and socially vibrant places capable of shaping their own futures through adaptive and collaborative planning.

1628 | Gerhard Kienast, Jakob Bußе von Colbe, Grischa Bertram, Uwe Altrock

Large urban Projects in small German Cities – Local Capacities for Discourse, Planning and Implementation

Large-scale projects (often called urban megaprojects) have been an essential form of urban development and planning in western societies since the post-war period. But although relatively large and complex project-oriented developments can be observed in towns and cities of any size scholarly debate so far focused on large cities and conurbations.

Based on three case studies of large-scale urban projects of different character (the development of a new urban district on a former military site, a prestigious public museum and major harbour infrastructure) in three small but independent German municipalities, the authors discuss the evolution of local discourse and decision-making around planning goals from ex-ante to ex-post evaluation against the background of different planning and implementation capacities.

The three examples also highlight that these capacities do not depend on the city's size or degree of peripheralisation. Baden-Baden, the city with the lowest number of inhabitants, is a very prosperous municipality that was still highly dependent on political decisions on the national and international level when planning for redevelopment of the once largest French military base in Germany. In contrast, Weimar is located in the German inner periphery and equipped with corresponding resources. Yet, the city itself is site to a vast – and in the case study of the Bauhaus Museum even growing – cultural heritage that is both beacon and liability. As a military and port city, Wilhelmshaven has a long history of trying to compensate for a loss of significance and income with ever-bigger projects, which like the JadeWeserPort are always planned together with larger stakeholders.

Taken together and in comparison to the literature on project-oriented planning in larger cities, the paper will discuss the importance of relational aspects in the definition of "large-scale".

SS24: Temporality

SS24: Temporality

Tue 30.6.16:00-17:30, Special Session I, Y229c | Session chair(s): Peter Pelzer, Angela Million, Janet Merkel

1536 | Chuan Wang, Ran Dong, Yuhong Xuan, Jingyi Qian

Temporary Urbanism in Creating a Festival City: A Lens of Edinburgh

This study takes the Edinburgh Festival as a case to examine how temporary spatial practices— venues built in schools, churches, bars, or factories, as well as spontaneous performances in public spaces— reshape the temporal rhythms and social relations of the city. These short-lived interventions disrupt the established urban order, redefining how streets are used, how people move, and how the rhythm of everyday life incorporated into the gaze of festival period.

Planning often entails the construction of infrastructures that may last for centuries, with its pursuit of permanence and fixity, while festivals only last a few weeks in a temporary manner. This compels planning for festivals to transcend conventional linear frameworks and shift towards a more complex, pluralistic, and dynamic understanding of time (Beauregard, 2015). The festival brings artists, visitors, and residents with misaligned temporalities into negotiation, producing temporal tensions (Jensen & Laws, 2025) and multiple temporalities (Lennon & Tubridy, 2023).

Thus, the festival is not merely a temporary spatial phenomenon but a social process of reconfiguring urban time. Through the analysis of various temporary spaces at the Edinburgh Festival, this research uncovers how temporary urbanism can create a vibrant festival city to addresses, coordinates, and integrates these two distinct yet annually recurring spatial-temporal rhythms. During the Edinburgh Festival, spontaneous street performances and interactive installations on the Royal Mile, alongside bars and churches transformed into venues for immersive performances, are not merely assigned new functions but also establish a unique festive rhythm in the temporal dimension. It reveals the city's capacity to coexist across diverse rhythms and offers a new perspective on the relationship between distinct temporalities and shared experience.

This indicates that planning can operate across different temporal scales: incorporating both enduring infrastructures and periodic, event-driven temporary structures, thereby allowing swift responses to the city's evolving needs over time.

2869 | Jin Liang

Phase 0–participatory site analysis using temporary artistic interventions and its potential

In german urban planning, Phase 0 is described as a "needs assessment," a site analysis, an inclusive preplanning approach to outline the scope of a construction project in the local planning projects. Sometimes city planners cooperate with the artists, using their high-quality designs, to identify themes, questions, and desires, to bring people together, and initiate dialogues.

In this paper three German Phase 0 case examples are studied, Stadtdenkerei, which architectural historian Turit Fröbe developed to explore and evaluate the city together with the local residents in a radical and visible way. Urban Catalyst Studio, an artists collective was officially invited by the Cologne city planners to test the local culture creatively in the large housing estate in Cologne Choweiler district for one week before the local renewal project began in 2016. The last on-going case in Hamburg gives us an insight of a common artistic preplanning approach in german building culture, namely, with open air workshops, equipped with modelings, figures, papers and other arts-based tools, everyone can participate and plan the public space–Park Fiction. After analyzing the three cases, the paper should provide common knowledge using temporary artistic interventions in the phase 0. However, these

informal planning instruments are still optional for the city planners, the aim of this paper is also to appeal to standardize the implementation of participatory local planning in the preplanning phase.

Second, it is also examined whether the phase 0 projects could be established as independent, long-term public art projects. Ideally, after the construction, the informal artistic outcomes led by local communities will not be demolished, they should further stimulate the residents and create a positive place for them to rethink their built environment. Therefore, as the last part of the paper, it showcases the results from my own artistic interventions with local residents.

1429 | Anna Juliane Heinrich, Séverine Marguin

Spacetime Mapping: Revealing Temporal and Spatial Complexities in Urban Planning

Planning is deeply entangled with time. It works with cities and their infrastructures shaped over decades—often centuries—, engages with snapshots of their current form, and intervenes with possible futures in mind. Yet, time itself often slips the tools we use to plan.

This contribution introduces “spacetime mapping” as an exploratory visual methodology that integrates spatial and temporal analysis in qualitative, interpretative mapping practices. The approach responds to the growing need to understand infrastructures not only as spatial systems but as dynamic temporal assemblages that evolve, erode, and transform over time.

Combining design-based techniques of analysis and visualisation with interpretative approaches from the social sciences, spacetime mapping explores how diverse spatial and temporal processes—such as rhythms of maintenance, cycles of use, infrastructural decay and renewal, or moments of disruption—interact. Rather than treating time as a linear backdrop, it examines how multiple and often conflicting temporalities coexist and shape planning.

In line with the thematic track “Planning Temporalities and Infrastructural Time”, the contribution demonstrates how visual experimentation can make visible the entanglement of short-term demands and interventions with long-term socio-ecological change. Spacetime mapping functions both as diagnostic and speculative tool, enabling planners and researchers to trace, anticipate, and reimagine infrastructural times beyond linear progress narratives.

Methodologically, spacetime mapping operates across four interrelated dimensions: it is processual in tracing evolving relations, political in revealing power-laden temporalities, imaginative in opening alternative futures, and affective in acknowledging lived experiences of times and spaces.

Resonating with the conference theme “Peripheral Visions – Rethinking Planning”, this approach invites a shift of perspective—away from dominant Western notions of progress toward more plural, cyclical, and situated temporalities. Spacetime mapping thus offers both a methodological innovation and a conceptual lens for rethinking how planning engages with the entangled futures of space, time, and infrastructure.

2193 | Shanmathi Rajkumar

Platform Mediated Temporality - Mapping Urban Rhythms Through User-Generated Data

Contemporary cities are increasingly mediated through digital platforms that generate new temporal imaginaries and reshape how urban time becomes legible. Amid growing recognition of temporality as a central concern in planning, platform-derived user-generated data (UGD) offers a distinct vantage point for tracing infrastructural rhythms, uneven temporalities, and tensions between short-term dynamics and long-term change. Using St. Pauli in Hamburg as an empirical case, the research examines how UGD captured through Google Maps functions as a form of temporal infrastructure that reframes how planners perceive and interpret urban time. While planning practice has traditionally prioritised spatial form and permanence, platform-mediated data streams make visible the rhythms and fluctuating demands that structure everyday urban life.

Through a mixed-method approach—combining ethnographic observation, historical morphological analysis, content analysis of the PlanBude participatory process, and UGD-based temporal mapping—the research documents how platforms generate continuous indicators of urban temporality. These include hourly variations in pedestrian flows, day–night transitions, weekday–weekend contrasts, seasonal fluctuations, and event-driven surges. In St. Pauli, such platform-derived rhythms reveal frictions: infrastructures optimised for daytime circulation conflict with the night-time economy; seasonal public spaces remain dormant for much of the year; and platform-mediated mobility patterns accentuate temporal inequalities across neighbourhood zones.

Conceptualising platform traces as temporal infrastructures contributes to debates on planning temporality, infrastructural time, and temporal governance. It situates platform urbanism within wider discussions of rhythmic urbanism, maintenance and decay, and the unsettling of linear planning logics. Digitally mediated temporalities do not merely document urban rhythms; they shape which forms of time become governable, valued, or marginalised. In doing so, they open pathways for planning practice to engage with multiple, overlapping, and dynamic temporalities—while raising critical questions about whose times are rendered visible, stabilised, or erased in the platform city.

2128 | Angela Million, Jan Polívka, Jan Polivka

Planning Instruments as Temporal Regimes for Multiple Use, Multi-Coding and Infrastructure Coupling

Planning instruments (land-use plans, zoning plans, integrated urban development concepts and municipal by-laws) embody specific temporal logics – ranging from long-term spatial fixation through iterative revision to temporary funding and action windows. How planning instruments encode time has become central to municipal capacity for action amid climate change, digitalisation and economic uncertainty. Planning is regarded by many actors as inflexible. These tensions are also discussed as part of a “temporal turn” in planning and as “infrastructural times” (Abram 2014; Hutter & Wiechmann 2022). In addition, as response to land scarcity, decarbonisation and resilience requirements, planning strategies of multiple use, multi-coding and infrastructure coupling are gaining importance, yet it remains unclear how temporal logics of planning instruments are intertwined with such strategies.

We distinguish four aspects of the temporality of planning instruments and infrastructures: First, planning documents with their long-term designations (Beckmann 2018), iterative temporal structures (Sinz 2020) and legal deadlines (Kötter 2019), as elaborated in recent work on the "temporal governance" of planning systems (Cerrada Morato et al. 2025; Gonçalves et al. 2025). Second, infrastructures with their own life and investment cycles, functional-systemic lock-ins and performance requirements (Monstadt 2018; Besedovsky et al. 2019). Third, funding programmes, technological innovation cycles and political priorities with windows of opportunity (Knieling 2021; Dobson & Parker 2024). Fourth, the current pressure for adjustment arising from uncertainties associated with polycrises (Diller 2024) and the acceleration by digital innovations (Scholl & Albrecht 2021), and which calls for flexible solutions.

Against the backdrop we conceptualise planning instruments as temporal regimes that can secure and delimit the scope for multiple use, multi-coding and infrastructure coupling. Drawing on a systematic examination of German planning instruments, we develop an analytical mapping of their temporal codings and discuss where planning instruments enable strategies and where the limits of their temporal codification lie.

2163 | Beatriz Martins, Rodrigo Viseu Cardoso, Ana Poças, Beatriz Pinto, Birgit Hausleitner, Caroline Newton, Greet De Block, Alexander Hamedinger, Jelle Schotanus, José Alberto Rio Fernandes, Minseong Kim, Pedro Miguel Magalhães Nunes Chamusca, Sarah Kumnig, Stijn Oosterlynck

Peri-urban future-oriented: integrating layered temporalities for an inclusive transition.

The peri-urban is a distinctive type of territory in Europe and home to a significant share of the population. These "in-between" areas face integration dilemmas and struggle to ensure a high quality of life for their residents. To foster resilient regional development, planning must address the layered temporalities inherent in peri-urban areas: understanding how the past socio-spatial attachments, present needs and priorities for future imaginations intersect in infrastructure, policy, and community life. This research adopts a multi-phased approach to integrate these temporalities in planning with design-led research and analytical methodology, centered on participatory workshops in four different peri-urban areas in Europe. In the initial stage, residents are invited to articulate problems and evaluate future-oriented solutions grounded in their local realities, surfacing both individual and collective spatial relations and aspirations. This is followed by a second workshop, expanding the discussion to include multiple stakeholders, locals and policymakers. Here, proposed measures are evaluated within a broader strategic frame, considering actors, timelines, and potential bottlenecks. This sequential, collaborative approach integrates alternative visions while enabling residents and stakeholders to co-create imagined futures according to the lived experiences in their regions. Expected outcomes include a deeper understanding of how communities perceive and envision their peri-urban environments, as well as the discovery of interdependencies between these visions and existing infrastructures. This supports the material structuring of the study object and the development of adaptive typologies for future interventions. Ultimately, the results can equip planners and policymakers to better address and integrate the layered temporalities embodied in the region's infrastructures and imagined futures. It fosters frameworks that encourage more resilient, flexible, and integrated systems across peri-urban

spaces, inspiring strategic action that transcends business-as-usual practices and truly responds to evolving territorial needs.

SS24: Temporality

Tue 30.6.17:45-19:15, Special Session I, Y229c | Session chair(s): Peter Pelzer, Angela Million, Janet Merkel

2446 | Dayanna De Mello Sousa, Shanmathi Rajkumar, Hana Elattar, Jörg Rainer Noennig

Reframing Accessibility through Time: Reviewing Time-Based Urban Accessibility Concepts through the X-Minute City Lens

Urban and mobility planning have long equated accessibility with spatial proximity—as reflected in paradigms such as the neighborhood unit, transit-oriented development, the compact city, and, more recently, in the widely publicized 15-Minute City. Although these approaches have promoted compactness, mixed use, and local living, they have also been criticized for their spatial determinism, which relies on the assumption that proximity universally guarantees accessibility and equity. This reasoning oversimplifies complex urban systems by overlooking governance processes, behavioral diversity, and temporal and social inequalities. The growing interest in time-based planning models—including the 15-, 20-, and 30-Minute City—has reintroduced time into urban discourse, yet these frameworks tend to treat time as a fixed boundary rather than a lived and dynamic condition.

This study examines the evolution of such time-based accessibility frameworks, tracing their conceptual roots in land-use and transport integration, time geography, and mobility justice. Using a comparative framework, the thematic review examines how each model conceptualizes accessibility, temporality, and inclusivity, identifying key theoretical and methodological gaps—particularly the continued dominance of spatial proximity as the metric of accessibility, even when expressed in temporal terms.

The study suggests the X-Minute City as a reflective conceptual framework that reframes accessibility as a temporal and networked construct, shaped by people, places, and mobility systems, as an emerging reflection from the thematic review. By replacing distance in kilometers with distance in minutes, the framework highlights temporal variability and lived mobility conditions, offering a foundation for more adaptive and socially attuned approaches to accessibility planning.

2559 | MA Qicheng, Wu Yue, MA Qicheng

A Spatiotemporal Framework for Understanding Nonlinear Relationships between Built Environment and Urban Vitality: Integrating STWRF and STCC Models

Urban vitality is a multifaceted concept influenced by various dynamic factors within the built environment. While traditional models often focus on linear relationships and spatial dimensions separately, this study introduces an innovative spatiotemporal framework to better understand the nonlinear and interactive effects of urban vitality. Specifically, we employ a Spatiotemporally Weighted Random Forest (STWRF) model, which incorporates spatial and temporal weights to capture the complex, nonlinear interactions between urban vitality and built environment features. To further enhance the analysis, we propose a novel Spatiotemporal Co-Clustering (STCC) method, which identifies

distinct patterns of spatiotemporal coupling within urban vitality data. Unlike traditional clustering techniques, STCC jointly considers both spatial and temporal dimensions, revealing how specific urban areas exhibit similar vitality patterns during particular time intervals. This approach allows for the detection of complex interactions that might be overlooked when spatial or temporal factors are considered independently. Through this method, we uncover key spatiotemporal clusters of urban vitality, providing insights into the varying influences of built environment factors on urban life. By integrating advanced spatiotemporal models, this study provides a more comprehensive understanding of urban vitality. The STWRF and STCC models offer a cutting-edge approach for examining the nonlinear, time-varying relationships between built environment features and urban vitality, making them valuable tools for urban planning and design aimed at promoting sustainable, vibrant urban spaces.

1502 | Caroline Kramer, Carmella Pfaffenbach

Planning Spatial Temporalities for Temporal Ways of Life

Despite many social transformations, it is still often assumed that a 'normal life' includes one 'primary residence' that is permanently occupied. This often overlooks the fact that moving as well as temporary living has always been widespread in Western societies, at least for a certain period of life, e.g. for studying or vocational training. Similarly, vacation homes as places to stay in the summer have a long tradition in the Nordic countries. Since the COVID pandemic, which was associated with a rapid increase in working from home (WFH), temporary residences have become even more important.

In Germany (and many other countries), it has not yet been possible to specify exactly the proportion of people who live in one place 'temporarily' and/or regularly stay in another place, i.e., who live multilocal. Over the past three years, in a research project, we have focused particularly on this group in two major German metropolitan areas and investigated their living arrangements, their satisfaction with them, their regional ties, and their plans for the future.

In our talk, we discuss the extent to which respondents want to settle down, get involved, and can feel at home in several places. Furthermore, based on the spatial-temporal rhythms of their everyday lives, their mobility in different temporal and spatial dimensions, and the needs they express, we elaborate on the question of how spatial planning should be designed to incorporate the dimensions of time and space. Our findings reveal, on the one hand, how diverse temporary living arrangements are and how important emotional belonging is. On the other hand, our findings enable us to design spatial planning at various scales in such a way that the planning goal of spatial and temporal justice can be achieved.

1327 | Maryam Gorgpour, Mina Di Marino

New Spatio-Temporal Dynamics of Work: Exploring Multi-Local Working and Its Antecedents in the Oslo Urban Region

Emerging forms of multi-locality are transforming the temporal and spatial rhythms of contemporary urban life. Multi-local working—where individuals alternate between offices, homes, libraries, cafés, co-working hubs, etc.—challenges traditional notions of fixed workplaces and highlights its growing relevance for planning.

Purpose: The main objective of this paper is to investigate how and why multi-local workers navigate a network of diverse places and further explore how such a pattern impacts urban planning. The research first identifies the main antecedents of multi-local working practices in an urban region, then examines the mechanisms and extent to which these antecedents contribute to the emergence and growth of multi-local working.

Research Design: The study focuses on Oslo Science Park, an innovation hub that brings together diverse knowledge-based organizations and professionals within the Oslo region (in which the rural areas cover nearly half of the region). A mixed-method survey of 90 respondents, combining closed and open questions, investigates working patterns, use of infrastructure, motivations, and experiences of individuals working at or from the Oslo Science Park.

Findings: Preliminary analysis indicates that the antecedents of multi-local working can be grouped into three levels: (1) individual motivations and life situations, (2) organizational flexibility and workplace policies, and (3) urban/rural and spatial factors. Together, these create spatio-temporal rhythms of working in everyday life. Further analysis is currently being carried out.

Contribution: The paper suggests that multi-local working creates new temporalities of work that traditional planning often overlooks. It argues that planning should better adapt to the changing rhythms and spatiality of work and mobility. Multi-local working represents a new territoriality of work, where spatial and temporal boundaries are redefined through everyday mobility, digital connectivity, and infrastructural flexibility. This new territoriality challenges traditional planning assumptions about fixed workplaces, calling for planning approaches that recognize fluid and rhythmic forms of urban life.

1115 | Yeoryung Seo, Saehoon Kim

Reconceptualizing Urban Vitality through the Lens of Time Vitality

Urban decline is a complex and gradual process that reshapes not only the physical form of cities but also the temporal conditions of everyday life. While demographic and economic indicators have long served as dominant tools for diagnosing decline, they reveal little about how cities are actually lived and how residents experience their time within them. Such conventional approaches often overlook early, qualitative signs of decline—such as the loss of everyday rhythm, reduced accessibility, or time scarcity—that emerge long before statistical population loss is recorded.

This study introduces 'Time Vitality' as a conceptual and analytical framework for understanding urban vitality from the perspective of time use and experience.

Time Vitality represents the extent to which urban environments enable individuals to secure sufficient, efficient, and meaningful use of their time within the city. It shifts the analytical focus from population or infrastructure to the lived temporal quality of urban life, emphasizing that time is not only a personal resource but also a structural condition shaped by mobility systems, spatial organization, and social infrastructure.

To empirically apply this framework, the Time Vitality Index (TVI) was developed and applied to 225 administrative districts across ten Korean cities, each following different demographic trajectories of

growth or decline. The findings reveal distinct patterns, including "growth-paradox" zones—where urban expansion coexists with temporal deprivation—and "hidden-vitality" areas—where high time vitality persists despite demographic contraction. These results suggest that urban crisis can emerge as a form of temporal deprivation, representing a slow erosion of everyday livability that precedes visible decline. Ultimately, the study argues that sustainable cities depend not only on physical or economic growth but on fostering environments where people can live their time in a balanced, efficient, and fulfilling way.

1584 | Lina Berglund-Snodgrass, Dalia Mukhtar-Landgren

Contracts and the reconfiguration of planning through shifting temporalities

A growing number of urban development initiatives seek to generate learning and innovation while developing urban areas (Berglund-Snodgrass & Mukhtar-Landgren, 2020). Within these testbed initiatives, private actors are invited to test new approaches as part of ongoing development. As planners have limited instruments for governing such processes, contracts emerge as central tools. Contracts, i.e., agreements that stipulate responsibilities, timeframes, and possible sanctions, create "exclusive negotiation spaces insulated from democratic processes" (Raco, 2013, see also Olsson, 2018; Bäcklund et al., 2023). They are also characterised by fragmented and overlapping arrangements, producing what Tasan-Kok et al. (2019) term "hyper-contractual landscapes", with new accountability mechanisms.

Drawing on a sociology of contract perspective (Suchman, 2003), this paper moves beyond viewing contracts as merely legal instruments ensuring accountability. Instead, it approaches them as performative tools that actively shape new practices, relationships, and rationalities. This paper aims, first, to map how contracts are utilised in testbed planning processes, and second, to explore how their use reconfigures planning practices and their temporalities. The study is based on smart and shared mobility pilots at the intersection of housing and transport in Sweden, Finland, Norway, and Germany, analysed through interviews and planning documents collected between 2019 and 2025.

The mapping shows that contracts are used to define the boundaries of experimentation, to specify acceptable deviations from established norms and regulations and manage the introduction of new data-driven mobility services where traditional planning instruments are lacking. The analysis further shows that such uses of contracts reconfigure planning by shifting temporalities in different ways. Contracts shift temporalities by e.g., reordering when and how decisions are made, often deferring them into the future through clauses such as future evaluations, or by introducing temporal stability within otherwise "volatile" markets, for example by setting fixed timeframes for service provision.

SS24: Temporality

Thu 2.7.11:00-12:30, Special Session I, Y229c | Session chair(s): Peter Pelzer, Angela Million, Janet Merkel

1043 | Claudia Bode

Pastoral worlds, contested territories: Lively infrastructures and the promise of non-equilibrium thinking

Hot, dry, and sparsely populated Turkana County, Kenya, is a contact zone between the dynamic spatio-temporal logics of nomadic Turkana pastoralists, and globalizing visions of modernity that are driven by

political devolution, resource extraction, and water infrastructures (Derbyshire 2020). It is the latter, in particular — seen in ordinary and everyday technologies like boreholes drilled by the government and NGOs — that has increasing impacts on patterns of mobility and settlement on the land, not to mention social and economic change (Balfour et al. 2025). In my PhD, I am drawing on collaborative visual and sensory ethnographic methods to trace the destabilizing potentials that "seeing like a herder" (Semplici 2020; Semplici and Rodgers 2023; Semplici 2019) may bring to urban studies and planning discourses that address non-city urbanisms.

Building on a total of ten months of ethnographic research in Kenya, the presentation will explore the potential of certain theoretical developments in pastoralism studies originating in East Africa — sometimes referred to as the "New Rangeland Paradigm" or "non-equilibrium thinking" (Krätli 2015; Sullivan and Homewood 2003) — to advance planning theory. I argue that non-equilibrium thinking, which upsets the "sedentist doxa" of fixity, formality, boundedness, and regularity (Semplici and Rodgers 2023), challenges not only dominant "ways of seeing" the urban, but also "ways of making" the urban. Drawing on ethnographic research centered on the multi-scalar and multi-temporal material entanglements of "lively" (Amin 2014) small water infrastructures (boreholes) in Turkana County, I will discuss possible discursive connections to "soft" or "relational" (Faludi 2013) planning paradigms in other geographies — such as sea basins and cross-boundary watersheds in the EU — which similarly engage overlapping and multiple territorialities and temporalities.

1187 | Dirk Oudes, Sanne Glorie, Robin Ammerlaan, Sven Stremke

Shaping the cultural landscapes of the 21st century: four tenets for the intergenerational planning and design of post-carbon energy landscapes

Past energy demand and accompanying infrastructures have shaped cultural landscapes that are valued by many in the present. Prominent examples are peat landscapes excavated for fuel supply and windmills used for industry and agriculture. In the present, renewable energy infrastructure to reduce carbon emissions will shape the landscapes of future generations. However, wind turbines, solar fields, hydropower dams, power lines etc. are often met by opposition of present-day landscape users. In this study, we explore how 'intergenerational thinking' could inform spatial planning and design of energy-related interventions to support the emergence of 21st century cultural landscapes.

We conducted a literature review to identify preliminary tenets of intergenerational thinking in the planning and design discourse and validated these through 11 experts interviews. We identified four key tenets for intergenerational thinking.

1. Select one or multiple time horizons that fit the question at hand (e.g. two or seven generations)

2. Be explicit whether the starting point for these time horizons is the past, the present or the future.

3. Ensure basic needs for future generations are preserved, yet provide opportunities for future generations to adapt and adjust spatial interventions when needed.

4. Representation of future generations in decision-making involves a plurality of (non-) human perspectives and a clear outlook for institutional change.

We used these tenets in a quick-scan of policy documents and case studies to examine the application of intergenerational thinking in current energy infrastructure development and policy. This revealed that while scholars and policy makers start to argue for intergenerational thinking, this hardly permeates practice of renewable energy infrastructure projects. Based on the findings of this research, we draft recommendations for a research agenda to advance the understanding and application of intergenerational thinking in planning and design of energy infrastructure and other spatial, transformative challenges.

2069 | Peter Pelzer

Spatial planning and intergenerational justice: the importance of (ir)reversibility

Spatial planning is traditionally engaged with both a long-term perspective and justice (Healey & Hilier, 2010, Weghorst et al., 2024). Given this interest, intergenerational justice has received surprisingly scant attention. I argue that this omission is problematic given the many long-term crisis places are facing. What is more: planning interventions often have an irreversibility too them, making a consideration of intergenerational justice crucial (cf. Hopkins, 2001). For spatial planning it could be productive to deploy a distributive perspective to intergenerational justice, premised on the idea of keeping options open for future generations (Teodoro et al., 2023). In making this perspective applicable to planning, it is helpful to consider a type of spatial planning that (i) prevents irreversible losses and (ii) is more reversible in nature (cf. Doorn, 2018). While this paper is chiefly conceptual, I will illustrate how this could work for national spatial planning in the Netherlands, a densely populated country that was often conceived as paradise for both spatial planning and water management. I will show that due to the alleged housing crisis and climate change, intergenerational justice is increasingly under pressure in the Netherlands.

References:

Doorn, N. (2018). Distributing risks: Allocation principles for distributing reversible and irreversible losses. Ethics, Policy & Environment, 21(1), 96-109.

Hilier, J. & P. Healey (2010) The Ashgate research companion to planning theory: conceptual challenges for spatial planning. Routledge.

Hopkins, L. (2001) Urban Development: The Logic Of Making Plans. Island Press.

Teodoro, J. D., Doorn, N., Kwakkel, J., & Comes, T. (2023). Flexibility for intergenerational justice in climate resilience decision-making: an application on sea-level rise in the Netherlands. Sustainability Science, 18(3), 1355-1365.

Weghorst, M., Buitelaar, E., & Pelzer, P. (2025). A dynamic justice framework for analyzing conceptions of justice: The case of urban development projects. Planning Theory, 24(3), 242-264.

2613 | Filipa Matos Wunderlich, Robin Chang

Making Space for Time: Temporal and Time-Sensitive Perspectives in Planning Theory and Practice

Time shapes everyday urban life and underpins how planning imagines, negotiates and delivers change. Yet planning theory and practice still lean on spatial paradigms and linear notions of time, leaving plural temporalities, rhythms and timescapes largely unarticulated. This paper advances a time-sensitive approach to planning that foregrounds how different qualities of temporality, timing, tempo, duration and rhythm, structure both planning processes and lived experience.

This paper draws on insights from a recent 'Interface' collection from the journal Planning Theory & Practice will highlights three perspectives under the topic of "making space for time" in planning: (1) exposing how planning instruments and infrastructures privilege certain temporalities while displacing others, including disabled people and those experiencing co-located or co-temporal displacement; (2) revealing the emotional and professional pressures on practitioners who must reconcile conflicting time regimes of communities, administrations and projects; and (3) developing tools and methods – such as rhythmanalytical toolkits and place-based observation of inhabitation – that enable more equitable, time-sensitive engagements at neighbourhood and city scales.

To support the above, the paper will synthesise a set of conceptual and empirically grounded contributions: multi-pronged concepts of temporality in landscape repair and infrastructural change; a temporal urban design paradigm attentive to everyday rhythms; and rhythmanalytical and timework-informed practices that surface the temporal agency (and lack thereof) of planners, residents and service providers.

By articulating the three perspectives above, the paper argues for recalibrating planning towards temporal plurality with specific starting points to reimagining alternative futures, offering an emerging framework for theory, pedagogy and practice that treats time as a core dimension of just and liveable urban futures.

2683 | Janet Merkel, Zuzana Tabackova

Rhythmic Plurality: Sustaining Infrastructural Temporalities for Post-growth Planning

Contemporary growth regimes are sustained by infrastructures that organise time as acceleration, synchronization and expansion—temporal forms that bind societies to continuous circulation and accumulation (van Veelen & Kuchler, 2025). From this perspective, infrastructures are not neutral systems but chronopolitical formations (Esposito & Becker, 2023): they stabilise relations between speed and duration, anticipation and decay, efficiency and redundancy. As Anand et al. (2018) argue, infrastructures configure and enable—or disable—certain kinds of time, thus opening and foreclosing possible temporalities. In this sense, infrastructure systems themselves act as temporal actors that shape and are shaped by the timescapes in which they are embedded.

This paper argues that a post-growth condition (Savini et al., 2022) cannot be realised without transforming these underlying temporal architectures. Rather than the accelerationist imperative of perpetual innovation, post-growth calls for durability, maintenance, and rhythmic plurality — modes of infrastructural time that sustain rather than exhaust (Rydin, 2025). Drawing on scholarship of

infrastructural time (Addie et al., 2025; Mattern, 2018), time (Adam, 2013 [1990]; Rosa, 2013) and time in planning (Abram, 2014; Dobson & Parker, 2024), we advance the notion of infrastructural time as a critical analytic for understanding how infrastructures of collective life mediate temporal experience and economic possibility. By tracing how infrastructures inscribe dominant temporalities, the paper links postgrowth imaginaries to the question of time—how time is differentially distributed, governed, and valued. The analysis concludes that transcending growth is not only an economic or ecological endeavour but a temporal and infrastructural project, enacted through the material reconfiguration of rhythms that sustain social and ecological reproduction.

SS24: Temporality

Thu 2.7.14:00-15:30, Special Session I, Y229c | Session chair(s): Peter Pelzer, Angela Million, Janet Merkel

1701 | Stephanie Herold

Back to the Future. Heritisation of past visions of the future

The architecture of the 1950s to 1970s bears witness to what, from today's perspective, was an astonishing euphoria about the future, reflected both in the materials used and in the dimensions. ‘When the future was built’ was the subtitle of a volume on Brutalist buildings in the Ruhr region in Germany, published in 2018 as part of the European Year of Cultural Heritage (EYCH). These expansive and distinctive architectural structures were often infrastructure buildings or buildings closely related to infrastructure and infrastructure planning. And indeed, there was great dynamism in the second half of the 20th century, particularly in the field of technical infrastructure, but this often meant that the futuristic buildings of the past were only able to keep up with the demands of the future to a limited extent, and from today's perspective, the dynamic structures turn out to be astonishingly un-dynamic relics of a bygone era. At the same time, as the before mentioned publication highlights, these futuristic structures are now themselves being historicised as heritage. This often results in the sometimes paradoxical situation that structures that were planned as dynamic visions of the future are now being preserved as fixed versions of a futuristic past. Using various examples from Berlin (e.g. the former International Congress Centre (ICC), the housing complex Schlangenbader Straße or the former Tegel Airport), the article discusses this paradoxical situation and also asks whether and to what extent these past visions of the future can also be an inspiration for new, contemporary visions of the future.

2188 | Joanna Kopacz- Gruzlewska

Temporality and Resilience in Urban Planning: A Diachronic Study of Modernist Villa Estates in Lviv, Ukraine

Temporality in planning becomes an integral factor guaranteeing its effectiveness. As such, however, it cannot be based solely on current speculations about the durability of solutions, even if their key premises are the ecological, social, and economic resilience. The current form of each place originated in a certain prefigurative plan, which in its material form underwent rhythmic changes related to the varying dynamics of the factors acting on it. Considering the temporal dimension of a place needs a diachronic study covering entire life cycle of the investigated district.

Hutter and Wiechman emphasize the benefits of analyzing specific cases as a source of recognition of actors involved in the process of shaping the plan, as well as the beneficiaries of the adopted solutions. An example of this are the modernist villa estates built at the beginning of the 20th century on city outskirts resulting from their rapid development. They implemented pioneering ideas aimed at healing the urban fabric, which at the time were only a vision of the quality of life in a new space. The materiality of the new buildings proved to be more durable than the complementing urban infrastructure: the streets hierarchy, access to public transport and proximity to recreational areas. In addition, the infrastructure proved to be a tool in the hands of changing authorities representing different political and economic systems.

The modernist villa estates of Lviv in Ukraine are case studies for describing transformations resulting from political, economic, technological, cultural, and social changes. These changes induced investment decisions that influenced the transformation of the urban context, transport networks, and the role of these estates in the urban fabric. The analysis of temporality also changes the paradigm of heritage, giving it a more dynamic, process-oriented character that determines the specificity of a given place in the city.

2060 | Leonie Hartung

Long-Term Planning for Landscapes of Risk

In recent years, numerous destructive floods have struck regions across Europe, such as the devastating floods in Valencia in 2024. In their aftermath, planning strategies are being discussed to prevent future disasters. For example, following the devastating floods in the Ahr Valley in June 2021, seventeen reinforced concrete retention basins are currently planned to be built into the landscape.

While continuing with the status quo is often economically unsound and irresponsible, official strategies rely on costly technical infrastructure such as flood retention basins, which are maintenance-intensive and have a major impact on fragile natural environments. They attempt to continue averting the risk – supported, for example, by lobbying from insurance companies – rather than to develop long-term approaches for living with risk and for identifying areas that may need to be gradually retreated from. Such infrastructures not only demand extensive maintenance but also perpetuate the reliance on technological means to exert control over natural processes. Yet precisely these landscapes hold significant potential for a gradual reintegration of natural cycles into the spatial fabric, thereby re-establishing connections to riverine ecosystems and their surrounding catchments. Long-term risk in the regions and the foreseeable withdrawal of insurance companies could lead to a decline in population in the affected regions. This complex situation raises not only planning, legal, and fiscal challenges, but also unfolds a considerable potential for developing new forms of land use that are low-tech, collective, and deeply embedded in ecological cycles, fostering a kinship with landscapes and nature under conditions of crisis.

So how should these regions be dealt with in the long term, across several decades or even a century? Based on extensive research in the Ahr Valley in 2024, the submission will explore long-term planning strategies for risk zones and critically challenge the current paradigm of flood protection.

2593 | Madeleine Wagner, Christoph Mager

Pathways of Cultural Infrastructuring - The TauberPhilharmonie Concert Hall as Example of Planning Continuity and Transformation

If commentators had already diagnosed a profound crisis in rural socio-cultural infrastructures before the Covid-19 pandemic, the subsequent restrictions exacerbated existing challenges and accelerated debates about the temporal resilience of such infrastructures. In response, the German federal and state governments, launched temporary funding programmes aimed at revitalizing rural socio-cultural life through short-term, project-based initiatives. These interventions, however, often prorities innovation and competition over long-term stability, thereby revealing a tension between ephemeral cultural projects and the enduring infrastructures they depend on. This contribution engaged with the pathways of temporalitis in planning and maintaining cultural infrastructures, focusing on the TauberPhilharmonie in Weikersheim, a 15 million euro concert and event hall opened in 2019 in the small rural town Weikersheim in southern Germany.

Drawing on newspaper coverage, policy documents, and interviews with stakeholders from regional planning, local administration, and cultural work, we trace how discourses of creativity, resilience, and modernization shape the lifecycle of cultural infrastructures. Conceptually, we employ notions of embeddedness to analyse how actors and networks negotiate between short-term funding logics and the long-term requirements of providing cultural services of general interest in different periods of time. The TauberPhilhamonie exemplifies how rural planning processes are entangled with multiple temporalities: the urgency of economic revitalization, the cyclical rhythms of cultural production, and the slow temporalities of institutional consolidation and maintenance.

By situating rural cultural infrastructures within broader debates on planning temporality and infrastructuring, the paper argues that such projects illuminate how planning practices might better integrate diverse temporal scales from project cycles to infrastructural durability. In doing so, it contributes to rethinking planning not merely as spatial coordination, but as temporal negotiation between continuity and change, permanance and precarity.

2609 | Martin Schinagl

Infrastructuring Space-Time: the Emscher-Höfe or How Emergent Regional Strategy Takes Shape

Renewed interest in timing and temporality within urban and regional planning (Hutter & Wiechmann 2022; Kibel 2022; Chang et al. forthcoming) suggests a need to reconsider key concepts accordingly. This paper conceptualizes infrastructuring as process in practice in the context of emergent planning strategies. From a relational perspective infrastructures materialize, bind, and transform regimes of social relations (cf. Kirchner/Baur 2025). Planning processes, understood as infrastructured relations, produce spaces and sequence decisions, stabilize practices, open or foreclose pathways. This approach accounts for the socio-material dimension of organizing and for how space-time relations are institutionalized.

Empirically, I examine the Emscher Höfe (Emscher Farms) in Germany's Ruhr-region as sites of infrastructuring. Originally not part of the Emschergenossenschaft water board's 30-year plan for ecologically converting the industrial Emscher River, the Farms emerged from loosely connected impulses with low initial conceptualization. Today, the concept encompasses four farm complexes and a park. The Emscher Farms as infrastructure illustrate how stragizing processes and actor networks are mediated, each following their distinct spatio-temporal trajectories of becoming and transformation. These trajectories are co-produced with narrative framings and organizational routines, marked by moments of stabilization, and disruption. Embedded in a longitudinal study combining document analysis, interviews, event chronology reconstruction, and ethnographic methods the paper traces how the Emscher Höfe gradually converged into an emerging regional strategy.

Conceptually, drawing on insights from the empirical case unit, I conceive infrastructuring as relational, place-based and temporalising process in which actors, practices, and artifacts are (re)arranged over time in response to past, present, and envisioned temporalities. The case illustrates how narratives, figurational stewardship, and organizational interfaces enable the alignment of the water board's mission – from grey infrastructure provision to blue-green regional development – while mitigating premature lock-in. The paper contributes a processual, actor-practice-oriented framework for analyzing infrastructural time as an emergent organizational accomplishment.

SS24: Temporality

Thu 2.7.16:00-17:30, Special Session I, Y229c | Session chair(s): Peter Pelzer, Angela Million, Janet Merkel

2887 | Marius Grønning, Danial Galland, Guy Baudelle, Knut Boge

Infrastructure and disruptive spatial strategy – a question of time competence

Our time is one of transitions. With it comes a sptial planning assignment: to imagine future territories in rupture with their present developments. In order to achieve goals like reduced car-dependency, zero net land-take, and carbon neutral transportation and energy production, infrastructure playes a decisive role and often comes first. Thus, infrastructure mediates time, in how we picture the future and as concrete first step measures of a disruptive spatial strategy. In this presentation we contemplate territories as space-time units. The objective is to demonstrate what methodological advances can be gained from an analysis of the temporality of practical problemstructures in infrastructure-based strategies.

In order to reshape a territory by means of infrastructure, one needs to consider the following sequence of problems. First, we privilege one production system, or a set, related to infrastructure. This is a problem of provision. Second, once infrastructure provision achieves a structuring agency on the territorial unit, we consider how multiple production systems jointly generate spatial tissue. This process needs to be handled as a problem of assembly, influencing the pace of each provision. Third, we observe how spatial plans are crafted to have processes of provision and assembly meet milestones along a timeline which is politically set.

This idealised sequence will be applied to cases in Norway, Denmark and France to describe the relationship between time and complex problemstructures: how the Bergen light-rail development guides

transit-oriented development and the generation of 15-minutes society urban tissue; how Aarhus' energy provision to meet its 0-emission milestone leads to quite radical spatial design; and how Douais' private water management, heritage from its mining economy, structures a territory based on different assets. The comparison, which has infrastructure as a common denominator, pinpoints the crucial role of time and the need for time competence in spatial planning.

949 | Carlos David Rivera-Choscó, Beau Warbroek, Joanne Vinke-de Kruijf

Evolving Temporal Interactions for Cross-Sectoral Integration: Insights from the case of Room for the River in The Netherlands

After the floods of 1993 and 1995, The Netherlands implemented one of its most ambitious programs to protect the country from floods, the internationally known Room for the River (Ministry of Infrastructure and Water, 2019). In this program, a multi-functional approach to making space for the river was implemented by pursuing a two-folded goal: improvement of flood protection and environmental quality. This involved intricate interactions across different sectors such as nature conservation, housing, spatial planning and flood management that evolved over time (Rijke et al., 2012). Interestingly, current policy programs that evolved from these interactions, though facing even more acute cross-sectoral challenges, haven't been able to fully implement this adaptive approach to cross-sectoral integration (Vinke-de Kruijf et al., 2024). However, this integrative goal was not the original intent, since the program was first set up as a more traditional sectoral flood management program. Yet, over time, cross-sectoral interactions emerging from adaptive governance became a key pillar of the program. Though research has studied the success factors of the program, this temporal dimension remains unexplored. Therefore, in this exploratory study, this temporal dimension of cross-sectoral interactions is studied to answer the following question: How did evolving temporal interactions enable Room for the River to transition from a sectoral to a cross-sectoral integrative approach? To do so, an archive of previous collected policy documents, reports, books, web sources and interviews is utilized to build a timeline of the evolution of interactions based on McNamara's Multiorganizational Interaction Model (McNamara, 2016). Interaction Model (McNamara, 2016). By presenting preliminary insights, this research aims to initiate a dialogue on the role of temporal interactions in facilitating cross-sectoral integration. Additionally, we invite suggestions on methodological approaches, developing input on ways to study and operationalize temporal interactions in future policy programs.

1265 | Kobe Tilley, Tim Devos, Angelos Varvarousis

When planning becomes adaptive: planning instruments meets temporary use

Traditional European planning approaches are based on strategic, regulatory and operational instruments. When it comes to discussing future outlooks, evaluating long-term policy documents, facilitating smooth procedures or incorporating temporariness, traditional instruments in Flanders, at least, are not considered sensitive or considerate in their approach to temporality. For instance, the territory-wide land use plans, which date from the 1970s, were intended to be revised, yet they remain one of the foundations of Flemish spatial policy. The main spatial policy dates from the late 1990s but discussions about its successor have been ongoing for over ten years. Yet, even the latest concept plan

fails to provide a clear vision of Flanders in 2050 and beyond. Ultimately, the most significant discussions concerning 'time' focus on accelerating processes, from zoning plans to permitting procedures.

However, outside of the traditional triptych planning approach, many practices are emerging that consider different temporalities. The practice in question here is 'temporary use of space' (TU), which is primarily a practice bound by temporal dimensions. Recently, however, we have begun to observe an overlap between 'soft practices' such as TU and traditional planning approaches. As this is only a preliminary tendency, little is known about the impact of TU, a practice renowned for its adaptability, on instruments and planning traditions which, at least in Flanders, are believed to embody a sense of permanence.

The main topic of the proposed presentation is the approximation between traditional planning instruments and TU. In this way, we question whether the approximation between traditional instruments and the practice of temporary use is emblematic for a different approach to temporality and ideas of plannability in planning, or if traditional planning merely tries to institutionalise TU.

2209 | Laura Crommelin, Charlie Gillon, Simon Pinnegar, Kristian Ruming

Are collective sales worth the time? Exploring the multiple temporalities of residential land assembly in Sydney and Vancouver

This paper examines the role of time in collective sales of residential properties in Sydney, Australia and Vancouver, Canada, identifying key temporal aspects of the process whereby neighbours in upzoned areas come together to sell to a developer ‘in one line’. We argue that time (and timing) is a key factor in how these land assembly processes unfold, and who benefits from them. Time mediates the planning, economics and ambitions behind collective sales, and shapes outcomes. Drawing on interviews with key stakeholders in both cities, the paper examines collective sales processes through three temporal lenses: (1) planner time (2) developer time, and (3) owner time. While economics and spatialities are often the focus of compact city literature, a focus on time sheds new light on the experiences of stakeholders trying to navigate the contradictions of urban redevelopment. In particular, the paper examines the contours of owner time in collective sales, and the complexities faced by groups of neighbours with discordant interests (and timeframes) who must negotiate a collective interest (with a shared timeframe). In doing so, this paper offers a timely reminder of the challenges in achieving more housing supply through the rezoning and renewal of increasingly densified cities. Amidst growing calls to conceptualise housing as a form of infrastructure (e.g. Bergan & Power 2025), the paper also contemplates how insights into the temporal logics of infrastructure planning might also inform approaches to planning for housing in rapidly densifying cities.

SS25: Tourism

SS25: Tourism

Tue 30.6.14:00-15:30, Special Session B, U406b | Session chair(s): Alex Deffner, Ferhan Gezici

2939 | Alex Deffner

Tourism from perception to practice: Rethinking tourism, the role of theory and the invention of new terms

Tourism is one of the four main leisure categories, alongside culture, sport, and entertainment. There has been growth in mass and special-interest forms of tourism (including cultural tourism), while various crises (including climate, health, and socio-economic crises) have exacerbated problems in tourism destinations.

In these new and challenging conditions, rethinking tourism, particularly in combination with rethinking culture, is necessary. The main question of this theoretical paper is whether rethinking tourism should focus solely on problems of practice and what the role of theory is in this process. Human action in time-space is a material process indicative of mental processes that begin with perception, pass through knowledge and appropriation, and culminate in consciousness.

The movement from perception to practice incorporates feedback, and it is full of dilemmas:

- overtourism as a reason for more taxes and/ or as an opportunity for responsible and regenerative tourism
- local identity and/or competition in place branding
- authenticity in reimagined spaces and/or the increasing commodification of culture and heritage
- innovative approaches for resilience and environmental sustainability, and/or negative impacts of tourism
- integration of indigenous knowledge and/or algorithmically derived knowledge, including the application of generative artificial intelligence
- quality of life and/or priority of economic considerations

In studying dilemmas at the level of theory and practice, a variety of new terms have emerged: last-chance tourism, greenwashing, and carbon offsetting. discretionary time and leisure expenditure, tourist traps, hypergentrification, tourismphobia, resilient tourism, local experience tourism, cosmetic tourism, sleep tourism, climate-conscious travel, AI-personalized travel, digital nomadism. The new terms will be categorised (e.g., by special interest forms of tourism, attributes, and themes) and mapped into a timeline. An additional question to be asked is: if we want to interpret the meaning of these new terms, should we return to the roots (semiotics)?

1980 | Peng Yao, Yici Li, Chao Ma

Does Green Space Configuration Enhance Tourists' Preference for Cultural Heritage? An Empirical Study of 24 World Cultural Heritage Sites in China

Background:

World Cultural Heritage sites, with humanistic and natural values, are global core tourist destinations. Green spaces have multiple roles like ecological conservation, but their value in supporting tourists' experience in these heritage sites has long been overlooked. Thus, this study focuses on 40 Chinese World Cultural Heritage core areas, using a "preference analysis-green space quantification-mechanism verification" framework to reveal driving mechanisms for heritage landscape optimization.

Route:

1) Built a tourist evaluation database: 1.2 million online reviews were collected, with high-frequency words extracted via word segmentation. The BERT model conducted three-level sentiment classification (positive/neutral/negative), and tourist preferences were categorized into three dimensions (content attraction, service perfection, environmental comfort) to structure evaluations. 2) A green space evaluation system was established: 1m-resolution GF-2 images were used with ENVI to extract green space and calculate 2D indicators (coverage, NDVI, vegetation diversity). 280,000 tourist photos were collected, and the U-Net model identified visual element proportions for 3D perception indicators. 3) Correlation verification: Hierarchical regression, PSM, and random forest models were adopted—hierarchical regression separated green space's independent explanatory power, PSM reduced selection bias, and random forest identified indicator contribution priority and nonlinear correlations, combined with 10 control variables to analyze the correlation mechanism.

Results:

Tourist preference was significantly positively correlated with green space. Random forest showed green view index (28.3%) and coverage (25.1%) as top influencing factors. After PSM matching, green space's net effect on positive sentiment was 0.56 ($p<0.01$). Hierarchical regression revealed each 10% coverage increase improved environmental comfort by 0.35 points (5-point scale), and each 0.1 green view index increase by 0.43 points. Threshold analysis identified coverage ≥37.8% and green view index ≥26.3% as key for stabilizing satisfaction, which should serve as core quantitative goals for future heritage planning.

2625 | Inger-Lise Saglie, Sebastian Peters, Knut Bjørn Stokke

Nature concerns: The weak spot in Norwegian land use planning for second homes

This paper critically examines municipalities' planning practices related to Norwegian large scale second home developments. We address the problem of a continuous and increasing trend of commodification of nature and nature landscapes leading to extensive nature encroachment due to municipalities' ambitions in branding them as tourist destinations.

Based on field visits and in-depth interviews with public and private key actors, we investigate how nature concerns are handled in planning processes for extensive second home developments in three

Norwegian municipalities characterized by large second home developments resembling mountain villages temporally exceeding local population numbers by multiple times.

Our analytical focus is on the power play between key actors involved in local planning, addressing power by design of formal rules, pragmatic power in the “rules of the game” from a multilevel governance perspective, and power of discourses framing the planning narratives. We find that nature concerns are weak regardless of legal requirements to account for nature and assess potential impacts. Extensive loss of nature areas is not framed as a problem and few local actors promote nature concerns. Dominant planning discourses on local economic development through second home constructions and increasing tourist numbers are strongly promoted by developers and landowners and strategically embedded in planning agendas. Furthermore, the strong emphasis on local self-government in the Norwegian planning system leads to a weak role of environmental authorities at the regional level, and to a miss in accounting for cumulative impacts of similar policies in neighbour municipalities also upscaling second home construction intensively.

1965 | Siming Zheng, Wentao Yan

Tourist-Resident Dynamics in Waterfront Spaces of a Tourism City: A Spatiotemporal Analysis Using Mobile Phone Data in Hangzhou

Urban waterfront spaces, as high-value public resources, are central to the challenge of balancing tourist experience with residents' daily recreational needs—a core dilemma of tourist-resident coexistence in modern tourism cities. To address this, our study develops an integrated analytical framework linking behavioral patterns, spatial structures, and influencing factors. Using Hangzhou, China, as a case study, this research quantifies the recreational behavior patterns of tourists and residents through mobile signaling data. Methodologically, we integrate three analytical approaches: kernel density estimation to delineate service areas, social network analysis to map recreational flows, and geodetector modeling to identify key drivers and their interactions. Findings reveal that tourists concentrate heavily along West Lake with unimodal temporal patterns; in contrast, residents distribute more broadly along the Grand Canal and Qiantang River, showing dual peaks connected to commuting rhythms that indicate potential spatio-temporal conflicts. Spatially, the residents' recreation network is more extensive and interconnected (with 1.2 times the nodes and 1.5 times the paths of the tourist network), yet key hubs like West Lake Cultural Square serve critical integration functions for both groups. In terms of driving factors, resident visits are shaped by car accessibility and social media hotspots, while tourist behavior is more sensitive to walkability, accommodation, and proximity to the CBD. This study not only validates a robust framework for analyzing complex human-space interactions but also proposes planning strategies such as spatio-temporal zoning and functional composite sharing to alleviate the identified recreational conflicts, thereby providing actionable insights for managing overtourism, fostering responsible tourism, and implementing collaborative governance to achieve spatial equity in waterfront planning.

SS25: Tourism

Thu 2.7.11:00-12:30, Special Session B, U406b | Session chair(s): Ferhan Gezici, Alex Deffner

2476 | GAO JUNYI, YANG ZIJIANG

The Transfer of Interpretive Authority: Generative AI and Power Asymmetries in Yunnan's Tourism Narratives

The integration of generative artificial intelligence into destination marketing is fundamentally reshaping the production and dissemination of cultural narratives. This study examines this phenomenon through a critical case study of Yunnan, China, a region characterized by its multi-ethnic composition and diverse ecological landscapes. The findings indicate that AI-generated narratives, trained on global datasets, systematically reduce the region's complex socio-cultural realities into a limited set of marketable symbols, such as "Shangri-La" and "ethnic wonderland." This output creates a structural divergence from the place-based identities held by local communities, whose nuanced knowledge is consistently omitted from the algorithmic representation.

The analysis further demonstrates that this representational gap signifies a consequential transfer of interpretive power from local voices to technology platforms. The self-reinforcing feedback loop of AI, which prioritizes commercially validated symbols, increasingly dictates tourist expectations, channels investment towards homogenized projects, and marginalizes cultural expressions that fall outside its algorithmic purview.

The study concludes that a proactive, ethically-grounded planning framework is essential to counter these effects. It argues that such a framework must mandate community-involved data governance and the integration of local knowledge into AI training processes. The objective is to reposition generative AI from an authoritative narrator of place to a tool that amplifies authentic and pluralistic local voices, thereby safeguarding cultural diversity in the digital age.

2362 | Tetsuya Yaguchi, Ryohei Tohda

"Virtual Localness" as manifested in virtual tourism

The COVID-19 pandemic disrupted global human mobility, accelerating the emergence of virtual tourism experiences conducted without physical travel. While existing studies have examined tourism imagery, mobility, and authenticity within physical destinations, comparatively little is known about how a sense of locality is constructed and perceived within virtual environments. This research conceptualizes the unique value of virtual tourism as “Virtual Localness”, defined as the localized experiential quality produced and perceived through online, real-time tourism encounters. The aim of this study is to clarify how Virtual Localness is formed through two mechanisms: (1) the visual tourism gaze intentionally constructed by hosts in online platforms, and (2) the authenticity co-produced through performative interaction between hosts and guests.

Methodologically, the study analyzes 1,000 online tourism listings offered by the Airbnb Online Experiences. First, approximately 4,700 listing images were collected and examined using Google Cloud Vision image-label analysis, followed by hierarchical clustering to identify dominant visual themes. Second, semi-structured interviews were conducted with 12 Japanese online-experience hosts to

investigate production processes, interaction practices, and perceived values. Third, 7,000+ guest reviews of Japan-focused experiences were coded to capture guest-side evaluations.

The findings reveal three contributions. First, online tourism imagery emphasizes hosts' everyday environment, domestic settings, gestures, and food-related visuals—distinctly different from typical tourism media dominated by iconic landscapes and landmarks. Second, five categories of experiential value are identified for both hosts and guests, showing that authenticity emerges from reciprocal value assignment rather than static cultural representation. Third, the study demonstrates that Virtual Localness is produced not despite non-mobility, but through it: proximity is re-constructed through intimacy, interactivity, and shared ordinariness across distance.

This research suggests that virtual tourism—far from being a substitute for physical travel—constitutes a new modality of locality production, offering meaningful implications for post-pandemic tourism, community engagement, and hybrid tourism futures.

1904 | Güliz Öztürk, Ferhan Gezici

Regional and Conceptual Trends in Tourism–Local Development Studies: A Comparative Bibliometric Analysis

The tourism sector is supported as an important instrument for local and regional development by both developed and developing countries, as it provides locally consumed services and contributes to economic growth. Due to this characteristic, tourism and local development are viewed as interrelated. However, the sector is highly sensitive, and global and local factors can rapidly change its impacts. Thus, the relationship between tourism and local development is comprehensive, interdisciplinary, and shaped by place-specific conditions.

This study examines the temporal and regional evolution of academic studies combining "tourism" and "local development" and discusses the factors underlying these changes. It aims to contribute to the literature through inferences about differences between developed and developing countries, origin and destination regions, and areas that shape or implement local development practices. Over 1300 documents published in the Web of Science (1980–2024) containing the terms "tourism and local development" were analysed. Using VOSviewer and Bibliometrix, network visualizations and thematic trend analyses were conducted. In addition, the distribution of studies originating from and focusing on different geographical regions was examined with content analysis methods.

Findings reveal that most studies were produced in tourism destinations of Southern Europe and Latin American countries. After 2023, innovation and protected areas became prominent themes, while between 2019 and 2021, under the influence of COVID-19, sustainable tourism and heritage dominated the literature. Strategic planning and ecotourism, appearing between 2011 and 2023, represent the themes that have been examined for the longest period, while community-based tourism, sustainable development, rural tourism, and cultural tourism constitute the core themes across all years. Creative tourism, innovation, and pro-poor tourism are identified as driving themes. Wine and food tourism form niche areas focused on gastronomy, whereas geotourism and religious tourism appear as themes that are either emerging or declining.

1438 | Theodora Papatheochari, Aspasia Antonia Koutsopoulou, Spyros Niavis

Integrating circular and blue economy frameworks for regenerative tourism in Mediterranean coastal destinations

Tourism development in the Mediterranean has traditionally been characterized by a linear, mass-tourism model that concentrates high visitor volumes in environmentally sensitive coastal zones. While this model has generated economic growth and employment, it has also led to severe environmental degradation, including pollution, biodiversity loss, coastal erosion and pressures on local infrastructure and natural resources. At the same time, the dominance of standardized tourism products has often limited local value creation, diversified entrepreneurship and innovation along the tourism value chain. These challenges highlight the need for a strategic transition toward tourism models that restore ecosystems, empower local communities, and support resilient regional economies.

Two complementary approaches have emerged among others as a response to these systemic challenges: circular and blue economy. Circular economy advocates for systems that reduce waste, extend the use of resources and restore natural capital through regenerative practices while blue economy focuses on the sustainable use, governance and conservation of ocean and coastal resources to foster economic development while preserving marine ecosystems. Although both frameworks align with European sustainability priorities policy agendas, their combined operationalization within tourism remains underdeveloped. This is largely due to fragmented sectoral governance, limited cross-sector collaboration, and the absence of shared tools to guide integrated planning. In this context, the paper examines what are the barriers for such a combined operationalization focusing on the level of knowledge and understanding of blue and circular economy, and the level of adaptability.

To answer the question the paper proposes a conceptual and practical integration of circular and blue economy tailored to Mediterranean coastal tourism destinations. The approach is developed within the context of an Interreg Euro-MED research project, provides a framework for applying resource circularity and marine ecosystem stewardship in tourism planning, and contributes to advancing a more regenerative, resilient and place-based Mediterranean tourism model.

SS25: Tourism

Thu 2.7.17:45-19:15, Special Session B, U406b | Session chair(s): Alex Deffner, Ferhan Gezici

2756 | Carla Tedesco, Matteo Basso, Anna Marson

Luxury tourism facilities and historic city centres: a tale of Venice, between spatial planning and heritage preservation

In recent years, Venice, Italy, has embraced luxury tourism as an alternative to mass tourism. However, the cultural and consumption practices of transnational luxury tourists are progressively reshaping the city's built environment and generating uneven spatial dynamics. Beyond iconic landmarks and protected sites, converting historic residential units into luxury tourist properties and five stars hotels has significant consequences for the housing market. These processes transform neighbourhoods, reshape public life and contribute to the displacement or reconfiguration of both local elites and community practices.

This paper addresses such dynamics from a spatial planning perspective, examining the interplay between planning tools, procedures and regulations, and urban transformations. It considers how administrative changes have enabled the transformation of residential properties into luxury hotels, the appropriation of public spaces for exclusive events, and the adaptation of local services to cater to the demands of the ultra-wealthy. While such interventions are based on the history of bricks and stones, they often erode the meanings embedded in everyday urban practices: cultural heritage is produced through multiple forms of knowledge.

Adopting a systemic perspective on planning and governance, and drawing on two case studies, the contribution examines the interactions that occur across different scales, from neighbourhood interventions to citywide planning agendas. It also considers the roles of various stakeholders, including residents, developers and public institutions. The study questions the ability of planning to manage uneven transformations, mediate competing claims to heritage and culture, and promote inclusive urban futures.

Ultimately, the study concludes that an understanding of the territorial and cultural impact of luxury tourism is vital for contemporary spatial planning in Venice. Planning must be conceived as a process that can address socio-spatial inequalities, reconcile heritage preservation with evolving economic and cultural dynamics and offer strategies that balance elite-driven transformations with the needs of local communities.

2600 | Bora Yerliyurt, Doruk Özügül, Elif Örnek, Deniz Erdem Okumuş

Between Attraction and Pressure: Understanding Overtourism and Tourism Transformation in Çeşme

Tourism has become a defining force in the transformation of contemporary coastal settlements, shaping social structures, spatial practices, and local economies. As destinations increasingly integrate themselves into global tourism circuits, pressures related to mass visitation, spatial commodification, and seasonal population surges have intensified. The concept of overtourism has therefore gained analytical importance, particularly in regions where fragile coastal ecologies and historically layered urban fabrics intersect with expanding leisure economies. Recent crises, including climate change and global mobility disruptions, have further exposed the vulnerabilities of tourism-dependent destinations while simultaneously prompting new discussions on responsible and regenerative tourism strategies.

This study examines these dynamics through the case of Çeşme, a prominent Aegean destination experiencing rapid tourism-driven change. Beyond visitor numbers, summer housing development has emerged as a significant factor reshaping Çeşme's spatial and social landscape. The proliferation of summer houses and short-term rental markets contributes to pronounced seasonal population fluctuations, generating pressure on infrastructure, services, and the housing market. While these dynamics enhance Çeşme's appeal as a mixed tourism–residential destination, they also produce tensions within the local community. Residents increasingly express concerns regarding housing affordability, congestion, environmental degradation, and the erosion of everyday sociability during peak seasons. At the same time, local attitudes are not uniform: many acknowledge the economic

opportunities created by tourism yet remain critical of unregulated development and the weakening of local identity.

By situating Çeşme within broader debates on overtourism, summer housing urbanization, and tourism transitions, this paper highlights key dilemmas on "local versus global forces", "authenticity versus commodification", and "sustainability versus economic imperatives". Çeşme provides a valuable context to explore the tension between local and global forces, the coexistence of mass and special-interest tourism, bottom-up versus top-down governance, authenticity versus commodification, and the possibility of transitioning from extractive tourism models toward more regenerative practices.

2549 | Susanne Frank

Toothless against Tourism Gentrification? Small-Town Governance and the Housing Crisis on the German North Sea Island of Sylt

Many European holiday islands are characterised by tight housing markets, making it increasingly difficult for the local population – as well as for urgently needed seasonal workers – to find affordable housing. The ongoing conversion of permanent housing into holiday rentals and second homes reduces the available stock and pushes prices ever higher. As a result, many longstanding residents can no longer afford to live on "their" island and (involuntarily) move away. Numerous reports therefore refer to the "displacement" of the permanent population. It is hardly surprising, then, that these developments and their consequences are regularly labelled as (tourism, island, coastal, seasonal…) "gentrification".

In Germany, the North Sea island of Sylt is the "most advanced observation post" for these developments. In my research, the key question is why it is so difficult to counter the housing market dynamics described above, even though their destructive effects are acknowledged across party lines. Existing research shows that a) planning instruments that could be used to preserve affordable permanent housing are not applied, or only very hesitantly, and b) regulations enacted for this purpose are often not enforced and violations remain unsanctioned. There is, in other words, a lack of political will and capacity to tackle the housing crisis head-on.

Theories of tourism gentrification offer only limited help in explaining this situation. More promising, by contrast, are debates that conceptualise "small town-ishness" as a specific mode of local socialisation. Drawing on extensive empirical research on the island of Sylt, the presentation attributes the toothless response of local politicians and planning authorities to the institutional and social conditions of small towns under which these actors operate. Alongside specific political and administrative structures, the argument focuses in particular on the dense social relationships and networks that shape local decision-making in small tourism hotspots.

2436 | Pina Klara Petrović Jesenovec, Naja Marot

Tourism-driven spatial pressures – how tourism shapes quality of life in the Alps

This contribution examines how tourism development affects the quality of life (QoL) of residents in Alpine regions, with a particular focus on its influence on living conditions. It highlights the dual role of

tourism, which acts both, positively as a multiplicators, and, negatively, as a factor with negative impact on QoL in the Alps—an area generally perceived as offering high living standards and good QoL. As highlighted in the 10th Report on the State of the Alps, living conditions in the region are strongly influenced by environmental quality and spatial characteristics, including preserved nature, clean water and air, peacefulness, and scenic landscapes. At the same time, the Alps are a major tourism destination, and tourism flows increasingly affect residents' QoL through infrastructure overload, pressures on the housing market, land-use changes, and impacts on environmental quality. Although tourism can stimulate beneficial investments—especially in the field of recreation and public infrastructure that serves both residents and visitors—its overall effect on quality of life remains ambivalent.

According to a survey conducted among residents of the Alps, many respondents view overtourism and the strong focus on seasonal tourism as major weaknesses of living in the region. These challenges are closely connected to the growth of secondary residences and short-term rentals, which reduce the availability of affordable housing. Moreover, the development of tourism infrastructure increases tourism-related land take. In conclusion, tourism can be considered one of the key factors influencing living conditions and overall QoL in the Alps, generating a series of spatial challenges whose impacts are reflected not only in residents' subjective perceptions but also in measurable spatial and environmental pressures.

2123 | Yi Li

Tourism-led spatial transformations and place identity in mountainous ethnic minority villages in China: a comparative study of two Miao villages

Market-oriented forms of tourism, embedded in wider neoliberal restructuring, have become a key vehicle for capital penetration into remote and "marginal" places, yet their implications for everyday spatial arrangements and local senses of place in ethnic minority villages in China remain under-examined. This paper investigates how neoliberal tourism reshapes spatial structures and cultural representations through processes of commodification and standardisation, how local communities perceive and negotiate tourism-induced changes in authenticity, performance and identity, and to what extent local actors mobilise tourism for alternative, community-oriented development that resists dominant neoliberal logics.

Drawing on a comparative study of two Miao villages in Guizhou Province, Xijiang and Langde Upper village, the paper develops a multi-scalar framework that connects global neoliberal tourism, state-led commercialisation and entrepreneurial governance in China, and local spatial practices in minority villages. Methodologically, the paper adopts a qualitative-led mixed-methods design that integrates GIS-based change mapping and a business and points-of-interest census with semi-structured interviews, participatory mapping workshops and brief touris, in order to trace tourism-led spatial restructuring while capturing lived experiences, identity work and community strategies.

By bringing spatial evidence into dialogue with everyday narratives and practices, the paper seeks to move beyond celebratory accounts of ethnic tourism and narrow critiques of cultural loss. It will generate empirically grounded insights into how neoliberal tourism is territorially embedded, how grassroots

initiatives can rework or partially subvert dominant tourism logics, and what this implies for debates on neoliberalisation, place-making and the governance of minority destinations in contemporary China.

SS26: Transforming Industrial Regions

SS26: Transforming Industrial Regions

Thu 2.7.11:00-12:30, Special Session A, U401 | Session chair(s): Julia Binder, Ludger Gailing, Nina Gribat, Silke Weidner

969 | Peng Ieng Lei, Xiang Li

Heritagization as a Tool for Structural Transformation: Planning and Governance in Post-Mining Regions

Former mining cities, often categorized as single-resource-based cities, face profound challenges in their post-industrial transitions. Mining shaped their economies and profoundly structured urban form, landscapes, and collective identities. As these cities reinvent themselves after extractive decline, mining's material and symbolic legacies are both burden and resource. In planning discourses, industrial heritage is increasingly mobilized as a strategic lever, not merely for preservation but to generate new socio-economic and cultural dynamics.

This paper explores how heritagization of industrial sites in former mining regions can move beyond conventional "museumization", preserving sites as static tourist destinations, to become instrumental for structural transformation. Drawing on a comparative analysis of the Euralens Initiative in Lens-Liévin (France) and the mining-landscape transformation on Elba Island (Italy), the paper examines how heritagization embeds within broader spatial, economic, and governance frameworks.

In Lens-Liévin, Euralens anchors transformation through a multi-scalar strategy connecting the Louvre-Lens Museum and UNESCO-listed mining landscapes via a coordinated system of forum deliberations, project labelling, landscape connectivity, cultural festivals, and regional branding. Here, heritage functions as a catalyst linking memory, innovation, and investment, enabling more continuous and diversified regional development. In contrast, Elba integrates mining heritage into a coastal tourism economy through mining parks, museums, and cycling routes; yet the model remains seasonal, with heritage extending and differentiating the peak season rather than driving structural diversification.

By situating these cases along a spectrum of heritage-led transformation, this paper discusses how cultural assets can be mobilized as adaptive tools of governance and planning in post-mining transitions, while acknowledging their limitations. The comparative lens reveals why, in contexts such as China, heritagization often fails to effectively support planning strategies. The paper thus contributes to broader debates on how industrial heritage can be reimagined as both a symbolic and operational component in the governance of structural transformation in post-industrial territories.

1981 | Robert Knippschild, Agnieszka Pagels

Cross border-cooperation in regional transformation in the course of coal phase-out and energy transitions – the case of the German-Polish-Czech borderland

Energy transitions and coal phase-out are challenges of regional transformations that are overlapping with further dynamics such as demographic change, spatial polarisation and social tensions and environmental changes, economic structural change and digitalisation. These challenges cumulate in peripheral regions such as border regions. Parts of the German-Polish-Czech borderland is characterised by coal extraction and affected by its consequences - during operation and now in the course of the coal phase-out and the associated challenges. Policies and strategies for dealing with the consequences of coal phase-out are nevertheless largely nationally oriented, even though the ecological, regional economic and social effects are cross-border in nature and solutions would therefore often lie in joint action. Using the example of the German-Polish-Czech border region, we will outline the starting point for the coal phase-out, highlight the very different approaches, strategies and policies, and discuss the extent to which intensified cross-border cooperation could help to learn from each other, avoid past mistakes and develop joint strategies. In particular, we will discuss the extent to which cross-border governance structures can be further developed to help answer the pressing and location-specific questions of peripheral border regions in order to mitigate location-related disadvantages in the future and, where possible, turn them into advantages.

2373 | Jakob Pesendorfer, Aleksandra Kurkierewicz

Spatialising Just Transitions, Comparative Critical Cartographies for a just transition of workers settlements on the case studies of Linz Austria and Katowice Poland.

Industrial development has historically played a crucial role in shaping cities and regions. The emergence of industries often led to the formation of workers' settlements, together defining spatial structures and everyday life. As sustainable transformations gain momentum, driven by policy agendas, they are set to impact not only industries but also the ways and places in which people live. Yet, spatial and functional dimensions remain largely absent from current planning strategies, which are dominated by linear and economically driven approaches. Such developments could contribute to greater political and social fragmentation, along with expanded geographic exclusion and peripheralisation on multiple scales.

This paper argues for bringing space into the discourse on sustainable transformation, focusing on the case of workers' settlements. It emphasises the importance of place-based and contextual perspectives to make transformation processes more tangible, inclusive, and grounded in lived realities. Mapping these spatial qualities can reveal hidden potentials and contribute to forming collective agency and shared values that support sustainable transitions within local contexts.

The paper develops a mixed-method framework combining quantitative, qualitative, and multi-scalar analyses with critical mapping experiments to explore and visualize the spatial potentials of workers' estates. Empirical research is conducted through two case studies: Linz, Austria, and Katowice, Poland - both historically rooted in coal-based industrial production and currently undergoing industrial transformation.

The comparative analysis allows for the identification of shared trajectories, parallel challenges, and context-specific opportunities, fostering mutual learning between the two regions.

The outcomes further contribute to the development of a transferable set of mapping tools adaptable to other industrial regions, cities and neighbourhoods in transition. The proposed mapping approach further serves as a foundation for participatory engagement tools that strengthen local capacities for collective transformation. Highlighting these qualities can guide planning and support more systemic, context-sensitive approaches to achieving a socially just transition.

2880 | Julia Koepper

Uncovering hidden identities and transformation potential

The Central German mining area is one of the three largest opencast mining regions in Germany affected by structural change due to the closure of coal mining. This is accompanied by concerns and fears about the future.

As part of a teaching research project with students in the Master's programme in Sustainable Urban Development at Anhalt University of Applied Sciences, mapping was used as a strategy to identify the transformation potential of the region. The object of the study was the district of Anhalt-Bitterfeld and, in particular, the city of Bitterfeld and its surroundings.

The students identified, researched and visualised spatial, social and economic phenomena, resources, identities and characteristics of the region using mappings on various topics (funding, cultural networks, tourism, ecological potential, commercial innovation, etc.). On the one hand, the mappings served to identify and visualise previously overlooked potentials. While others questioned how structural transformation processes are governed by tracing the money flows of funding.

The mappings create a multifaceted portrait of the region, revealing hidden identities and potential for transformation while serving as a means of communication with the population. It is planned to present the mappings in dialogue events in the region next spring in order to engage with people in discussions about visions for the future.

Taking a different perspective on the area than the marginalisation that has prevailed in the media and discourse to date should contribute to the democratisation of the debate. The maps serve as spaces of possibility for establishing future imaginaries, also providing an opportunity to discuss previous external and self-attributions.

The research presentation is a re-reading of the maps created up to now as well as impetus for social and scientific exchange.

2708 | Constanze Zöllter, Sebastian Heer, Anna Dunkl

Demographic potential for peripheral regions by large scale institutions?! 'Testing the City meets the German Centre for Astrophysics.

In recent decades, many peripheral regions have experienced an exodus of younger people, closely intertwined to a severe shortage of skilled workers (BBSR 2021). To offset the even greater regional impact of the coal phase-out, Germany is putting much effort in establishing new research institu-tions such as the German Centre for Astrophysics (DZA). Located in Görlitz in the Lusatian mining region, the DZA will attract highly qualified staff nationally and internationally. With up to 1,000 employees, the DZA is set to become a positive demographic factor in light of the negative popu-lation forecast for Görlitz.

To investigate the migration potential of a large-scale research institution and the conditions re-quired for it in a demographically challenged medium-sized city, the experimental approach devel-oped in the project series 'Testing the City' (Zöllter et al. 2024; Knippschild et al. 2020) is applied. During a rent-free stay in trial flats, participants get the chance to try Görlitz as a new home and will be surveyed about housing needs, relocation preferences and social network priorities. Our contribution presents findings from the project 'Testing the City meets German Centre for Astro-physics' that seeks deeper insight into relocation decisions and derives policy recommendations for sustainable urban development, also relevant beyond the case of Görlitz.

2167 | Paula Johanna Oeltze, Emma Ursula Haberstock

Reimaginig Coal Landscapes - A Counterfactual Vision for the Transformation of the Lusatian Coalscape

For more than 150 years, the Lusatian region in eastern Germany was shaped by large-scale lignite mining, fundamentally transforming its landscape. After German reunification in 1990, the mining industry collapsed. Over the past 35 years, extensive recultivation efforts have reframed Lusatia as Europe's largest artificial lake district, globally celebrated as a pioneering model of post-industrial transformation.

Yet behind this polished narrative lies a critical issue: The German Mining Law (Bundesberggesetz), last substantially revised in the 1980s, enforces rigid technocratic frameworks prioritising structural stability, safety, and rapid economic usability. These constraints suppress ecological dynamics and limit adaptive responses to climate change, drought, and unstable hydrological systems. As a result, despite large-scale rehabilitation interventions, many areas remain fragile, unstable, or once again inaccessible, exposing the limitations of static landscape engineering under current legislation.

This thesis critically examines the transformation of Lusatia's post-mining landscapes, challenging the prevailing narrative of success associated with the development of the Lusatian Lakeland. Current rehabilitation strategies focus primarily on the creation of artificial lakes and economic productivity, often exacerbating ecological vulnerabilities such as regional water scarcity.

Employing a counterfactual design methodology, the thesis reimagines an alternative vision for Lusatia's post-mining landscape, beginning with the structural break following German reunification in 1990. This approach critiques the existing legal framework and advocates for prioritising landscape regeneration and

ecological resilience over rapid economic recultivation. By presenting a counterfactual scenario centred on natural succession and long-term ecological care, the research reveals the hidden potential of Lusatia's post-coal landscapes, highlighting opportunities for adaptive, process-driven strategies that move beyond conventional engineering approaches.

Building on this perspective, the thesis introduces a conceptual framework distinguishing two complementary landscape categories: stable zones, where controlled development and public access are supported, and fragile zones, where natural instability is inherent and geological and ecological succession is intentionally encouraged.

SS27: Ukraine

SS27: Ukraine

Tue 30.6.14:00-15:30, Special Session E, M240 | Session chair(s): Katarzyna Piskorek

2565 | Agnieszka Szumilas, Katarzyna Piskorek, Maciej Skulimowski

Sustainable Urban Mobility Policies in Polish and Ukrainian cities: Multi-Level Governance Perspective

Post-socialist cities in Central and Eastern Europe have, over several decades, pursued pathways towards sustainability and climate neutrality. These pathways have been shaped by evolving institutional, policy, and social mechanisms. The European Union has played a pivotal role in steering these transitions. It has done so, for example, by promoting emission reduction and sustainable transport through strategic frameworks, sectoral programmes, and flagship initiatives such as the CNSC Mission, where urban mobility has emerged as one of the key arenas in which European climate objectives are translated into local spatial and governance practices. However, these processes remain uneven. They are strongly conditioned by city size, geographical location, and institutional capacity.

This paper adopts a multi-level governance perspective. It draws on qualitative analysis of strategic documents at European, national, and local levels, with a focus on mobility, climate adaptation, and urban climate commitments. The paper examines the development of sustainable urban mobility policies in selected Polish and Ukrainian cities. It emphasises the legacies of post-socialist transformation, the influence of the European Union, and the circulation of policy models from Western Europe. It also considers funding mechanisms and their adaptation within local governance frameworks. Using a comparative approach, the study examines the role of path dependencies and institutional learning in shaping policy outcomes.

The study explores the extent to which these policies respond to local needs, national regulatory frameworks, and EU-level recommendations. It also examines how city-to-city cooperation and knowledge exchange can support the development of climate-oriented mobility policies. Particular attention is given to how to avoid reducing Ukrainian cities to passive recipients of external models. Instead, the paper highlights how local actors can actively reinterpret and adapt European policy

frameworks, rather than merely adopting them. In doing so, it reveals the dynamic and negotiated character of policy transfer in contemporary urban governance.

2742 | Anna Kuzyshyn, Poliksen Qorri-Dragaj, Detlef Kurth

Resilient Urban Recovery: Learning from Climate Adaptation to Strengthen Urban Resilience in Neighborhoods Threatened by War, case studies from Ukraine

Urban development in European cities is facing significant challenges, including climate change, demographic shifts, structural transformations and an increase in military conflicts. The vulnerability of urban systems is subject to much greater pressure. Consequently, crises can no longer be regarded as singular, exceptional events, but must be understood as overlapping, persistent conditions for urban development.

A fundamental strategy to face these challenges is that of urban resilience, which can be defined as the capacity of urban systems to effectively cope with crises and disasters, to adapt to evolving circumstances, and to transform in a manner that enhances civil protection (UN-Habitat, 2025; Kurth, 2022). The concept of adaptability and transformability elucidates the notion that urban resilience encompasses more than mere robustness; it facilitates the emergence of novel adaptation strategies through flexibility and the capacity for learning (Greiving/ Fleischhauer, 2022; Hafner & Miosga, 2019; Kegler, 2022).

In the context of the ongoing Russian war of aggression against Ukraine, the strengthening of urban resilience poses particular challenges for Ukrainian cities. It is imperative that short-term solutions are identified in order to protect the population from acute and ongoing threats under rapidly changing conditions. But also to formulate strategies for medium- to long-term planning.

Faced with considerable challenges, Ukraine has been compelled to devise specific resilience strategies in an expeditious manner (Brenner, 2024; Dosch et al., 2022). The primary objective is to ascertain the methods and approaches employed in climate adaptation planning and to ascertain their transferability to neighbourhoods under threat of war, with a view to enhancing their resilience. For the purposes of this study, case studies from European and Ukrainian cities will be analysed. The following paper sets out to explore the main criteria for a resilient urban recovery in the context of sustainable development and the country's prospective EU integration.

2589 | Federico Falasca, Alessandro Marucci

Rethink Ukraine’s post-war reconstruction: Cutting-edge techniques to support advanced land planning in Ukraine

Ukraine's current involvement in the war against the Russian aggression has triggered a general worsening of the nation’s environmental, economic, and social conditions. From a planning perspective, the extensive disruption of urban, peri-urban, and natural areas represents both one of the most serious consequences for the cities affected by the clashes and the cause of the upheaval of entire regions. In

such a complex scenario, high post-conflict resilience is essential for promoting and accelerating the country's recovery goals.

The Horizon Europe project "Ukraine towards Carbon Neutrality" (U_CAN) focuses on supporting the implementation of pilot activities in six Ukrainian cities to demonstrate solutions for climate-neutral urban environments. Ukraine's agreement to the U_CAN project sets an opportunity to nourish climate neutrality within the wider framework of the European legislation, stimulating territorial–ecological thinking both at large and local scale.

This contribution aims to provide several insights into the innovative concepts, as well as the cutting-edge technologies and methodologies currently employed to support effective land planning in the complex task of post-war recovery. It focuses on the pursuit of climate neutrality objectives in several Ukrainian pilot cities involved in the U_CAN project, supporting their alignment with the European Green Deal.

The methodologies and analyses conducted to date indicate that the use of machine learning techniques, combined with the definition and spatialization of new concepts such as ecosystem services, is generating valuable insights. These insights are also fostering critical thinking about current urban assets, providing valuable information to support ecosystem-oriented approaches aimed at achieving climate neutrality across various regions of Ukraine.

1596 | Anders Branth Pedersen, Helle Ørsted Nielsen, Katinka Bundgård Fals

Moving Ukraine towards net-zero carbon in 2050 while being under attack: barriers and potential enablers for Ukrainian cities

In 2024, during the Russian invasion, Ukraine adopted a new climate policy which aims to achieve climate neutrality by 2050 as well as low-carbon and sustainable development (Zelensky 2024). Devoting resources to climate action during a time of war could be considered useless by some. However, from an occupied country's viewpoint it is often important to build up institutions, increase energy and food security, and build up international networks to secure a better future after the war. Based on document analysis of national and local policy documents and qualitative interviews with city representatives from six Ukrainian cities, we identify significant sectors that require climate action in Ukraine to reach the aim of 2050, and we evaluate the local circumstances and enabling and constraining factors for executing such action as well as motivating factors, both locally, nationally and from EU through regulation and initiatives. Finally, we discuss potential scenarios for implementing climate actions in Ukrainian cities.

1122 | Swati Kulashri, Paul R. Stadelhofer, Shanmathi Rajkumar

From Periphery to Partnership: Measuring Ukrainian readiness for a co-produced climate recovery with Europe

Ukraine's post-war recovery is unfolding at the intersection of national resilience, European integration, and climate transition. As municipalities assume a central role in reconstruction, their capacity to align recovery priorities with European climate and policy frameworks becomes crucial. This paper introduces the Ukrainian Readiness Index (URI) — a multidimensional diagnostic and policy-alignment tool

developed by the authors to assess how Ukrainian cities can engage with EU climate-neutral and recovery initiatives while maintaining local autonomy and adaptive governance.

URI operationalizes thirty-five measurable criteria grouped into seven readiness clusters: (1) Strategic vision and governance, (2) Regulatory and planning readiness, (3) Institutional and technical capacity, (4) Financial and economic capacity, (5) Innovation and Green Infrastructure, (6) Civic and Stakeholder Participation, and (7) Conflict Impact and Recovery. Each cluster reflects a key enabling condition aligned with the European Green Deal, the Horizon Europe Cities Mission and other relavant frameworks, offering a coherent structure for assessing readiness of municipal transition toward EU climate and reconstruction frameworks.

Applied across six Ukrainian cities — Ivano Frankivsk, Khmelnytskyi, Kyiv, Lviv, Vinnytsia, and Zhytomyr — URI generates readiness profiles that combine quantitative scoring with qualitative interpretation. The findings, to be presented through comparative spider graphs and cluster-level summaries, reveal how cities demonstrate varying strengths in governance, innovation, and engagement, while facing persistent challenges in financing and infrastructure.

By integrating structured assessment with participatory reflection, URI redefines readiness as a process of partnership-building between local governments and European institutions. The tool's dual function as a diagnostic mechanism for measuring municipal capacities and a policy-alignment framework for guiding EU integration, provides a replicable model for post-conflict, climate-compatible recovery. The results underscore the potential of co-produced assessment tools like URI to bridge local realities and European ambitions, advancing Ukraine's transition from periphery to partnership in a climate-resilient future.

SS28: Urban Experimentation

SS28: Urban Experimentation

Tue 30.6.16:00-17:30, Special Session H, U264 K-RYHMÄ | Session chair(s): Emilia Smeds, Dalia Mukhtar-Landgren, Kelsey Oldbury

2392 | Anna Aigner, Andreas Bernögger, Gunnar Grandel, Lena Hohenkamp

Vienna as a learning city. Comparison of four governance experiments and their contribution to collective learning processes

The scale and urgency of multiple crises that are particularly evident in urban areas, calls for a socio-ecological transformation. Consequently, urban development actors face complex processes characterised by high levels of uncertainty and involving numerous actors with conflicting interests and interdependencies across spatial and temporal scales (Brand et al. 2014). In response to growing criticism of conventional top-down policy implementation and linear planning processes, there has been a shift towards experimentation in the realm of urban governance (Bulkeley & Castán Broto 2013, Evans et al. 2018, Fuenfschilling et al. 2019). Experiments are frequently characterised by their innovative,

exploratory and collaborative nature, and seek to break up rigid administrative structures and initiate long-term changes towards adaptable, solution-oriented strategies. Learning is recognised as a key factor in ensuring that experimentation can lead to long-term change (Stam et al. 2023).

However, there is a significant research gap in understanding factors that shape learning within such experiments and how their design influences learning outcomes and institutional embedding.

This presentation addresses this research gap by providing a comparative analysis of four Viennese governance experiments: IBA_Vienna, Vienna Climate Team, Transformator:in and TIKTAK Galilei. In a qualitative approach we examine how experimental activities, participating actors and institutional embeddings foster learning processes and outcomes. We further identify how different roles and motivations of participating actors as well as process designs are linked to different types of learning outcomes. Finally, the presentation addresses potential governance changes that are supported by learning processes and outcomes. In conclusion, we provide insights into how the municipality of Vienna learns within the local urban governance system through experimental approaches and thus contribute to the understanding of the interplay between urban experimentation and urban governance.

1069 | Yun Sun, Annet Kempenaar, Terry van Dijk

Institutional Change through Design: Unpacking the Agency–Context Interplay in Urban Design Experiments

In recent years, research has increasingly highlighted how urban design initiatives – embodying a logic of urban experimentalism that values creativity, proactivity, and flexibility – have gradually influenced traditional planning paradigms grounded in predictability, legality, and long-term stability. Rather than merely shaping spatial form, many design-led experiments have demonstrated a strong capacity to reshape policy agendas, governance structures, and planning cultures, thereby contributing to broader institutional change.

These transformative design initiatives emerge in diverse forms. Some are informal, bottom-up practices initiated by pioneering designers or design collectives; others are semi-formal, taking shape through municipal tenders or co-creation project that, while framed by a broad political vision, draw their creative practices primarily from the design side; and some are more formal projects operating within established institutional structures with political mandates, yet still allowing designers to carve out spaces for innovation.

This research provides an overview of such transition-oriented urban design initiatives, examining how different forms of design experiments evolve through the dynamic interplay between agency and context (social, economic, and institutional). Drawing on Healey's structuration lens, the study traces how actors mobilize resources, discourses, networks, and rules across governance levels throughout the evolution of design initiatives. Multiple urban design experiments – with varying degrees of institutional embeddedness and socio-economic support at their inception – are selected to diversify the contextual starting points. Their evolution processes are mapped through a series of diagrams, highlighting the critical moments where the design agency interface with contextual structures and catalyzed institutional change.

The research aims to offer insights into the key factors that enable design initiatives to scale up their impact from experimental interventions to institutional change. The findings contribute to both theory and practice by helping design-related and governance actors better understand how to foster creatively driven yet institutionally effective pathways toward urban transition.

2909 | Christian Peer

The shape of knowledge redistribution within experimental planning cultures

This presentation deals with the relations between local planning cultures and instruments of the national and European research and innovation landscape. Based on the long tradition of social innovation in planning sciences, such as pragmatic approaches to social learning in the 1970s, through to more recent concepts of transformative sustainability research, the growing interest of innovation and research policy in supporting local transformative governance structures is critically contextualised by its contradictory and precarious conditions and the emerging question of resistence. Opportunities and challenges are analysed on the basis of empirical insights into the applied instrument of innovation laboratories and cooperative experimental urban research in Austria. The national funding instrument "Innovationslabor" is framed by the national Research, Technology and Innovation (RTI) guidelines for the funding of research and innovation projects, which in turn are shaped by European RTI policies, and its thematic inclination towards transformative research and sustainable development. The Innovationslabor is closely linked to the national climate neutral city mission and is designated to support innovation networks and projects for the sustainability transformation of cities by networking and co-design activities, consolidation of knowledge co-production etc. The presentation questions the planning culture’s opportunities and pitfalls of alignment with those research and innovation policies.

2472 | SaeBom Song

The Hybridity Lock-in of Smart Circular Visions Toward Sustainable Futures: Comparative Insights from Amsterdam and Busan

As cities face growing environmental challenges, the "smart circular city" vision has emerged as a prominent urban concept pursuing sustainability transitions. However, circular city initiatives are often criticized for their embeddedness in technology- and market-driven smart systems that reproduce elite-led, managerial governance. This study investigates whether smart circular city visions generate innovative governance and power mechanisms or merely reinforce existing ones with stronger legitimacy through hybrid narratives. Through comparative analysis of smart circular city visions in Amsterdam and Busan, we examine how these visions shape urban realities within distinct socio-technical-spatial contexts.

Applying vision assessment and discourse analysis, I reveal different trajectories of urban experimentation. Amsterdam's smart circular initiative began with citizen-driven experimental spirit through strategic living lab deployment. However, its participatory character eroded during scaling up, particularly when it became an EU-funded project leveraging supranational legitimacy. Busan demonstrates how living labs are envisioned as citizen-led planning instruments within state-led pilot

projects to uphold inclusive developmental logic, yet citizens function primarily as technology testers rather than genuine experimental participants, remaining tokenistically involved.

While Smart City and Circular City concepts followed divergent paths in both countries, shaped by unique socio-political contexts, national identities, and developmental priorities, their hybridity ultimately became complementary. Each city leverages combined narratives to reinforce developmental legitimacy, with smart city frameworks rebranded as "smart circular" while reproducing identical systemic problems and power mechanisms.

By exploring complex interrelations among technology, society, and planning in Smart Circular City formation, this study contributes to comparative research by revealing how institutional frameworks and planning cultures shape experimental governance modes across contexts. This work provides conceptual ground for questioning whether strategically dependent hybridity can foster genuine sustainability transitions, cultivating perspectives for alternative approaches to urban experimentation beyond dominant techno-managerial paradigms.

SS28: Urban Experimentation

Tue 30.6.17:45-19:15, Special Session H, U264 K-RYHMÄ | Session chair(s): Emilia Smeds, Dalia Mukhtar-Landgren, Kelsey Oldbury

1212 | Marta-Beatriz Fernández Núñez, Oriol Marquet, Margarita Triguero-Mas

Experimenting with School Streets for Mobility Justice

School Streets, temporary or permanent car-free zones around schools, have gained international prominence as experimental policies aimed at creating safer, healthier, and more equitable urban environments. By reconfiguring mobility around schools, these initiatives exemplify urban experimentation that links sustainability transitions with justice-oriented planning agendas.

This paper compares the School Street programs in Barcelona (“Protegim les Escoles”) and London, examining how principles of mobility justice are articulated across five dimensions: distributive, procedural, deliberative, restorative, and epistemic, and across multiple scales of governance. Mobility justice, grounded in the concept of kinopolitics, conceives movement as a political and ontological condition, revealing how power and inequality shape the governance and control of unequal mobilities and immobilities.

Drawing on semi-structured interviews with policymakers, and community actors, the study analyzes how each city embeds justice principles into the governance of School Streets. Preliminary findings indicate that both cities partially address distributive and procedural justice, focusing on reallocating street space and involving local communities in limited ways. However, deliberative, epistemic, and restorative dimensions remain largely unaddressed; particularly in London, where decentralized governance constrains program cohesion. Barcelona appears slightly more advanced in integrating justice concerns through its more participatory and child-centered framing, yet still faces significant gaps in the quality of deliberation and in long-term restorative processes.

The comparative insights contribute to debates on how urban experimentation can more effectively embed equity, recognition, and inclusivity within planning and mobility governance.

1688 | Katharina Dehler, Timo von Wirth, Dennis Knese

When Experiment Becomes Participation: Rethinking Urban Participation through Street Experiments

Street Experiments have become a key instrument to explore new street designs and mobility patterns under real-life conditions. Beyond their experimental character, they promise to pave the way for new forms of participation by allowing citizens to directly experience and negotiate urban change. While their spatial and design dimensions are well-documented, the actual participation potential and its complementary and frictions with conventional planning procedures require further critical analysis. This study develops a conceptual framework to better understand the social practices of participation that constitute and emerge through Street Experiments, using the cases of the "bicycle-friendly side-streets" initiative in Frankfurt, Germany, as pilot studies.

Building on practice theory (Reckwitz 2002) and Mezirows' theory of transformative learning (1991), the framework interprets Street Experiments as situated social practices, in which participation unfolds through interpretation and adaptation. Experimental interventions disrupt familiar modes of movement and perception of the environment, inviting users to negotiate, contest, and re-ascribe new meanings of urban space. Participation thus occurs not only through formal consultation, but also through informal, everyday engagement—by moving, observing, and engaging—turning the experience of local change itself into a participatory act.

The pilot study combines survey data, interviews, and spatial observations to test and refine this conceptual lens. By connecting practice theory, transformative learning, and participatory planning, the study proposes a new understanding of Street Experiments as arenas of social practice and everyday participation. Its insights inform the design of a forthcoming national large-scale comparative case study, which aims to examine how Street Experiments function as participatory methods in urban planning.

This framework advances both the theoretical and methodological discussion on how urban experimentation can foster democratic and reflexive modes of planning. Understanding this dual function (blurring the boundary between design and participation) helps cities integrate experimentation more strategically into participatory governance frameworks for sustainable mobility.

1713 | Kristen Zhao

Beyond temporary measures: How experiential learning in street experiments shapes urban mobility transitions

Tactical urbanism aims to rapidly transform urban environments through iterative experimentation. However, we know little about how learning shapes the long-term effectiveness and transformative potential of these interventions. This paper examines the role of local government implementers' learning in sustaining tactical urbanism practices, specifically through the lens of street experiments

implemented during the COVID-19 pandemic. Using experiential learning theory as a conceptual framework, we conducted and analysed interviews with 40 government representatives associated with 28 street experiments across 21 cities globally. Our analysis reveals three distinct learning processes among the implementers, arranged progressively: (1) implement and execute, (2) experiment and perpetuate, and (3) experiment and conceptualise. While implementers engaging primarily in the first two processes demonstrated responsiveness by leveraging tactical urbanism during systemic disruptions, they rarely generated transferable knowledge or sustained transformative impacts. By contrast, implementers who adopted the third approach – experiment and conceptualise – actively reflected on and generalised their experiences, leading to deeper learning and structural changes. These implementers effectively harnessed street experiments as catalysts for broader urban mobility transitions. By providing empirical evidence from diverse global contexts, this study advances our understanding of how learning processes influence the development of tactical urbanism projects. These insights could assist urban practitioners in seeking to embed meaningful, lasting change in urban mobility through iterative experimentation.

2459 | Astrid Krisch, Andrea Tönkő, Alexander Hamedinger

Who gets to experiment? Youth co-creation and the institutionalisation of Living Labs

While living-labs and social experiments are increasingly positioned as vital instruments for achieving climate goals beyond conventional planning and policy frameworks, they are often criticised for being temporary, socially selective and poorly linked to established and democratically legitimised governance structures. This raises questions about their capacity to deliver impact and structural change.

We argue that by engaging vulnerable and underrepresented groups, specifically young people, in the co-creation and delivery of living labs, we can counter these shortcomings and enhance the transformative potential of living labs. We contend that co-creation with young people reconfigures living labs from isolated, short-term interventions into sustained arenas of social learning and institutional innovation. By analysing the conditions under which design, facilitation, co-production and governance arrangements enable or constrain meaningful participation, the paper demonstrates how experiments with young people challenge prevailing critiques of living labs as transient or elite.

We exemplify this by drawing on the Horizon 2020 project “Shared Green Deal”, which implemented four Urban Mobility Labs across Braga, Panevėžys, Sofia, and Galway to co-create sustainable mobility experiments with young people in line with European Green Deal objectives. Through qualitative case studies on participation, activation, and co-creation processes, the study examines how intergenerational collaboration reshapes mobility practices and expands the governance reach of experimental interventions.

The findings show that co-creating living labs with young people not only strengthens inclusion and legitimacy of climate action but also institutionalises experimental learning across generations and scales. We argue that child-centred co-creation constitutes a powerful mechanism for embedding living labs within long-term sustainability governance. In doing so, the paper contributes to planning and governance debates by showing how urban living labs generate learning processes and policy insights that bridge education and transport planning.

SS29: Water Futures

SS29: Water Futures

Tue 30.6.16:00-17:30, Special Session J, M237 | Session chair(s): Patricia Abrantes, Elisabetta Vitale Brovarone, Lina Suleiman

1007 | Callym Dunleavy

Fractured Systems or Strategic Synergies? Comparing Planning and Water Policies in Australia

The spatial configuration of cities and the management of water resources have long been conceptualized and managed through parallel, and increasingly disconnected, policy domains. Future concerns regarding climate change, and the anticipated intensification of water-related risks such as flooding, drought, and water scarcity, underscore the necessity for proactive and integrated responses that transcend traditional sectoral and spatial boundaries. Despite their intrinsic interdependence, planning and water management systems continue to evolve within distinct institutional logics, enduring disciplinary traditions, and fragmented legislative architectures. This paper interrogates how policy structures enable or constrain the ambition for integrated, resilient, and water-sensitive outcomes. Employing a systematic comparative analysis of state, regional, and local planning instruments, against water policies across all Australian states, the study includes a qualitative content analysis and institutional mapping to expose the scalar, procedural, and normative interfaces existing between planning and water. The analysis interprets the ways in which jurisdictional hierarchies, statutory objectives, and policy implementation mechanisms contribute to persistent fragmentation, while simultaneously revealing emergent policy alignments that signal a gradual acknowledgement on the broad concepts of resilience, liveability, and sustainability. By conceptualising integration as both a policy ambition and an institutional practice, the paper advances a critical understanding of how governance architectures and water literacy can mediate the translation of water-sensitive principles into spatial planning. The findings identify systemic gaps, synergies, and leverage points within existing policy frameworks that can inform proactive future reform trajectories towards adaptive, integrated, and water-sensitive planning systems. Looking ahead, the paper considers how these emerging frameworks may inform the evolution of future planning that see's water not as a reactive consideration, but as a core element. In doing so, the paper contributes to broader debates on environmental policy, and the evolution of spatial planning as a mediating and necessary arena for advancing complex socio-ecological transitions.

1028 | Silvia Sivo, Costanza Franceschini

Infrastructuring Transition: Water Governance, Policy Discourses and Planning Strategies in the Port-City Territories of Taranto (Italy) and Accra (Ghana)

Port-city territories represent crucial frontiers in ecological transition processes. In global discourses and policy recommendations, these contexts are often identified as strategic sites for the development of green infrastructures and the integration of alternative energy sources. Yet, such processes, which involve

multi-level coordination between public authorities and private companies, are frequently characterized by complex negotiations, conflicting interests, and socio-environmental challenges. Moreover, ports are embedded in broader water management systems, making them critical nodes for the governance of resources. Drawing on long-term ethnographic fieldwork in Ghana (Franceschini) and Italy (Sivo) with local communities, government authorities, and civil society organizations, this study employs a cross-case analysis of the development of water infrastructures in Accra, Ghana's capital and largest port city, and Taranto, a port city within a metropolitan area undergoing transition in Italy. In these areas, in the face of - respectively - water pollution and water scarcity, local water authorities are developing strategies aimed at providing freshwater supply by focusing on the realisation of desalination plants. The comparative perspective between a Global South and a Global North context allows us to disentangle these dynamics within specific local contexts and across different regions. We employ the concept of "zone of sacrifice" to illuminate the socio-technical and political dynamics that underpin discourses and practices of water governance in these territories. Through a transdisciplinary approach combining anthropology and planning, the study adopts infrastructure as an analytical lens and water as a connector that transcends spatial and sectoral boundaries. We illustrate how, within institutional decision-making processes, the infrastructure itself becomes the critical solution for a more comprehensive water management. We argue for a shift in the approach by analysing the role of infrastructure embedded within wider socio-spatial relations and shaped by multiple assemblages of (human and non-human) actors, interests, and geographies of power.

2017 | Tymon Wolender, Loris Servillo

River Sensitive City – strategic transformation of Turin riverscape towards a resilient urban water future

The Water Sensitive City distinguishes itself from other urban water management models due to its socio-technical, visionary, and integrative features, as well as its strong engagement with spatial planning, however, it continues to struggle with widespread institutionalization and upscaling (Wong et al., 2020). Cities that have become at the forefront of global challenges, including those related to water, require more imaginative and visionary planning tools to challenge the prevailing socio-spatial order, particularly in hydrological governance. If the Water Sensitive City is ever to be realized, more radical and strategic planning instruments are needed.

Drawing on the research project Turin and its Rivers (FULL, 2023), this paper examines how strategic spatial planning tools can facilitate the envisioning, operationalization, and governance of transformations toward more resilient urban water realms. The study hypothesizes the application of the Water Sensitive City model at the pioneering city-scale of the Turin riverscape, drawing on three categories revealed on the hybridization of the urban water management and strategic spatial planning: modern infrastructural legacy, the nature-city nexus, and the collective imaginary. These strategic categories are populated with water-sensitive practices, confronting them with the social and technical characteristics of the specified territory. The study not only discusses the more resilient riverscape in Turin but also aims to advance the operational capacity of the WSC model, beyond isolated interventions toward a strategic framework.

References:

Future Urban Legacy Lab (2023) Torino e i suoi fiumi, Politecnico di Torino: L. Servillo, E. Vigliocco, A. Voghera, M. Ronci, R. Ronzani, I. Ardito, G. Grasso, J. A. Tabak, T. Wolender, available at: https://full.polito.it/research/torino-e-i-suoi-fiumi/ (accessed 10 September 2025).

Wong, T. H. F., Rogers, B. C., & Brown, R. R. (2020) Transforming Cities through Water-Sensitive Principles and Practices, One Earth, 3(4), pp. 436–447.

2171 | Sofia Morgado

Water-designed territory

This study examines the crucial role of water in metropolitan areas, focusing on its function as a fundamental opportunity at the 'interface' between land and river-maritime territories. The research employs materials and methods, including literature review and spatial analysis, drawing upon documentation such as urban planning, legislation, statistics, cartography, and iconography.

The methodology applies a historical periodisation based on industrial cycles, which are highly relevant to contemporary metropolitan areas. The study focuses on Lisbon, a port city of global historical significance. Specifically, the municipality of Oeiras was selected for its strategic location at the mouth of the Tagus estuary and for its unique retention of the largest number of significant heritage-listed fortifications from the Modern Age.

The research investigates how innovations in urban planning, especially in threshold areas, are marked by transitions in industrial cycles driven by technological innovation and new energy sources, including mechanical waterpower, fossil fuels, and modern photovoltaic and wind power. The Port of Lisbon's territory expanded through artificial reclamation during the first half of the 20th century. A key shift in the 21st century is the progressive handover of areas abandoned following the oil crisis to municipalities for integrated urban rehabilitation.

The study focuses on the green-blue axis (EVA) and the rehabilitation of the Pedrouços dock, highlighting their exceptional inter-municipal dimensions in planning and design. Ecological and environmental concerns, particularly related to climate change, are evident in architectural and urban design approaches, leading to the creation of emergency routes in the event of a tsunami and necessary ground shaping. Furthermore, the contemporary industrial revolution, characterised by generalised digitisation and AI use, raises new doubts. At the same time, constraints on landscape values arise from the spread of cleaner energy sources, such as photovoltaic plants, across water bodies.

2587 | Barbara Dal Bo Zanon

Water as Urban Medium: Integrating Floating Development into Dutch Socio-Spatial Systems

One in ten people worldwide live in low-lying coastal and delta regions increasingly exposed to sea-level rise, storm surges, flooding and subsidence. The Netherlands typifies these challenges: a quarter of the country lies below sea level, large peat areas are subsiding, and national policy aims to deliver approximately one million new homes by 2030, with many potential sites situated in vulnerable regions.

Traditional responses based on land reclamation and hard flood defenses are under pressure due to ecological impacts, shortening lifetimes of infrastructure and deep uncertainty about future water levels. This situation urges a shift towards spatial strategies that can accommodate water rather than exclude it.

This PhD research investigates how water surfaces can become a legitimate and structurally embedded medium for urban development through floating occupation. The central question is how the transformation to more water surface in the city and the integration of floating development can become mainstream practice within Dutch socio-spatial systems responding to climate pressures. The research is organized in four parts: (A) characterizing floating development as an emerging spatial strategy in response to climate and subsidence pressures; (B) situating it within historical and contemporary Dutch adaptations, including the shift from “fighting water” to “living with water”; (C) using Research by Design in two Dutch case studies to explore spatial, infrastructural and programmatic integration and derive design principles; and (D) synthesizing insights into recommendations for planning and design.

By combining historical-cultural analysis, spatial-theoretical lenses and design-driven exploration, the research investigates floating development not only as a technical solution, but as a potential evolution in how water is conceptualized and inhabited as urban medium.

SS29: Water Futures

Tue 30.6.17:45-19:15, Special Session J, M237 | Session chair(s): Patricia Abrantes, Elisabetta Vitale Brovarone, Lina Suleiman

1254 | Donato Casavola, Giancarlo Cotella, Elisabetta Vitale Brovarone

Governing water futures in European metropolitan regions: A comparative account

European metropolitan regions face mounting water-related challenges arising from climate change, urban growth, and infrastructural strain. Droughts, floods, and pollution increasingly transcend administrative and sectoral boundaries, revealing the limitations of conventional water management models and urging the need for integrated, adaptive, and multilevel governance frameworks (Schröder, 2018). Building on insights from the ESPON NoStaGeo project (ESPON, 2025), this contribution examines how metropolitan regions across Europe are reconfiguring their institutional and policy systems to ensure resilient and sustainable water futures. It first proposes a preliminary classification of water governance models existing in Europe. Then through a comparative analysis of selected cases (i.e. the Dutch Delta Programme, the French SDAGE/SAGE river basin plans, the Viennese and Munich source-protection models, and Nordic approaches to digital water management), it discusses in more detail the potential links and synergies occurring between spatial planning, environmental policy, and water governance. These cases reveal how governance architectures – centralized, decentralized or hybrid – affect the ability to integrate water management with land use, climate adaptation, and circular resource systems. They also show how intermunicipal cooperation and participatory planning can bridge sectoral silos and enhance collective capacity to manage water as a shared resource. Overall, the contribution positions metropolitan regions as key arenas for rethinking water governance, demonstrating how integrated and flexible planning can contribute to more resilient, inclusive, and future-oriented city-regions. At the same time, it suggests that fostering water resilience in metropolitan contexts requires a shift from technocratic

and sectoral approaches toward collaborative frameworks that promote innovation, inclusivity, and adaptive policy learning.

ESPON (2025). NOSTAGEO - Territorial governance of non-standard geographies. Final Report, ESPON EGTC, Luxembourg.

Schröder, N. J. S. (2018). The lens of polycentricity: Identifying polycentric governance systems illustrated through examples from the field of water governance. Environmental Policy and Governance, 28(4), 236-251.

1237 | Mengyuan Jia, Haoran Zhang

River Basin Management and Urban Development: The Challenges and Coordinated Planning Policies within the Planning System of China

The mismatches between river basin and administrative boundaries have caused many complex governance challenges in China, including institutional interest conflicts among multi-sectoral authorities, a complicated planning framework for river basin management, and data inconsistencies. To address these barriers, the transforming spatial planning system in China has focused on coordinating the relationships between river basin management and urban development, and the boundaries between river basins and administrative regions. This study presents the series of coordinated planning policies launched in China, including integrating river basin management into the Territorial Spatial Planning (TSP) system across national, provincial, and urban-rural scales; establishing a unified "one map" system and standardized technical criteria to facilitate data sharing; constructing an integrated planning framework featuring specialized river basin TSPs (e.g., for the Yellow and Yangtze Rivers); and enacting basin-specific legislation. Drawing comparisons with practices in the United States, the Netherlands, Australia, and other nations, this study explores collaborative strategies for integrating river basin management within the Chinese planning system. The discussion encompasses plan-making technical methods, planning contents, and planning management approaches, providing insights into optimizing the spatial planning system for sustainable urban development.

948 | Carlos David Rivera-Choscó, Beau Warbroek, Leentje Volker, Joanne Vinke-de Kruijf

Swimming upstream”: Institutional factors and strategies to adopt innovative Cross-Sectoral Integrative Approaches in Dutch Flood Protection projects.

As a densely populated delta, The Netherlands has a long tradition in integrating different spatial functions with flood protection infrastructure (e.g. nature conservation). However, due to climate change and other challenges like rapid urbanization, the need to integrate multiple spatial functions now outpaces traditional approaches (Vinke-de Kruijf et al., 2024). Therefore, the need for innovative approaches to cross-sectoral integration is growing.

Despite this, facilitating innovative cross-sectoral approaches remains a challenge due to institutional factors like the accumulation of siloed policies with divergent timings, financing and goals. Though research has identified multiple barriers and strategies, knowledge is still fragmented and mainly focused

at strategic and management levels. Consequently, the adoption of integrative planning practices at the project level remains limited (Bakhanova et al., 2025; Warbroek et al., 2023). This results in an "integrative silo paradox", where cross-sectoral integration is approached through sectoral planning practices. Hence, this work in progress addresses this question: What institutional factors influence the adoption of planning practices that facilitate cross-sectoral integrative approaches in flood protection infrastructure projects?

Based on the Institutional Analysis and Development Framework (Ostrom, 2011), the rules of action situations are used to identify the aforementioned factors. To do so, reversed brainstorming is conducted with practitioners from different sectors involved in flood protection projects (e.g. water, nature conservation, spatial planning, heritage). They are asked to come up with barriers to hinder the adoption of integrative planning in an action situation involving a multi-functional flood protection project. Then these are "reversed" to develop strategies that address these barriers. Follow-up interviews are conducted to understand how participants cope with these barriers. Results aim to deliver a theoretically and empirically grounded framework of factors and strategies for adopting integrative planning in infrastructure projects, advancing systematization for future replication. They also bridge the gap between strategic and project levels.

2615 | Patricia Abrantes, Elisabetta Vitale Brovarone, Lina Suleiman, Cláudia Viana

Governance dimension of water security in Metropolitan Regions: An Exploratory Comparison of Lisbon, Turin and Stockholm

In the context of accelerating climate change, demographic pressures, and geopolitical instability, and positioned within the UNITE project's SWARM: Securing Water for Resilient Metropolitan Regions, which frames water as a structuring element of metropolitan development rather than a siloed sectoral concern, this exploratory study examines governance as a central dimension of water security in the metropolitan regions of Lisbon, Turin, and Stockholm. While water security encompasses concerns related to flow, quantity, and quality, this study highlights institutional, regulatory, and coordination capacities on water-related policies and metropolitan responses to intensifying urban water demand, expanding service systems, and increasing exposure to extreme events.

The research is anchored in the broader EU policy landscape, including the Water Framework Directive, the EU Climate Adaptation Strategy, the Circular Economy Action Plans, and the emerging EU Water Resilience Strategy, all of which emphasize the need for integrated, cross-sectoral, and adaptive governance. Using the OECD Principles on Water Governance as an analytical framework, the study investigates the factors that enable or constrain governance effectiveness, efficiency, and stakeholder trust across differing metropolitan contexts.

Preliminary findings highlight diverse governance trajectories, as well as distinct enablers and barriers to water governance. Lisbon is improving efficiency measures and reuse strategies to cope with extreme events, although inter-sectoral and territorial articulation remains limited. Turin advances basin-level governance to manage agricultural and industrial pressures under growing hydrological variability. Stockholm consolidates transparent, technologically supported, and participatory governance to safeguard water quality while preparing for climate-related risks.

These insights contribute to understanding how metropolitan regions with different contexts and institutional configurations can operationalize EU ambitions for sustainable and resilient water futures.

Keywords: water governance, metropolitan region, policy integration, OECD framework, EU Water Resilience Strategy, SWARM.

SS29: Water Futures

Thu 2.7.11:00-12:30, Special Session J, M237 | Session chair(s): Patricia Abrantes, Elisabetta Vitale Brovarone, Lina Suleiman

1241 | Shefali Nayak, Shrimoyee Bhattacharya, Rana Ekmekcioglu, Martin Doering

Climate Adaptive Urban Water Governance in Bengaluru City: A Case Study Analysis

Cities are intertwined with global challenges, such as climate change. Water stress is projected to increase due to climate change. Urban areas must adapt to resource depletion by becoming circular cities. This study presents insights from a case study analysis of Bengaluru and its potential for future urban transition to a circular city. This study investigates the disconnect between scientific knowledge and challenges of data integration in urban planning governance and practice through semi-structured interviews with professionals and government agencies working in the urban water sector. First, it offers a theoretical framework for connecting climate change adaptation and circular urban water systems. Second, it compares these insights with practical perspectives gained from interviews with professionals in urban ecological and water systems. Finally, an analysis was conducted using the PESTEL* method to extrapolate the drivers and barriers of water reuse governance and water-focused urban planning. In doing so, our research offers a reflection on the relevance of scientific knowledge for developing economic, legal, and governance instruments to assist in the shift to water-sensitive circular cities in urban planning in the future.

*PESTEL analysis is a framework to analyze the macro-environmental factors that have an impact an organization: Political, Economic, Social, Technological, Environmental, and Legal factors in the external environment

1948 | Jesugbemi Olaoye AJIBOYE, Success SHAIBU

Water Futures: Integrating remote sensing and spatial planning for regional climate adaptation planning

Anthropogenic agents in the form of land use change, increasing population growth, urban expansion, and escalating climatic pressure are continuously intensifying water insecurity across the world, and the lake region of Turkey is not exempt from this challenge. Egirdir Lake is Turkey's second-largest freshwater body and has been experiencing shrinkage, desiccation, and recently fragmentation, all of which have resulted in heightened threats to the regional water supply, ecosystem, and livelihood of the locals. This study employs a remote sensing and spatial planning/governance approach to evaluate long-term hydrological changes. This is done using spatio-temporal Landsat imagery from 1990 to 2025. Using the land use imagery, the lake surface dynamics were mapped and the lake area extracted through the Modified Normalized Differential Water Index (MNDWI), and the Otsu thresholding technique in the

Google Earth Engine. Annual dry season composites reveal desiccation and a continuous decline in surface area, accompanied by recent fragmentation in the lake. These spatial findings are overlaid with land-use, municipal, catchment and hydrological datasets to identify misalignments between administrative units and ecological boundaries. The results reveal an increasing climatic influence contributing to the desiccation of the lake and highlight how water governance remains compartmentalized, with limited coordination between municipalities, ministries (agriculture, environmental, urbanization and climate change, and tourism), as anthropogenic influences. The paper proposes a spatially integrated governance model linking remote sensing monitoring, nature-based solutions (recharge zone, wetland buffers), and circular water systems within local planning frameworks. By framing satellite-derived hydrological evidence within urban planning and policy context, this study helps guide smart decisions in spatial planning and demonstrates how geospatial intelligence can strengthen adaptive and inclusive water governance in peri-urban and regional contexts. The findings contribute to the broader discourse on securing resilient and equitable water futures through cross-sectoral cooperation, spatial integration, and evidence-based planning.

2544 | Meng Meng, Xiaolin Qin, Haiyan Long, Linzhen Yang

Beyond Engineering: Integrating Evacuation Planning and Spatial Policy for Resilient Flood Governance in Shenzhen

Global climate change is accelerating the frequency and intensity of extreme hydrological events, with flood disasters emerging as a core risk threatening sustainable development. According to the United Nations Office for Disaster Risk Reduction's 2020 report Human Cost of Disasters, the past two decades have seen a rise in climate-related disasters, with floods constituting the highest proportion of events globally. Asia was the most severely affected region, with China recording the highest number of disaster occurrences.

Facing the dual challenges of intensifying global climate change and high-density urbanization in coastal areas, storm surge disasters in megacities are exhibiting compound, cascading, and systemic characteristics, posing severe threats to national public safety and sustainable development. This study selects Shenzhen as a case study, focusing on storm surges as a typical extreme disaster to investigate emergency response and spatial resilience governance for sudden flood disasters in coastal megacities.

The research focuses on three key aspects: 1) the refined simulation of extreme disaster scenarios; 2) the optimization of multi-objective evacuation mode decisions; and 3) the translation of findings into governance model. It proposes an "emergency response-spatial governance" analysis-action framework to evaluate disaster reduction effectiveness under three distinct governance models: socio-spontaneous self-organized evacuation, government-led weak-intervention evacuation, and government-led strong-intervention evacuation.

2673 | Yasmin Marcos

Hydrological-hydrodynamic modeling and environmental valuation in Permanent Preservation Areas (PPAs) in the Municipality of São Paulo – Brazil.

In the scenario of socio-environmental concerns, climate change can affect the precipitation patterns and lead to more severe and frequent flooding events. The Permanent Preservation Areas (PPAs) are, in theory, legally protected areas in Brazil, such as the riparian zones of any natural watercourse, and its degradation exacerbate this situation, increasing flood and geotechnical risk and intensify socioeconomic and environmental inequalities. Given this context, the project entitled "Territórios da Água" (Water Territories, in free translation) was inspired by the necessity of a different approach in the treatment of PPAs. The project main goal is to elaborate the "Program for the Conservation and Recovery of Permanent Preservation Areas in the Municipality of São Paulo", through a partnership between the academy, "Universidade Federal do ABC" (UFABC), a public entity, "Secretaria do Verde e Meio Ambiente" (SVMA), and a non-profit organization, Observatório Nacional de Direito à Água e Saneamento (ONDAS), financed by "Fundação de Amparo à Pesquisa do Estado de São Paulo" (FAPESP). Thus, the main objective of this particular research is to support the diagnosis and prognosis, as well as the study of intervention alternatives and prioritization parameters, through hydrological-hydrodynamic modeling of floodplains and PPAs for the municipality of São Paulo. The modeling will be used to serve many purposes, such as inundation mapping, scenarios analysis, estimation of the quantitative benefits of implementing floodplain protection and preservation and corrective measures based on green-blue infrastructure associated with linear parks. Furthermore, this study will also support the definition of intervention strategies in PPAs and the prioritization of actions.

2308 | Benedetta Giudice, Angioletta Voghera

Integrating Water, Knowledge, and Governance: River Contracts as Infrastructures for Resilient City-Regions

The ecological transition requires a profound cultural and institutional shift in how territories are governed and regenerated. Water, as a structuring element of landscapes and communities, becomes the lens through which to reinterpret spatial planning and public policy. Beyond its physical and ecological dimensions, water is also a social and cultural interface, shaping the ways communities understand and manage their environments.

In this perspective, the Italian River Contracts represent an innovative governance tool for the integrated and participatory management of water systems, capable of linking environmental, social, and economic dimensions within a coherent territorial vision. By connecting hydraulic, ecological, and urban planning within participatory processes, River Contracts embody a model of polycentric and adaptive governance that addresses fragmentation, fosters cooperation among institutions and local communities, and transforms ecological vulnerability into an opportunity for territorial innovation. They serve as laboratories for experimenting with nature-based and place-based solutions, integrating green and blue infrastructure and ecosystem services into urban and regional planning for climate adaptation and mitigation.

Education and capacity building emerge as the cognitive infrastructure of this transition. The forthcoming specialising master's program in "Manager della Transizione Ecologica e dei Contratti di Fiume" (Manager of Ecological Transition and River Contracts), coordinated by the Politecnico di Torino, aims to train professionals capable of mediating between science and policy, facilitating participatory processes, and operationalising the principles of resilience, inclusiveness, and sustainability in real territorial contexts.

This paper reflects on the role of River Contracts as catalysts for integrated planning and learning-based governance for resilient city-regions. It argues that securing water futures requires not only innovative technical tools but also shared knowledge, coordinated institutional action, and active civic engagement, thus enabling the creation of adaptive territories where environmental regeneration and social inclusion advance together.

SS29: Water Futures

Thu 2.7.17:45-19:15, Special Session J, M237 | Session chair(s): Patricia Abrantes, Elisabetta Vitale Brovarone, Lina Suleiman

2596 | Romina D'Ascanio, Elisa Avellini, Anna Laura Palazzo

Strengthening wetland governance in the Mediterranean through Wetland Contracts

Wetlands are vital ecosystems that support nearly 40% of global biodiversity and provide essential services such as flood regulation, carbon sequestration, and water purification. Yet in Europe almost half of all wetlands have disappeared since the early 20th century. The Mediterranean region is especially affected, as urban expansion, agricultural intensification, and pollution increase pressures on already fragile ecosystems. These dynamics are compounded by fragmented governance and inadequate water management, highlighting the need for innovative, integrated, and participatory governance approaches.

This contribution presents the results of the Interreg Euro-MED WE GO COOP project, which tackles these challenges by promoting multi-level and cross-sectoral governance frameworks centred on the Wetland Contract. This collaborative tool engages public authorities, private actors, NGOs and civil society in defining shared objectives and strategies for sustainable wetland and water management.

The project adopts a dual strategy. At the Mediterranean level, it upscales Wetland Contract through a Community of Practice that fosters knowledge exchange and collaborative learning across regions. At the local level, it adapts this tool in pilots in Croatia, Portugal, Albania, and the MENA region, while strengthening ongoing experiences in Italy, Greece, and Spain.

To support these processes, the project has created a Virtual Collaborative Platform, a dynamic database of Mediterranean Wetland Contracts containing geolocalized data, legal references, case studies, and key documents. The platform also provides guidelines and best practices that enhance informed decision-making, coordinated planning, and stronger territorial cooperation.

A further step in consolidating and expanding the use of Wetland Contracts as soft-law instruments is their alignment with the Nature Restoration Law, which requires EU Member States to adopt National Restoration Plans by 2026. This alignment represents a strategic opportunity, particularly in urban and peri-urban areas prioritized for intervention, where restoration actions can deliver benefits for local communities and ecosystems threatened by ongoing urbanization.

2689 | Anna Wilk-Pham, Bakti Setiawan, Lukas Pappert, Anke Hagemann

Governing Urban Waters: Implementing Water-Sensitive Urban Planning within Decentralized and Fragmented Urban Governance

Rapid urbanization, land-use change, and intensifying climate-related water risks are placing significant pressure on Indonesia's peri-urban regions. Sleman Regency, located within the Yogyakarta metropolitan area, illustrates how water challenges intersect with housing growth, infrastructure deficits, and environmental degradation, yet continue to be managed through fragmented institutional mandates and sectoral silos. These governance dynamics limit the region's ability to address water pollution, groundwater decline, and ecosystem loss in a coherent and future-oriented way.

This paper explores how polycentric and water-sensitive planning approaches can contribute to more integrated and adaptive water governance in Sleman, with a focus on the rapidly transforming village of Sariharjo. Drawing on the PolyUrbanWaters research project (2019-2027, BMFTR), the study examines how collaborative visioning and cross-sectoral engagement can support local governments in strengthening their planning capacities and integrating water considerations into spatial development processes.

A set of participatory tools - including mapping, scenario discussions, ecosystem services assessments, and multi-stakeholder workshops - was applied to bring together citizens, academics, government institutions, and practitioners. These tools created shared understandings of water challenges, highlighted the spatial implications of ongoing urbanization, and supported the identification of priority areas for infiltration, blue-green infrastructure, and water security. The process also revealed opportunities for nature-based solutions that respond to local socio-ecological conditions and governance realities.

The findings demonstrate that while institutional fragmentation remains a major barrier, structured participatory processes can enhance dialogue across administrative levels, strengthen local ownership of planning outcomes, and introduce more integrated approaches into existing planning frameworks. Sleman's experience provides insights for other rapidly urbanizing regions in the Global South, showing how polycentric water governance and water-sensitive planning can be embedded within decentralized systems to build more inclusive, resilient, and adaptive water futures.

2854 | Yasmin Anefalos de Oliveira, Euler Sandeville Junior

Brownfield reclamation potential from an integrated planning perspective

Brownfields offer a strategic opportunity for ecological connectivity. When integrated with green and blue infrastructures, those derelict urban land can play an important role as stepping stones, connecting fragmented habitats, promoting urban greening, and preserving native vegetation. Given the necessary measures to mitigate soil, surface, and groundwater contamination and avoid risks to human health and ecosystem maintenance, brownfields require innovative and integrated planning instruments to promote redevelopment.

Bridging concepts from landscape ecology and spatial planning, we investigate how brownfields can integrate ecological networks from a regional planning perspective. Based on a multi-scale analysis, this

research explores the ecological connectivity potential of brownfields in the São Paulo Metropolitan Region (Brazil), considering their urban context in relation to vegetation fragments and water systems, and confronts it with existing planning instruments and environmental policies.

Results point to areas for prioritizing reclamation actions and potential configuration of greenways as part of a multifunctional green infrastructure, highlighting socio-environmental benefits for the metropolitan region such as reducing vegetation fragmentation, protecting water systems, and improving quality of urban life. Aligned with these findings, regional planning initiatives are identified, from actions of the watershed committee and intermunicipal consortia, underlining innovative instruments that can boost implementation strategies for brownfield reclamation. These outcomes argue for the integration of brownfield reclamation strategies into planning agendas, positioning them as leverage points to overcome socio-environmental vulnerabilities and develop resilient metropolitan regions.

1828 | Davide Longato

Policy instruments to leverage nature-based approaches for flood risk management in spatial planning and governance frameworks

Nature-based Solutions are increasingly considered a promising option to counteract the effects of climate change and extreme weather events, including flooding. In particular, urban drainage flood risks can be alleviated by implementing diffuse solutions within the city to better manage stormwater locally and reduce the amount of surface runoff that enters the sewage system, possibly overburdening it during intense rainfalls. River flood risk instead needs to be addressed through solutions that mainly operate at the basin scale, with special attention to those that enable excess flood waters to expand during critical periods, reducing flood risks and impacts in downstream areas.

However, such solutions often require more space than traditional solutions. This could contrast with the high land use competition and private ownership that characterize many land areas. For this reason, the adoption of specific policy instruments that promote the implementation of these solutions in both public and privately owned land is of paramount importance.

This work aims to provide an overview of the different policy instruments that can be used to promote and leverage, either through regulations, incentives, or rights-based instruments, the implementation of Nature-based Solutions in spatial planning and governance frameworks with the aim of mitigating flood risks in diverse land areas. Starting from a review of real-world cases, the presentation will provide practical examples of the application of different policy instruments in different planning and governance contexts, as well as reveal the suitability of different types of instruments to promote Nature-based Solutions for flood risk management and/or to mobilize land for their implementation, capturing the instruments' potential to be applied in the context of urban drainage, river flood, or both risks.

2319 | Silvia Sangriso, Valeria Lingua

Rethinking Urban Water Management through NBS: Governance Models and Financing Tools

Contemporary cities are facing increasing pressures related to the rise in urban flooding events, water scarcity and hydrological disturbances induced by climate change. These challenges highlight the urgency of adopting more adaptive and resilient approaches to water resource management. In this scenario, nature-based solutions (NBS) are taking on a central role as multifunctional interventions capable of integrating ecological restoration, infrastructural adaptation and community participation. Unlike traditional grey infrastructure, NBS offer a wide range of environmental, social and economic co-benefits, contributing to the improvement of biodiversity, public health and urban regeneration. Despite their conceptual maturity and growing international attention, the implementation of NBS still faces significant obstacles, particularly in terms of governance and financing. Institutional fragmentation, limited interdepartmental cooperation and dependence on short-term project funding are significant barriers to the scalability and structural integration of NBS into urban planning frameworks. For this reason, governance and financing are the two fundamental pillars on which the transformative potential of nature-based solutions rests. The NATURGO project, to which our research group contributes, addresses these challenges by analysing real case studies in partner cities and international contexts. By linking empirical observations to governance and financing models, the project aims to identify institutional mechanisms and financial innovations that can promote more effective integration of NBS into urban strategies. Two research questions guide the investigation: how do governance models influence the design and sustainability of NBS financing mechanisms? And, in parallel, what institutional and financial innovations emerge from the comparative analysis conducted by NATURGO and the international cases examined? Answering these questions is essential to understanding how NBS can become structural and lasting tools for the ecological transition of cities.

SS30: Waterfronts

SS30: Waterfronts

Fri 3.7.11:00-12:30, Special Session C, M232 M1 | Session chair(s): Johanna Lilius, Salla Jokela, Sampo Ruoppila

1789 | Aurora Luukkanen

Life on the Urban Waterfront: the lived realities of affordable housing in Kalasatama

Globally, waterfronts have seen a lot of high-end luxury housing development, making them very exclusive places to live (Avni & Teschner, 2019; Bjerkeset & Aspen, 2017; Boland et al., 2017; Madden, 2014; Moore-Cherry, 2020; Smith & Garcia Ferrari, 2012; Turk, 2021). Helsinki has also been developing its waterfronts into new urban neighborhoods. Kalasatama is one of these new areas, where development began in the 2000s and will still go on until late 2030s.

Land values in Kalasatama are high, similar to many of the global cases, and housing is very expensive in the area. However, Helsinki has long followed a policy of mixing tenures, and the same tradition has also been applied to Kalasatama. As a result, roughly 28 percent (Tilastokeskus, 2024 & 2025) of the area's housing stock is some form of state subsidized housing and not-for-profit housing. But even these social housing options have been criticised as being too expensive for the middle and lower income groups they target.

My research sets out to explore what are the lived realities of affordable housing in Kalasatama. I am conducting semi-structured interviews with residents living at two different not-for-profit housing providers in Kalasatama as well as with key figures working for the housing providers. My main research questions are: do these residents consider their housing situations and options as affordable, and for whom are the homes on the waterfront affordable?

As secondary data I analyse policy documents and statistics to paint a picture of the wider structures that my participants' experiences are embedded in. On the national level, the housing policy landscape in Finland is in the throes of big recent changes, and the future of affordable housing provision is blurry. By studying the situation today, I hope to shed some light on what the ways forward might look like.

1107 | Verena Gerwinat

Heading for new shores: The evolution of urban waterfront regeneration in Dortmund, Germany

The old industrial city of Dortmund has been undergoing transformation since the decline of heavy industry in the second half of the 20th century. Even though many issues remain, Dortmund's transformation has been the most successful in the Ruhr region. An integral element of the city's revitalization has been waterfront regeneration.

Based on a qualitative case study, this paper examines two waterfront redevelopments in the city of Dortmund. First, Lake Phoenix, a mixed-use, upscale neighborhood around an artificial lake on a former steelworks site and the flagship project of the radical vision of a "New Dortmund". Since the approval of the master plan in 2000, over 2,000 new housing units have been built and 200 companies have settled around the lake. Although the project can certainly be criticized for prioritizing the needs of upper-middle-class households over the local working-class population, the lake has still become a popular destination for all kinds of people from Dortmund and beyond. Second, the Hafenquartier Speicherstraße, a recent redevelopment of a deindustrialized part of the inner harbor into an "urban start-up and knowledge district". Activists, locals and even the city's planners say they do not want the Speicherstraße to "become the next Lake Phoenix". Instead, it shall become a "neighborhood for all". This new generation of waterfront redevelopments appears to be characterized by more inclusive and endogenous planning objectives and a more transparent and participatory process.

While both projects were initiated and are still led by the municipality, the approach to balancing economic and social benefits and the understanding of public interest in both projects have changed. The reasons are obviously diverse but include shifts in global and local challenges and discourses, the

generational change in administration and politics as well as increasing critical awareness of gentrification in old industrial cities.

2517 | Ngoc Thao Linh Dang, Carl Grodach, Suzanne Barker

Shifting norms, changing practices: how planning cultures influence community engagement in Danang's waterfront redevelopment

Several studies have underscored the importance of community engagement as a critical element in achieving social inclusion goals in urban regeneration. A lesser-examined facet of this topic is how local or national planning cultures—the standards, beliefs, and institutional histories that shape planners' actions—interact with globalised policy transfer, neoliberal governance, and market-driven development models, and in turn shape planning practices. This paper addresses this gap in the literature through two case studies of waterfront regeneration in Danang, Vietnam. The research combines semi-structured interviews with planners, local authorities, and residents with analysis of national planning policies, local master plans, and project documents.

The findings indicate that Vietnamese planning cultures, shaped by postcolonial and socialist governance traditions, underpin growth coalitions in which municipal authorities and planners prioritise visual aesthetics, tourism appeal, and investment attraction over inclusivity and participation. While social inclusion goals appear in policy discourse, they are often diluted or reinterpreted in negotiations between public actors and private investors, where land value, visibility, and iconic image-making predominate. Waterfront public spaces are thus crafted as symbolic landscapes rather than everyday, socially embedded environments, resulting in fragile or exclusionary outcomes for local communities.

By situating Danang's waterfront regeneration within broader debates on the financialisation of urban development and waterfront landscapes, the paper argues that planning cultures are a crucial yet underexplored mediator in the negotiation and modification of social inclusion objectives in public space among stakeholders. It emphasises the importance of understanding how planners make decisions and how communities respond in specific planning contexts. In doing so, the paper contributes to debates on whether, and under what conditions, a new equilibrium between global economic imperatives and social inclusion goals can emerge in waterfront regeneration in Vietnam and in other comparable Global South postcolonial contexts.

2212 | Necdet Ayik, Zachary Mark Jones

Waterfront Redevelopment in Transition: A Shifting Global Paradigm

Waterfront redevelopment has been introduced and celebrated as an opportunity to re-integrate urban frontiers with everyday life. Starting from the earliest implementations since the 1960s in North America, the main idea has been centered around the notions of urban regeneration, civic engagement and public use by reclaiming post-industrial port areas and reinserting them into the urban fabric. However, more recently the concept has evolved in the opposite direction. This can be observed in recent initiatives in cities such as Genoa, Liverpool and Istanbul where there has been a marked increased involvement of private capital and market-driven strategies. This shift has subordinated societal gains, redefining

priorities toward real-estate value generation over genuine publicness in the contemporary context of waterfront regeneration. Consequently, this phenomenon has undergone a transformation, shifting away from the production of urban spaces oriented toward the wider public and instead giving rise to environments designed for restricted user groups, effectively generating enclaves.

This proposal explores the shifting paradigm of waterfront redevelopment through longitudinal analysis of global projects. Beginning with early examples, it examines the changing approaches from re-establishing spatial and public connections within the city toward more recent cases that produced sterilized waterfronts that permit only a filtered form of publicness increasingly detached from broader urban integration. It traces, through a chronological reading of the projects, how the potential of waterfront areas has been exploited, transformed into commodities, and societal benefits increasingly rendered as secondary elements. Therefore, this proposal focuses on understanding the role of waterfront areas within cities today and in the future through the spatial and social impacts generated by this transformation, as well as the implications that follow from it.

SS30: Waterfronts

Fri 3.7.14:00-15:30, Special Session C, M232 M1 | Session chair(s): Johanna Lilius, Salla Jokela, Sampo Ruoppila

2052 | Sampo Ruoppila, Jani Vuolteenaho, Johanna Lilius, Markus Laine

Waterfront regeneration governance in the Nordics: Social justice in ideals and practices

Waterfront regeneration in the Nordics exemplifies the interplay between growth-oriented urban regimes and normative commitments to justice. This paper is part of a broader project that frames redistributive justice and procedural justice as central evaluative dimensions. The paper discusses whether their relative weight is prefigured already when organising the governance. Organisational configurations—whether dominated by municipal agencies, semi-autonomous project corporations, or hybrid public–private partnerships—encode implicit hierarchies of values, privileging certain distributive and participatory outcomes while constraining others. Through comparative analysis of residential waterfront regeneration cases in Helsinki, Tampere, Stockholm and Copenhagen, we examine how these governance arrangements shape the scope for redistributive measures such as tenure diversification and subsidized housing, and procedural mechanisms such as participatory planning and (possible) activist engagement. We further trace whether organizational logics condition responsiveness to shifting policy discourses, potentially stabilizing growth imperatives even amid rhetorical commitments to inclusion. By foregrounding organizational structure as a determinant of justice weighting, the paper discusses phases of ‘policy choice’ of justice in urban redevelopment from setting the ideals to structural embeddedness in governance design to (sectoral) policy design and implementation.

1686 | Ruoxin Liu

Social Inclusion in Neoliberal Urban Riversides: Morphological and Behaviour Studies from Melbourne, Singapore, Shanghai

Neoliberal waterfront developments of the 1970s and 1980s have received extensive criticism for promoting mono-functional landscapes of consumption, to the detriment of functional, social and formal mix. Yet commercial exchange has also been at the origin of urbanization, hence shopping is not inherently anti-urban. This paper investigates the sociality of contemporary waterfronts, at the end of neo-liberalism and dawn of techno-feudalism.

Although macro-scalar critiques are abundant, particularly within urban geography, analyses of sociality at the scale of everyday interaction remain scarce. Therefore, this research addresses that gap through morphological and behaviour mapping to identify the spatial arrangements that enhance or constrain riverside social interactions. The central questions are which riverside morphologies at a walkable scale support or limit encounters of difference, and how spatial forms such as esplanades, plazas, and retail frontages co-evolve with public life.

This research conducts a comparative analysis of Melbourne, Singapore and Shanghai, focusing on riverside districts framed as inclusive after redevelopment. At multiple walkable scales, two strands of mapping are employed. The first is morphological mapping of building density, functional mix, permeability, and publicness, widely recognised as generators of urbanity. The second is behavioural mapping of age, gender, and activity types. All data are drawn from field observations, and complemented through street-view platforms and municipal open data portals.

Findings reveal three types of configurations of intertwined public-private space in densely built waterfront areas, each producing distinct forms of riverside urbanity. While within each case some behaviour settings foster diverse and spontaneous encounters, others promote movement without mingling, reducing opportunities for encounter. Besides, platform-driven consumption and emerging techno-feudal enclosures increasingly shape patterns of access along the river, affecting both the modes of use and the social groups who can occupy these spaces.

1574 | Jian Chen, Yaqian Zhang

The Social Production of Commodified Public Space: Evidence from Xuhui Riverside in Shanghai, China

Amid accelerating urbanisation, extensive spatial expansion has become unsustainable, positioning urban regeneration as a principal strategy for addressing resource scarcity, ecological pressures, and ageing infrastructure in China. Grounded in Lefebvre's theory of the production of space, the article examines the commodification of public space under state-led regeneration, which privileges exchange value over social use, thereby diluting residents' sense of place while advancing urban branding. Bringing humanistic geography into dialogue with entrepreneurial urbanism, it theorises the intersection of affective attachments, symbolic meanings, and political economic agendas in contemporary waterfront making. Using Shanghai's Xuhui Riverside as a case, the study mobilises Michel de Certeau's concepts of strategies and tactics and a multi-actor perspective to analyse how citizens tactically reclaim

commodified spaces through everyday practices such as dog walking, picnicking, skateboarding, and informal gatherings. The case draws on semi-structured interviews, field observation across daily and weekly rhythms, and multi-level thematic content analysis. Findings reveal a negotiated cohabitation between top-down planning and bottom-up appropriation, mediated by rules, security, digital platforms, and material infrastructures, and marked by a shift from production-oriented rationalisation to consumption-oriented thematisation and event programming. The study advances debates on spatial justice and place identity by showing that commodified public spaces can still cultivate belonging through negotiated everyday practices, albeit unevenly across groups. It recommends adopting a coevolutionary governance model in the shadow of hierarchy, to protect non-commercial uses, strengthen community participation, and seek a balance between commercial vitality, social equity, and cultural sustainability.

2411 | Gianni Talamini, Fubin Luo

Intersectional Urbanism: Architectural Ethnographies for Spatial Justice

Cities have heavily invested in waterfront public spaces, boosting their attractiveness in the global competition for social and economic capital. As pivotal public-space arenas for collective life, these green areas are permeated by social and environmental conflicts due to being built on reclaimed land, shaped with non-native plants by international design models, and used by, among others, disadvantaged social groups. Still, waterfront parks are some of the most iconic contemporary public spaces.

Despite this importance and the enormous economic and environmental costs, there is a paucity of research on the capacity of waterfront public spaces to serve users' needs and shape landscapes of spatial justice. This research adopts the theoretical prism of intersectionality and the methodological tools of behaviour mapping to analyse the design and use of Asia's waterfront spaces, focusing on the case of Hong Kong. On-site ethnographic observations, followed by desk-based behaviour mapping and statistical modelling performed by researchers trained in spatial analysis, provide the foundation for a theoretical construction and related methodological advancements. Thus, the research acts as a stage for a discursive engagement in questioning established planning and design procedures on studying and envisioning public open spaces.

Finally, this research is significant for its innovative bridging of disciplinary fields and its practical implications in the production of public space: open-ended ethnographic explorations lay the groundwork for quantitative spatial analysis of uses. Furthermore, the shift in focus from space to uses produced innovative pedagogical tools and methods of inquiry that impacted planners' and urban designers' mindsets in practice, thereby laying solid foundations for achieving spatial justice.

Online presentations

Governance & Politics

Tue 30.6.14:00-15:30, Online Presentations A, U359a | Session chair(s): Sylvie Pare

1954 | Victoria Belcher

Beyond Network Analysis: Evaluating Community Experiences in Co-Management of Lake Restoration in Bengaluru, India

Best practices for nature-based solutions (NbS) implementation, including the International Union for Conservation of Nature (IUCN) Global Standard, call for empowering governance processes that involve affected communities in decision-making. However, significant gaps remain in the literature regarding how local communities experience NbS governance and the enabling factors for shared resource governance, or co-management, particularly in the Global South. This research examines co-management practices in two neighboring lake (kere) restoration projects, Benniganahalli and B. Channasandra (Kasturi Nagar), in urban Bengaluru, India. At these lakes, communities organized under the Benniganahalli Kere Trust and the Kasturinagar Welfare Association to catalyze restoration of highly polluted environments, mobilizing hundreds of volunteers, navigating complex regulatory frameworks, and deepening local knowledge of the lake ecosystem.

This study contextualizes lake volunteer experiences through a mixed-methods framework, including archival research, qualitative focus groups, comparisons with IUCN criteria, and a stakeholder network analysis quantified using UCINET. By looking beyond network analysis, this study captures the lived experience of co-management for communities. Across both lakes, participants viewed community groups as the most central actors for facilitating communications, demonstrating their potential to serve as bridging-actors between government agencies and the public. Participants also described how engaging in restoration supported placemaking and provided broader ecological benefits such as groundwater recharge.

However, the findings identified barriers to co-management, including limited government transparency and the high effort required to obtain authorization for restoration work. Focus group discussions further highlighted how co-management leads community groups to grapple with complex questions, such as negotiating between ecological and economic benefits, and social inclusion within lake spaces.

Overall, this work contributes to growing scholarship on participatory models for nature-based solutions governance in the Global South and provides two case studies and a replicable mixed-methods framework to evaluate the challenges and opportunities that arise when communities co-manage their local ecosystems.

1420 | Hellen Aziz, Hassan Elmouelhi, Nada Jouni, Sami Yassine Turki

City–University Collaborations for Participatory Urban Governance in Arab Cities: Lessons from the PR-GPS Project

City-university collaboration is a key factor in sustainable urban development, it opens the channels of discussion and the exchange of knowledge on local urban governance, participation and shaping the urban space. It enhances students' learning experience through practice-oriented education addressing real urban challenges and onground case studies. Moreover, it adds value to the experience of the local authorities in the cities by integrating the students' fresh perspectives. In many Arab cities in the MENA region, local authorities suffer from numerous challenges such as limited financial resources, centralized decision making, lack of the adequate skills needed, and inefficient participation of local stakeholders in the decision making process. This paper draws on the research project "PR-GPS : Power Relations in

Urban Governance: Participation in Public Space of the Arab Cities", funded by the DAAD Ta'ziz Netzwerk program (2023-2025). as a collaboration between the Habitat Unit in TU Berlin, partner universities in Jordan, Tunisia, Iraq, Egypt, Lebanon, Sudan, and Yemen, and local authorities in Tunisia, Jordan, Iraq, and Egypt. Within this project, five workshops were conducted in these countries, focusing on on-the-ground case studies for public spaces chosen by the local authorities. During these workshops, the TU Berlin students collaborated with the local students to design and implement a public space based on a participatory approach, supported by the local authorities. By the end of each workshop, the collaboration not only resulted in the physical development of public spaces but also enriched the perspectives of the students and also influenced the mindset of the local authorities' representatives. This paper will try to analyze the main key steps of this collaboration, the role of the local authorities, and the university, the challenges that face this collaboration, as well as the benefits of this experience on both levels of the students and the local government

2470 | Liu Huan

Spatial Patterns and Place Attachment: A Structural Equation Model of Rural Settlements in Northern Shaanxi

Research on rural spatial environments has traditionally focused on the description of physical form, while residents' emotional attachment to place has often been insufficiently measured, interpreted, or integrated into spatial analysis. This study examines five villages located across different landforms and distances in the hilly–gully region of Northern Shaanxi, a landscape shaped by deep erosion and long-term rural settlement patterns. Drawing on data collected from 127 community stakeholders, the research develops a structural equation model to construct a conceptual framework linking rural spatial patterns with dimensions of place attachment.

The analysis investigates how spatial configurations and residents' social attributes interact to shape emotional bonds to place, and through which pathways these influences occur. Results indicate that both spatial pattern characteristics and length of residence exert significant positive effects on the formation of place attachment. However, social attributes do not significantly strengthen the influence of spatial patterns on attachment, suggesting that emotional resonance arises more from lived spatial experience than from demographic or social differentiation.

These findings enrich theoretical understanding of the reciprocal relationship between material spatial environments and the subjective experiences of residents. They demonstrate that place attachment in rural settlements is co-constructed through the interaction between spatial form and long-term habitation, rather than being reducible to either physical or social variables alone. The study provides conceptual and methodological insights for incorporating collective emotional connections into rural design practice. It also offers practical implications for the revitalization of Northern Shaanxi's vernacular settlements, emphasizing balanced spatial development that supports memory, identity, and the continuity of rural life.

1342 | Dany Delfim Silbermann

Socio-spatial segregation, organized crime, and securitization of Brazilian urban space: Rio de Janeiro since the rise of neoliberalism

Brazil has historically exhibited high crime rates, predominantly stemming from persistent socio-spatial inequalities. These inequalities are understood as rugosities (Santos, 2006) embedded within space (especially in urban and metropolitan contexts) and are fueled by the marginalization and neglect of peripheral populations excluded from the evolving productive and social demands of capitalism. Such exclusion intensified with the rise of neoliberal practices aimed at capital accumulation and the erosion

of redistributive social planning (Souza, 2003, 2009, 2018). Consequently, urban poverty, intertwined with exclusion, neglect, and stigmatization—through labeling of peripheral spaces and the rise of "talk of crime" (Caldeira, 2000)—fosters criminality as a means of survival among marginalized groups (Wacquant, 1999).

Since the late twentieth century, crime patterns have transformed: organized crime has emerged as a robust parallel economy based primarily on drug trafficking, consolidating itself through violent and militarized practices. Criminal factions have established control over urban enclaves (particularly in peripheral areas) where state sovereignty is weakened, as its institutions (notably coercive ones) fail to exert the same authority as in zones under full state control.

Simultaneously, the rise of the security state, in which neoliberal governance intensifies its preoccupation with perceived threats (Monteiro, 2021), has produced violent state responses aimed at suppressing criminal groups involved in drug trafficking and territorial control. This dynamic has led to the militarization and fortification of urban spaces, recurrent violent police-military operations, and the continuous targeting and segregation of stigmatized populations (Caldeira, 2000).

This study examines the spatial relationships between socio-spatial segregation, organized crime, and the securitization of Brazilian urban space, focusing on the municipality of Rio de Janeiro. The analysis considers the consolidation of neoliberalism as the temporal framework, extending to the present (2025), and employs spatial analysis alongside historical, statistical, and comparative methods.

1576 | Sandra Lee Pinel, Enrique Matheu

How Infrastructure System Assessment Supports Regional Planning and Governance

National, regional and local economies and sectors depend on increasingly interconnected and vulnerable cyber and physical infrastructure systems. A disruption to one asset or network can result in cascading failures across other sectors and international supply chains managed by multiple public and private authorities across geographic boundaries. Critical infrastruture security and resilience present major challenges and opportunities for transboundary policy and governance, however, regional planning practice, theory, and education have not incorporated critical infrastructure assessment methods advanced by the US government, international partners and other disciplines.

After a brief overview of critical infrastructure system definitions, characteristics (assets, networks and supporting systems), we will present practical infrastructure system assessment and security and resilience planning guidance from the Infrastructure Resilience Planning Framework (IRPF) and Maritime Resilience Assessment Guide developed by US cybersecurity and Infrastructure security agency with the US Army Corps of Engineers with experts and users. The guidance has been applied by planners and port managers to support collective action. The guidance and question sets were further developed with the Organization of American States into its 2024 Guide for the Protection of Critical Infrastructure. Intended to help member states and agencies convene private sector actors to develop policy and regional, national, and transboundary strategies.

A continued challenge for regional and collaborative planning and polycentric governance is how to convert short-term collaboration for conservation of a landscape or shared asset into institutional systems that can govern change at scale for complex social and ecological systems. Illustrated applications of such guidance with owners and operators of water, port, and related sectors suggest how a focus on shared dependence on critical physical and virtual systems that support national and local health, security, industry and services, can strengthen regional planning education and practice to facilitate transboundary governance.

Accessibility & Mobility I

Tue 30.6.14:00-15:30, Online Presentations B, U359b | Session chair(s): Camila Ceballos

2101 | Deniz ÇAM, Çağlanur KÖSEL, Züleyha Sara BELGE

Rethinking Walkability in Historic City Centers: A Case Study on Tarsus

Promoting active mobility in historic city centers is crucial for enhancing urban livability and overall quality of life. While conventional walkability measurements primarily focus on physical infrastructure and efficiency, this study takes into account the experiential and perceptual qualities that historic environments offer. In contrast to standard models that often regard archaeological remains as barriers or frictions within the pedestrian network, this research re-conceptualizes such elements as potential components of positive friction. When appropriately addressed within the urban design context, these features encourage a more mindful pace of movement, enrich spatial experience, and foster social interaction.

Using the historic city centre of Tarsus as a pilot study area, the research examines how urban design characteristics influence pedestrian behavior, experiential engagement, and perception within the context of urban mobility and accessibility. A mixed-method approach combining qualitative and quantitative spatial analysis is employed to examine walkability capacity in the area (considering indicators such as (accessibility, attractiveness and comfort, public spaces and mixed uses, public transportation network, safety and quality of path). The proposed model enables a context-sensitive evaluation of walkability in heritage settings, where historical layers and archaeological components play a critical role in shaping spatial experience.

By investigating the capacity of “positive friction” to enhance the experiential richness of the urban environment, the study contributes to the discourse on sustainable and livable historic cities. Furthermore, it emphasizes the importance of integrating heritage assets and archaeological layers into contemporary walkability models, proposing a context-sensitive and design-oriented approach to improving walkability, mobility, accessibility, and overall livability in historic city centers.

2024 | Sylva Lam

Establishing a Baseline for Mobility Justice: Socio-Demographic Inequalities in Everyday Mobility in Reykjavík

Reykjavík is often portrayed as a sustainable and liveable Nordic capital, yet everyday mobility in the city remains shaped by high car dependency and uneven access to transport alternatives. This paper presents the first systematic baseline assessment of mobility inequalities in Reykjavík, using data from the 2025 Pilot Cities travel survey, a joint project between University of Iceland and City of Reykjavík, coordinated by NetZeroCities. The study applies a quantitative, cross-sectional design to examine how gender, citizenship, income, disability, car ownership, and environmental factors relate to mode access, mode choice, and reported barriers to shifting toward sustainable mobility.

The analysis applies descriptive statistics, ANOVA, multivariate tests, and regression models. Preliminary findings reveal that gender and citizenship account for the largest disparities across mobility indicators. Women and recent immigrants report lower access to multi-modal mobility, higher reliance on public transport, and greater perceived constraints in daily travel. Across all groups, the findings also confirm that Reykjavík remains structurally car dependent, despite the city’s sustainability ambitions to lower transport-related greenhouse gas emissions.

By establishing a robust baseline, this study provides cornerstone for assessing progress toward more inclusive and sustainable urban mobility. The findings highlight the need for planning approaches that move beyond infrastructure provision alone and instead address structural inequities embedded in accessibility, governance, and everyday travel conditions. The baseline will support the next phases of the

study, which will examine multimodal mobility hubs and comparative mobility governance in Nordic cities.

The paper offers insights for planners, policymakers, and researchers seeking to apply mobility justice in practice and advance more just and sustainable mobility systems in small- to medium-sized affluent urban contexts.

1002 | Shirui XUE, Zhendong LEI, Ya Gao

From Measuring Connectivity to Governing Reciprocal Urban–Rural Interfaces: A Two-Stage Diagnostic for Peri-Urban Xi'an, China

Metropolitan expansion in China often integrates peri-urban territories faster than it links them institutionally, producing uneven abilities to engage the urban core among villages in the same commuting belt. Existing assessments focus on urban–rural connectivity—how strongly a settlement is tied to labour, service and transport networks—but rarely ask whether these places possess the capacity for reciprocal exchange with the city. To address this gap, this paper proposes a governance-oriented two-stage diagnostic for peri-urban Xi'an that links them. The empirical analysis covers 1,356 villages surrounding Xi'an's urban core, drawing on population and economic statistics, enterprise and service POIs, transport and accessibility measures, land-use and ecological data, and policy and project records. In the first stage, we construct a composite connectivity index to distinguish strongly integrated villages from weakly connected ones. In the second stage, within each connectivity group, we measure three capacities: (1) functional potential—capacity to host or transform urban-related functions; (2) resource potential—capacity to supply agricultural, ecological or cultural assets; and (3) institutional potential—governance and network capacity to broker exchanges. Treating these dimensions separately allows us to distinguish forms of peri-urban advantage and vulnerability, rather than collapsing them into a single score.

We match peri-urban situations with interface-building strategies. Highly connected villages with multi-dimensional capacity can be prioritised for reciprocal programmes; highly connected but low-capacity villages require service and function upgrading; weakly connected but resource-rich villages should receive transport and institutional interfaces before market integration; and weakly connected villages with strong institutional capacity can be mobilised as cooperative hubs. We label this arrangement "urban–rural symbiosis" in an operational, interface-oriented sense—consistent with international work on rural–urban partnerships and socio-ecological systems, but making reciprocity and differentiated roles explicit. The output is a policy-facing grouping, not clustering for its own sake, and it offers a way to manage peri-urban diversity in fast-urbanising contexts.

2800 | Matan Singer, Ilana Har-Tal Prishkulnik, Karel Martens

From Problems to Solutions: Using Mobility Status to Assess Policy Impacts on Travel Problems

Informing decision-makers about how to alleviate transport poverty requires systematically measuring travel problems and linking these insights with a standard measure of mobility status across the population. Several survey tools exist that capture a wide range of travel problems, including long travel times, high transport costs, relying on others for making trips, and forgoing trips altogether (Currie and Delbosc, 2011; Murphy et al., 2021; Singer and Martens, 2023). Transport agencies can build on these findings to identify improvements in the transport system that would alleviate travel problems. Yet existing survey tools do not allow assessing the expected degree of improvement in the ability to meet daily travel needs from potential policy interventions.

This study proposes using individuals' self-reported mobility status as a measure for assessing the benefits of alleviating travel problems through potential transport policies. To this end, the study uses

data from a novel survey tool collected during January-February 2025 among 1,003 residents from the Tel Aviv metropolitan area. The survey included questions on the frequency and severity of experiencing 12 mobility problems (e.g., related to time, cost, physical effort, weather, safety, etc.). Additionally, the survey included a self-reported measure of individuals' mobility status, which captures how easy and quickly an individual can reach the destinations they want to reach, on a scale from 0 (worst possible state) to 100 (best possible state; Martens and Singer, 2024).

Comparing mobility status scores among individuals with similar socio-demographic and mode use characteristics yet different scores on a specific travel problem enables identifying the expected benefit to the individual from reducing travel problems. Multiplying this individual net effect by the number of affected individuals provides information on the societal-wide contribution to better mobility from travel problems. Findings from this study will provide a framework for strengthening evidence-based policy to promote transport justice.

1531 | Ke Song, Mi Diao

How Does New Rail Transit Impact EV Users' Travel Behavior? Evidence from Shanghai

As an emerging mode of transport, electric vehicles (EVs) play a key role in reducing transport-related carbon emissions and promoting sustainable mobility. Understanding the interactions between EVs and existing transport modes is crucial for assessing the broader impacts of vehicle electrification and for informing policy design. While extensive research has examined how new rail transit systems reduce private car use, most studies focus on conventional fuel vehicles (FVs). Comparatively little attention has been paid to EV users, whose travel behavior may differ substantially from that of FV users due to lower operating costs and distinct usage patterns.

Using the opening of Shanghai Metro Lines 14 and 18 as a natural experiment, this study employs a difference-in-differences (DID) approach to quantify the causal effects of new rail transit on EV users' travel behavior. We quantify EV users' travel behavior with a large-scale EV trajectory dataset. Users residing within 500 meters of newly opened transit stations are defined as the treatment group, whereas those located 500-1000 meters away are classifies as the control group. The results indicate that the introduction of new rail lines significantly reduce EV users' daily trip frequency, daily vehicle miles traveled, and daily travel time by approximately 3%, 8% and 9%, respectively. These findings suggest a substitution relationship between EVs and rail transit, implying that enhanced rail accessibility can reduce EV usage and help alleviate road congestions.

This study contributes to the growing literature on multimodal travel behavior in the era of transportation electrification and provides policy insights for coordinated planning between rail infrastructure and electric mobility development.

2211 | Élyse Comeau, Ron Buliung, Timothy Ross

Advancing Accessible School Transportation Planning: Insights from Education Professionals and Families Living with Childhood Disability

School transportation planning is a critical yet under-examined planning sub-field that is imperative to inclusive education for families of disabled children. This presentation synthesizes findings from two qualitative studies conducted in the Greater Toronto and Hamilton Area that examine (1) how education professionals understand and deliver accessible school transportation, and (2) how disabled students and their families experience their daily school journeys. Grounded in critical disability studies, these studies highlight how school transportation systems shape access, inclusion, and school participation for disabled children, and how it can be improved.

The first study analyzes interviews with 15 education professionals involved in planning and delivering disabled children's school transportation. Findings point to significant operational issues and communication breakdowns that undermine the planning and delivery of accessible school transportation. These include unsafe in-bus practices, scheduling that normalizes lost classroom time, driver shortages, unreliable communication, and cost minimization being prioritized over student well-being. Participants also noted inclusive practices relating to student and staff training and collaborative governance.

The second study is based on interviews with 13 disabled students and 13 parents. Families described pervasive in navigating school transportation. Findings indicate this requires them to perform extensive, inequitable 'access work' to achieve school journeys. We identify three forms of access work (temporal, administrative and advocacy-related, and emotional) and we show how they shape families' lives.

Recommendations from both studies include proactive scheduling informed by the concepts of 'crip time' and 'care time', inclusive route planning, earlier family engagement in decision-making, enhanced disability training for drivers and school staff, communication that supports safety and reliability, improved field trip transportation, and better integration of accessibility and disability justice within planning policy and practice.

Governance & Practices

Tue 30.6.16:00-17:30, Online Presentations A, U359a | Session chair(s): Sylvie Pare

1009 | Nguyen Dang Dao

Planning with Citizens in Urban Vietnam: Civic Urbanism under Authoritarian Regimes

The rapid expansion of community-based and citizen-participatory practices in urban planning has prompted critical reflection on the complex interactions between the government and citizens across Asia. However, in less democratic contexts such as Vietnam and China, there is still a substantial gap in understanding how the participation of urban residents in urban planning and governance, or civic urbanism, manifests, what impacts it generates, and how it reshapes city governance. This gap exists not only because of the scarcity of participatory planning initiatives in many authoritarian societies but also due to the political and ethical constraints of conducting research. Nevertheless, examining the absence or limited presence of participatory planning is as crucial as studying its emerging manifestations. This helps reveal how community-based practices are performed, negotiated, controlled, and experienced in different contexts and emphasizes the enduring relevance of promoting citizen engagement even in societies where it has been historically undermined. Focusing on urban Vietnam, this paper examines how an important yet overlooked social group, undereducated women in Tam Ky City, engage in the process. It goes beyond the binary framework of top-down (political elites, experts) versus bottom-up (fishermen, women, youth) actors, which can obscure the power dynamics underlying participatory processes. The participation of women has not only been overlooked by the government but also by families due to discrimination. The key question explores to what extent participatory planning in Tam Ky meaningfully involves women and how outcomes are shaped by intersecting power dynamics. Fieldwork involved ethnography, interviews, and archival analysis. Findings show women's participation is often tokenistic, though they negotiate agency through everyday practices and subtle resistance. The research challenges assumptions that participatory practices do not exist in non-Western cities, revealing hybrid, negotiated forms of civic urbanism.

2290 | Michael Crilly, Georgiana Varna

Good City Experiments

This paper considers the 'good city', indeed urbanism itself as an embodiment of a shared value system. We demonstrate how community priorities within this urban value system become distinct in contrast to more suburban and individualistic forms of organisation and development. We present the values inherent in such an urban system, explaining the origins, workings, outcomes and legacies through a series of procedurally and innovative examples of effective community collaboration. These are selected as a range of international urban development and governance projects that link physical interventions with the underlying ownership, organisation and planning processes. These critical cases in forms of cooperation, collaboration, and co-production demonstrate how empowered communities can take the initiative, be experimental, and novel in approaches to resilient urban environments.

Taking a holistic view of the selected critical case-studies, we show how urban communitarian projects take many different forms regarding the substantive focus, the underlying organisational arrangements and the process. Projects have emerged in response to specific temporal and locality concerns as well as the impacts of global externalities. Yet, they all share characteristics that we summarise under the themes of innovation and experimentation, co-production and co-ownership practices and prioritising collective values. We present alternative models for societal organisation and urban development based on underlying values of subsidiarity, diversity, co-existence, innovation and experimentation, We draw key lessons for contemporary and future city building from diverse case studies. Specifically, the importance of empowering communities and delegating place shaping agency from qualified built environment professionals to citizens is an appropriate form of subsidiarity and a positive way to support experimentation and collaborative innovation. Following this is the 'good city' that should allow for the co-existence of this diversity of responses to urban issues.

2546 | Sayaka Fujii, Koichi Higashi

Urban Park Governance through Online Citizen Participation: A Process Analysis of Participation and Deliberation in Tsukuba, Japan

In urban planning, online platforms are increasingly used to support citizen participation. Conventional face-to-face meetings tend to be dominated by vocal stakeholders, making it difficult to capture views that reflect urban diversity. In Japan, administrative consultation meetings are often attended by older adults, men, and representatives of neighborhood organizations, while the participation of younger generations and households with children remains limited. Online platforms can lower barriers for those who find it difficult to join in-person meetings and help bring more diverse voices into urban park governance.

This study examines DOHO Park, a comprehensive urban park in Tsukuba City, Japan, where an online platform was introduced to incorporate the views of parents with children and younger generations into park governance. Initially, the prefectural government proposed a management scheme using the Park-PFI approach, but the proposal faced strong citizen opposition, leading to a plan revision and a transfer of management responsibilities to the city. The city then announced the creation of a new park governance structure and adopted an online platform as a tool to collect opinions from a broad range of residents.

The study traces the process from the introduction of the platform, through a period of stagnation in online discussions, to their subsequent reactivation. Using posting logs and interviews with key stakeholders, it analyzes (1) how the platform was operated, (2) what types of participants were attracted, and (3) what factors triggered the activation of deliberation. While existing studies emphasize question design and facilitation strategies for activating online discussions, this case shows that intentional linkages with face-to-face meetings and direct interaction with on-site actors were crucial for sustaining participation and revitalizing deliberation. The findings suggest that effective urban park governance

through online citizen participation requires a hybrid participation design that iterates between online and offline engagement.

1706 | Hisako Kobayashi

Metropolitan Management and Regional Development in Indonesia

This research explores appropriate metropolitan management mechanisms by analyzing Indonesian cases. Indonesia has undergone rapid urbanization; the urban population, nearly 60% today, is expected to exceed 70% by 2045. Indonesian cities face major challenges, including improving livability, developing inclusive economies, and providing essential public services for this growing population.

The emergence of large metropolitan areas makes effective management crucial. While these areas are economic drivers due to agglomeration economies, they also suffer from negative externalities such as traffic congestion, pollution, and insufficient affordable housing. Indonesia's National Spatial Plan of 2008 defined a "metropolitan area" as a functionally integrated urban agglomeration of over one million people, officially identifying ten such areas. Renewed attention to metropolitan management, particularly fostering cooperation and coordination among local governments, has been sparked by recent developments, e.g., the enactment of Law No. 2 of 2024 for the Jakarta Metropolitan Area following the capital's transfer, and the ongoing Rebana Area Development Project in West Java.

Simultaneously, Indonesia implemented a drastic decentralization policy starting in the late 1990s, devolving significant authority to districts (regencies and cities). While this policy has helped alleviate regional disparities, an unintended consequence is the fragmentation of governance, such as proliferation of local governments, as the decentralization framework does not inherently encourage cooperation between neighboring local governments. This makes effective metropolitan management challenging.

The objective of this research is thus to examine metropolitan mechanisms that support intergovernmental cooperation for regional development within Indonesia’s decentralized system. This is done through two case studies: the Jakarta Metropolitan Area, focusing on issues like public transportation, and the Rebana Area in West Java, focusing on regional development and industrial growth.

2063 | Johanna Raudsepp, Chloe Ruiz, Victor Schlencker, Jukka Heinonen

Barriers to changing transportation habits in Reykjavik, Iceland

Transportation is one of the biggest contributors to urban GHG emissions, and rapid changes are needed to curb the climate impact of urban living. In Reykjavik, Iceland, car-oriented lifestyles dominate, driven by the city’s car-centric design. However, the city wants to shift to more sustainable transport, along with strong changes in mobile lifestyles. A softGIS survey was conducted in early 2025, collecting info on transportation habits and barriers of about 1800 residents of the Reykjavik Capital Area. Nearly 88% respondents have access to a car and most use it daily. Living further away from work, having kids and older age were associated with a higher likelihood of using a car. 60.4% of respondents use a car to get to work, but a third of them said they are willing to use alternative modes, with most willing to switch to active modes rather than public transport. The main barriers for switching to public transport were time, errands, lack of direct connections, (un)reliability, and price. This was coupled by mean satisfaction with public transport being 2.55 out of 5 overall across the city. The main barriers for switching to active transport were errands, weather, travel distances, and time. The results indicate a considerable willingness to change travel modes if these challenges are met. As the study is a collaboration between the university and the city within the Net Zero Cities initiative, the results will impact the city’s actions and policies on reducing transport emissions.

Theories & Ethics

Tue 30.6.16:00-17:30, Online Presentations B, U359b | Session chair(s): Binita Mahato

2806 | Tassy Ellen Thompson

Radical Epistemologies in Urban Planning: Ecofeminism, Vital Materialism, and Land Use

Urban planning education must confront the epistemological limits of its own traditions. This paper argues for a radical reconfiguration of planning pedagogy through the integration of ecofeminism, vital materialism, and post-qualitative inquiry. Drawing on stories about access to land, use of local resources and neighbourhood power dynamics, including Sámi activist Elsa Laula Renberg (1877-1931) and Norwegian Anne Pedersdatter, burned as a witch in 1590, the lecture situates knowledge-making as a contested terrain where power, justice, and land rights are negotiated.These narratives exemplify how standpoint theory and feminist critiques disrupted positivist claims to singular truth, instead advancing situated knowledges and “strong objectivity” as ethical foundations for planning education.

Vital materialism extends this disruption by foregrounding the agency of matter—land, water, infrastructures, and multispecies ecologies—as active participants in urban assemblages. This perspective challenges technocratic and anthropocentric paradigms, reframing land use not as a neutral technical exercise but as a relational practice embedded in braided time, ecological interdependence, and embodied experience.

The paper further explores posthuman and transdisciplinary futures, emphasizing pedagogical practices that cultivate planners as “good neighbours” within complex socio-ecological systems. Studio projects, case-based learning, and reflexive exercises are proposed as methods to animate proximity, acknowledge difference, and foster ethical responsibility. By embracing ecofeminist critiques of power, vital materialist ethics of relationality with land as other, and abductive analysis approaches which retain openness to surprise, planning education can generate radical theories that resist surveillance capitalism and growth-centric imperatives.

This contribution presents interdisciplinary cultural perspectives towards an urban planning education which can embrace radical theory generation as reflexive praxis: a collective, situated, and ethical reimagining of land use. In doing so, it positions ecofeminism and vital materialism not as abstract philosophies but as vital pedagogical tools for cultivating planners capable of imagining cities that honor justice, ecological reciprocity, and more-than-human futures.

976 | Gregor H. Mews

Entering the Age of Flux

Normative theoretical frameworks in a practice domain follow suit and continue to prioritise material fetishism. Often, they embrace fixed categories of good urban planning order, such as safety, productivity, growth or efficiency; follow hierarchies of values (human over non-human, economy over ecology) as well as linear cause–and–effect reasoning (plan, implement and manage outcomes). These norms reflect underlying anthropocentric modernist ontologies, characterised by control, representation, predictability, and stability. Considering the global meta-crisis that impacts us at all scales, such approaches seem unable to achieve the desired planning outcomes necessary to retain the idea of sustainable development. Arguably, because how things (objects) interact with each other cannot be fully and directly explained with reductionism. With the professional gift of working with foresight, planners need to turn towards the profound questions about what is real and what exists. Thus, there is an identified need for a different kind of thinking that doesn’t necessarily replace these planning norms with new prescriptive ones, but one that unsettles the very core of stable social and cultural norms of what is ‘real’, especially in cases where complex challenges are dealt with a high degree of uncertainty and require high-stakes decision-making with limited empirical evidence. The contribution introduces the idea of Flux Cities,

which hold the potential to move beyond prevailing forms of logic. Flux Cities is not about control, order, or stability. It's about learning from, with and through pluriversal assemblages of mo(ve)ment during states of coherence, contradiction, and connection — noticing how urban spaces are continually produced and reproduced by both human and more-than-human actors. By doing so, it enables us to envision and co-create cities in which materiality becomes imbued with situated ethics, coexistence, creativity, and well-being - a provocative New Materialist language with new vocabulary, serving the irreducibility of life as a whole.

2443 | Gabrielle Natalie Gusmão Gomes de Araújo

Spatial Production of São Paulo's Periphery: Negotiating Boundaries

The meaning of peripherality has been discussed in Brazilian urban studies since the last decades of the 20th century. Historically, the emergence and development of these areas were associated with the country's industrialization, especially in São Paulo, where underprivileged industrial workers occupied peripheral lands and invested part of their income in the autoconstruction of their houses and residential neighborhoods, as analysed by Lucio Kowarick (1979), Ermínia Maricato (1982), Francisco de Oliveira (1972). However, spatial production changes according to the dynamics of capital's productive forces — since space is the condition, environment, and product of capitalist production (Carlos, 2011).

If São Paulo's position in global capital production has shifted since those years, planning theory must also adapt to address the ends, actors, and networks that connect peripheral areas to what is often referred to as the "formal city." Following significant urban and housing policies, in addition to political parties, local groups, and NGOs, São Paulo's peripherality has changed. Today, these territories are transformed by public facilities for health and education, and diverse workplaces — both within the formal and informal markets operating in the favelas.

The functioning of local market dynamics is not fully integrated into hegemonic policies. Despite the increasing importance of the markets that have grown in favelas in this period, especially in the last decade, their operation takes place between state-regulated markets and others that develop at the boundaries of these regulations. Yiftachel (2009, p.243) argues that this mode of existence — between legality and eviction — generates a gray space where "the boundaries between 'accepted' and 'rejected' constantly shift."

If in the 1970s planning theory criticized the duality between development and backwardness (Oliveira, 1972) regarding peripheral areas, today it must confront the duality between formality and informality — once again through the lens of spatial production.

915 | Shirui XUE, Zhendong LEI, Ya Gao

Localising "Equivalent Living Conditions": Diagnosing Hidden Inequalities in Regional Living Conditions in Shaanxi, China

Debates on "equivalent living conditions" in Germany led BBSR to develop a measurement concept that goes beyond GDP to reveal structural inequalities between places. As China shifts from growth targets to "people-centred" territorial planning, baseline evaluations still hinge on checklist-style compliance with minimum standards, checking whether facilities and policies formally cover an area rather than whether lived realities converge; data-driven diagnostic tools remain underdeveloped.

This paper applies and critically examines the BBSR concept in Shaanxi, China, using it to diagnose inequalities in regional living conditions and test its transferability. We construct a county-level indicator system with 26 variables for 107 counties, covering economic–fiscal capacity, settlement and service embeddedness, and population–employment structures. The indicator design follows the logic of the BBSR framework but is re-specified using the nearest categories in China's official statistics. Factor

analysis yields three structural factors and composite scores capturing latent configurations of resources, services and demographic pressures. Subsequent clustering identifies seven territorial types whose spatial distribution follows both the loess–basin–mountain gradient and the core–periphery hierarchy within Shaanxi, revealing inequalities such as resource-rich but service-poor counties and places with similar averages but divergent structural risks.

Operationalising a concept developed for Germany within the Chinese statistical system exposes both its strengths and blind spots. German debates already note that large-area assessments are constrained by indicator availability; our Shaanxi application confirms that key aspects of lived conditions—especially service quality, institutional capacity and everyday accessibility—are only weakly represented in aggregate administrative data. As a result, within-type differences persist and some peripheral counties are over-smoothed. We argue that "equivalent living conditions" should be treated as an open measurement framework that is enriched with context-specific, finer-grained indicators when transferred to data-scarce environments, offering a starting point for China's own evidence-based regional assessment systems.

2455 | Liu Huan

Participatory Futures in State-Led Multicultural Governance: Rethinking Community Agency in Singapore's Chinatown

Multicultural heritage districts often embody tensions between state-led narratives, market imperatives, and residents' lived experience. Singapore's Chinatown reflects these dynamics acutely: while the district anchors national multicultural branding, community participation in shaping its symbolic and spatial identity remains limited. This study examines how more inclusive and ethically grounded participatory futures could be developed within a strong state-governance framework, particularly amid demographic ageing and the arrival of new migrant groups who bring different expectations of recognition and public representation.

The research adopts a multi-method qualitative approach. First, an in-depth analysis of URA conservation guidelines, street-naming rationales, signage regulations, and national heritage narratives clarifies how cultural identity is institutionally defined. This is complemented by field observations conducted across both everyday and festive periods, documenting how linguistic, decorative, and artistic symbols are deployed in public space. To deepen the interpretive dimension, interview transcripts, field notes, and policy extracts are systematically coded using NVivo through a thematic analysis framework. A codebook centred on procedural justice, recognition, tourism pressure, and heritage authenticity guides the coding process. Co-occurrence matrices, theme development memos, and node frequency patterns allow for the identification of recurring concerns and value conflicts across diverse actors.

Findings show that existing participatory mechanisms function largely as consultation rather than co-creation. Residents express a desire for stronger influence over symbolic representation, while newer migrants articulate emerging claims for visibility. These intersecting experiences expose tensions between the coherence of state-led multicultural design and more plural community-authored narratives.

The study argues that advancing ethical governance in heritage districts requires participatory models that acknowledge these layered identities. Co-design workshops, community-led festivals, and collaborative public art offer potential pathways to reconcile strong-state planning with locally grounded notions of justice, recognition, and belonging.

Technologies & Transformations

Thu 2.7.11:00-12:30, Online Presentations A, U359a | Session chair(s):

2257 | Aristotelis Vartholomaios, Dionysia Perperidou

AI Appraisal of Contested Masterplans: Capabilities and Risks for the Planning Profession

Debate around artificial intelligence in planning often outpaces evidence. Claims that large language models can appraise major spatial proposals remain untested. This study examines how four current systems respond when confronted with two highly contested Greek redevelopment masterplans: the Hellenikon Airport regeneration in Athens and the TIF-HELEXPO masterplan in Thessaloniki. Both cases involve complex regulatory environments, long-standing political disagreement, and extensive technical critique.

Here we develop and pilot-test a structured prompting protocol designed to test the capacity of state-of-the-art AI tools in articulating planning judgements. Four prompt types are used: minimal–impartial, comprehensive–impartial, comprehensive–skeptical, and comprehensive–advocating. These are applied to four leading LLM platforms (ChatGPT 5.1, Claude Sonnet 4.5, Gemini 3.0 Pro, Grok 4). Each system is examined under three conditions: (1) offline, text-only analysis; (2) visual prompting with plan diagrams and renderings; and (3) online search enabled to gauge sensitivity to external information.

Outputs are coded across three dimensions: internal consistency, sensitivity to prompt framing, and alignment with established critiques in legal decisions and professional position articles. We identify systematic divergences between models, including cases where prompt tone produces stronger effects than masterplan attributes. Visual inputs improve descriptive accuracy but do not stabilise judgments. Online search often introduces assertive but weakly supported statements, indicating vulnerability to unfiltered secondary information.

Findings show that LLMs can structure debate and expose implicit assumptions, yet they remain unreliable as stand-alone evaluators of complex spatial proposals. Their use in planning education or practice should therefore be confined to reflective dialogue rather than delegated judgment. The study outlines specific risks that professional bodies, planning schools, and regulatory authorities must address before integrating these systems into formal review processes.

2716 | Xue LI, Zhendong LEI, Ya GAO

A Multi-Scale Spatial Analytical Framework for Photovoltaic Landscapes: Case Study in the Loess Gully Region

The energy transition driven by climate change is reshaping global landscape patterns. Solar power's lower energy density requires larger land areas, forming "photovoltaic landscapes". Understanding their spatial characteristics through geospatial data analysis is essential for guiding sustainable planning. This study proposes a multi-scale digital analytical framework, analyzing photovoltaic landscapes in China's Loess Gully Region.

The framework integrates five nested scales: region, landscape unit, photovoltaic system, patch, and array. At the regional scale, kernel density and natural breaks classification identified the distribution characteristics of solar power plants. Spatial overlay and buffer analysis explored relationships between solar power plants and landscape elements including terrain, landforms, vegetation, land use, human activities, and ecological-cultural values. Additionally, cluster analysis was applied to classify photovoltaic landscape types. From landscape unit to array scales, typical samples underwent morphological analysis using high-resolution satellite imagery, examining photovoltaic-landscape spatial patterns, system layout responses to original landscapes, patch configurations and array orientations.

Results reveal cross-scale spatial characteristics of photovoltaic landscapes. At the regional scale, larger-scale plants show higher clustering, concentrated in flat optimal terrain, while smaller plants

distribute dispersedly. Eight photovoltaic landscape types were identified based on terrain and land use. At the landscape unit scale, forest-grassland types occupy larger areas and locate farther from settlements than farmland types. At the photovoltaic system scale, flat areas exhibit centralized layouts demonstrating lower responsiveness to the original landscape, while rugged areas show dispersed layouts adapting to terrain. At the patch scale, terrain complexity positively correlates with patch irregularity. Array orientations are predominantly east-west facing south for optimal energy efficiency.

This research proposes a scalable multi-scale framework by integrating geospatial data and spatial analytical methods, enhancing interpretability of complex energy-landscape systems, advancing digital technology applications in energy landscape planning, and providing methodological contributions for data-driven photovoltaic landscape impact assessment and sustainable energy planning.

2248 | Imge Akcakaya Waite, Hale Erez Kulekci, Bahadir Kesan, Busra Nur Gundogdu, Bekir Oguz Bartin, Ebru Tekin Bilbil

Co-producing mobility transformations: Stakeholder and institutional processes in Maltepe, Istanbul

Collaborative mobility planning has become increasingly important as cities seek new ways to navigate the political, financial, and institutional challenges of transforming street space. Because mobility interventions affect a wide spectrum of actors—from everyday users to operators and regulatory bodies—approaches that actively involve multiple stakeholders provide a more grounded and socially responsive basis for experimenting with active mobility. When diverse perspectives are integrated early and consistently, planning processes benefit from richer insights, clearer identification of conflicts, and stronger collective ownership. This study examines the collaboration process and the variety of perspectives shaping the Maltepe case of the ACCTRA project, funded through JPI Urban Europe's ERANET Cofund. ACCTRA aims to promote more sustainable, livable, and accessible cities by using street experiments to strengthen alternatives to car-oriented mobility, including walking, cycling, public transport, and micromobility. Beyond community-facing engagement, the Maltepe case also analyzes the decision-making processes of formal actors, which strongly influence whether experimental interventions advance toward permanent implementation. Primary research was conducted through semi-structured interviews with informed decision-makers, including municipal departments, mobility operators, and relevant regulatory bodies. The interviews explored institutional responsibilities, interdepartmental coordination, perceptions of political risk, and the administrative viability of proposed measures. This inquiry illuminated the formal mechanisms through which mobility interventions are authorized, negotiated, and adapted, as well as how institutional learning unfolds over time. The study presents findings from both the stakeholder engagement and formal decision-making dimensions, illustrating how these processes jointly shaped the active mobility street experiment in Maltepe. Lessons and recommendations derived from the case contribute to future efforts to design urban mobility transformations that are context-sensitive, participatory, and supported by both community actors and institutional decision-makers.

Crises

Thu 2.7.11:00-12:30, Online Presentations B, U359b | Session chair(s):

1637 | Hassan Elmouelhi, Hellen Aziz, Alec Jil Agopian

Food Security in Conflict-Affected Arab Countries: Lessons on Resilience from the Grassroots

Food security in conflict and post-conflict Arab countries is a critical fragile pillar of survival, where the destructive results of war intersect with climate shocks, economic collapse, and systemic governance

failures. From Yemen's blockade-driven famine to Sudan's inflation-spiraled hunger and Syria's weaponized food systems, these nations grapple with protracted instability and face a common paradox: while their contexts differ, their struggles reveal strikingly similar vulnerabilities. Agricultural lands are ravaged by conflict, governance structures fracture under political divides, and communities become perilously dependent on dwindling humanitarian aid. Yet within these crises lies some hope in the form of local ingenuity. Grassroots initiatives demonstrate that even amid chaos, communities can reclaim agency over their food systems.

This paper examines seven conflict-affected Arab countries—Yemen, Lebanon, Syria, Palestine, Iraq, Libya, and Sudan—through the lens of spatial planning and food system resilience, drawing on desktop research and students' work in the seminar "Contemporary Arab Urbanism V: Exploring the Future of Arab Cities" (Habitat Unit, TU Berlin, Winter Semester 2024). It identifies shared challenges like climate-driven crop failures, urban displacement pressures, and aid dependency. More crucially, it highlights how localized, community-based practices can inform broader spatial planning strategies aimed at transforming food security from a crisis response to a foundation for urban resilience and justice.

By bridging grassroots innovation with systemic reform, this paper argues for a reimagined approach to food-sensitive urban planning—one that prioritizes local sovereignty, integrates climate adaptation, and replaces short-term humanitarian relief with sustainable, spatially grounded rebuilding. This paper attempts to show the grassroots's benefits and challenges, and reach lessons learned from these cases.

2198 | Luisa Duarte Milani

São Paulo's fruitless efforts to achieve environmental justice

In most Global South cities, marginalized groups live in precarious settlements in areas of environmental risk, putting housing and environmental sustainability in conflict. São Paulo, Brazil, is a quintessential example of this dynamic. I use the city as a case study to examine the challenges in achieving environmental justice in the Global South. This way, I answer the question: What are the governance challenges to promote environmental justice in Global South cities? I focus on the period between 2000 and 2024 to trace transformations of territorial, housing, and environmental governance as a way to understand why there has seemingly been little progress in achieving better conditions for people living in informal neighborhoods in areas of environmental risks, specifically floods and landslides. My paper draws on the idea that, while in the Global North, environmental justice (EJ) is associated with government actions, in the Global South, it is more often related to state neglect. EJ research, however, still largely reflects Global North understandings. My research aims to provide an example of how environmental injustices in the Global South are constructed through a combination of government action and inaction, opening spaces for non-state actors to also define the space. My research draws on interviews, spatial data, and policy analysis. The combination of data allows me to trace state and non-state processes that keep people at risk. My research shows that, while on paper many of the policies point to good solutions, in reality, several practices combine to keep the status quo. Non-implementation and delays of policies, misrepresentation of data, flawed participation practices, and political disputes are some of the ways governance practices maintain vulnerable populations in areas of environmental risk.

2003 | Çağlanur Kösel, Francesco Curci

Designing Antifragile Cities: An Operational Framework for Post-Resilient Urban Planning

Cities and regions increasingly face multidimensional and overlapping crises that challenge traditional planning rationalities, which remain largely inadequate for addressing deep uncertainty (Moroni, 2022; Chiffi & Moroni, 2025). Conventional models rooted in prediction, control, and stability often fail to cope with the volatility that defines today's urban condition. Although planning discourse has progressively

embraced the notions of resilience and adaptability, these approaches tend to remain reactive, emphasizing recovery and resistance (Blecic & Cecchini, 2020; Curci & Chiffi, 2024).

This paper proposes to interpret uncertainty not merely as a threat but as an opportunity to innovate planning theory and urban design practice. Building on Nassim Nicholas Taleb's (2012) concept of antifragility—systems that improve and evolve when exposed to volatility—the study explores how this paradigm can inform a new operational framework for urban planning and design.

Methodologically, the paper adopts a framework-based critical analysis. It first synthesizes Taleb's conceptual foundations with recent planning and design literature, identifying core principles and indicators that characterize antifragile urban systems. The empirical section compares emerging forward-looking priorities with official planning documents and public decisions developed under crisis scenarios. This comparison allows for the extraction of antifragility principles as analytical tools to evaluate the gap between aspirational planning models under radical uncertainty and current crisis-management or resilience-based practices.

The paper contributes to the ongoing debate on post-resilient urbanism by offering a theoretically grounded and operationally oriented framework. It argues that planning for antifragility entails fostering urban systems capable of learning and transforming through crises—thereby advancing more equitable, adaptive, and regenerative urban futures.

2672 | Anna Wilk-Pham, Eileen Dorer Li

Everyday Adaptations as Climate-Responsive Practices in Informal Settlements: Evidence from Mojo and Semanggi (Surakarta, Indonesia) and San Juan de Milaflores (Lima, Peru)

Informal settlements in rapidly urbanising regions are sites of continuous material, social, and spatial transformation, where residents incrementally adapt their homes in response to evolving needs, everyday constraints, and intensifying climate stresses. Drawing on ongoing research within the research project Passive solutions in self-build and incremental housing: towards inclusive socio-ecological transformation in rapidly urbanising areas (PSSI)., this paper examines how residents in Surakarta (Indonesia) and Lima (Peru) negotiate shelter through day-to-day improvisations that enhance habitability, manage heat, reduce moisture, improve ventilation, or enable flexible spatial use. Based on ethnographic fieldwork, architectural inventories, and interviews with self-builders and local constructors, the study documents the subtle but consequential changes residents introduce—such as shading devices, material substitutions, adaptive openings, or low-cost water management practices—and analyses how these actions emerge from local knowledge, resource constraints, and collective norms.

The paper argues that these everyday adaptations constitute an under-recognised form of socio-ecological innovation with implications for inclusive planning and climate-responsive housing agendas. In both case study contexts, residents' modifications reveal an iterative logic of problem-solving that aligns with climate-adaptive design principles, even though such knowledge is rarely acknowledged in formal housing policies, sustainability frameworks or simply local context. By foregrounding lived experiences and bottom-up practices, the study demonstrates how self-built environments can serve as critical arenas of incremental climate adaptation, offering insights into strategies that reduce vulnerability without triggering displacement or imposing prohibitive regulatory burdens.

The findings contribute to debates on housing justice, financialisation, and local-scale resilience by highlighting the need for planning approaches that support incrementality, build on, rather than overwrite, existing socio-material practices. The paper ultimately positions everyday adaptations as a key entry point for collaborative governance, the co-design of low-tech solutions, and equitable neighbourhood revitalisation, demonstrating their relevance for developing scalable and context-sensitive models of shelter transformation in the Global South.

Practices & Actors

Thu 2.7.14:00-15:30, Online Presentations A, U359a | Session chair(s): Johanna Raudsepp

1061 | Gabriela Quintana Vigiola, Shankar Sankaran, Pernille H. Christensen, Mehrafarin Takin

Photovoicing as a collaboration tool

This paper presents an industry–university collaboration that used photovoicing as a placemaking method to co-produce ideas for the renewal of Circular Quay, home to the Sydney Opera House. Photovoicing—inviting participants to bring their own photos and interpret images to surface situated knowledge and encourage dialogue—has strong foundations in participatory inquiry and action (Wang & Burris, 1997). We extend this scholarship to planning practice by implementing photovoicing as a tool that aligns institutional priorities, community expertise and design.

The University of Technology Sydney convened a workshop with 6 academics, 5 PhD students and 16 industry participants (City of Sydney officers, state-level decision makers and domain experts). The process included participants taking each one meaningful picture around Circular Quay, to then, in the workshop, collectively making sense of the area, develop thematic mapping, and proposing ideas through visual means. The deliberately low-tech method prioritised accessibility and reflexivity. Outcomes extended beyond idea generation: (1) the collaboration between participants and the university, (2) the establishment of a community of practice committed to continuing work on urban outcomes, and (3) a set of urban renewal ideas for the precinct.

Two practice lessons emerged. First, co-creation requires explicit steps for translating photo-elicited insights into actionable next steps and decision pathways. Second, facilitation consistency is pivotal. While several groups used photovoicing to challenge preconceptions and generate novel place propositions, others reproduced prior ideas. These differences related to heterogeneous facilitation styles and prompt framing. We identified that a calibrated facilitation framework with shared prompts, synthesis templates and decision handoffs would more strongly support the implementation of photovoicing as a collaboration and placemaking tool. The paper offers an empirically grounded account of how photovoicing can operate as a collaboration infrastructure that bridges institutional logics, enhances mutual learning and seeds ongoing partnership around complex urban sites.

1914 | Lvyun Qiu, Cankai Cai

Governance Tensions and Adaptive Planning: Multi-dimensional Contradictions and Transition Pathways in Rural Greening—A Case Study of Jinzao Town, Guangdong

Against the backdrop of global ecological governance and regional sustainable development, this study critically examines the profound governance tensions embedded in rural greening practices, using China’s "Green and Beautiful Guangdong" strategy as a contextual framework. Through mixed-methods research—combining CiteSpace bibliometric analysis with field investigations in Jinzao Town, Shantou—the paper identifies six core contradictions: between the rigidity of planning procedures and the volatility of villagers' needs; the multifunctional demands of greening and the homogenized supply in planning; intergenerational aesthetic divergence and the preservation of local cultural identity; industrial land expansion and ecological security maintenance; public space construction and the safeguarding of private property rights; and the need for long-term governance versus weakened village-level management capacity.

These tensions collectively highlight the systemic failure of the current techno-rational greening paradigm in addressing complex social-ecological systems. The study argues that the future of rural greening lies in a fundamental paradigm shift—from static "spatial ornamentation" to dynamic "living infrastructure." Accordingly, an integrated framework is proposed, advocating for adaptive governance (e.g., establishing

responsive feedback mechanisms), multifunctional design (e.g., promoting edible landscapes), and community empowerment, thereby reframing greening as a socially-embedded process that fosters local capital and endogenous development. The case of Jinzao Town offers critical, place-based insights for global rural areas seeking to balance efficiency with equity, and technological intervention with social learning, within ecological civilization initiatives.

2905 | Ana Aguirre Silveira da Rosa, Clarice Misoczky de Oliveira

Between Public Policies of Intervention in Urban Space and Popular Planning Practices: A Multiple Case Study of the Periferia Viva Action Plans

This work is part of a master's research project and discusses the relationships between popular planning practices and public institutional spheres in the field of contemporary urban planning from a Brazilian context. During the last decades, the crisis of urban living conditions under neoliberal hegemony has also had repercussions in a structural crisis in the field of urban planning. In this context, critical urban studies has gradually turned to understanding the production of space through urban struggles, community actions, and planning practices produced by the population. In Brazil, this crisis is expressed, among other elements, in the growing loss of relevance of institutional spaces for social participation. At the same time, Brazilian researchers have been identifying a recent cycle of construction of popular, insurgent, and community-based plans since the 2010s. These initiatives, understood here as popular planning practices, are mostly built outside the State, while demanding state action that guarantees social rights, and raise questions about the actors involved in planning and their relationships with public policies. With the recreation of the Ministry of Cities by the newly elected Federal Government in 2023, begins a new moment in national urban policy, within which an approach to the popular initiatives underway in urban peripheries is proposed. Given this context, the question arises: to what extent is it possible to bring together public policies of intervention in urban space and popular planning practices? The issue is investigated through the lens of the right to the city, focusing on the Action Plans developed within the scope of the Periferia Viva Program, a federal initiative to reduce socio-territorial inequalities. The research adopts a multiple case study strategy and its empirical object consists of the experiences of the Action Plans for two intervention areas of the Program, focusing on the southern region of the country.

2631 | Georgiana Varna, Karina Landman, Bas van Heur, Michael Crilly

Experimentology: How to spot an urban experiment

This paper presents a novel and multi-disciplinary and diverse collaborative development of a systematic ontology of urban plans, programmes and projects that propose to be experimental. We show ongoing work that spans a range of international case studies of urban experiments and review the initiator of the experiment, the context, scale, financing, governance, decision-making, stakeholders alongside the substantive classification for neighbourhoods, buildings, and the spaces in-between. In contrast to existing academic typologies of urban experiments, this classification is both dynamic and emergent, based on data collected from a broad range of past and current planning interventions that have been described in some form as ‘experimental’. Work presented is created and coded using Protégé (an open-source online ontology editor) and based on the underlying characteristics of real-world case study projects. We apply a resource description framework (RDF) and uniform resource identifiers (URIs), to create machine readable data suitable for organising, sorting, and searching within an emerging database of experimental urban projects. The developing project database is available for http referencing, wider machine processing and automated large language models (LLMs).

The coding uses Web Ontology Language (OWL) via Protégé, to allow for improved visualisation of project data, including data based upon user-defined queries ‘and/or modelling’ via the semantic web. The creation and editing have been undertaken by lay practitioners and expert planning professionals, and we

present preliminary work resulting from this. Our hope is that this can increase the utility and application of a shared experimental urbanism project database covering different scales, locations, organisations and budgets, supporting the use of linked data based on open data principles. This digital commons approach contributes to precisely defining the boundaries and parameters of what 'experimental' means in relation to the urban.

Environment

Thu 2.7.14:00-15:30, Online Presentations B, U359b | Session chair(s):

2763 | Deniz Çam, Maria Gabriella Trovato, Çağlanur Kösel

Beyond Human-Centred Planning: An Integrated Landscape Approach to Ecology, Justice and Urban Change

In our broken world it is imperative to acknowledge the limits and fragility of existence and to recognise that many narratives and structures of modernity are in decline (Jackson 2014). Global catastrophic events have rendered territories and cities into arenas for the spatialisation, reproduction and mutation of crises. In response, planners, governments and international agencies have pursued resilience and adaptation, making it essential to comprehend the interconnectedness, intensity and forms of crisis and violence manifest in landscapes.

This paper responds to Track 5 by advocating an Integrated Landscape Approach (ILA) to address planetary boundaries, biodiversity loss and spatial inequalities. It reports on theoretical and practice-based critical discussions carried out during a master's course at the Politecnico di Milano (Spring 2025). The study reframes landscape primarily through three integrated concerns: spatial and socio-ecological functions and their contributions to more-than-human life; justice, equality and rights; and the economic transformations induced by urban regeneration.

The ILA foregrounds landscape as a living socio-ecological system in which human and non-human beings co-constitute urban environments and sustain ecosystemic functions necessary for adaptation and biodiversity. The approach interrogates access to public space and the politics of knowledge production by critiquing dominant Western paradigms (Inwood & Alderman, 2023) and by engaging decolonial frameworks, the right to the city, and emerging rights to and for landscape. Through critical analysis of regeneration projects, students, professors and guest lecturers examined how nature-based interventions intended for restoration and adaptation can inadvertently trigger green gentrification and displacement.

By situating these dimensions within a shared analytical framework, the paper argues that ecological restoration, social inclusion and economic resilience must be pursued simultaneously. The ILA advances normative and practical guidance that centres more-than-human wellbeing as foundational to redefining territorial responsibility and to achieving just, resilient and biodiverse urban futures.

1273 | Zeyu Li

Rethinking the Metabolic Rift: The Regenerative Potential of Urban Agriculture

Urban socio-ecological systems are increasingly strained by structural ruptures in ecological and social relations, a theory conceptualised through Marx's notion of the metabolic rift, the disruption of material and relational exchanges between humans and nature. In contemporary cities, this represents through resource extraction, linear waste flows, and the alienation of ecological processes from everyday urban life. Urban agriculture (UA) has re-emerged as a promising approach for addressing these disconnections by re-circulating organic matter, fostering social cohesion, and reimagining the relations between urban residents, land, and ecology. However, despite the proliferation of sustainability initiatives, most remain technocratic and outcome-based, overlooking the relational and political dimensions of ecological

repair. Although, metabolic rift theory offering a powerful structural critique, often remains abstract and detached from lived practice. Moreover, urban agriculture research tends to privilege instrumental logics of productivity, resilience, or social innovation, without critically examining how these practices may reproduce or transform the socio-ecological relations that underlie urban ecological crises. This study bridges these theoretical and empirical divides by exploring the regenerative potential of urban agriculture as a process of situated repair. Drawing on constructivist epistemology and more-than-human lens, this research employs ethnographic fieldwork and grounded theory to examine how regenerative practices are enacted, contested, and sustained across Melbourne's diverse urban agriculture cases. By distinguishing authentic regenerative pathways from instrumentalized forms of sustainability, the research contributes a new conceptual and empirical understanding of how urban agriculture can function as a transformative socio-ecological practice. It reframes regeneration not as a fixed goal but as an emergent and relational process through which urban communities and ecologies co-evolve towards renewed metabolic balance.

1728 | Chiara Marchionni, Marianna Rotilio

A multidisciplinary design approach to improving the energy efficiency of Ukrainian building stock

The energy renovation of existing buildings has been a central theme in European environmental policy for years, as evidenced by the Energy Performance Buildings Directives (EPBDs) and the European Green Deal.

However, implementing the EPBD's principles requires member countries to consider local climatic, social, and economic conditions.

In the context of Ukraine's post-war recovery, cities must seize the opportunity to rebuild their buildings to improve their energy performance, with the goal of achieving climate neutrality by 2050.

This paper investigates ways to improve the energy efficiency of post-war Ukrainian buildings, particularly their envelopes. It begins with an in-depth analysis of the energy regulation framework and its systematisation, with the aim of identifying a regulatory framework that meets Ukraine's needs. Then, a methodology is developed that considers multiple factors, such as building characteristics, value analysis, degradation/damage analysis, thermo-hygrometric behaviour, and environmental impact analysis. In the knowledge phase of the building process, non-destructive techniques are applied to correctly identify the characteristics and performance of the envelope.

When applied across pilot cities, the method demonstrates the potential for implementing various efficiency scenarios, which are evaluated using numerical scores resulting from the proposed process. These scores depend on the economic and performance compatibility of the proposed solutions.

2542 | Ye Zhang, Chao Ma, Zeyu Cao, BiJun Li

Assessing the Thermal Improvement Benefits of Urban Morphology and Planting Configuration in Historic Districts: A Micro-Renewal Perspective

Micro-renewal is an important strategy for the sustainable development of historic districts, and understanding its thermal benefits is critical for supporting heritage conservation and enhancing public experience. Existing studies have separately identified the thermal effects of urban morphology and planting configuration, but their interaction remains unclear, especially in historic districts with limited available space. This study aims to analyse how different levels of plant diversity improve the thermal environment in historic districts and to test whether these benefits vary across spatial types.

The Nanluoguxiang historic district in Beijing, China, was selected as the study area. Three spatial types were examined: hutong alleys, siheyuan courtyards, and small squares. Because the narrow spaces in Beijing's historic districts limit the planting of additional trees, three vegetation-diversity scenarios were designed using grass and shrubs (status quo, added grass, added grass plus shrubs). In total, nine scenarios (three space types × three vegetation configurations) were modeled.

Air temperature (Ta), relative humidity (RH), wind speed (WS) and the Universal Thermal Climate Index (UTCI) from the China Meteorological Information Center were used as boundary conditions. ENVI-met was applied to simulate microclimate responses, and a linear mixed-effects model was used to examine the interaction between spatial morphology and planting configuration.

The results show that (1) in courtyards, the combination of grass and shrubs provides the largest thermal improvements; (2) in hutong alleys, adding grass already produces substantial cooling, while additional shrubs offer only limited extra benefit; and (3) in small squares, improved planting configurations provide weaker cooling and only modest gains in thermal comfort. Overall, the findings indicate that the thermal benefits of planting configurations depend on spatial type, and that thermal optimisation in historic districts should adopt spatial-type-specific strategies for vegetation diversity.

Accessibility & Mobility II

Thu 2.7.16:00-17:30, Online Presentations A, U359a | Session chair(s):

2933 | Natália Teixeira Lopes da Costa, Gabriela Katie Silva Morita, Roberta Cosentino Kronka, Euler Sandevile Jr.

From urban design to the experience of walking: a multi-scalar approach

The urban landscape is a dynamic social construction shaped by economic, political, environmental, and cultural forces. The street plays a pivotal role as both mobility infrastructure and a shared social space. Streets accommodate active and motorized mobility systems, concentrate everyday interactions, revealing conflicts around access, safety, and the distribution of public space. In many Global South cities, motorized traffic still dominates, reducing walkability, safe circulation, and limiting people's access to destinations.

Reimagining accessibility requires designing streets that support inclusive, non-motorized mobility and encourage walking as an everyday practice. Walkability contributes to sustainable mobility by integrating ergonomics, environmental comfort, urban vitality, and people's perceptions of safety. Research on walkability has expanded globally over the last three decades, combining quantitative, qualitative, and mixed-methods approaches to assess interactions between the built environment and travel behavior.

This article analyzes walkability through a multi-scalar, interdisciplinary lens, drawing on two master's-level research projects developed in the cities of São Paulo and Lorena (Brazil). At the macro scale, a review of the georeferenced application of the Pedestrian Ergonomic Comfort Index (Albala, 2022), that evaluates how walkability relates to environmental quality across the city, identifying challenges and opportunities for policy interventions that promote active mobility and more sustainable urban environments.

At the micro scale, the study investigates parents' and students' perceptions of safety around a public school, using surveys, the Gender-Sensitive Walkability Index (Instituto Caminhabilidade, 2019), observational methods, and participatory workshops. This qualitative and community-engaged approach highlights barriers to independent mobility for children and emphasizes mobility justice concerns.

Together, the two scales provide an integrated understanding of accessibility in everyday mobility systems. While the macro analysis supports strategic planning and transport policy, the micro-scale research foregrounds lived experience, particularly that of children and caregivers, contributing to evidence-based, inclusive, and context-sensitive mobility planning in urban environments.

1500 | Sourav Sur, Mani Dhingra, Aphra Kerr

Urban Digital Twins for Sustainable Mobility and Inclusive Planning: Lessons from Dublin's Kerbside Management Project

As urban population continue to expand, cities must increasingly rely on data-driven tools to enhance urban resilience and manage limited infrastructural resources. With 68% of the world's population projected to live in urban areas by 2050, Dublin city's rapid growth, built on its historic medieval urban structure, demands for an adaptive and ethical approach to urban planning. Urban Digital Twins (UDTs) have emerged as an innovative solution to model, simulate, and evaluate urban systems dynamically. This paper outlines a research initiative between Smart Dublin unit of Dublin City Council (DCC) and the ADAPT Research Centre aimed at developing an ethically governed, open, and sustainable UDT framework to support collaborative, cross-sector urban management. Building upon frameworks from the European Twin4Resilience project, the research adopts a problem-driven approach that advances beyond technical design to encompass governance and socio-ethical dimensions.

The study focuses on the development of a dynamic, data-driven kerbside management platform as a proof-of-concept for DCC's Digital Twin ecosystem. Kerbside space, historically dominated by private vehicles, is increasingly contested due to evolving urban mobility patterns, e-commerce expansion, and the demand for active travel infrastructure. In collaboration with stakeholders including logistical operators, subject matter experts, DCC's internal team, and community representatives, this research applies geospatial analysis, 3D modelling, and open geospatial standards to create an interoperable platform enabling real-time decision support. By deploying in-house expertise and open data resources, the intention to reduce reliance on vendor-led solutions, mitigate the risks of technological lock-in, and advance Smart Dublin unit's capabilities. The resulting Kerbside Digital Twin will serve as both an operational tool and a participatory interface, promoting inclusive, transparent, and responsive urban governance through data-driven insight and collaborative decision-making.

1674 | Camila Ceballos, Martin Traunmüller, Refiz Duro

DIFFERENT TYPES OF CLOSENESS: A HYBRID APPROACH TO URBAN GREEN SPACE ACCESSIBILITY ANALYSIS

With its direct benefits to public health and well-being of urban population in cities, urban green space and its accessibility is an important feature for municipalities, urban planners and real estate developers to evaluate and monitor. In the context of urban sustainability resulting from Positive Energy Districts (PEDs) development, measuring and keeping records of accessibility to green spaces in a city becomes crucial, as it allows to identify problems and opportunities for energy optimization, that could positively impact the region analyzed.

Accessibility models opt for only one methodological approach, considering only direct physical proximity as the mode of access to green space, measuring accessibility distances either in a Euclidean distance model or a network distance model. However, accessibility should encompass multiple dimensions that include not only physical distances but also leverages other factors such as visibility or perceived closeness.

This paper presents a novel approach by integrating buffer (Euclidean) and network distance calculation methods within a decision tree framework to classify accessibility to green space polygons according to the concepts stated on the 3-30-300 rule for urban forestry and greener cities[2]. The algorithm starts from a buffer-based calculation to assign A-B classifications depending on their Euclidean distances from centroid to green space polygons, later moving to a network path analysis, to assign classifications B-D according to different thresholds of walking distances.

The new model aims to optimize classification efforts, reducing calculation times by running less point-to-point shortest distance calculations, also reducing the possibility to encounter network analysis errors (e.g. no centroid-to-edge snaping for the calculation or snaping centroids to distant edges). With this new approach we expect to contribute a new perspective on accessibility measurement, providing a deeper understanding of green space accessibility and settle ground for future accessibility calculations that aim to integrate additional socio-economic factors to the analysis.

1636 | Jack Lehane, Mani DHINGRA, Aphra KERR

Shared Data 'Cycles'; Cross-Sector Insights for Active Travel in Dublin

Active travel — journeys by walking, wheeling or cycling — has been increasingly recognised by the Government of Ireland as a cornerstone of sustainable development and climate action. However, despite significant transport and digital infrastructure investments, adoption remains limited. This paper examines how active travel infrastructure is adopted by existing and new users pre- and post-intervention through the case project 'Data Insights for Active Travel'.

Launched in 2024 by Dublin City Council (DCC) and supported by the Partnership for Healthy Cities, the project pilots technologies and engagement approaches to evaluate the city's active travel investments. Over a period of two years, it established a network of cross-sectoral, regional and national partners to replace ad-hoc approaches to data collection with a systematic and integrated process. The project delivery was supported by an industry-embedded collaboration between the ADAPT Research Ireland Centre for AI-Driven Digital Content Technology and DCC, identifying enablers and barriers for best practice data ethics and governance through an engaged research approach.

A community perceptions survey yielding over 1,300 responses for two pilot routes was carried out, providing route-specific insights such as safety concerns, inclusivity gaps and infrastructure usability to understand how citizens' perceptions shape travel choices. While the findings highlight perceptual barriers, its cross-sector learnings underpin insufficient integration of behavioural factors with digital infrastructures, limiting sustainable mobility and urban health outcomes. The results help inform further engagement and strategies towards making active travel safer, more inclusive, and more widely adopted.

By bridging active travel policy and smart city/digital innovation practice(s), the study re-examines planning's territoriality and equity in sustainable mobility policies. Consequently, recommendations for integrating digital ethics frameworks for urban governance are made, improving cities' shared understanding of active travel investments, and identifying future policy-practice pathways for academics and practitioners alike for shared planning legitimacy in Ireland and beyond.

1532 | Ke Song, Mi Diao

Electric Vehicle Adoption and Individual Travel Behavior: Evidence from Shanghai

Electric vehicles (EVs) have been widely recognized as a key pathway to reducing transport-related carbon emissions and achieving sustainable development. Despite the rapid electrification of the transport sector worldwide, studies on the implications of large-scale EV adoption for individual travel behavior and urban mobility remain limited. As a new transport mode, EVs differ from conventional fuel vehicles (FVs) in several respects, including driving experience and charging requirements. Vehicle electrification is not merely a replacement of FVs by EVs but involves complex interactions with existing transport modes, reshaping individual behavior and urban transport systems.

Using detailed household travel survey data from both EV and FV users in Shanghai, this study provides a comprehensive analysis of the impacts of EV adoption on individual travel behavior, focusing on EV ownership decisions, vehicle usage and modal substitution. The results indicate that built environment factors, such as density, land use mix, and accessibility to charging facilities, play significant roles in EV

ownership, in addition to socioeconomic characteristics. EV users undertake more daily trips and exhibit longer daily travel distances compared with FV users. Approximately 5% of EV users reported that without access to an EV, they would have canceled certain trips, implying the existence of induced travel demand associated with EV adoption. Furthermore, mode-shift analysis reveals that nearly half of EV trips are shifted from public transport. Specifically, about 60% of EV commuting trips originate from public-related transportation, while for leisure travel, about 20% are shifted from public transport and 50% from taxi or ride-hailing services.

This study indicates that EV adoption not only alters vehicle ownership structures but also reshapes the broader urban mobility patterns. The research findings provides valuable insights for formulating sustainable transport policies and managing the broader impacts of transportation electrification.

1900 | Élyse Comeau, Ron Buliung, Timothy Ross

Accessible Taxi Services in Toronto: Disabled Riders' Experiences and Improving Driver–Rider Training

Accessible taxi services are increasingly used by paratransit agencies to support disabled people's mobility and their access to employment, education, healthcare, and social activities. Yet, despite extensive research documenting transportation barriers and disabled people's experiences across various modes, remarkably little attention has been given to understanding accessible taxi trips specifically. This paper presents findings from a study examining both disabled riders' and drivers' experiences with accessible taxi services in Toronto, Canada. Data consist of a thematic analysis of 590 customer-reported complaint files and 494 driver-reported incident files provided by a local accessible taxi brokerage contracted by the city's paratransit service.

Drawing on a critical disability studies perspective, we examine the embodied, temporal, and relational dimensions of accessible taxi travel. Findings reveal intersecting issues of service quality, safety, communication, and inflexible operational policies that shape disabled riders' experiences, often in ways that reproduce ableist assumptions. Riders reported challenges related to unsafe service delivery, delays, and inflexible taxi service policies, while drivers identified gaps in assistance and safe transfers in and out of vehicles, communication difficulties, and challenges with conflict management. Together, these insights highlight how policy constraints, organizational protocols, and ableist norms embedded within the accessible taxi system contribute to barriers during everyday travel.

Building on these findings, we propose a three-part training program designed for both drivers and disabled riders, focused on disability awareness, physical safety, and conflict resolution. We also outline policy implications for accessible taxi brokerages, paratransit agencies, and local governments, including the need for flexible service policies, stronger communication protocols, and meaningful engagement with disabled people when developing operational changes. We argue that incorporating a critical disability studies perspective into training and policy design can help identify and address ableist elements within accessible taxi services, ultimately supporting safer and more equitable mobility for disabled people.

Histories & Heritage

Thu 2.7.16:00-17:30, Online Presentations B, U359b | Session chair(s):

2134 | Natalia Przesmycka, Elżbieta Przesmycka

Uncovering Local Narratives and Place Memory in Support of Participatory Urban Revitalisation in Poland

In contemporary practices of revitalising Polish cities, the past manifests in both material and immaterial dimensions. Its interpretations—expressed through local narratives and the memory of place—actively co-produce visions of urban futures. This paper examines how rediscovering and reinterpreting local histories can function as a planning tool that strengthens revitalisation processes, particularly within a participatory framework. The analysis encompasses several dozen urban centres in which local traditions, residents' lived experiences and "micro-histories" served as starting points for shaping new urban identities and guiding revitalisation strategies.

The study draws on examples of projects implemented during the so-called second wave of urban revitalisation in Poland, that is, after 2012. Special attention is given to the risks associated with the (over)use of history—such as the instrumentalisation of heritage for marketing-driven narratives—and to the challenges and methods of participatory governance and planning.

The findings demonstrate that embedding the memory of place in planning processes can enhance residents' agency, redefine the goals of revitalisation and create space for more just, inclusive and polyphonic visions of urban development.

992 | Merve ÖZBAY KINACI

From Modernist Ideals to Neoliberal Realities: The Historical Transformation of Planning Paradigms in Istanbul (1930–2025)

Over the past century, Istanbul's urban form has been profoundly shaped by shifting planning paradigms that reflect broader political, economic, and ideological transformations. This paper traces the evolution of planning ideals from Henri Prost's modernist master plan of the 1930s to the contemporary neoliberal restructuring of the city. It argues that Istanbul provides a distinctive laboratory for understanding how planning thought and practice adapt to changing regimes of power, growth, and governance. The study adopts a historical-analytical approach, combining archival research, plan document analysis, and GIS-based spatial interpretation to reveal the long-term continuities and ruptures in Istanbul's planning history. Through this lens, three significant paradigmatic moments are identified: (1) the modernist visions of the early Republican period, which sought to rationalize and monumentalize the city; (2) the developmentalist strategies of the post-war decades, driven by mobility, industrial expansion, and planning centralization; and (3) the neoliberal and non-comprehensive planning logic since the 2000s, characterized by mega-projects, gentrification, market-oriented governance, and the re-scaling of urban power structures. By situating these shifts within global discourses, the paper discusses how Istanbul's historical trajectories illuminate the persistence of centralization, and spatial fragmentation in contemporary planning. The research ultimately argues that understanding Istanbul's century-long planning evolution is essential for rethinking the role of historical memory in shaping urban futures. In doing so, it contributes to broader discussions on how cities situated at the intersection of modernity and neoliberalism reinterpret their planning histories and legacies under global pressures.

1217 | Kristin Larsen

Henry Wright's Critical Junctures - The Making of a Planning Pioneer

Henry Wright (1878-1936), the lesser-known member of the team that designed Sunnyside Gardens (Queens, New York), Radburn (Fairlawn, New Jersey), and Chatham Village (Pittsburgh, Pennsylvania), had a significant career before he partnered with Clarence Stein (1882-1975). He wrestled with his identity as an architect, landscape architect, houser, and planner in an ongoing quest for innovative and holistic solutions to the challenges of his day and anticipated opportunities of the future. This paper explores this period, which informed and propelled later collaborations and distinguished Wright as a planning pioneer. In doing so, it assesses critical junctures in these professions during the early decades of the 20th century.

What is fascinating here is not how advanced Wright's considerations of site design/engineering, architecture, housing, and planning were, but his capacity to move seamlessly between these fields. Wright secured extensive experience following graduation from the University of Pennsylvania in 1901 to his departure from St. Louis in 1923. This crucial 22-year period of his career is all but forgotten as he seemed to spring from nowhere in 1923 when he began his partnership with Stein and their celebrated landmark projects together.

This study examines archival sources to construct an empirical thematic history through the lens of Henry Wright's career prior to his partnership with Stein. Focusing on a component of what Wright did from 1923 to 1932 does a disservice to academic studies in these fields. This constrained view leaves considerable gaps in our understanding of the emergence of the planning profession, the evolution of early U.S. housing policy and large-scale design, innovative site design and regionalism studies, the impact of the European modernists on American architects/planners, and architecture and planning pedagogy.

2712 | Elias Nasser de Castro Ribeiro, Elias Nasser

Territorial rootedness and spatial displacement: contrasting approaches to peripheral heritage in São Paulo

This paper examines two contrasting approaches to representing peripheral communities in São Paulo's museum landscape: community-based territorial museums and state-created institutions in central areas. Through comparative analysis of the Museu Comunitário do Jardim Vermelhão (Metropolitan Region) and the Museu das Favelas (central São Paulo), I investigate how different institutional arrangements produce distinct outcomes in urban cultural planning regarding marginalized communities.

The Jardim Vermelhão community museum operates as territory itself, its primary collection is the neighborhood's own urban space. Visitors walk through streets, observe transformations through archival photographs displayed at their original locations, and experience heritage as living process. This model embodies territorial rootedness in which residents themselves make decisions about patrimonialization processes.

In turn, the Museu das Favelas, established through state-civil society partnerships, represents peripheral communities from a central location, spatially displaced from peripheral space, outside favelas. Housed in an 1896 palace and located at São Paulo's founding site, the museum raises several planning questions: how do "central" institutions represent territorial experiences from which they are displaced? What reconfigurations occur when peripheral narratives enter formal heritage frameworks? Ironically, the museum underwent a removal from its first location, mirroring the displacements it documents inside. However, new questions emerge here, given that the second location brought unplanned changes, not only for the museum but for the entire surroundings, in terms of audience and urban space interactions.

The contrasting projects demonstrate there is no single path for incorporating peripheral communities into cultural debate. Community museums preserve territorial rootedness despite limited institutional resources, while state museums gain legitimacy and projection capacity but face decontextualization challenges. Between territorial belonging and institutional mediation lies complex terrain requiring recognition that formal and community-based approaches produce different heritage outcomes, each with specific losses and gains for peripheral representation in urban cultural planning.

2781 | Sandra Lee Pinel, Fausto Vinicio Lopez Rodrigues, James Gruber

Transboundary Indigenous Landscapes - Mapping the Context for Regional Plans

Planning education and practice hav adopted the language of honoring cultural identify and indigenous landscapes in local and regional plans, but the result is inauthentic when planners uncritically rely on physical design or participatory and collaborative environmental planning methods. Design approaches can substitute visual images for dynamic uses of the urban and rural spaces. Participatory and collaborative approaches neglect often complex and pluralistic legal and institutional boundaries and competing decision making powers and authorities. Context matters. After introducing key concepts from social and cultural anthropology and legal pluralism theory, we present practical ethnographic and institutional questions planners can use to uncover their own assumptions and 'map' conflicting powers and interests to be addressed in a regional or landscape plan. We illustrate the utility of ethnography and institutional analysis with our experiences in Ecuador and the Phlippines where authority over transboundary indigenous and cultural landscapes was devolved to mutiple and often competing local and national authorities. Feasible plans to protect cultural and natural values of these landscapes has required inquiry into diverse interests in the landscape and identifying the institutions with the power to mediate or arbitrate conflicting interests and power relations. The primary author has published more than a dozen book chapters and articles on the topics of ethnography and cultural landscapes in planning methods and the limitations and potentials of regional and collaborative planning.

Technologies II

Fri 3.7.09:00-10:30, Online Presentations A, U359a | Session chair(s): Maliheh Hashemi Tilenoi

1324 | Yinong Liu, Yang Hu

Decoding Urban Spatial Rhythms: An Integrated Multi-Source Data Approach for Activity Pattern Analysis and Facility Equity Assessment

The growing dynamics and mobility of contemporary cities demand refined approaches to capture human activities across large spatial extents. Urban spatial rhythms—temporal variations of activity intensity across spatial units—offer a quantitative lens to analyze urban behavior, yet deriving interpretable patterns that reflect actual space use remains challenging. This study proposes a computational framework integrating heterogeneous geospatial data to decompose urban spatial rhythms, extract hourly participation in seven activity types, and evaluate dynamic facility equity.

The framework bridges big data coverage with small data interpretability through a rhythm decomposition algorithm that fuses mobile phone signaling data with time-use survey information, combining DTW clustering, linear decomposition, and SLSQP optimization to generate detailed temporal population distributions across seven daily activity types. Further, by integrating POI operational metadata—including business hours and facility categories—the method fuses static spatial features with dynamic activity data to construct temporally varying facility availability surfaces. Bivariate spatial autocorrelation is employed to identify spatiotemporal mismatches between activity demand and service supply.

A Shanghai case study demonstrates the framework's capability, extracting population dynamics for seven activity categories—maintenance and sleep, purchasing, leisure and exercise, employment and

education, eating and drinking, household care, and travel—across over 18,000 spatial units. Results show strong concordance with independent validation data, confirming decomposition robustness. Dynamic activity–facility matching reveals spatiotemporal inequities: employment and education activities remain temporally balanced, whereas peripheral shopping and leisure activities peak after facility closure, reflecting spatial and temporal misalignment in service accessibility.

By enabling interpretable, scalable decomposition of dynamic urban behavior, the framework advances computational urban analytics toward actionable equity assessment and provides digital tools for functional zoning, temporal facility optimization, and integration with urban digital twins.

973 | Gael Kermarrec, von Tils

Making Climate Expertise Accessible: An AI-Based Tool for Urban Environmental Impact Prediction

Urban climate modeling is essential for resilient planning but remains constrained by high computational costs and expert dependence. Traditional physics-based simulations ensure transparency yet fail to scale when multiple scenarios must be rapidly evaluated—a critical barrier for smaller municipalities.

This presentation introduces KLIMASCANNER, a QGIS-integrated AI plugin that predicts local temperature, wind patterns, and urban comfort indices for construction projects. We employ Multi-Attribute Utility Theory (MAUT) to systematically compare AI-based versus conventional case-by-case modeling across energy use, cost, transparency, accuracy, and decision speed—integrating perspectives from policymakers, urban planners, and citizens.

Results demonstrate that AI-based methods outperform conventional approaches once amortized after a few simulations, with benefits extending beyond computational efficiency. KLIMASCANNER democratizes climate expertise, enabling resource-constrained municipalities to integrate environmental adaptation into standard workflows. However, trade-offs emerge in interpretability and perceived transparency.

By comparing these modeling paradigms through a structured utility framework, we show where AI tools add genuine value and where caution is needed. Our findings suggest that AI should complement rather than replace conventional methods, offering a pragmatic path toward more accessible and equitable climate-sensitive planning—particularly for municipalities that currently lack the resources for specialized climate modeling.

1138 | Eric Larrey, Charly Davoust, Nina Morello, Olivier Renaud

Morphological Analysis of Medium and Large Cities: Fractal and Diversity Metrics of Built and Green Infrastructure and Their Role in Urban Resilience

This paper presents a comprehensive morphological analysis of French cities over 40,000 inhabitants, compared with selected international cities exhibiting distinct urban patterns. The research explores both the built heritage and the distribution of vegetated areas, using a multi-faceted quantitative approach. The methodology integrates several advanced indicators: Minkowski dimension for fractal assessment, power law analysis on the Power Spectral Density (PSD) from the Fourier Transform, Morlet wavelet analysis, and scale-dependent Shannon entropy computed for each wavelength from the Continuous Wavelet Transform (CWT). The results highlight a wide diversity of urban morphologies, with variable compliance to power laws and auto-similarity behavior across spatial scales. Key findings include the identification of structure heterogeneity within and across cities, quantification of morphological discontinuities between neighborhoods, and the correlation between fractal properties, spatial diversity, and urban resilience. Deviations from expected scaling laws and reduced structural diversity emerge as potential indicators of lower urban resilience and compromised quality of life. Beyond the comparative

analysis, an evolving spatial database enables the identification of deficient urban areas and the simulation of the impact of planned modifications.

Looking forward, we propose to extend this work by exploring the relationship between urban morphological features and cognitive invariants identified in neuroscience research. This includes testing the hypothesis that a balance between order, diversity, and surprise in urban environments might underpin urban quality of life and resilience.

Future work involves expanding the database to additional cities and further refining the simulation tools for urban scenario building.

1738 | Semra Niron, Imge Akcakaya Waite, Irem Kura

Urban regeneration, risk perception, and coping responses: An NLP-driven protection motivation theory approach

Urban regeneration has increasingly been conceptualized as a process where the dynamics of risk, resilience, and governance intersect, shaping how residents perceive and respond to the vulnerabilities of the built environment. In contexts of high seismic risk, it can amplify societal perceptions of threat and prompt protective behaviors—central concerns of Protection Motivation Theory (PMT). Within urban and planning scholarship, PMT provides a valuable framework for understanding how individuals evaluate environmental risks, trust institutions, and translate perceived threats into adaptive or avoidant behaviors. This study examines how individuals in Türkiye—a country historically affected by major earthquakes and persistent seismic risk—perceive and respond to threats related to urban regeneration, particularly regarding earthquake risk, building safety, and institutional trust. Drawing on PMT, the study examines expressions of fear, vulnerability, and coping mechanisms as they unfold in online discourse. Ekşi Sözlük, one of Türkiye's most influential online, user-generated content platforms, serves as an empirical site for observing anonymous perceptions and behavioral intentions related to disaster risk and urban safety. Methodologically, the study integrates digital text analysis with PMT's theoretical constructs, bridging urban sociology and risk perception research. Over 1,000 entries across 12 urban regeneration-related titles on Ekşi Sözlük were analyzed using natural language processing (NLP)-supported techniques, as well as sentiment and discourse analyses, enabling systematic insights into perceived threat levels, emotional responses, and protective motivations. Preliminary findings indicate that user activity intensifies following earthquake events, regulatory changes, and policy incentives. Frequent use of terms such as "risky" and "earthquake" reflects heightened collective awareness of vulnerability and safety. The study contributes to debates on risk governance, public perception, and urban resilience, offering planners and policymakers new tools to monitor societal responses and foster adaptive behaviors in the face of growing urban and environmental risks.

Economics

Fri 3.7.09:00-10:30, Online Presentations B, U359b | Session chair(s): Michael Schwind

1466 | Mei-Jing Chen, Yung-Chi Yen

Market-Driven Evolution under a Land Policy Gap: 20 Years of Logistics Spatial Restructuring in Northern Taiwan

Taiwan's land use and industrial policies have traditionally focused on manufacturing, with less consideration given to the land demands and spatial impacts of supporting industries like logistics. This policy gap has allowed the sector's spatial development to be market-driven, potentially leading to unintended urban impacts such as logistics sprawl. Related studies have confirmed associated effects, including increased carbon emissions from longer freight and commute distances, and potential livability and environmental justice issues.

This study aims to evaluate the specific evolution and spatial effects of the market-driven logistics spatial structure in northern Taiwan from 2001 to 2021. Employing methods from economic geography and spatial statistics, we differentiate between 'specialized agglomeration' and 'spatial concentration'. Based on this framework, we track 20-year changes relative to the urban core-periphery structure.

Preliminary analysis is expected to capture how market forces (e.g., land rent, industrial linkages) have governed this restructuring, manifesting at two levels: (1) Internal Division of Labor: Asset-light, service-oriented logistics enterprises (LE-B) tend to maintain specialized agglomeration in the urban core, while land-intensive, asset-based transport and warehousing enterprises (LE-A) and logistics nodes (LN) disperse to the periphery. (2) Locational Drivers: This dispersal is not random. Preliminary evidence suggests that beyond the attraction of transport infrastructure (e.g., ports, highway interchanges), it is highly correlated with the co-location of related industries (e.g., manufacturing), forming new industrial-logistics corridors on the suburban fringe.

This 20-year comparative analysis quantifies the spatial effects of an industrial land policy that has historically given less consideration to logistics. The findings highlight the necessity for planners to develop proactive land policies to guide the coordinated development of logistics and related industries, aiming to promote positive spatial effects while mitigating negative ones.

1297 | Maria Kyriakopoulou-Deliorga, Dimitris Kallioras, Panayiotis Manetos

Spatio-temporal Dynamics and Determinants of Airbnb Activity in the Municipality of Athens

Airbnb has emerged as a significant urban phenomenon, generating both economic and spatial transformations within cities. While short-term rentals offer multiple benefits (such as revenue diversification, urban regeneration and local tourism enhancement), they also entail potential risks, including revenue fluctuations due to market saturation, seasonality, and regulatory interventions. This study explores the spatial and temporal variations of factors influencing Airbnb host revenues in the Municipality of Athens during the years 2015, 2017, and 2019.

Focusing on the month of March for each year, the analysis aims to capture the local dynamics of this phenomenon in a city that has evolved into a year-round urban tourism destination. Using the Multi-Scale Geographically Weighted Regression (MGWR) method, implemented in GIS and MGWR 2.2 environments, the research identifies and evaluates the spatial determinants of host revenues, emphasizing localized variations and spatial heterogeneity. The findings highlight how spatial factors shape host revenues distribution patterns across Athens.

2307 | Xiaoxu Chen, Hao Li

The Dilemma of Market Failure and Planning Intervention: Spatial Governance in Xi'an's Muslim Quarter Amidst Complex Property Rights

Private property rights in Chinese historic districts constitute a distinct urban phenomenon stemming from complex institutional transitions that have produced highly fragmented and ambiguous ownership structures. These districts maintain irreplaceable socio-cultural value as living heritage sites, yet their preservation faces fundamental challenges. In Xi'an's Muslim Quarter, this unique property regime demonstrates a dual character: well-defined private rights grant homeowners absolute autonomy within their boundaries while simultaneously limiting government regulatory power, resulting in the paradoxical coexistence of excessive commercialization and physical decay.

This study investigates how property rights complexity systematically leads to dual market-planning failure and analyzes the underlying dilemma. The research examines: 1) how ambiguous property rights dissolve behavioral cost constraints, driving residents to overuse public spatial resources in a "tragedy of

the commons"; 2) how fragmented property rights generate prohibitive governance transaction costs, while developmentalist priorities weaken regulatory capacity to constrain individual behaviors and address community needs; 3) how both systems become "locked" in a vicious cycle where each failure reinforces the other.

Using Xi'an's Muslim Quarter as a case study, this research employs field observation, interviews, and policy analysis. It concludes that the dual failure stems from conflict between the incentive structure created by unique property rights arrangements and general urban governance systems. Market failure results from unclear property rights, while government failure arises from inadequate regulatory capacity and motivational deficits due to role conflicts. Their interaction creates a structural governance dilemma.

This study provides an institutionally incentivized analytical framework for understanding governance impasses in Chinese historic districts, identifying property rights restructuring as essential for resolution.

Shelter & Community

Fri 3.7.11:00-12:30, Online Presentations A, U359a | Session chair(s): Ivan Balykin

2442 | Elena Marchigiani, Teresa Frausin, Valentina Novak

Building Housing Policies and Spatial Solutions through Community Co-Design in Trieste

The development of affordable housing policies tailored to increasingly diverse social needs requires a deep understanding of the contexts where interventions take shape. Situated knowledge is therefore essential to identify existing or potential networks of resources, actors, and services.

This contribution presents a stakeholder engagement and co-design process carried out in Trieste (Italy), in the framework of the National Interest Research (PRIN 2022) UAH! Unconventional and Affordable Housing, with the support of design studios at the Università di Trieste and Politecnico di Milano.

Between 2024 and 2025, the involvement of local institutions, third-sector organizations, and inhabitants relied on qualitative and participatory methods (surveys, exploratory walks, interviews, and focus groups). The work began with mapping housing experimental initiatives, leading to the identification of a pilot neighborhood, and the selection of themes and sites for testing housing-and-services solutions. Four buildings – managed by public and non-profit stakeholders supporting vulnerable groups (the elderly, migrants, and very low-income tenants) – were chosen to test flexible, inclusive, and replicable spatial configurations.

The process combined design and policy dimensions, considering Housing First approaches, adaptive access and rental durations, the reactivation of vacant properties, and the integration of dwellings with collective facilities in the frame of a “supportive neighborhood” aimed at enhancing residents’ capabilities. This encouraged a rethinking of housing beyond the rent/assisted accommodation binary, exploring cohabitation models, shared spaces, and customised neighborhood-level care.

Collaboration with established and emerging local actors – strengthened by EU-funded initiatives – has laid the basis for longer-term trust. Current efforts focus on reinforcing the stakeholder network, and piloting a small-scale solidarity co-living project with potential for municipal upscaling. Overall, the work shows the importance of bridging institutional and social innovation, and the role of universities as intermediary actors capable of challenging policy routines and fostering new “trading zones” for community co-design.

2597 | Tassy Ellen Thompson, Dr Tassy Ellen Thompson

Survey By Play. Planning through Playfulness. Radical understandings of ecological neighbourhoods.

A theory of ´survey by play´ is presented as a radical shift in how we as humans understand our outdoor landscapes.

Surveying by play and playfulness is presented as an embodied, dynamic and affective cartographic and planning methodological challenge to the powerful hegemony of digital survey technologies and established planning thinking, systems and mandates. The argument is made for a theoretical paradigm shift to enable practical ecosystemic innovations in planning education. The challenge is to concepts of neighbourhood and the vital importance of play research to ecological planning, not only in planning for play, but planning through and with all age and multi-species play and playfulness. Geospatial practices and perspectives of children, youth, more than human, multi-species and vital materials at play are presented as a a challenge to dominant perceptions of what play and playfulness looks like and who is our neighbour. More than human ethical persectives challenge who and what is permitted to be involved in participatory planning and survey by play, but also why this matters for better planning and planetary futures. In practice, the research suggests that for urban planning, urban design and geospatial professionals, who as powerful agents in land use and development decision making and change, play and playfulness should be a fundamental mode of site survey providing lively and dynamic data for pro-ecological planning and design. The presentation offers empirical material from three outdoor case studies from peri-urban environments and urban developments in Norway and USA. The research, steming from interdisciplinary cultural studies and the humanities, takes a situated knowledge standpoint and an abductive analysis approach. The research uses embodied, visual and sensory methods as part of a ´deep mapping´ methodology. Through the ´survey by play´ practices, practical examples are offered as transferable, potentially ecosystemic, shifts in planning education, policy and regulations.

1185 | Hellen Aziz

Community gardens and kitchens as Practices of Social Cohesion: Bottom-up Urbanism in Berlin

Community gardens and community kitchens have appeared in Berlin as grassroots spaces that promote social cohesion, ecological awareness, and collective agency. In addition to their functions of food production and sharing, they operate as platforms where diverse actors including residents, migrants, activists, planners, and local institutions interact, collaborate, negotiate, participate, and experience the sense of belonging and sovereignty. These practices show examples of bottom-up urbanism, community stewardship: they are self-organized, however, they are often connected to formal planning frameworks and funding structures. They also follow pluralistic knowledge-based approaches, where different knowledge coexist, overlap, and sometimes transform each other. This paper explores how community gardens and community kitchens contribute to social cohesion by enabling everyday practices of cooperation, mutual care, and intercultural exchange. It draws on qualitative fieldwork conducted in Berlin, focusing on two case studies: Prinzessinnengarten (community garden) and Open Kitchen (community kitchen). The methodology combines semi-structured interviews with key actors and participant observation, allowing for an in-depth understanding of the relationships between stakeholders, the connections between citizens and institutions, and the spatial and social dynamics that sustain collective action. Building on the author's ongoing PhD research on community gardens and kitchens in marginalized urban areas of Berlin and Cairo, the paper conceptualizes these initiatives as urban commons, and situates them within larger debates about participatory governance and pluralistic knowledge systems in urban design. It contends that these behaviors not only maintain ecological and

social resilience, but also challenge traditional planning paradigms by emphasizing care, solidarity, and shared responsibility as critical components of urban life.

1317 | Eliya Tzarfaty, Efrat Eizenberg, Benny Kimelfeld

End-to-End Urban Segregation - a new assessment of cityLife

Urban resilience is closely tied to patterns of segregation and understanding it requires a reconsideration of how segregation operates. While planning research has long treated segregation as a static spatial condition, this view captures where people live but not how they move, interact, or recover from crisis. As cities confront overlapping shocks, conflicts, pandemics, and climate extremes, inequality itself has become dynamic, unfolding through networks of housing, mobility, and social encounters. Static metrics fail to grasp how these evolving separations shape a city's capacity to adapt and rebuild.

In this research, we propose a conceptual and methodological shift: understanding urban segregation as a dynamic system and, through this, reframing the foundations of urban resilience. We develop a graph-based AI framework that models cities as relational networks. Using Heterogeneous Graph Neural Network (GNNs), the framework learns how patterns of social isolation, accessibility, and exposure change over time, revealing how vulnerability and resilience co-evolve.

By uniting theories of segregation and resilience, the project positions inequality not as the opposite of resilience but as its structural determinant. Segregation governs who connects, who adapts, and who is left behind when systems fail. Understanding it dynamically enables planners to identify leverage points for intervention long before crises materialize.

Ultimately, this research presents AI not as an external technical layer but as a new epistemology for planning, one that transforms segregation from a map of difference into a living model for enhancing resilience. It challenges planners to interpret complex networks ethically and strategically, using AI to envision cities that not only recover but reconfigure toward greater equity.

1607 | Vanessa Guerra

From Problem to Premise: The Generative Turn in Urban Informality Scholarship

This Review Essay advances planning theory by tracing how ideas about urban informality have evolved from being treated as a problem to being recognized as a generative process through which cities are co-produced. It draws on scholarship across planning and urban studies to synthesize this conceptual evolution and clarify its theoretical significance for contemporary planning. The essay identifies two intersecting perspectives on informality's generative nature. The first interprets informal practices as a response to inequality, colonial legacies, government neglect, and injustice. Through these self-organized practices, residents build capabilities for access, survival, and collective action that contribute to social and environmental resilience, sustainability, and adaptation. The second perspective treats informality as an ontological condition of city making, where formal and informal orders are continuously co-produced through everyday practices and institutions. Both perspectives reveal informality's generative capacity but differ in how they situate its sources and implications. Holding them together has important consequences for planning theory and practice. The essay translates this duality into four planning pivots related to governance, regulation, metrics, and pedagogy, illustrating how planning can engage informality productively while remaining accountable to equity and justice. It also identifies guardrails that help avoid romanticizing precarity or normalizing state withdrawal. While the generative capacity of informal practices is now widely recognized, their long-term implications for governance, institutional design, and policy remain underexplored. The essay concludes that reframing informality as a generative

premise rather than a residual condition offers new insight into how planning theory conceptualizes urban transformation, collective life, and the evolving role of the state.

Theories

Fri 3.7.11:00-12:30, Online Presentations B, U359b | Session chair(s):

1083 | Nicole Lanphier, Linda Fox-Rogers

Towards emotionally-engaged research: a dual-process approach to studying public trust in planning

Low levels of trust have been reported across public institutions for years, and planning is no exception. The broad consensus in planning trust literature is an ongoing crisis of trust in the planning system. The benefits of trust in planning are well-documented, and include collaboration and cooperation among others. Conversely, low trust impedes these, often resulting in social and financial cost. To-date, planning trust literature has examined whether and how much people trust planning, whether public trust levels are changing, and indicators of trust (or distrust or trustworthiness). The literature has also paid some attention to causes and remediation of low trust in planning systems in relation to participatory processes, procedural efforts (transparency, checks and balances, contracts, etc.). However, while trust is recognised as a multidimensional concept involving both rational and affective components (Tait, 2011; Stern & Coleman, 2015), existing planning research fails to explicitly explore the relationship between these cognitive drivers of trust.

Additionally, gaps in current trust scholarship and the call for increased emotional engagement in planning highlight the need for an emotionally- and cognitively-informed framework for understanding trust.

Dual-process models can offer planners a more nuanced understanding of how trust-related judgments are formed, especially in emotionally charged or complex urban planning contexts. Despite the growing acknowledgement that emotions play an integral part in the formation of public perceptions, there has been little exploration of how cognitive processes underpin public trust in planning. By applying dual-process theory to public trust in planning, this research seeks to explore these mechanisms, offering actionable insights for designing planning processes and policies that align with both intuitive and rational public expectations. The proposed approach aims to explore how public trust in planning systems is formed and maintained, with particular attention to the role of subconscious cognitive processes and emotional engagement.

1592 | Carolina Akemi Morita Nakahara

The Dialectic of City and Urban in Henri Lefebvre: Toward a Poietic Understanding of Space

This work examines the dialectic between city and urban in the thought of Henri Lefebvre, treating them as inseparable yet non-identical concepts, both historically and theoretically. Based on a critical analysis of the gaps in contemporary readings, it seeks to explain the radical nature of Lefebvrian thought, in which the relationship between form and content — articulated in triads such as city, urban form, and urban — opens possibilities for appropriation, dwelling, utopia, and poetry.

Lefebvre breaks the conditionality between city and urban, conceiving the latter not merely as an empirical object but as a method of knowledge and transformation — praxis, mimesis, and poiesis. By revisiting the historical constitution of the urban, this study aims to recover its dual dimension — at once real and virtual — and to foreground its poetic status, that is, its relation to poiesis. Understood as a creative impulse, poiesis links doing to knowing, the real to the possible and the imaginary, within the production of space.

Drawing on lesser-known works such as Toward an Architecture of Enjoyment (2014) and Métaphilosophie (1965), the paper argues that poiesis constitutes a key principle of spatial creation and urban experience that warrants further exploration. This principle repositions the dialectic between architecture and urbanism, understanding the former as a specific mode of space production through imagination. Against functionalism and productivism, it restores the sense of oeuvre and reclaims use values — play, fête, creativity — as means to foster a poetic and collective mode of inhabiting, rehumanizing the urban and opening utopian paths for the invention of other spaces.

By reconnecting space, imagination, and everyday life, the urban reveals itself not merely as a material form but as a field of creative and emancipatory potential — the city as a collective work, continuously reinvented through praxis and poiesis.

1690 | Hisako Kobayashi

Practitioner's Reflection on Planning Theory from the Perspective of Global South

This paper explores planning theories from a practitioner's perspective, focusing on planning practices in the Global South. The planning field is undergoing a "southern turn," driven by increasing dissatisfaction with mainstream planning theories. These theories, often based on assumptions derived from the Global North, are criticized for their universal claims and for ignoring the complex, diverse contexts of southern urbanization. Southern scholars are advocating for more locally rooted theoretical approaches, adopting analytical concepts of informality and conflict, guided by the decolonization paradigm. A major planning theory, such as communicative planning theory, has been rejected as inapplicable. Its normative foundation, which relies on consensus-building and communicative rationality, is seen as an idealized model less suited to Southern political and social realities. While significant conceptual progress has been made, "southern planning theory" remains an evolving project, not yet fully established.

Therefore, this paper offers an empirical review and reflection on Global South planning theory from the perspective of a practitioner who received education in the Global North and has been working on planning projects in the Global South. While conflicts are highly salient, skillful planners tactically leverage conflicting rationales as a consensus-building strategy among diverse stakeholders. Consensus, though often a compromise, can be achieved through deliberation, even amidst undemocratic systems and unequal power dynamics. In such circumstances, the pursuit of a public sphere—the ideal of communicative planning—as a forum for discussion remains a worthwhile effort. In the Global South, where informality is the social norm, each stage of planning practice can serve as a building block for establishing institutions that foster more democratic, equitable, and just development, aligning values and securing critical resources for implementation. These adaptive strategies offer valuable lessons for the Global North, which is increasingly challenged by political polarization, an expanding informal economy, and escalating conflict.

2299 | Michael Crilly, Georgiana Varna, Tracey Crosbie

Planning and the façade of power: Critical realism, theory and practice

We present the 'position' that planners are all critical realists, with urban planning inevitably concerned with the complex structures and rules of organisations, society and their interaction with the environment. In this 'position' there is an objective reality of urbanism that can be understood in part by observation, structured research, learnt experiences and reflective practice. The paper presents competing views of power-based decision-making structures. These highlight the largely unrecognised and unacknowledged significance of critical realism in individual ideological positioning and the tacit following of task-based procedural models requiring a supporting evidence base. We present a descriptive overview of practitioner / stakeholder positions in this context that reiterate the significance of political values relating to devolution, centralisation, accountability / democracy and the respective

weight given to technical / scientific evidence within planning decision-making. We demonstrate the importance of making this political positioning explicit and planning agents / professionals more self-aware of their own theoretical grounding. Through the testing of a structured approach to reflective planning practice, we show there are remnants of rational, comprehensive technical elitism that relies on formal training, professional title, heuristic experience, and maintaining the importance of an overtly empirical evidence base. On-going research suggests this professional position has shifted towards a more selective collaborative approach while alternative descriptive roles show principles of local devolution and subsidiarity, valuing local knowledge, experiences, and informal social networks. In each case the professional positioning is concerned with informed, effective, and impactful decision-making supported by mixed evidence. From the critical realist 'position' we know our observations are influenced by multiple biases, limited by our choice of methods, restricted by our perceptions. that are supported by a 'cocktail' of tools, methods and processes available and are prepared to mix these methods and where necessary include additional ingredients in a negotiated quasi-political process.

Actors & Networks

Fri 3.7.14:00-15:30, Online Presentations A, U359a | Session chair(s): Hellen Aziz

2976 | Viktoriia Khrutba, Yuliia Nikitchenko, Ivan Balykin, Alina Nechyporenko, Nataliia Yehorchenkova

Academic and Educational Networking as a Mechanism for University Resilience in the Digital Era: Evidence from German-Ukrainian Cooperation

This presentation examines how academic and educational networks function as mechanisms of institutional resilience and continuity in higher education systems operating under crisis conditions. Drawing on evidence from German-Ukrainian cooperation, the study analyses two major initiatives – the Digital Teaching Network (DTN) and the Wildau–Kharkiv IT Bridge – which together illustrate the evolution from digital platforms as technical tools toward networked socio-institutional ecosystems capable of sustaining learning, research, and interuniversity collaboration during instability.

The research employs a mixed-methods design, integrating an online survey (with 185 respondents from 21 universities), focus group discussions, and content analysis. Findings reveal four categories of network actors – initiators, active collaborators, occasional participants, and observers – whose interactions significantly determine the network's resilience and long-term sustainability. Results show that networking supports educational continuity, strengthens digital competencies, enhances interdisciplinary collaboration, and creates trust-based partnerships that persist beyond project funding cycles. Notably, more than 70% of Ukrainian participants reported that network platforms became essential for maintaining teaching activities during wartime disruptions.

The study demonstrates that resilience depends not only on technological infrastructure but also on social capital, institutional readiness, and continuous communication. A key trend is the rise of niche educational networks built around specific thematic fields (e.g., digital pedagogy, environmental education, IT engineering), which enable the development of deeper expertise and targeted capacity-building.

The presentation argues that academic networks constitute a strategic model for modernizing and internationalizing higher education, particularly for crisis-affected and peripheral regions. Their relevance extends to planning and governance: network ecosystems foster collaborative knowledge creation, support adaptive decision-making, and enable institutions to function as resilient actors within broader societal transformation processes. Acknowledgements: Co-funded by the European Union NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project Smart Transformation and Innovation Consortium Slovakia (STICS) No. 09102-03-V01-00011.

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2832 | Damla Yeşilbağ, Zerrin Ezgi Haliloğlu Kahraman

Who Conserves Heritage? The Politics of Conservation and Cultural Continuity in a Peripheral Rural Landscape in Cappadocia

Conventional heritage conservation remains strongly influenced by material-based and expert-led understandings of what constitutes heritage and how it should be conserved. Yet, a growing number of critical heritage studies highlights the limitations of the Authorized Heritage Discourse (AHD) in accounting for communities' lived relationships with place, especially in peripheral and rural contexts. This study, focusing on who conserves heritage, examines the role of everyday socio-spatial practices in sustaining heritage continuity in the absence of formal conservation mechanisms through ethnographic and spatial analysis of Cemil Village, a peripheral rural settlement in Cappadocia, Turkey.

Despite its religiously and socially diverse history, Cemil has preserved much of its vernacular architectural fabric and cultural landscape without institutional intervention. Based on participant observation, in-depth interviews, and documentation of 432 traditional buildings, this research reveals how "core communities" (long-term residents with multi-generational ties) actively maintain spatial continuity through behavioral routines, place attachments, and locally-grounded conservation motivations. These practices generate a form of community-driven heritage that resists ruination or commodification, and instead emerges from daily-life practices, memory, and rural livelihoods. However, the introduction of new listing decisions and formal conservation tools has paradoxically triggered withdrawal from newly registered buildings, exposing a conflict between institutional logics and community practices. This raises a fundamental question for contemporary heritage planning: Who actually conserves heritage: legislation, or people?

The study argues that such bottom-up, place-based practices constitute a living cultural process that challenges fixed categories of values or conservation legitimacy. By foregrounding peripheral landscapes as dynamic sites of cultural richness rather than passive recipients of expert-defined heritage, the study reframes the role of planning in recognizing, supporting, and learning from community-driven heritage ecologies. The case of Cemil Village offers insights for rethinking how the relational interplay between culture and heritage can help reinterpret planning processes through the contributions of community-based efforts.

1267 | Mani Dhingra, Aphra Kerr, Sourav Sur, Jack R. Lehane

Transforming digital twin adoption at Smart Dublin through embedded research intermediaries

Innovation intermediaries have emerged as crucial actors in smart cities, connecting diverse stakeholders, resources, and knowledge across technology providers, public authorities, academia, and citizens. However, despite their rapid proliferation, they are often treated as peripheral actors without understanding how they emerge and evolve. This paper will discuss the role of research intermediaries, which are co-shaping digital twin innovation at Smart Dublin through an engaged research framework.

In 2022, the smart city unit at Dublin City Council (DCC) developed a comprehensive digital twin programme through a research partnership with the ADAPT Research Ireland centre. This paper will demonstrate how cities can leverage academic partnerships not just for technical expertise but as a governance strategy - embedding research capacity directly into municipal decision-making structures, making knowledge transfer more comprehensive and actionable for other cities. The project aims to explore an ethical approach to implement urban digital twins by Ireland's largest public local authority,

with a focus on participatory planning, informed decision-making, stakeholder engagement and capacity building of local authority staff.

While most international digital twin initiatives operate through external intermediary models, Smart Dublin creates a unique governance structure and knowledge co-production mechanisms through an ecosystem of partnerships, pilots, experimentation, and stakeholder networks. The embedded research model creates distinctive advantages and challenges with boundaries actively spanning between academic research and municipal governance. It supports DCC's learning journey, developing skills across different teams, and establishes processes and governance frameworks that outlast pilot projects. Moving towards a joint strategic approach for digital twins at DCC, embedded researchers bring critical academic perspectives, questioning assumptions and power dynamics in smart city development. This reflexive capacity offers Dublin an alternative model to both pure market-driven smart city development (vendor-led) and traditional bureaucratic approaches (government-only).

2340 | Anna Geppert, Maliheh Hashemi Tilenoi, Franziska Steffen

Europeanization and Flood Risk Governance: Institutional Pathways and Spatial Planning Outcomes in France and Germany

The EU Floods Directive (2007/60/EC) represents a landmark shift in European flood governance, introducing a risk-based, river-basin approach that formally integrates flood risk management with spatial planning. This research investigates how the Directive has shaped spatial planning practices in France and Germany—two Member States with contrasting planning traditions and governance structures. Using a comparative qualitative approach, the analysis examined implementation mechanisms, policy instruments, and governance arrangements through policy documents, planning tools, and published case studies across both countries.

The findings reveal both convergence and divergence in implementation pathways. France operationalized the Directive through territorial risk delineation, establishing Territories at Significant Flood Risk (TRI) and deploying regulatory zoning instruments within a centralized national strategy. Germany, by contrast, pursued basin-oriented flood risk management plans emphasizing technical risk assessment, hydraulic modeling, and decision-support systems, implemented through heterogeneous federal state practices (Schulz & Kahrstedt, 2012). Both countries mainstreamed risk-based planning discourse and adopted hazard mapping requirements, yet diverged fundamentally in governance modes: France favored top-down territorial restrictions with stronger central steering but faced local contestation over property rights and compensation (Hashemi Tilenoi, 2024); Germany invested in technical capacity and stakeholder coordination but produced uneven implementation across Länder and struggled with consistent land-use restrictions (Priest et al., 2016).

This comparative analysis demonstrates that while the Floods Directive catalyzed Europeanization of flood risk governance and mainstreamed risk-based spatial planning, national institutional contexts fundamentally mediated implementation outcomes. The findings have significant implications for climate adaptation policy, suggesting that effective flood resilience requires not only technical risk assessment but also carefully designed multi-level governance arrangements, transparent equity mechanisms, and alignment between water management and land-use planning. The France-Germany comparison illuminates broader dynamics of EU environmental policy implementation, revealing how supranational directives simultaneously harmonize policy frameworks and accommodate path-dependent national variations.

Law

Fri 3.7.14:00-15:30, Online Presentations B, U359b | Session chair(s):

2662 | Sandra Batista Medeiros, Luciana Márcia Gonçalves, Abigail Friendly

From Extra Floors to Extra Justice: The Mechanism of Outorga Onerosa in Brazil

Land value capture (LVC) instruments have gained renewed global attention as governments seek legal mechanisms to mediate private and public interests, finance urban development, and address socio-environmental inequalities. In the Global South, implementation faces institutional and political challenges. In such contexts, urban land value — collectively produced through public investment — is often privately appropriated. In Brazil, for instance, the Outorga Onerosa do Direito de Construir (OODC) is the most emblematic legal mechanism, granting developers additional building rights in exchange for financial compensation. Anchored in the 2001 City Statute, the redistributive capacity of OODC remains contested. Conceived originally to share the benefits of urbanization, the implementation of OODC across Brazilian capitals exposes enduring contradictions. In this study, I examine how revenue from OODC is allocated and whether its practice fulfills the redistributive promise of equitable urban development. A comparative qualitative analysis was conducted across 27 Brazilian capitals (2000–2024), based on a documentary review of master plans and urban legislation. The analysis focused on Article 26 of City Statute, defining eligible uses of OODC funds, and assessed allocation criteria, transparency mechanisms, and socio-environmental priorities. Findings reveal widespread but uneven regulation: although nearly all capitals adopt OODC, its implementation is constrained by fragmented governance, inconsistent criteria, and weak transparency. Some municipalities earmark significant shares for social housing (e.g., Belo Horizonte 25%, Manaus 100%, Recife 70%, São Paulo 40%), while others prioritize public facilities or mobility projects. Likewise, limited public information undermines accountability and participation in the use of OODC. Overall, the redistributive potential of OODC is low, and socio-environmental impacts are poorly addressed. The capacity of OODC to confront inequalities and environmental harms is underutilized. Therefore, strengthening local technical capacity, transparency of resources, social participation, and socio-environmental criteria is essential to align legal frameworks with the pursuit of just and sustainable cities.

1872 | Fernanda Jahn Verri

Informal settlements, collective land disputes, and conciliation courts in Brazil: a new model of participatory justice?

Brazil is internationally known for having very progressive legislation when it comes to land and property rights. Nonetheless, despite recent laws that reversed exclusionary patterns of land use, the Brazilian judiciary still orders forced evictions of thousands of marginalized families. Drawing from Porto Alegre, a city with a participatory planning tradition, this work reflects upon legalized displacement, namely, land dispossession practices that are not only a direct result of real estate speculation, but of a much broader discriminatory process, in which the courts are playing a major role. In particular, this article explores how these removal practices are being validated and contested – especially in the light of the attempt to democratize the judicial process with the creation of conciliation courts on collective land conflicts. I focus on the experience of the Judicial Center for Conflict Resolution and Citizenship (CEJUSC), leading a working group mediating collective land disputes over land tenure and property rights in Porto Alegre since 2016. To understand the role of conciliation courts in challenging dispossession, I conducted semi-structured interviews with residents of informal settlements and squatter occupations and their legal assistance, as well as participant observation of mediation hearings. I found that this new model of justice through conciliation courts, on the one hand, does not result in a real redistribution of power and resources, as marginalized groups are still ignored and eventually dehumanized in these hearings. On the other hand, however, spaces such as CEJUSC might help housing and squatter movements' struggle as

they allow them to gain time, mobilize public opinion, and negotiate with the Executive branch. By exploring insurgency emerging in the context of the judicialization of urban planning, hence, I conclude that informal tenants are developing a new repertoire and legal strategies to defend their rights and claims before the Judiciary.

2968 | Michael Schwind

Law and the Contestation of Privatized and Commodified Land Regimes

Civil society actors are increasingly invoking the law to mobilize and push for progressive land policies. At the same time, counter forces also engage the law to counter these attempts. Planning law, and by extension civil and constitutional law, lies at the core of current land contestations in Germany; yet the way we conceptualize law has a substantial effect on how we analyse and understand these forms of legal mobilization. Drawing on critical legal scholarship, the presentation embeds the law within relations of power and domination and emphasizes its role in both hegemonic and counter-hegemonic strategies. Following Poulantzas and more recent work by Buckel, the law is understood as a key terrain for producing consent, stabilizing dominant property relations, and rendering specific socio-economic arrangements natural or necessary. At the same time, its relative openness makes it a site where counter-hegemonic actors can articulate alternative visions of land and property. The presentation draws on two case studies to illustrate the ambivalent role of law in shaping current contestations around land. First, examining the socialization campaign “Deutsche Wohnen & Co. enteignen” and the accompanying counter forces, I show how the law simultaneously enables and circumscribes political transformations. The second case study analyzes a broad alliance of civil society actors using the law to implement progressive land policies, demonstrating how legal strategies are crucial for institutionalizing alternative land-use and property relations, while at the same time potentially depoliticizing and decontextualizing them.

2564 | Negin Mozaffari

Reconceptualizing the Public Interest in Planning System: Implications for Conflicts with Private Ownership

Planning practice legitimizes itself by invoking the “public interest,” yet in reality this notion is deeply entangled with the limits of private ownership. Property right’s regulation produces recurring ambiguities and conflicts over entitlements, restrictions, and the social function of land. In many contexts of the Global South, these tensions are particularly acute, as planning systems must navigate legal uncertainties and discretionary enforcement alongside rapid urban growth. What remains insufficiently understood is how the public interest is operationalized in planning and judicial decisions, and how different actors frame and negotiate it when collective claims collide with private property. This paper addresses this gap by asking: How is the public interest framed, operationalized, and contested in conflicts over Tehran’s urban green spaces, where collective claims collide with private ownership? Empirically, the study focuses on emblematic green spaces in Tehran that have faced intense development pressures, examining permit decisions that generated contradictory administrative and judicial rulings. These cases—situated at the intersection of ecological commons, urban governance, and speculative development—provide a revealing lens through which to observe competing invocations of the public interest. Methodologically, the research employs a grounded theory approach, drawing on planning regulations, legal documents, and case materials to trace shifting meanings. By showing how planners, courts, developers, and residents mobilize divergent interpretations of the public interest, the paper contributes both to global debates on justice-oriented planning and to a more situated understanding of how conflicts between public benefit and private ownership unfold in the Global South.