Hist Arch (2023) 57:1008–1030
https://doi.org/10.1007/s41636-023-00433-z

ORIGINAL ARTICLE

An Historical Archaeology of Labor in Convict Australia: A Framework for Engagement

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Accepted: 8 August 2022 / Published online: 24 August 2023
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Abstract Between 1788 and 1868 Britain transported some 171,000 male and female convicted felons to Australia, in the process establishing the foundation European population and instituting a process of invasion and colonization. The convict "system" remains a signature theme in Australian historical and archaeological research, contributing to a multitude of areas of investigation: punishment and reform, colonialism, and colonization process, as well as social aspiration and cultural transformation. This article provides an overview of the history, organization, and physical structure of the system. It then describes recent efforts to reunify the trajectories of archaeology, history, and historical criminology through cross-disciplinary projects, questions, and themes. It includes a description of the authors' Landscapes of Production and Punishment research framework, which views the organization and administration of the convict system, as well as the shifting balances between punishment and reform, through a labor-systems analysis. This line of inquiry broadens the scope of archaeological interest away from its focus on prisons and institutional sites. It embraces a wider range of labor settings and products, including the dispersal of convicts across urban and frontier areas, and the operational logic behind the system. It also views the convicts both as individuals and a labor force, and the raw materials, roads, buildings, and other items they extracted, constructed, or manufactured equally as "products" of the regime.

Resumen Entre 1788 y 1868 Gran Bretaña transportó unos 171 mil delincuentes convictos, hombres y mujeres, a Australia en el proceso de establecer la base de la población europea e instituir un proceso de invasión y colonización. El "sistema" de convictos sigue siendo un tema característico en la investigación histórica y arqueológica australiana, que contribuye a una multitud de áreas de investigación: castigo y reforma, colonialismo y proceso de colonización, así como aspiraciones sociales y transformación cultural. Este artículo proporciona una descripción general de la historia, la organización y la estructura física del sistema. Luego describe los esfuerzos recientes para reunificar las trayectorias de la arqueología, la historia y la criminología histórica a través de proyectos, preguntas y temas interdisciplinarios. Incluye una descripción del marco de investigación de Paisajes de producción y castigo de los autores, que contempla la organización y administración del sistema penitenciario, así como los equilibrios cambiantes entre el castigo y la reforma, a través de un análisis de los sistemas laborales. Esta línea de investigación amplía el alcance del in-

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terés arqueológico más allá de su enfoque en prisiones y sitios institucionales. Abarca una gama más amplia de entornos y productos laborales, incluida la dispersión de los reclusos en áreas urbanas y fronterizas, así com la lógica operativa detrás del sistema. También considera a los convictos como individuos y como mano de obra, y las materias primas, caminos, edificios y otros artículos que extrajeron, construyeron o fabricaron igualmente como "productos" del régimen.

Résumé Entre 1788 et 1868, la Grande-Bretagne a transporté quelque 171 000 condamnés hommes et femmes vers l'Australie, implantant ce faisant la fondation d'une population européenne et instituant un processus d'invasion et de colonisation. Le « système » des condamnés demeure un thème emblématique de la recherche historique et archéologique australienne, contribuant à une multitude de domaines d'étude : châtiment et réforme, colonialisme et processus de colonisation, ainsi que l'aspiration sociale et la transformation culturelle. Cet article propose une aperçu de l'histoire, de l'organisation et de la structure physique du système. Il décrit ensuite les efforts récents afin de réunifier les trajectoires de l'archéologie, de l'histoire et de la criminologie historique au moyen de projets, questions et thèmes interdisciplinaires. Il comporte une description du cadre de recherche des auteurs, à savoir Paysages de production et de châtiment, qui examine l'organisation et l'administration du système des condamnés, ainsi que les équilibres fluctuants entre le châtiment et la réforme, au moyen d'une analyse des systèmes de main d'œuvre. Cet axe de recherche élargit le cadre de l'intérêt archéologique au-delà d'une étude centrée sur les prisons et sites institutionnels. Il englobe un ensemble plus vaste de cadres et de produits du travail, notamment la dispersion des condamnés à travers les zones urbaines et frontalières, ainsi que la logique opérationnelle sous-tendant le système. Il envisage également les détenus comme des individus tout autant qu'une main d'œuvre, et les matières premières, les routes, les immeubles et d'autres éléments qu'ils ont extraits, construits ou fabriqués également comme des « produits » du régime.

Keywords Australia · convicts · convict labor · landscape archaeology

Introduction

One of the most significant discourses surrounding the European invasion and colonization of Australia concerns the role, operation, and consequences of the system of criminal exile most commonly referred to as transportation or the convict system. Between 1788 and 1868 approximately 171,000 men, women and children convicted of crimes in Britain and its colonies were transported to Australia as part of their punishment. Many thousands more also made the voyage as administrators, guards, and military, as did the families and dependents of both the free and bond immigrants. Their collective labors during the periods they were connected with the convict system, and subsequently as free settlers, transformed the physical landscape of the country and created the social, economic, political and genetic underpinnings for what is now the modern Australian nation.[1]

As a British Imperial project, the convict system was extremely well documented. Many dozens of meters of shelf space in Australian and British repositories are dedicated to housing a massive and complex archive, recognized in 2007 by inscription upon UNESCO's Memory of the World list (UNESCO 2007). The documentation includes communication across multiple agencies and authorities within Britain, between Britain and the colonies, and within and between the colonies, colonists and convicts themselves. As might be expected, the diversity is breathtaking: reams of official correspondence, reports, maps and plans of the placement and design of convict stations, accounting of labor, costs and revenues, formal Commissions of Inquiry, and general correspondence with settlers about access to labor. There are then the records connected with administering individuals, whether convicts, military, civil officials, or free persons interacting with the system. Added

[1] We recognize and agree with the assertion by Alan Atkinson that, due to the longevity and disconnectedness of the history of convict administration in Australia, "[m]aybe there was a system, sometimes, and then again, maybe there was not" (Atkinson 1999:17). However, for the purposes of this article we use the term to refer to the attempt by colonial and British administrators to create an all-encompassing system of criminal justice from conviction to colony—whether we judge it successful or not.

to this are contemporary newspaper accounts, personal archives, and observations from those inside and outside of the system. Ensuring that records were maintained to track the sentencing, physical location, and disposition, health, and conduct of convicts, leading to their punishment or release was itself a herculean feat. Consequently, we have been left with an extraordinary documentary legacy.

Faced with this bounty of documentary data, archaeologists must carefully consider what the archaeological perspective provides. In this article we seek to demonstrate that archaeological methodologies have played—and continue to play—an integral role in understanding convict Australia. With their access to both the intent and actuality (Lenik 2012:52,53) of the convict system, archaeologists are uniquely placed to provide critical insight into the impacts of this system upon the Australian environment, as well as the people who were caught up within its workings.

In the first section of this article, we present a necessarily cursory overview of the history and archaeological approaches to the convict system in Australia, drawing on previous research to provide a background for readers unfamiliar with the nature and operation of the convict system and its extensive remaining physicality. We provide a brief history of convict transportation and review some of the major questions and themes of previous investigations.

The second part of the article will outline the authors' multiscalar and cross-disciplinary Landscapes of Production and Punishment Project. This project reenvisages convict sites and landscapes, and the flow of products and individuals into and through them, as part of a labor system created within and because of the shifting ideologies and practices of punishment and reform. Where previous overviews of the physical nature of the convict system have largely been based on documentary evidence and concentrated on the institutional architecture of larger penal establishments (Kerr 1984, 1988), we argue that, by taking an archaeological approach to the wider system, we can explore several key themes:

1. The need for convict sites to be viewed as elements within a wider cultural landscape of activities, acknowledging the value and significance of what have previously been dismissed as "minor" work camps, industrial sites, and public works,
2. The disconnects between these idealized architectural forms and operational systems within the documentary record, against the realities as revealed by site survey and excavation,
3. The mechanisms at landscape and site level for the management of the unfree population, and the nature of a convict society and economy,
4. The use of convict labor to transform or "colonize" the Australian landscape, including the creation of urban settings.

Throughout the article we refer to a number of published Landscapes Project case studies. These have been so far predominantly focused on Tasmanian (the former British colony of Van Diemen's Land) sites and landscapes, which accounts for our bias toward methodological examples from this region. However, a slew of additional projects on former convict settlements in other Australian states and exploring different types of convict experience is underway and are included where relevant.

The role of the convict system as a tool in the dispossession and mistreatment of indigenous Australian populations (Harman 2012) is a further and extremely complex issue which we fully acknowledge, but due to space constraints we will deal with the archaeological aspects in a different setting. Neither does this article have the scope to examine the history or archaeology of comparable industrialized convict systems within or beyond the British Empire, variations due to colonialist racial bias (Pieris 2009; Anderson 2018), or even wider connections to or parallels with other forms and systems of unfree servitude and slavery (Maxwell-Stewart 2007; Bates et al. 2016). However, it is hoped that the Landscapes framework may provide a first step toward a wider comparison of British convict-labor practices through application of similar historical archaeological methodologies.

Understanding the Convict System

Convict transportation was a multiscalar and global enterprise embraced by several European nations (Anderson and Maxwell-Stewart 2014; De Vito and Lichtenstein 2013; Maxwell-Stewart 2016a). Transportation of criminals from Britain to its colonies has been seen as a function of the massive socioeconomic

Table 1 Distribution of convict transportees to the main Australian colonies (after Anderson [2018:382])

Convict Colony	Transportation Period	Number (Approx.)
New South Wales (est. 1788)	1788–1840	79,278
Van Diemen's Land (Tasmania) (est. 1803)	1803–1853	68,500
Western Australia (est. 1829)	1850–1868	9,669
Norfolk Island (est. 1825)	1825–1853	6,025
Port Phillip (est. 1835)	1844–1849	2,064
From other British colonies to Australian colonies	1807–1868	5,500
Total		171,036

disruptions resulting from changing rural conditions, industrialization and shifting labor requirements, combined with large-scale population movement into urban centers, lowered standards of living, and a resulting significant rise in crime (Robson 1965). As more traditional systems and institutions for punishment were overwhelmed, makeshift prisons on decommissioned naval vessels ("hulks") and the transportation of convicted criminals to British colonies emerged as an option. From the 17th century, prisoners were initially sent to the American colonies and exiled or sold into indentured servitude as a means of bolstering colonial economies and labor pools (Ekirch 1990; Vaver 2011). The 1717 Transportation Act formalized the process until the Revolutionary War of 1776 severed ties with England. After a brief and disastrous attempt to create new convict colonies in West Africa (Christopher 2011), the barely explored continent of Australia was proposed for the next attempt to remove criminals elsewhere. Debate surrounds the choice of Australia, with an explanation lying somewhere between the "dumping ground" hypothesis of ensuring the removal of society's undesirable elements (Clark 1956; Shaw 1966; Hughes 1987), to more complex geopolitical explanations whereby these settlements would secure Britain a Pacific-Asia foothold (Blainey 1966; Frost 2003). Convicts were therefore deployed as part of a complex colonizing strategy, providing the unfree labor pool for government and settlers to create foundational infrastructure, industry and—ultimately—population (Casella 2006).

The first 1,500 men, women and children arrived at the newly declared colony of New South Wales in January 1788, establishing their camp at Sydney Cove in Port Jackson. Over the next seven decades many additional settlements were established throughout New South Wales and the newer colonies of Van Diemen's Land (1803, now Tasmania) and Western Australia (1829) (Table 1). Some of these were dedicated convict-industrial or -punishment settlements, while others were "free" settlements where convicts were employed as labor.

At the convict system's heart was the punitive act of removal to Australia—and the consequent separation from country, community, family, and friends. Sentences were generally for periods of 7–14 years (Maxwell-Stewart 2016a:647). Once within the colony, they were subject to forced labor of varying severity, depending upon their sentence and classification (see below). Casella (2007:58) has suggested that the aims of the system were punishment, deterrence, and reform, while Tuffin (2013:1) has argued for "economy" as an additional element. Penal philosopher and reformer Jeremy Bentham hotly contested the constitutional legality of transportation, as well as the expense it incurred in contrast to reforms in domestic penal incarceration (R. Jackson 1993). This tension between the costs and efficacies of transportation versus penal detention in Britain raged throughout the life of the system (Maxwell-Stewart 2016b). Similarly, there emerged social tensions between the relative roles and opportunities afforded to "free" settlers, versus those for emancipated convicts and their children, as well as debates surrounding the necessity for continuing transportation against transition to a free society (Carey 2019).

The administration, management, and operation of the system was massively complex and made even more so by the geographical dispersion of the convict population over vast distances, including into frontier areas with limited communication. Figure 1 illustrates the distribution of convict places managed by the respective colonial governments. As already

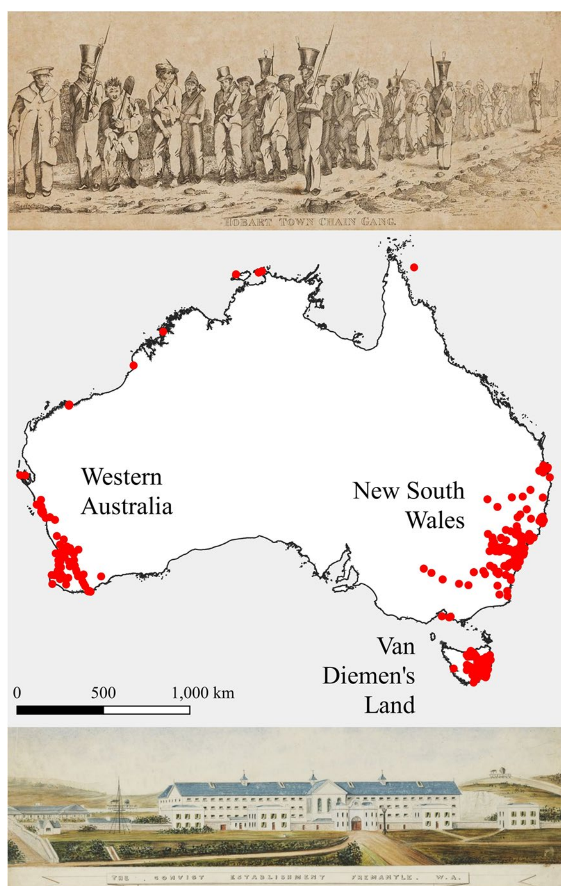

Fig. 1 *Top:* G. Bruce, *Hobart Town Chain Gang*, ca. 1831 (Image courtesy of the State Library of New South Wales); *center*: distribution of government-run convict places throughout the Australian colonies (Map by R. Tuffin and M. Gibbs, Landscapes of Production and Punishment Project, 2022); and *bottom:* T. H. J. Browne, *The Convict Establishment, Fremantle, W.A.*, ca. 1866. (Image courtesy of the State Library of New South Wales.)

noted, it is difficult to argue for a singular "convict system," although it is possible to discern different phases in British and colonial attempts to regulate the organization and management of convicts. Until a system-wide reorganization in the 1840s, convict management was left almost entirely to the discretion of the colonial administrators (Tuffin and Gibbs 2020d:97–101), though the various involved departments: colonial, convict, ordnance, and commissariat, ostensibly operated under the auspices of their British heads. As a result, the shifting ideologies and priorities of remote and local administrators, based on the differing historical and geographic contingencies of the various colonies and settlements, led to inconsistencies in applications of penal policy and practice. It was only in the late 1830s that a Parliamentary Inquiry into the convict system highlighted the inefficiencies of this arrangement, leading to the Secretary of State for War and the Colonies taking greater control, streamlining the system, and paying greater attention to its economics (Select Committee on Transportation 1838). This in turn led to forthright debates about who should pay for and benefit from convict labor: the colony or Britain?

Allowing for the many variations over time, the convict system is most commonly characterized by a convict's linear progression through their sentence, based on monitoring of their conduct (behavior and performance) (Fig. 2). An individual generally arrived in the colony having served at least some of their sentence elsewhere (including in transit), followed by a period of government service and evaluation (Shepherd and Maxwell-Stewart 2021). Their progress was then dependent upon their behavior in whatever form of government, private settler (assigned), or self-managed labor they were sent to (Dyster 1988). Over the course of 1788–1868 there were various schemes of classification linked to the convict's progress. Deployment into different situations and places, the labor to which they were appointed, the conditions they experienced, the degree of supervision, the scale of punishments, the accommodation provided, the type and color of clothing issued, food ration, and indulgences (such as access to tobacco), was all dependent on an array of factors linked to behavior, reformative goals, and the value of an individual's skills. Similarly, the principle of separation, keeping different classes of prisoner away from each other, was from the early 1830s a guiding principle (Brodie et al. 2002). Hard work and consistent good behavior (via compliance and effective labor) was the path toward progressive freedoms and more liberal work settings, and eventually freedom.

Male institutional convict labor has often been incorrectly characterized as being the most brutal forms of primary resource extraction (quarrying, timber harvesting, mining), land clearance, landscape modification, and infrastructure construction (roads, buildings, bridges) (Karskens 1985, 1986). While these activities did engage a certain proportion of the convict population, there was equal emphasis on multifaceted forms of labor. These included complex

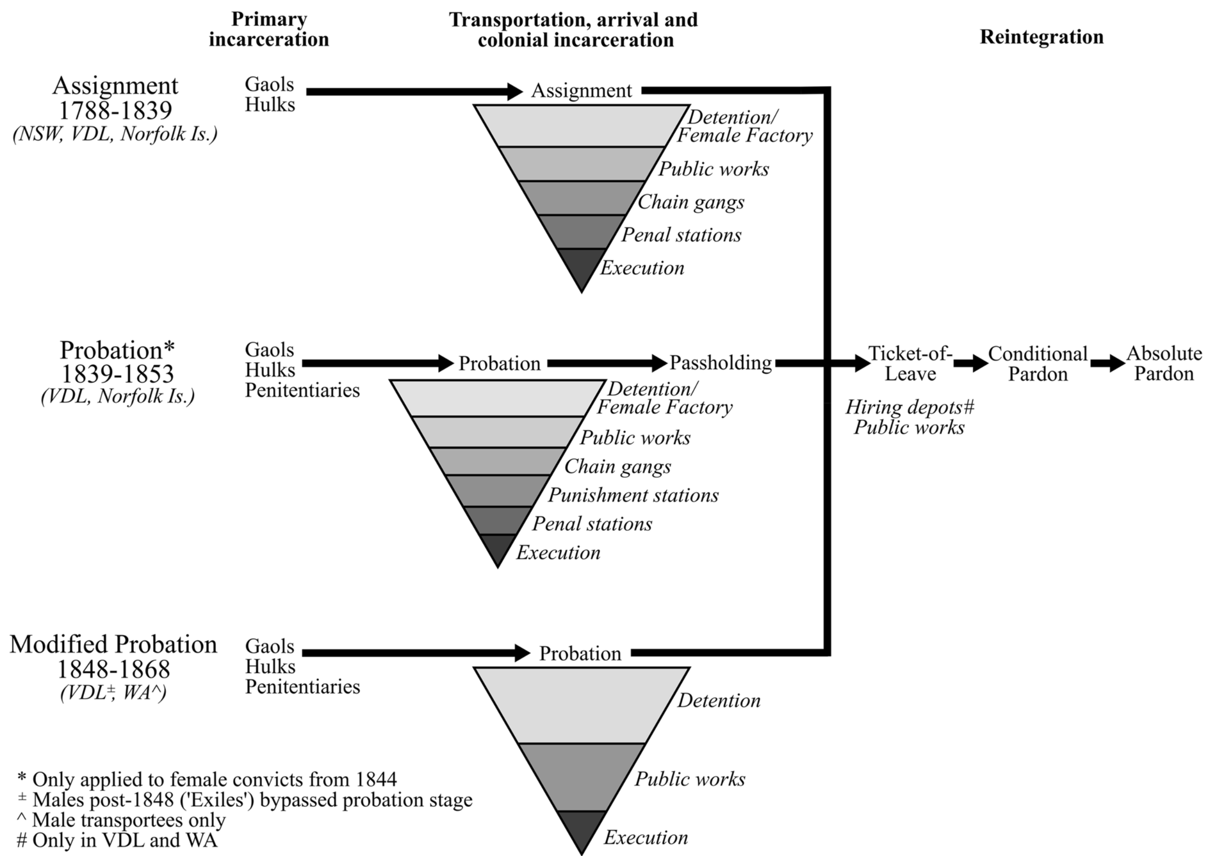

Fig. 2 A simplified schematic of the convict-management systems as carried out during the period 1788–1868. (Figure by R. Tuffin and M. Gibbs, Landscapes of Production and Punishment Project, 2022.)

multi-component forms of manufacturing, such as shoemaking, ship and boat building, and artisan crafts (Nicholas and Shergold 1988:106–107; Robbins 2000; MacFie 2002; Walsh 2006; Anderson and Maxwell-Stewart 2014; Roberts and Tuffin 2020). Convicts also worked as overseers or constables or engaged in domestic service. If educated, they could be co-opted into white-collar tasks for the government administration. Male juvenile convicts were sometimes separated out for separate trades training before being sent out to employment (D'Gluyas 2020).

Female institutional convict labor can be seen as following two paths. Within a decade or so of the establishment of the New South Wales and Van Diemen's Land colonies, unassigned (or unmarried) women began to be held within specific institutional settings known as "female factories" which both protected and controlled them.[2] In these "internal" institutional settings, women were organized within workshops, most commonly to undertake carding, spinning, weaving, knitting, needlework, straw plaiting, and laundry, as well as cleaning and cooking for the establishment (Oxley 1996; Hendriksen et al. 2008). However, agricultural tasks and hard labor punishment such as picking oakum and breaking rocks were also common. External settings included women being allowed out daily to undertake domestic labor (as servants, cleaners, housekeepers, and cooks) for other government establishments and on contract to settlers, but then returning to the factory for their accommodation.

[2] The term "factory" may have its roots in an older British usage for colonial stations or in the workhouse manufactories of England (Hendriksen et al. 2008:9).

A number of authors have convincingly argued for recognition of a second path of informal female convict-labor practices, in particular sexual and "reproductive labor" (pregnancy, mothering, child-care), extending beyond the formalized boundaries set by the administrators, but integral to the advance of the Australian colonies given their significant gender imbalance; see, e.g., Meredith (1988:17), Oxley (1996:181), Daniels (1998:43), and Casella (2000, 2001). Female factories were also equipped with medical, maternity, and nursery facilities (Casella 2011). Although a detailed appraisal of gendered, sexual (for both men and women) or reproductive labor is beyond the scope of this article, these non-formal practices could also take place internal or external to the institutions as a form of labor (Casella 2002; Gilchrist 2004). In Western Australia it was decided to not receive female convicts, with the perceived moral challenges of having female convicts outweighing any possible benefits (Gibbs 2001, 2006).

While undergoing their sentence, convicts were variously provided with accommodation, rations, clothing, and health care. During the assignment period (1788–1839), the majority of men and women were assigned (provided on contract with the government) as servants and workers to individual settlers, passing on the costs of upkeep and day-to-day surveillance to the private sector (Dyster 1988; Reid 2003). By 1839 private involvement in convict management was restricted when the introduction of a new "probation" system (1839–1853) to Van Diemen's Land and Norfolk Island saw prisoners undergo a longer initial period of institutional labor and management, prior to release to the private sector at set wages as "passholders" (Brand 1990). New South Wales did not implement probation since transportation was to cease in 1840.

During either the assignment or probation periods, good behavior meant increasing privileges and eventually advancement to a "ticket of leave," which allowed them to work for themselves within a specified district and even to hire other convicts, purchase property, and apply for permission to marry or be reunited with family migrating from Britain. This stage came with onerous requirements for periodic reporting, church attendance, and an evening curfew. With continued good behavior, a conditional pardon would be granted, giving them freedom within the colony (but not to leave it), and finally they might become an emancipist via a certificate of freedom or absolute pardon (full remittance of sentence) which also allowed them to return to England if they wished. On walking down the road of any settlement you were as likely (and in some places and periods more likely) to encounter convicts going about their business, as you were free settlers. Such free settlers may have been convicts not much earlier.

Transgression of societal "norms," or of established rules and regulations, could see a slide backward. Progressive removal of privileges, restrictions on movement or activities, or return to an institutional setting awaited infractions. More severe forms of negative incentive included sentencing to an "iron" gang (working in chains), imprisonment, corporal punishment (flogging), retransportation to a penal settlement or another colony, and even death by hanging (Kerr 1984; Roberts 2020). The types of treatment and severity of punishments changed as Governors or administrators responded to shifts in legalities, penal theory, or views on the economic imperatives and types of productivity most suited for the convict-labor force (especially regarding public works). The efflorescence of stations in Van Diemen's Land in the probation period is an example of this (Tuffin and Gibbs 2020a).

Although the initial establishment and operation of the convict system had been driven by Imperial priorities and the consolidation of empire (Casella 2006:70), by the 1820s there was rising tension as colonial authorities and settlers became more assertive as to how—and where—they saw the convict population servicing the colonies' needs for economic development. What was meant to happen to time-served convicts was also a source of disagreement. Overall, it might be supposed that those who had served their time and been freed were intended to become productive colonists in their own right. The labor and associated skills training while in the system would presumably service the requirements of the colonies, with many anticipating that the convicts and emancipists would constitute a laboring class to service the free settlers (Gibbs 2010). However, aspirational convicts and their families attaining wealth and prestige was not uncommon (Karskens 1999, 2009). This particular fear—that convicts were profiting from what was essentially a sponsored migration scheme—was even immortalized via Charles Dickens' portrayal of the convict-made-good Magwitch

in *Great Expectations* (Dickens 1861). As a consequence, at several stages the convict system faced accusations of being too soft, which in turn saw changes to reinforce the punitive nature of the system (Ritchie 1976; Roberts 2020). The rise of the transportation abolition movements in the 1830s were therefore about a rejection of this form of penal servitude, admixed with more base concerns about the undercutting of free labor economies (Carey 2019).

With transportation having ceased to New South Wales in 1840 and Van Diemen's Land in 1853, a modified form of probation was continued in Western Australia which first received male convicts in 1850. Established as a free settlement in 1829, the colony had initially resisted the convict "stain," but belatedly decided to embrace transportation as a means of overcoming various economic and social difficulties (Gibbs 2001; Winter 2017:1). It was based upon a transportation model first applied to Van Diemen's Land in 1848, in which convicts served a primary phase of incarceration in the British Isles, prior to their forced relocation to the colonies where they were issued a "ticket-of-leave" (Shaw 1966:336; Godfrey 2019:1144–1145). Many prisoners were still transported to Western Australia to serve part of their primary incarceration, with both their and ticket-of-leave holders' movements through the system dependent upon their good behavior—or lack thereof. The final prisoners arrived in the colony in 1868.

In all colonies there was a post-transportation sunset phase of several decades while the system ran its course (Alexander 2014). An unanticipated element in these later phases was the need to provide welfare for a swelling population of aging, infirm, and institutionalized convicts and emancipists, unable or unwilling to rejoin normal society. Convict stations and establishments were demolished, sold to private ownership, or repurposed for colonial government uses, only sometimes as prisons (Piper 2020).

The Archaeology of the Convict System

Given its prominence in the foundational narratives for colonial Australia, it is not surprising that the convict system has long been a signature element in Australian historical archaeology. Investigations of convict places are not infrequent, and in 2020 11 convict places were inscribed on UNESCO's World Heritage list as part of the Australian Convict Sites World Heritage serial listing. Gojak's (2001) review of archaeological engagement with the convict system identified a range of potential themes which had been or might be explored, including:

1. Punishment and reform—the nature of penal institutions and how they reflected changing philosophies of punishment and social planning,
2. Convict experience—the processes by which men and women became convicts, who they were and what happened to them once they were transported, plus the lives of urban vs. rural convicts, as well as of emancipists (former convicts),
3. Convict society—the nature of societies underpinned both socially and economically by a reliance upon convict transportation and the availability of them as a labor source. Also, how convicts and free persons used space and material culture to demarcate themselves as distinct parts of society, and the processes of transition from convict to emancipist,
4. Convict health—whether archaeological and bioanthropological studies of human remains can address questions of convict health and contribute to long-held debates on whether convicts and their progeny led healthier lives than contemporary British populations.

Gojak's analysis concluded that, with research having been largely driven by works on standing structures, archaeologists had generally focused on punishment and reform, analyzing the most formal institutional aspects of the convict past and especially places of incarceration (Gojak 2001:80). A decade later Gibbs (2012) found that this institutional focus remained largely the case, although a shift had taken place as a new wave of research and researchers began to engage with Gojak's second and third points. This research was driven in large part by urban development and large-scale mitigation excavations, giving unprecedented access to archaeological sites and assemblages. However, many archaeological studies, especially those conducted within this cultural-heritage management (CHM) sphere, tended to remain site-specific and particularistic, exhibiting a limited understanding of those places within the wider body of convict sites and scholarship (although see Casey [2006, 2010] and Casey and Hendriksen [2009]). Historians, including

our cross-disciplinary Landscapes Project partners, have progressed even further on some of these issues, including on the questions surrounding convict health indicated in Gojak's fourth point, e.g., Godfrey et al. (2018).

A complete review of archaeological engagement with Australia's convict past will not be undertaken here, although Gojak (2001), Lawrence and Davies (2011), Gibbs (2012), Winter (2017), and Tuffin, Roe et al. (2021:171–176) provide overviews of the major published research. One of the notable problems with historical archaeological research on convictism has been the divergence from the questions and themes that have been pursued by historians. Particularly relevant to this discussion is how, from the 1980s, historians had begun to place the question of convict labor squarely at the center of their research. Until recently, few archaeologists, with the exception of Karskens (1984, 1986), Frederickson (2001), and Bush (2012), have used the processes and products of convict labor to examine workplace skills and management methodologies. The publication in 1988 of *Convict Workers* (Nicholas 1988) opened the floodgates for historically focused examinations of convict labor, from the systemic and administrative aspects (Robbins 2009; Roberts 2011, 2017) to its role in colonial economics (Meredith and Oxley 2005). The labor lens was also turned toward aspects of agency and powered landscapes (Reid 1997; Maxwell-Stewart and Quinlan 2022). Increasing use of "Big Data" approaches, particularly on the back of the "digital turn," has seen research projects like "Founders & Survivors" (now "Digital History Tasmania") amass and analyze thousands of lines of demographic data, leading to innovative conclusions about the convict as worker and their experience as part of the colonial project (Inwood and Maxwell-Stewart 2015; Cowley et al. 2021). There has also been an increasing emphasis on globalism and the operation of the convict system as a tool of imperialism, a theme which has also been more recently adopted by the emergent school of carceral geography (Moran 2015; Gill et al. 2018).

Landscapes of Production and Punishment: Creating a Framework for Classifying and Comparing Convict Places

Since 2017 the Landscapes Project has sought to reconsider the convict system and its role in the colonization process from the standpoint of an industrial system, both in a metaphorical and practical sense (Gibbs et al. 2018). The project title attempts to capture the duality of the convict system, balancing the ideologies of punishment and reform against the need for the productivities and economies that paid for the operation of the system. Labor formed a lynchpin of the reformatory process, reeducating prisoners to be productive members of society, with the system benefitting from the outputs: offsetting costs and establishing a foundation for colonization (Priestley 1985; Meredith and Oxley 2005; Tuffin 2018).

Picking up on the themes already outlined in the Introduction, we suggest that both the goods and works produced by convicts, as well as the reform of convicts themselves, should be seen within the industrial framework as "products" of the system (Symonds and Casella 2006:146). We argue that it is useful to reconceive of the various institutional and non-institutional settings for convict labor, and the associated philosophies and practices of management, as being bound into the creation, administration, and dispersal of the human, extracted, processed, and manufactured products. A key interest is how products "flow" through the system at different scales (Ingold 2013:25–26). By taking a holistic view of convict-labor activities and sites, their relationships, and distributions over time, we can therefore also engage with the role of the convict system within British colonization processes in Australia.

Taking such an ambitiously broad approach to understanding the relationships between the sites and products of convict labor requires a degree of consistency in how these places can be conceived and categorized. There was no clear typology of places during the period of convict transportation, while the only attempt at a modern overarching summary and analysis of the physicality of the convict system and its evolution has been by architectural historian James Semple Kerr (1984). While an outstanding work that continues to have great value, Kerr based much of his understanding on archival plans, usually of major institutional settings, while most forms of minor, non-institutional, and work settings were not covered. Therefore, the authors have been especially concerned with establishing a framework that embraces this wider body of places.

Our understanding and approach to convict transportation to Australia is based on it having a

multiscalar aspect similar to other forms of forced diaspora (Anderson and Maxwell-Stewart 2014). These might be characterized as being

- Global—The legal and physical processes of removing convicted men, women, and children to Australia, overt and implicit colonization agendas, and the nature of core–periphery relationships between Britain and Australia for a continuing supply of unfree labor, administrative oversight and production priorities
- Regional—Both in the geopolitical sense of the Australian colonies in the scheme of global imperial ambitions for the Indo-Pacific, as well as the placement and activities of convicts with respect to the nature, function and development of individual colonies
- Local—Activities within an area. This might embrace the location and structure of convict settlements, stations, camps and workplaces, through to the micro-geographies of individual buildings and the spaces and activities within. It also incorporates the labor hinterlands around these sites.

Together with our historian and sociologist colleagues working within the wider Landscapes Project, we and our students have sought to deploy this framework to explore the multi-scalar nature of the system and variability over time and space as a function of changing philosophical, ideological, socio-political, economic and environmental factors. For example, though simple in execution, the data on which Figure 1 is based is one of the first times that all convict places across the Australian colonies have been geospatially located (Tuffin and Gibbs 2020b). Locating places in this way is the first step toward understanding the various wide-scale pulses and retractions as the system developed, as well as providing the important nodal points for the charting of personnel, material, and information flows.

At a larger scale, the project has engaged with the presence of convicts within the urban landscape of New South Wales (Shanahan and Gibbs 2022), as well as their interaction with station hinterlands (Phillips 2017; Tuffin and Gibbs 2019a, 2019b). In particular, there has been a concentration upon the articulation between these hinterlands and the deployment of labor (D'Gluyas 2020; Sebanc et al. 2020; Tuffin, Gibbs, Roe et al. 2020). At the largest scale, analysis has delved behind the workshops' walls, with excavations and analyses at Port Arthur seeking to discern how the interplay of "production" and "profit" within controlled and confined spaces was experienced by convict and free alike (Byrne 2018; White 2020; Tuffin, Roe et al. 2021; Tuffin 2022).

A Framework for Australian Convict Places

One of the difficulties with creating an overarching schema for the archaeology of the convict system is the vast range of physical settings and sites associated with the placement, accommodation, and management of convicts. As ascertained earlier, there was no single convict "system"—and this of course applies to its physical expression as well. Over 80 years of transportation, as well as the trailing years when the system wound down in each colony, convicts operated in urban, rural, or remote frontier settings, in different labor situations and at different classification levels. Contemporary nomenclature and categorization are problematic and frequently more indicative of broad function than form, with the added complication of changing use and adaptation of places for different purposes over time.

The documentary archive includes many and various plans and drawings of convict places and institutions, expressing the shifting conceptualizations and ever-moving balance between punishment and reform as well as Imperial and colonial desires and imperatives. However, these do not convey what was actually constructed, or how it worked in the landscape. Archaeological explorations of two of our case study sites, Port Arthur penal settlement (1830–1877) and the Cascades probation station (1842–1855) (both situated on the Tasman Peninsula, Van Diemen's Land), show that the constant shifts in philosophy and practice could see significant and rapid changes to location, structure, and organization (Fig. 3). For instance, Port Arthur exhibits a mélange of coexistent concepts drawn from Britain, America, and locally. There was the "separate" prison, constructed from 1848 on Pentonville principles (Tuffin and Gibbs 2020d). Nearby was a former flour mill and granary, retrofitted in the 1850s into accommodation based on dual principles of separation and controlled association, in the Portland style (Tuffin, Roe et al. 2021).

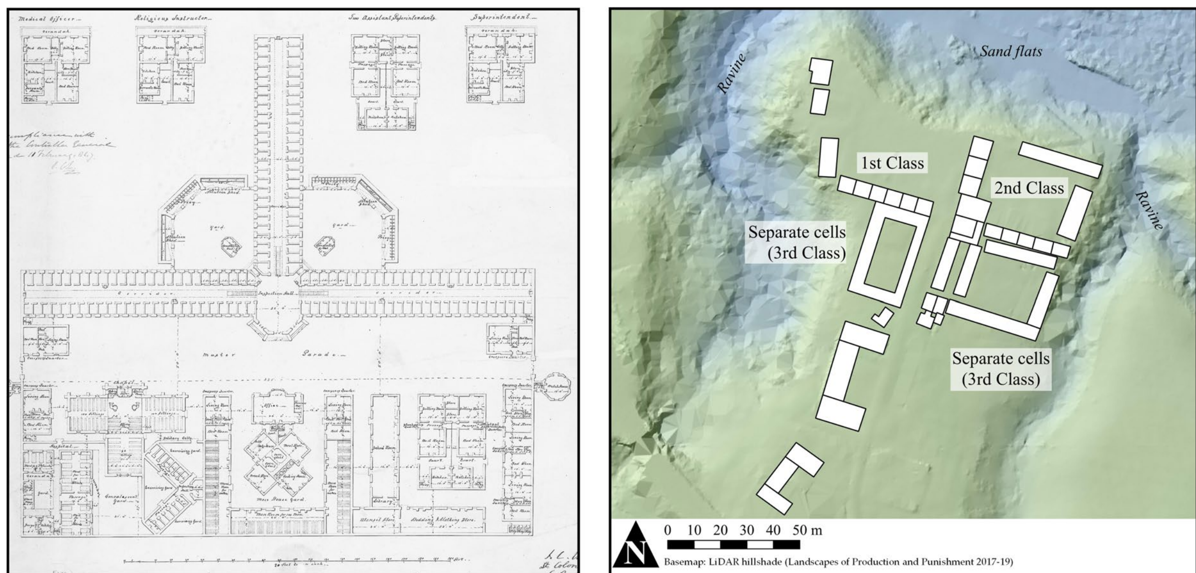

Fig. 3 A comparison of an idealized plan for a probation station and what was actually constructed at Cascades. *Left*: "Proposal for a Convict Station," 1847 (Image PWD266/1/1840, courtesy of the Tasmanian Archives, Hobart, Australia); *right:* map of the Cascades probation station. (Image by R. Tuffin and M. Gibbs, Landscapes of Production and Punishment Project, 2022.)

Added to the difficulties of an ever-shifting system was the tyranny of distance. A three or more month voyage separated the Australian colonies from Britain, sometimes causing disjuncture within the operation of the system and its physical expression as proposals, plans, queries, reports, and amendments were traded back and forth. The tensions between the remote administration, sending out plans and correspondence framing idealized versions of administrative principles, and even whole stations vs. the colonial managers tasked with operationalizing them, is clearly evident when these same principles or places are examined as archaeological sites. The carefully symmetrical designs received from the drafting tables of architects and engineers in Britain and even from Australian metropolitan settings often fell afoul of the unfamiliar Australian environment, in terms of the limitations of the landscapes they were forced into, distances and difficult logistics, unfamiliar or inappropriate construction materials, and a reluctant unfree workforce. New stations could be established on one principle, but then altered mid-construction to accommodate revised requirements for prisoner classification and organization. For instance, a moral panic of the early 1840s manifested as a preoccupation with homosexual relationships within the convict system (Gilchrist 2007). This led to the slow retrofitting of all barracks, depots, and stations with wooden sleeping berth separators, acting as stop-gap measures until more permanent separate sleeping compartments could be created (Tuffin and Gibbs 2020a) (Fig. 4).

A definitive structure for convict places across Australia and for the whole of the operation of the system is therefore difficult to achieve. Previously, Gibbs (2006) and Tuffin (2013) have proposed loose classificatory systems for the different government-run (i.e., non-assignment) settings in which convicts labored. These systems considered factors such as the purpose or function of the setting, degrees of autonomy, permanency, self-sufficiency, and administrative capacity, as well as the fluidity of where sites were located on the landscape. They also discussed the key variables that determined how these landscapes formed and evolved. This analytical framework for the physicality of convict Australia has been expanded as part of our work on the Landscapes Project, taking Tuffin's five-part schema and adding to it places of administration, work, and non-institutional labor. Though broad, they provide a way of quickly understanding the context of a particular place or

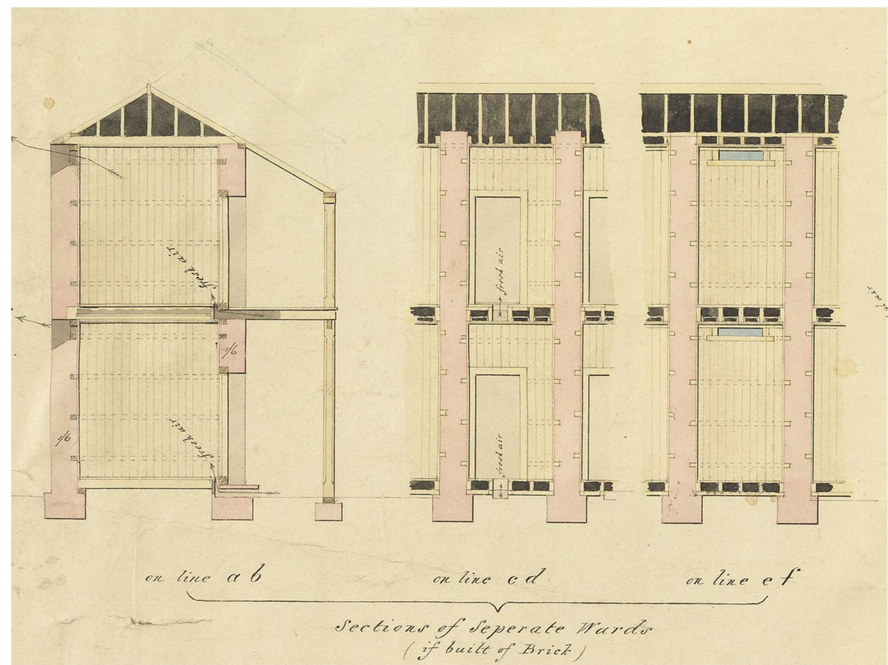

Fig. 4 "Sections of Separate Wards," from the "General Plan of Probation Barracks for All Stations." (Image PWD 299/1/1399, courtesy of the Tasmanian Archives, Hobart, Australia, n.d.)

places. As previously mentioned, we also acknowledge that sites and site uses evolved over time, with many instances where stations were retasked to house different classifications of convicts or changed labor purposes, or where the site was abandoned and then reused (sometimes after a hiatus), but with new infrastructure developed. A single site might therefore change its classification several times over its existence, or even simultaneously fall under more than one category.

The Institutional Setting

Government administered convict places could encompass a full spectrum of situations, from small and ephemeral camps of bark and timber slab huts, through to extensive, highly designed establishments of stone and brick which stayed operational for decades (Table 2). They were found across the Australian landscape: embedded within urbanized cores, scattered on the edges of European settlement, or as closed penal landscapes with multifaceted industrial foci. Independent institutions, or areas within existing institutional settings, were sometimes dedicated to convicts of particular classifications, women (female factories), juveniles, or the physically or mentally infirm.

Places of Administration

Dependent upon the institutional setting, there were often accompanying elements designed for administration and logistics (Table 3). These were commonly used by the civil officers, military, and select members of the convict population responsible for the day-to-day administration of a place. Family and other dependents (such as servants) might also need to be accommodated. Large convict places, such as an industrial station, could have a wide range of administrative structures attached. The larger the station, the more such places were required. Even as convict institutions and workplaces expanded across the colonies, so too did the command-and-control network of military barracks, police stations, and watch houses, helping to regulate and facilitate convict movements between areas, police crime, or, if necessary, quell dissent.

Places of Work

The location and nature of places of convict labor and production forms a core interest for the Landscapes Project. In this, the authors distinguish between workplaces (such as places of quarrying or timber extraction) and public works (which resulted

Table 2 Institutional settings

Site Type	Purpose/Nature	Facilities/Characteristics
Day gang	• Single or multiple gangs could be devoted to a single labor outcome. • Often attached to a larger institution providing the accommodation • Localized work area	• Dispersed • Minimal physical structures (such as for maintenance of tools, food preparation, and basic shelter)
Work camps	• Often dedicated to a single work outcome • Limited or no self-sufficiency	• Impermanent architectures or portable shelters • Often short term, recurring, or sporadic occupation • Either a detached establishment or linked to a larger institution
Work stations	• Often focused on a single work outcome but with associated trades to facilitate it • May have developed some degree of self-sufficiency	• Detached establishment with some local administrative capacity • Medium to long-term occupation and investment in semi-permanent architecture (brick and stone)
Industrial stations and convict settlements	• Multifaceted labor focus • Labor dedicated to self-sufficiency	• A larger closed penal landscape, often isolated (island, remote location, peninsula) and associated with secondary punishment • Could have detached work camps and stations of its own • Could have an establishment within
Establishments	• Labor confined to establishment or to day gangs • Often involved in manufacturing or service-related tasks • Sometimes established on hulks or semi-portable	• Bounded institution • May have penal function or a special purpose (women, children)

Table 3 Settings of administration

Site Type	Purpose/Nature	Facilities/Characteristics
Command and control	• Control of convict population including definition of controlled space	• Military outposts and stations • Police stations • Watchhouses, gates, sentry points • Semaphores • Pensioner guard settlements
Ancillary	• Administration and service	• Housing for administration • Commissariats, hospitals, offices • Office accommodation • Law courts, colonial jails • Churches, schools, civic amenities

Table 4 Settings of convict work

Site Type	Purpose/Nature	Facilities/Characteristics
Workplaces	• Places of resource extraction and manufacture—quarries, sawpits, brick kilns, lime kilns, clearance, agriculture • “Lumberyards” and workshops where convict manufacturing occurred (metalworkers, woodworkers, tailors, shoemakers, etc.)	• May be associated with day gangs, camps, stations or establishments
Public works	• Structural and landscape modification products of labor	• Structures—buildings, roads, bridges, walls, facilities • Landscape modification—drainage and filling

Table 5 Non-institutional settings

Site Type	Purpose/Nature	Facilities/Characteristics
Assignment, pass holder, and ticket of leave	• Contract or indentured labor to “free” settlers • Self-managed labor	• Accommodation • Workplaces

in structures or landscape modification) (Table 4). There is obviously overlap between the location of workplaces and the products of labor, as well as in their location in relation to the camp, station, or establishment the labor force was accommodated in. As noted by Lawrence and Davies (2011:24), a convict-built road or building is not necessarily discernible as different from those resulting from non-convict labor. However, the nature of the industrial footprint (workplaces and practices, organization, management, and technologies deployed) does make it possible to differentiate many of the places that were generated within and by the convict system. Shifting penal philosophies and economic priorities at both Imperial and colonial levels saw different levels and types of deployment of convict labor at various times.

Non-Institutional Places

Although not currently a focus of the Landscapes Project, it is important to consider non-institutional settings associated with convicts (Table 5). The majority of convicts spent most of their sentences as assigned servants to free settlers (under the 1840s probation system in Van Diemen's Land, convicts who had served a term of imprisonment were hired out as "passholders"). As part of this agreement, the government seconded direct management of convict labor to the private sector, in return for which the private sector absorbed the cost of maintenance—predominantly rationing and accommodation. The provision of the latter could be incredibly variable. In some periods, such as in early Sydney (1788–ca. 1815), all convicts other than those under penal sentence had to find (or construct) their own accommodation (Karskens 2009:178). In instances where a group of convicts was assigned to a single place, such as a large estate, there might be a specially constructed convict barracks or set of cottages (Altenburg 1988; Walsh 2006; G. Jackson 2016). At more advanced stages of their sentence and having exhibited good behavior, convicts could also be granted a Ticket of Leave and released into the general populace with an expectation of finding their own employment and housing. Both assigned and Ticket of Leave convicts were still able to access government support and ancillary services such as health care, while if they reoffended, they would be returned to government service or a penal setting.

Extended Landscapes of Labor

A key aim of the Landscapes Project has been to explore the previously overlooked archaeology of the industrial hinterlands associated with many convict places. The labor landscapes of the two aforementioned case studies, Cascades probation station and Port Arthur penal station, were analyzed using a combination of LiDAR (light detection and ranging) analysis and conventional survey. As a result of this work, extensive landscapes of extraction, transportation, and communication were located, recorded, and analyzed. Cascades, in particular, had a remarkably intact relict landscape replete with sites of timber and stone extraction (Tuffin, Gibbs, Clark et al. 2020; Tuffin, Gibbs, Roe et al. 2020). Its landscape comprised an extensive labor hinterland where materials were extracted and refined, linked to the main settlement and transportation nodes by a complex network of log slides, tramways, and roadways (Fig. 5).

The notion of the hinterland also extends to the urban environment. In many respects places like a township-based prisoners' barracks utilized the hinterland in the same way as a convict place in a rural setting, exploiting sites of raw material (such as quarries), constructing infrastructure (wharves, roads, buildings), and engaging in secondary processing (workshops-based labor). However, these places also drew upon the hinterland in a unique way, utilizing a nearby civilian catchment to bolster their economic foundation. For example, at "female factories" (secondary stations reserved for female convicts) the inmates could be economically employed washing clothes for the townsfolk, who were charged for the service (Rayner 2004:170) (Fig. 6). Individuals or gangs of male convicts might also be hired to settlers for employment. Offering services to the surrounding area, these places were not completely sequestered institutions, becoming—at least in part—incorporated into the fabric of the town of which they were a part. Studies of the development of convict-era Australian settlements shows that convict institutions such as barracks and hiring depots were an integral part of town design (Gibbs 2007; Jack 2010; Phillips 2017; Shanahan and Gibbs 2022). Within these early Australian urban settings, the combination of the placement of institutions, the infrastructure of convict management and control, as well as religious and civic buildings, gates and fences, bells, and curfews,

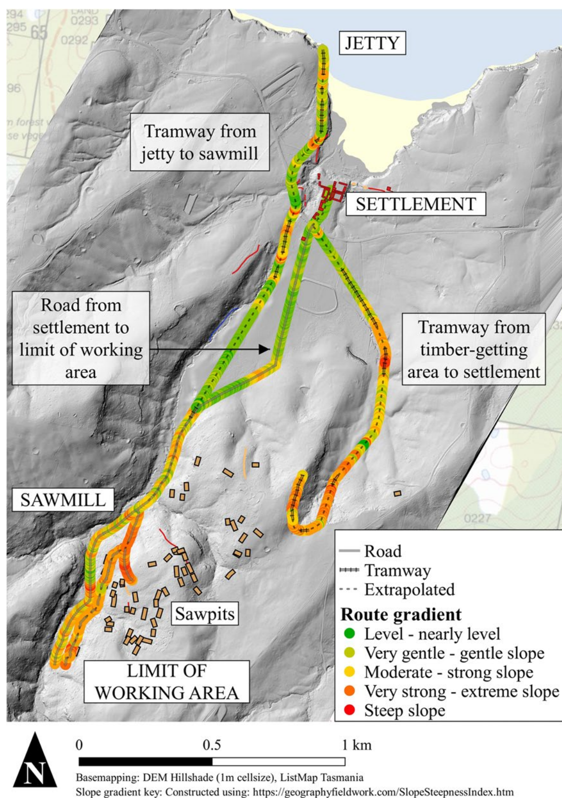

Fig. 5 The extended labor hinterland of Cascades probation station (1842–1855), showing the timber-getting landscape identified during archaeological survey. (Figure by R. Tuffin and M. Gibbs, Landscapes of Production and Punishment Project, 2022.)

all acted as physical and symbolic mechanisms for convict surveillance and domination. As observed by Ellis and Ginsberg (2017:2) in their analysis of enslaved peoples, this created a landscape defined by the "material monuments of tension."

The notion of flow and movement is vitally important to the concept of the convict landscape (Ingold 1993; Collar et al. 2015; Casella 2016). At its very simplest, to understand the flow of convicts and products throughout Australian colonial landscapes, the location of convict places must first be understood. While documentary sources often detail that sites existed or public works were done, the actual locations are often not described. One spatial component of the Landscapes Project has been identifying the locations of the range of convict sites and works (Fig. 7). This aspect of the project, Mapping Convict Landscapes, has provided a publicly accessible database to guide future archaeological engagement at the same time as helping us understand how environment and overarching policies impacted upon the siting of convict places (Tuffin and Gibbs 2020b, 2020c).

As an example, in Van Diemen's Land the post-1839 introduction of the probation system markedly changed the convict landscape of that colony. In the process it created foundation for the modern landscape (Tuffin and Gibbs 2020d:96–97). The main road between the colony's two main population centers, Hobart and Launceston, as well as the multitude of branch roads, were built by convict labor. The townships which dotted the road were the sites of convict camps and stations. Great swathes of "unsettled" land were cleared, drained, irrigated, and enclosed by work gangs, particularly during the 1840s. This distribution is clear when these places are spatio-temporally mapped (Fig. 8). Similar patterns are evident for the rest of Australia (Fig. 1).

With convict places forming nodal points, transport and communication conduits formed links within and between the places, as well as throughout their labor hinterlands. Along these conduits flowed raw materials, manufactured goods, and supplies, the flow sometimes part of a chain of industrial processes occurring at different sites (such as the harvesting and refinement of timber). For instance, the hinterland of the Port Macquarie industrial station (in New South Wales, 1821–1831) included timber-getting areas, small and large farms and stock stations, lime quarries and kilns, as well as a sugar plantation and distillery (Phillips 2017). These production nodes fed raw materials back to the main settlement, where they were consumed or further processed and exported onward to the main colony at Sydney. At places like Port Macquarie, or the Channel region of Van Diemen's Land, river and coastal transport systems played a pivotal role in the movement of people and goods. Convict labor provided the infrastructure and motive force necessary to facilitate such transport systems.

By mapping convict places in this way, we are also provided with a means of repopulating landscapes with individuals, events, processes, and products. The deployment of convicts of different classifications, trades, and skill levels across the landscape is captured to varying degrees within the documentary archive: offence records, absconding notices,

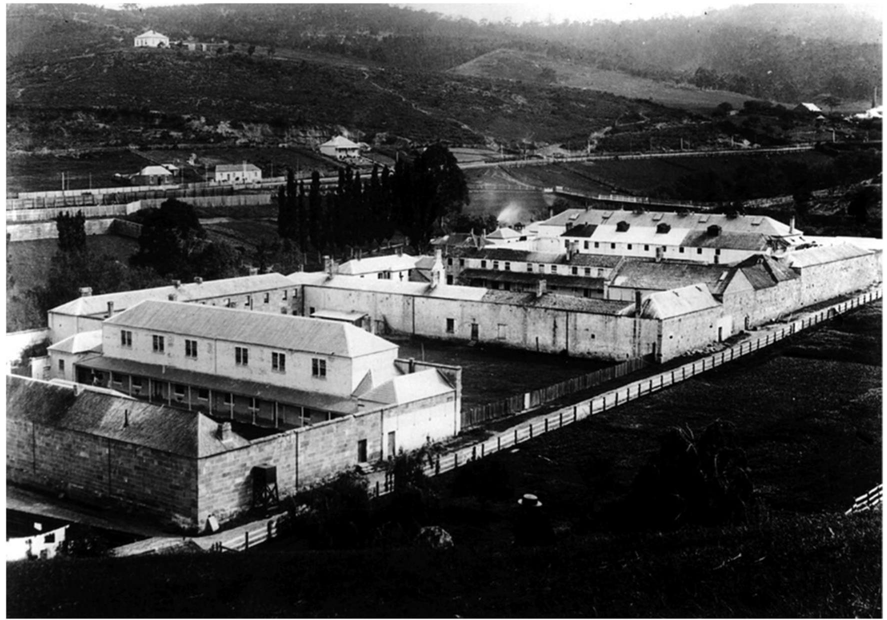

Fig. 6 "Female Factory from the East": the Cascades Female Factory in Hobart. (Photo NS1013/1/48, courtesy of the Tasmanian Archives, Hobart, Australia, n.d.)

magistrate's bench books (records of trials), conduct records, and labor returns all have the ability to place people in time and space (Cowley et al. 2021:36–39). The resolution of this can vary from the coarse, such as placing people within towns or districts, but can go down to the fine resolution of capturing convicts in specific rooms or working at particular labor tasks (Tuffin and Gibbs 2019b) (Fig. 9).

Through recent initiatives to interrogate the "Big Data" of the convict system through the construction of Historical Spatial Data Infrastructure (Terpal et al. 2020), the ability to recreate networks of individual and collective association affords a newfound ability to query the dynamics of these overtly "powered landscapes" (Spencer-Wood and Baugher 2010). In particular, the archaeologist's access to the convict system's spatiality and physicality provides an ability to query how space and place affected the convict's ability to challenge the seemingly unbalanced dynamics of their relationship to authority. Put simply, understanding where convicts were sent to for various parts of their sentence, what was required to get them there, the natural environments, physical structures and organization of those stations and workplaces, and how the individual experienced diverse forms of labor, administrative, and social regimes, allows us to challenge the bald nature of the primarily administrative documentary record by providing significant new insights into the texture of convict experiences.

Finally, another emergent spatial element is the archaeology of the impact of convict-labor forces upon the environment. As the first coordinated non-indigenous mass workforce, convict gangs cleared land for agriculture, extracted massive quantities of timber, modified waterways, changed landscapes, planted, mined, and altered environments with long-term effects. For instance, in 1803, only five years after the establishment of the original convict colony at Sydney (New South Wales), deforestation from logging along the rivers was already causing erosion, flood damage and silting, forcing the Governor to pass laws to regulate the removal of timber (Dargavel 2005:25). Determining the locations of work sites also allows us to better grasp these influences, providing a means of mapping their relationship to known environmental determinants.

Conclusions

Our purpose in this article has been to provide a framework for understanding the structure of the British convict system as it operated in Australia. Unlike

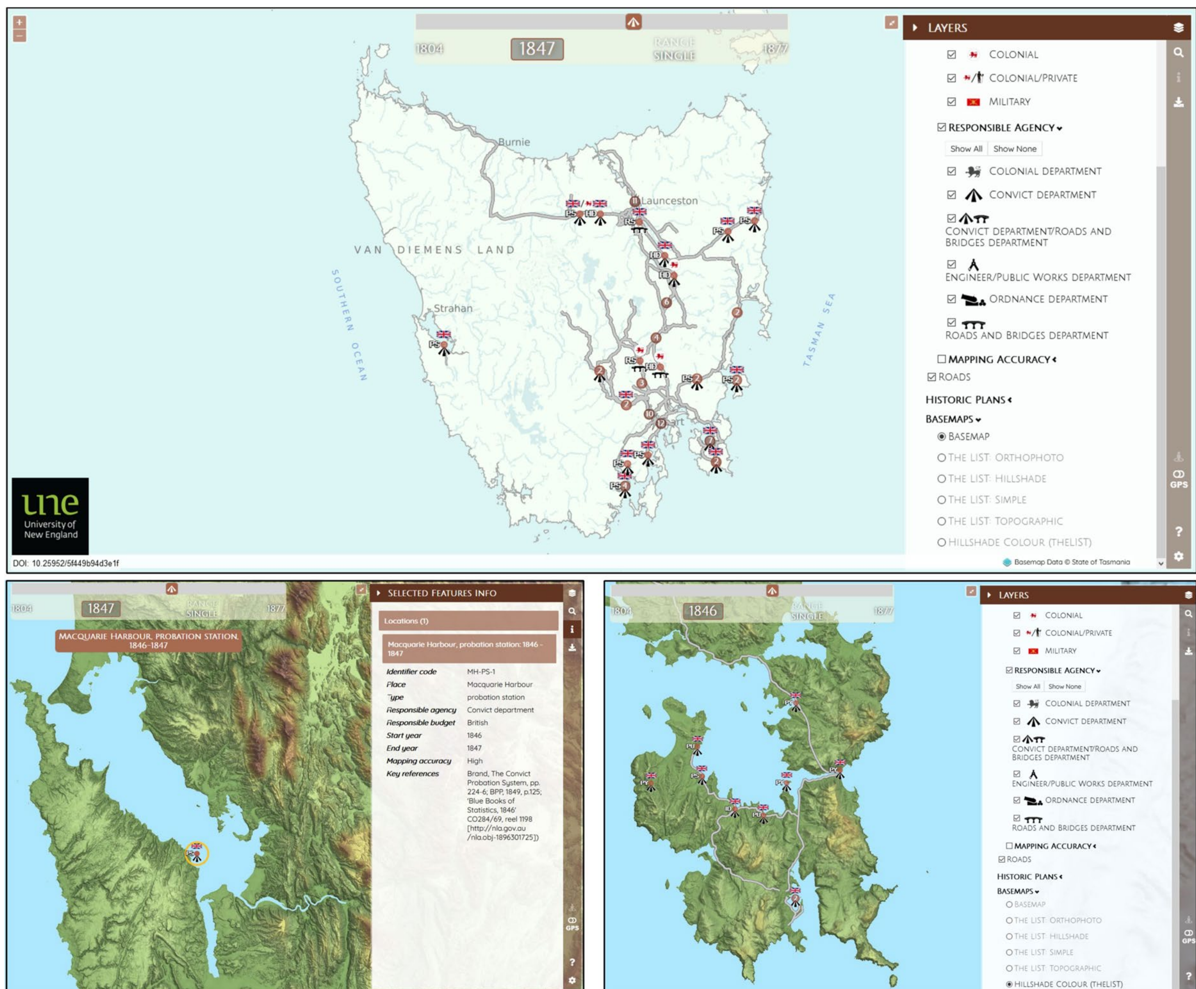

Fig. 7 The Web mapping project to identify convict places across the former colony of Van Diemen's Land. (Figure by R. Tuffin and M. Gibbs, Landscapes of Production and Punishment Project, 2022.)

most previous archaeological and historical studies, the research project on which this article focuses—the Landscapes of Production and Punishment Project—has attempted to articulate the relationships between landscapes, sites, people, and products in terms of labor and labor settings, rather than incarceration. The Australian convict "system" was a vast and complex system of labor that evolved constantly over more than 80 years of operation, subject to shifting ideologies of punishment and reform, as well as divergent social, political, and economic imperatives between the remote British-based authorities and the colonial administrators. Male and female convicts worked in open and closed carceral settings, on tasks ranging from hard labor through to complex artisan craft and white-collar work.

Despite a comprehensive documentary record and the recent application of "Big Data" approaches, archaeological investigation remains the best means for understanding the nature of these labor deployments, experiences, and outputs. Yet, after over four decades, there is still little cohesion in the archaeological engagement with Australia's convict past. Much work is driven by CHM, where sites are chosen not so much for their ability to address research questions, but in the fulfilment of development agendas. Research is similarly constricted by the vagaries of funding. Only

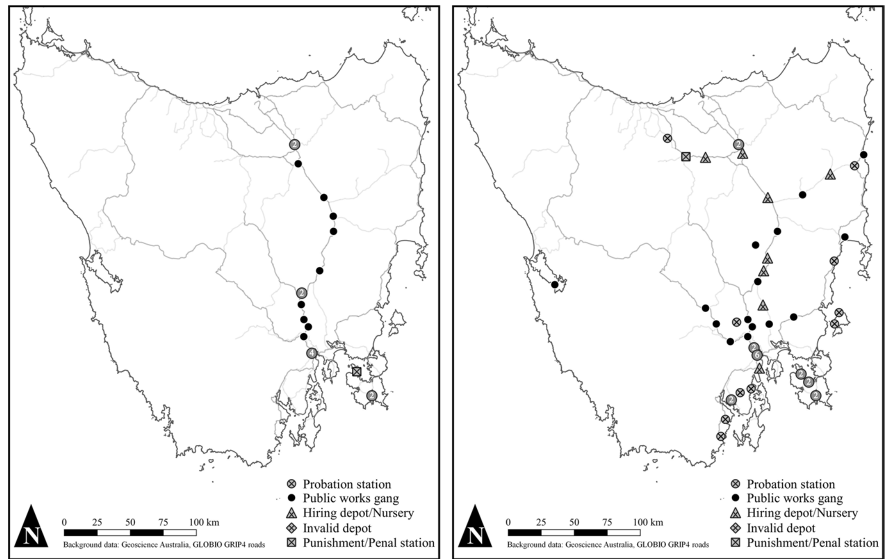

Fig. 8 The growth of the convict footprint under probation is evident once its places are mapped. (Figure by R. Tuffin and M. Gibbs, Landscapes of Production and Punishment Project, 2022.)

coordinated approaches like the Landscapes Project, which are underpinned by time and resources and the capacity to combine synthesis of diverse CHM products with focused research, can hope to move forward our understanding of Australia's large and complex penal project.

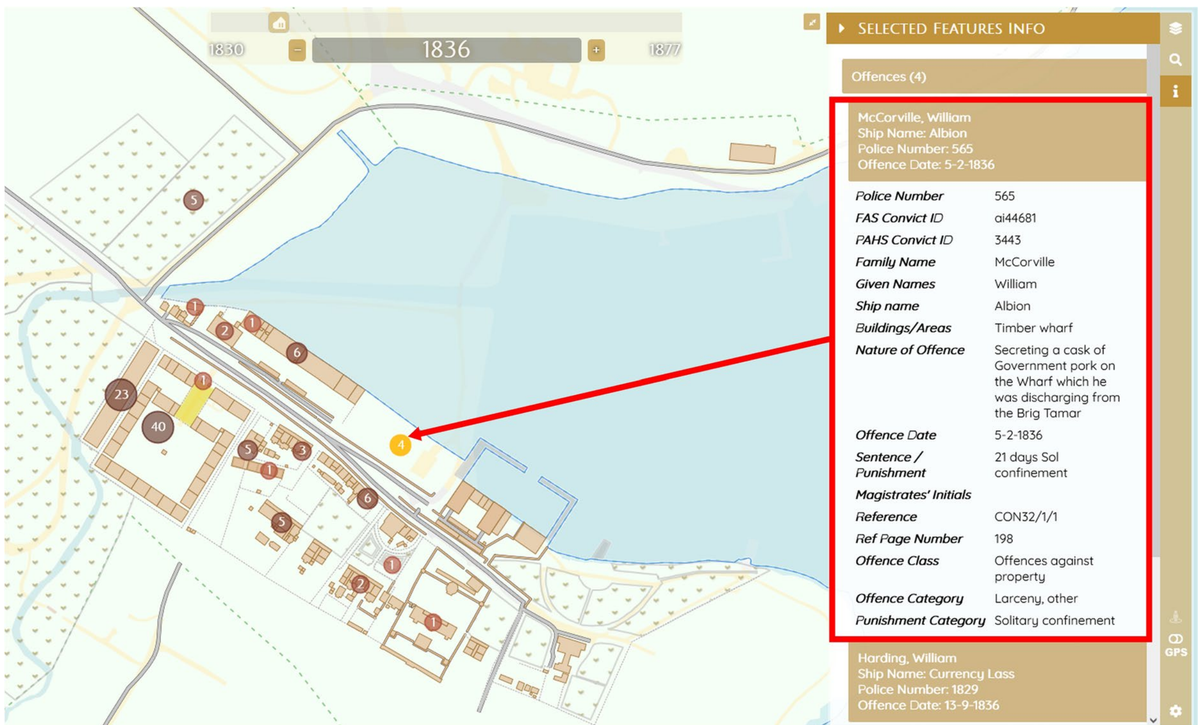

Fig. 9 Individual convict offences mapped across Port Arthur penal station's spatio-temporal context. (Screenshot from the Port Arthur Web map [Tuffin and Gibbs 2020b].)

Archaeological approaches reinforce that, though modern scholarship can at times view this important aspect of Australia's past as a unified system, convict organization and management was hardly ever implemented as such. Time, place, distance, people, and resources all tempered contemporary attempts to impose a convict-management system. The organization and deployment of convict labor was, at times, barely cohesive across a region—let alone across the Australian colonies. Adding temporal depth to this ensures the quest for a system is bound to fail.

Archaeological methodology allows for and encourages an investigation of the disconnect between documented intent and on-the-ground realities. What did places and spaces actually look like, opposed to what was planned? As illustrated in this article, a bewildering array of places were built by and for convicts—so much so that an analytical framework of the type constructed by the authors must necessarily provide only a loose form of categorization.

By moving the gaze beyond the walls of the institution, archaeological approaches also illustrate the breadth and impact of convict labor upon Australia's landscape. Through the co-option of an unwilling labor force, the very environment of the country was modified: extracted, cleared, enclosed, and drained. In many ways convict labor created the walls of its own prison. However, we have shown how it was defined not only by the timber, brick, and stone taken from the environment, but also by the nodes and pathways which formed their everyday networks. From the hinterland of an industrial station to the patterning of places along a road or river system, these were networks which both allowed it all to function—at the same time as forming set ways in which the convict was forced to interact with their environment.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions

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