


Maritime Culture in the Netherlands: accessing the late medieval maritime cultural landscapes of the north-eastern Zuiderzee

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This paper examines the theory and practice of the maritime cultural landscape in general, and projects the theoretical concepts and aspects involved on the highly dynamic late medieval north-eastern Zuiderzee region in the Netherlands. The cultivation of land and marine erosion (floods and rising sea level) are considered as the main factors that caused the transformation of the physical landscape of this region from peatlands with freshwater basins into a tidal lagoon. As a consequence, multiple settlements drowned, large areas of land submerged, and culture and the landscape gradually became more maritime, giving the research area a cultural identity and dimension.

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Key words: Maritime cultural landscape, interdisciplinary approach, drowned settlements, maritime erosion, Noordoostpolder, late Middle Ages, sea-level change.

For a long time, archaeological studies were too narrowly focused on terrestrial archaeology, often ignoring the potential importance of maritime archaeology (Maarleveld, 1998: 48; Flatman, 2003: 144). The discipline had a relatively small number of active maritime scholars and was still perceived to be engaged in antiquarianism (Muckelroy, 1978: 4; Gibbins and Adams, 2001: 279; Flatman, 2003: 143). There has been recent motivation, over the past decade or so, to move forwards, expanding the focus of maritime archaeological studies to examine the wider significance of shipwrecks within their social and cultural contexts (for example Westerdahl, 2017: 3). The international development of maritime archaeology has differed, however, from its development in the Netherlands, with the latter somewhat lagging behind. Despite the strong historic and modern maritime character of the Netherlands, maritime archaeology has even become a threatened research specialty. There are still plenty of maritime archaeological studies being conducted, but the majority are particularly

focused on shipwrecks. There is no doubt that shipwrecks are of great importance as archaeological sources, but they have too often been documented as isolated and particularist objects, with a focus on the tangible: the wreck (wood) and its inventory, without considering their historical, political, social, and geographical context. There is an urgent need for new interdisciplinary approaches in modern maritime research in the Netherlands: instead of studying ships as precious and technologically significant artefacts, these materials should be used to understand the societies that created them (Flatman, 2003: 143). Much more should be done with the large amounts of data generated by Dutch maritime research, wreck contexts should be assessed and synthesized and integrated with data from terrestrial archaeology. This would improve maritime archaeological explanation and theory and open up ways to reconnect and restore balance between Dutch and international developments on the one hand, and terrestrial and maritime archaeology on the other. The maritime

cultural landscape (MCL) is a theoretical concept with a profound impact on maritime archaeology that promotes an interdisciplinary approach (Westerdahl, 1992: 6; Firth, 1995: 5). The concept has great utility when applied to one of the most important Dutch maritime landscape regions: that of the *Zuiderzee* (Southern Sea).

The aim of this article is to investigate the theory and practice of the maritime cultural landscape using the theoretical approach proposed by Westerdahl (1992; 2011; 2013), thereby exploring ways to examine the maritime cultural landscapes of the north-eastern *Zuiderzee*, primarily in the period AD 1100–1400. It demonstrates how maritime cultural landscape elements (material and immaterial), previously proposed by others, can be applied directly to investigate the region of study. Hereto, a multidisciplinary approach is proposed that integrates and compares pertinent yet seldom-used historical, geological, geographical, and (maritime) archaeological data sources from the *Zuiderzee*. Changing the focus from object- and shipwreck-orientated maritime archaeological studies to more integrated studies of the maritime cultural landscape forms the core of the present study.¹ The current study aims to: 1) reconstruct the physical maritime landscape of the region; and 2) characterize the unrecognized maritime remains (such as submerged settlements) in the region. Only then, the late medieval maritime cultural landscapes of the north-eastern *Zuiderzee* region will be perceived in the most accurate way (see for example Van Popta, 2016; 2018).

Love, hate and the *Zuiderzee*

When focusing on the history of the Netherlands, one cannot deny that the Dutch had (and have) a true love-hate relationship with water. The Dutch love for water is mainly based on using water for a transportation network, as a source of wealth and power. For a century and a half, the Dutch dominated world trade and were considered as the leading sea power in Europe. This period started in the late 16th century and lasted until the early 18th century and is known as the ‘Dutch Golden Age’ (Israel, 1990: 15; Gaastra, 2009: 17). One might imagine that Dutch wealth was primarily provided by their most famous commercial institution: the *Verenigde Oost-Indische Compagnie* (VOC or Dutch East India Company). While it is true that the Company brought great wealth and power to the Low Countries, the main sources for economic hegemony were their preponderant influence in the Baltic trade, the unique methods of shipbuilding, the systems of ship ownership, and a highly developed system of inland shipping (De Vries, 1976: 117; Israel, 1989: 48, 408–410; Van Holk, 2017: 75). The geographical location of the Dutch Republic in the north-western tip of the European mainland was also considered to be a considerable advantage, connecting

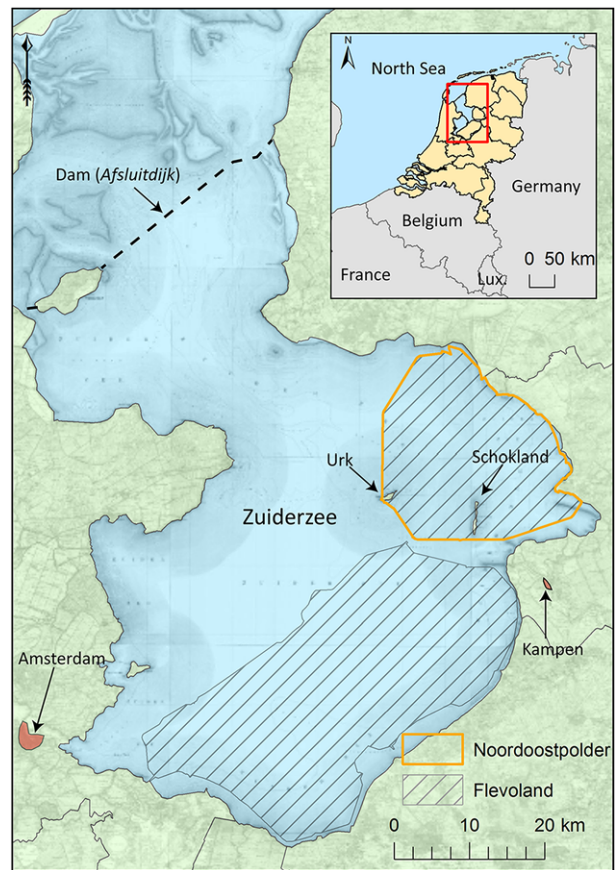


Figure 1. Geographical map of the *Zuiderzee* region at approximately AD 1832. The shaded part of the sea is now known as the province of Flevoland. The part of Flevoland outlined in orange is known as the Noordoostpolder region, corresponding to the north-eastern *Zuiderzee* research area (Y.T. van Popta).

the Atlantic, Baltic, and the West-European hinterland via the Rhine and Meuse rivers. The national waters of the Netherlands (including many lakes, rivers, and their tributaries), functioned as the most important transportation network of people and merchandise for many centuries. Many of the transport routes led into a large inlet of the North Sea in the central part of the Netherlands that separated the Dutch lands in the north, east, south, and west (Fig. 1). The waters of this region were referred to as the *Zuiderzee* and were considered the most important Dutch traffic junction in Medieval and Early Modern periods (see for example Van Popta, 2012; 2017b; Van Popta and Van Holk, 2018).

The literal translation of the Dutch word *Nederland* is ‘Lowland’ and underlines the vulnerable location of the country on the borders of the North Sea, and how Dutch hatred of the sea also comes into play. Large parts of the Dutch countryside lie below sea level and were regularly flooded in the past. From the Iron Age onwards, as a first form of protection



Figure 2. The 32km-long closure dam *Afsluitdijk*, separating the North Sea and Wadden Sea (left) from the IJssel lake (former Zuiderzee). Top left: the closure of the final gap of the dam in AD 1932 (Y.T. van Popta).

against the water, people started to live on artificial mounds called *terpen* (see for example Nicolay, 2010; Nieuwhof, 2016). Then, in the late Middle Ages, dykes were built along large parts of the Dutch coastline, providing supplementary and better protection against regular floods for the increased population of the Netherlands. However, the first dykes did not constitute an efficient barrier against the many heavy storm floods that scourged the land from the 12th century onwards (for example Gottschalk, 1971; Buisman, 1995; Jongmans *et al.*, 2013: 682; Van den Biggelaar *et al.*, 2014; Pierik *et al.*, 2016: 10). Residents of the coastal zones were struck hard by the many floods, as cultivated land was washed away, complete settlements were inundated and thousands of people died. In order to win the battle against the water, drastic measures were undertaken, leading to the construction of the Zuiderzee Works in the first half of the 20th century and the Delta Works in the second half of the 20th century—dams, storm surge barriers, sluices, and dykes. In AD 1932, the Zuiderzee was artificially separated from the North Sea by the construction of a 32km-long closure dam (*Afsluitdijk*; Fig. 2). A considerable

part of the former sea was then reclaimed and put to use as arable fields. This new land is now known as the province of Flevoland. This unique piece of land, also known as both the largest artificial island in the world by land reclamation (Eastern and Southern Flevoland) and as the largest ship's graveyard on land in the world, is the main subject of this study. The northern part of Flevoland, known as the *Noordoostpolder*, is especially of interest as it contains clear evidence of the dynamic battle the Dutch have fought against the water (see for example Wiggers, 1955; Van der Heide, 1965; Van Popta, 2017a).

Maritime archaeology and the MCL

Interest in maritime archaeology originated in the 15th century and was initially driven by the curiosity of antiquarians. The first scientific considerations date back to the beginning of the 19th century but were not yet related to archaeology, for example, Charles Lyell's *Principles of Geology* (1832), in which he used shipwrecks to date the youngest geological deposits (Muckelroy, 1978: 11). They focused mainly

on shipwrecks from an economic/salvage perspective. The first systematic and disciplined academic studies appeared in the late 19th century in Scandinavia, Switzerland, and Great Britain (Muckelroy, 1978: 11–12; Bass, 2013: 5). The methodological standard of underwater archaeological fieldwork was, however, by no means comparable with terrestrial investigations. Technological innovations in the first half of the 20th century, such as airlifts and the aqualung, improved the ability to excavate under water (Tuddenham, 2010: 6). As a result, many wrecks were explored in a more systematic way, but a theoretical foundation was missing and the particularist focus remained (Muckelroy, 1978: 10). Many scholars (for example Bass, 1966; Kuhn, 1970; Muckelroy, 1978; McGrail, 1984; Gibbins, 1990; Gibbins and Adams, 2001; Flatman, 2003; Delgado and Staniforth, 2009; Tuddenham, 2010; Bass, 2013) have recognized the need for the theorization of maritime archaeology and the need to move away from a particularist/material culture-driven approach to one that examines the wider contextualized significance of maritime cultural heritage sites. The work of Keith Muckelroy, *Maritime Archaeology* (1978), which is considered as the most important single statement of method and theory in the discipline ‘maritime archaeology’ (Gibbins and Adams, 2001: 284), should be mentioned: Muckelroy focused on site-formation processes of wreck-sites, interpretative methodologies carried out in a scientific and analytic manner, and provided the academic world with a holistic definition of maritime archaeology: ‘the scientific study of the material remains of man and his activity on the sea’ (Muckelroy, 1978: 4, 160–165; Tuddenham 2010: 7).

However, discussion ensued because the focus on ships and shipboard communities was too narrow; and it did not take into account shores, lakes, and rivers, that is the terrestrial and inland part (see: McGrail, 1984; Westerdahl, 1986; Adams, 2002). Therefore, a new concept was formulated that bridges land and sea, because maritime cultures are related to both: the maritime cultural landscape (Crumlin-Pedersen, 1978; Westerdahl, 1986; Westerdahl, 1992; Westerdahl, 2007; Westerdahl, 2014). Although the first applications of the concept date back to the 1970s, it was internationally introduced by Westerdahl in 1992 in English:

... the whole network of sailing routes, with ports, havens and harbours along the coast, and its related constructions and other remains of human activity, underwater as well as terrestrial. (Westerdahl 1992: 6)

Mainly based on Scandinavian archaeology, it had a profound impact on maritime archaeology worldwide, as noted by Jasinski (1999: 9):

This concept proved very important for the development of, at any rate, a significant part of maritime archaeology because it shows how large a range of data archaeologists can exploit in their studies of human relation to the sea.

The discipline moved to a more holistic understanding of the relation between maritime and terrestrial counterparts, not solely concentrating on shipwrecks and the seabed, and requiring an interdisciplinary approach (Tuddenham, 2010: 8). Furthermore, the maritime cultural landscape approach turned out to be suitable for spatial research instead of only studying individual sites or major excavations (for example Bannerman and Jones 1999; Parker, 1999; Baron, 2008; Pollard, 2008). It focuses not only on the physical remains of maritime cultures, but also on cultural practices, cognitive systems, and toponyms. All these aspects have clear relationships with each other and the landscape to which they belong. Westerdahl has refined his definition of the maritime cultural landscape over the past 25 years, but many scholars still use the definition of the concept as it was published in 1992.

Studying the maritime cultural landscape often starts from a landscape perspective. Even when a single shipwreck is examined, the changing environment of a wreck-site could lead to the consideration of the landscape. Apart from examining the ship construction and creating reconstructions, focus should be on the location of the wreck-site by conducting archaeobotanical, geomorphological, geological, and dendrochronological research, making the landscape a salient factor in maritime and nautical archaeology (Törnqvist, 2013: 28; Westerdahl, 2015: 229). The quote ‘man in landscape—landscape in man’ (Löfgren, 1981; Westerdahl, 1992: 5) could also be applied to wrecks: ‘a wreck in landscape—the landscape in a wreck’.

This landscape exists at the intersection of culture and space and is related to multiple disciplines such as archaeology, history, and geography (Ford, 2011: 1); however, one should not confuse the landscape with terms such as ‘land’, ‘nature’ or ‘space’ (Ingold, 1993: 153). There are, many interpretations of the concept, depending on the perspective from which it is analysed and for what purpose: a landscape can, for example, be experienced, painted, studied, seen, or remembered. When studied, the approach and interpretation of the concept differs with each discipline. Even from an archaeological point-of-view only, there is wide variation in uses and definitions (Anschuetz *et al.*, 2001: 158). Ingold describes the landscape as ‘the world as it is known to those who dwell therein, who inhabit its places and journey along the paths connecting them’ (Ingold, 1993: 156). Gosden and Head (1994: 114) state that human action/culture creates landscape, and landscape then shapes human action. Significantly, Anschuetz *et al.* (2001: 161, 190) define the landscape as ‘a mirror of a community’ or an ‘arena of a community’s activities’. Ford (2001: 4) summarizes a landscape as the physical environment perceptible to an individual and his or her perception of that environment. Duncan (2006: 7) considers the landscape as an arena within which a group’s cultural interaction with the environment, other individuals and

communities define and redefine cultural identity and practices and vice versa. These multiple definitions share an important perception: 'landscape' suggests the presence and/or influence of people. One could say that all landscapes are experienced culturally and therefore all are cultural in nature (Jasinski, 1999: 17; Duncan, 2006: 15).

The above-mentioned cultural landscape concept definitions are derived from archaeological studies that apply these concepts appropriately. However, the number of (maritime) cultural landscape studies increased from the 1990s, leading to a corruption of these concepts as a result of a lack of their definition in many of these studies. Recent works on maritime landscapes, such as *The Archaeology of Maritime Landscapes* edited by Ford (2011) and *Ships and Maritime Landscapes* edited by Gawronski *et al.* (2017) contain some articles that claim to target the maritime (cultural) landscape, but might more accurately be termed regional archaeological studies. So, what does it take to truly examine the maritime cultural landscape?

First, the maritime cultural landscape encompasses both physical (material) remains and cognitive (social and metaphysical) aspects (Duncan, 2006: 13). Studies that only target material (archaeological) remains of the maritime cultural landscape should be termed as maritime archaeological landscape studies, rather than maritime cultural landscape studies. Originally, however, the definition of the maritime cultural landscape was exclusively focused on material remains (Westerdahl, 1978), as a way of protecting physical aspects of maritime cultural heritage without analysing them (Westerdahl, 1994: 266). Westerdahl soon adapted his definition stating that 'a natural way of discovering the maritime cultural landscape is by way of the cognitive perspective of local tradition', comprising an approach including immaterial and material aspects (Westerdahl, 1992: 5–6).

Second, and related to the first point, an interdisciplinary set of data sources is needed to apply the concept. One should not only use archaeological sources (material, spatial), but also historical, geological, geomorphological and cartographic data sets, and consult ethnography, folklore and oral history (Duncan, 2006: 19; Duncan and Gibbs, 2015: 27). It is here where a distinction can be made between the concept of maritime landscape and the concept of maritime cultural landscape. The first can be studied within different disciplines based on physical areas or regions, but the latter is bound to an interdisciplinary perspective based on cultural and social aspects of the people being studied. This should lead to a holistic representation of the maritime cultural landscape: incorporating every aspect of culture and its material expression (Westerdahl, 2017: 7). Approaching the concept holistically also has disadvantages: it can cause the methodology to become vague, making it applicable to almost everything; however, it goes

against the ambiguous nature of the concept to work with just one accepted approach (Duncan, 2006: 37). Instead, the methodology used should be clearly defined and the implicated aspects of each research project specified.

Reflecting on the MCL of the Zuiderzee

The perception that landscapes are continuous and in a constant state of change is certainly appropriate for the Zuiderzee area in the Netherlands. It might be hard to accept that the modern polders, with their large farms and open fields, were once controlled by the Zuiderzee, with its tiny islands and wooden ships, but both must be considered parts of the same cultural landscape. When this observation encourages a detailed study of the region, the connection between the past and present situations becomes clearer. Many present-day material and intangible remains—such as pottery sherds, bricks, and toponyms—testify to past maritime cultural landscapes. The maritime cultural landscape of the Zuiderzee region is multivalent not singular. There are many perceptions of any particular area or region, now and in the past, that occupy different areas of time and space (Duncan, 2006: 17). But what does happen when the physical maritime landscape is reconstructed by modern archaeologists in a specific region for a specific period, such as the late medieval north-eastern Zuiderzee? In this case, the maritime cultural landscapes of the inhabitants of this region evolved as the environment around them was artificially changed. We refer to this as the late medieval perception of the maritime cultural landscape of the north-eastern Zuiderzee.

It would be hard to recognize the north-eastern Zuiderzee region of the late Middle Ages in its modern-day appearance (Fig. 3). The sea dominated the north-west, whereas it was artificially controlled in the north-eastern part of the region. There was a coastal zone stretching from the north via the east to the south, with small settlements close to water, but protected by small dykes. A journey along this coastal peat area would have led through the small settlements of (from north to south) Lemmer, Kuinrezijl, Kuinre, Blankenham, the small chapel of Baarlo, the first houses of what would become Blokzijl, and finally Vollenhove (Fig. 4). To the south of Vollenhove, the IJssel River discharged into the Zuiderzee with a rapidly expanding delta (Cohen *et al.*, 2009: 90–92). About 6km upstream on the IJssel River, the largest and most influential town within the research area, Kampen, could be found. A peat peninsula stretched westwards of Kuinre into the sea and contained several more settlements, of which Veenhuizen is the only one recognized by name (Van Popta, 2017a: 135). From the most western point of the peninsula, multiple islands must have been visible on the horizon, of which Urk was the largest and the only one that is still present. This is due to its Pleistocene boulder-clay base, which

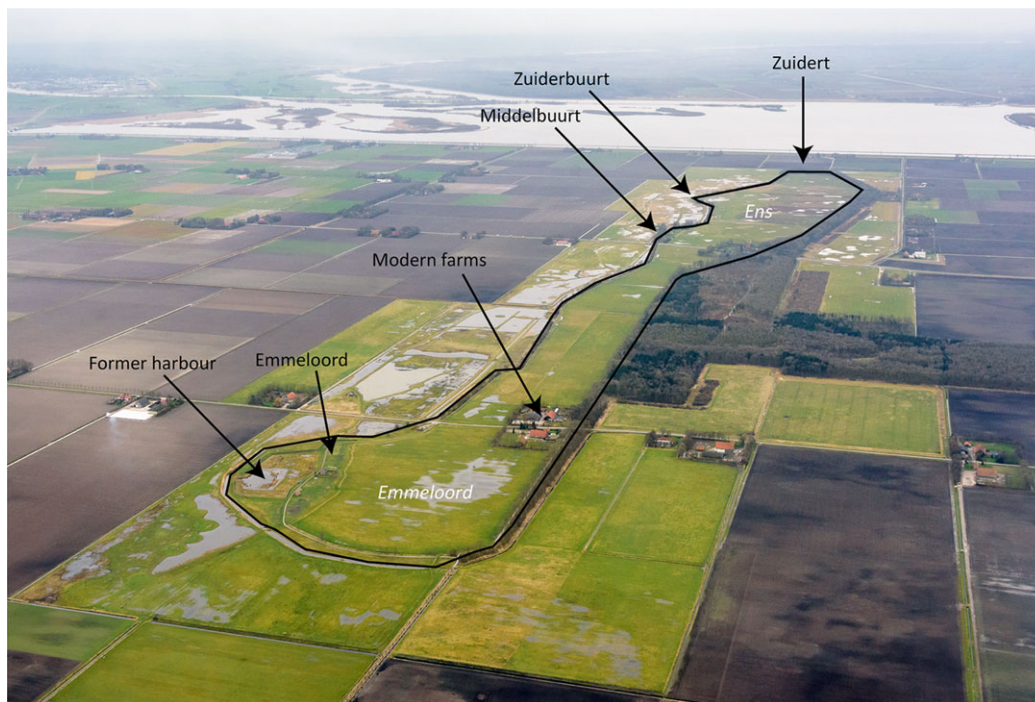


Figure 3. South-facing aerial photograph of the Noordoostpolder region, depicting the modern-day polder landscape (arable fields and farms) and the former island Schokland (black outline) with its abandoned settlements (Y.T. van Popta).

has withstood the eroding power of the Zuiderzee (Geurts, 2005: 18). The other islands, no more than vestiges of the peatlands that once covered the whole region, housed small settlements that were taken by the sea at the end of the late Middle Ages. Nowadays, only some disturbed remnants, such as pottery sherds and bricks, have been found in the Noordoostpolder soil that testify to these once-inhabited islands. One peat island did survive the eroding power of the Zuiderzee: Schokland. The island can be found between Urk and Vollenhove and is now a UNESCO world heritage site. Its present shape, a thin north-south orientated piece of land, is but a small reflection of its late medieval size, which once stretched much further to the west and south. Archaeological research has proven that the inhabitants of Schokland Island lived on small artificial mounds (for example Geurts, 1999; Van Popta and Aalbersberg, 2016). The northern part of the island was called Emmeloord and the southern part was known as Enns. The late medieval habitation on the island was not concentrated in just one spot, but could be found all along the sheltered eastern side of the island. Recent research has proven that the northern part of the island was also relatively densely populated, and might be related to the historical toponym of Maanhuizen, of which the part *huizen* (houses) refers to the presence of a settlement (Van Popta and Aalbersberg, 2016; Van Popta, 2017a).

In no more than a few centuries, most of the peatlands in the north-eastern Zuiderzee region disappeared entirely. The islands Urk and Schokland

were drastically reduced in size, leading to limited possible habitation sites, while the other islands, the peninsula and the coastal zone were completely washed away (Fig. 4). Based on historical maps, it is estimated that the Zuiderzee gained and maintained a more-or-less stable area after AD 1600, although small-scale land erosion continued until the large-scale reclamations of the 20th century.

Theoretical concepts of the MCL

There are multiple theoretical concepts that can be associated with the maritime cultural landscape, although the application of some is time-bound and historical in nature. An overview is presented here of the most relevant concepts and aspects that are related to the late medieval Zuiderzee region.

Maritime culture

One way of defining maritime culture is by comparing it with inland (agrarian) culture; one should be conceptually different from the other. Maritime culture requires a relationship between humans and the sea, in which water can be considered both as a resource and as a barrier or a threat (Washburn and Lancaster, 1968: 294; Erlandson, 2001: 288; Westerdahl, 2013: 745). Using the water as a resource can require aquatic adaptations, often depending on local traditions and related to the usage of boats (Westerdahl, 1992: 5). However, agriculture was also part of the landscape: it is unlikely that past maritime cultures were fully

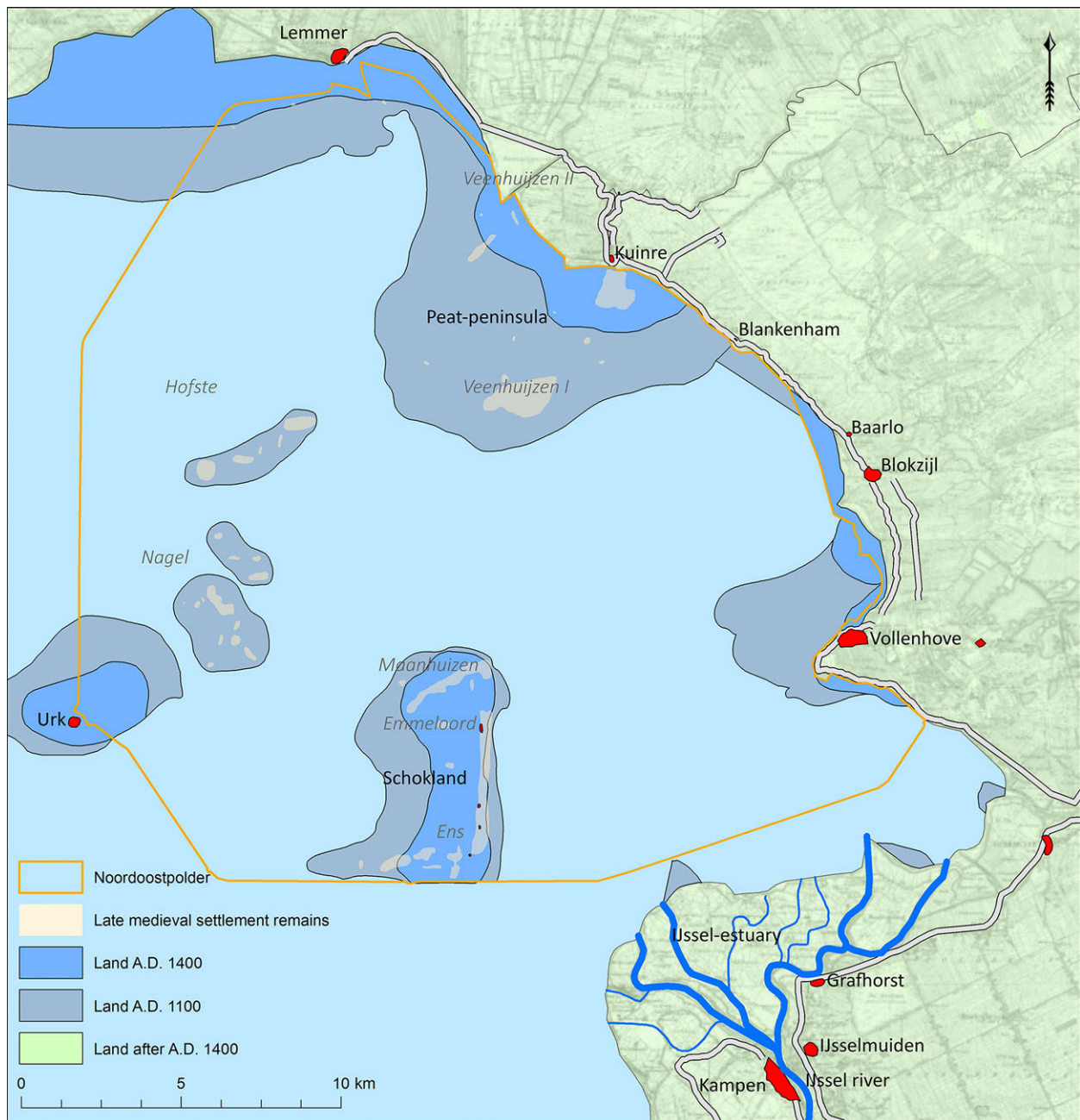


Figure 4. Simplified paleogeographical map of the research area, depicting the land loss in the late Middle Ages and the presumed locations of drowned settlements. The names shown in grey italic represent relevant toponyms and place names (Y.T. van Popta).

dependent on marine resources and instead also took advantage of agricultural resources (Duncan, 2006: 298; Westerdahl, 2013: 744). The counterpart is also unlikely, that is agrarian coastal communities that completely depended on agricultural resources. When projecting these assumptions onto the late medieval north-eastern Zuiderzee region, it becomes clear that the islands in the study area were also dependent on both types of resources: the remnants of medieval land parcels (ditches) on the islands testify to agricultural

use, while the presence of harbours and the wrecks of fishing vessels and cargo vessels prove 'the use of the sea' (in Swedish *sjöbruk* or in Dutch *zeegebruik*, a term invented by the Swedish maritime ethnologist Olof Hasslöf) (Figs 5 and 6).

Maritime cultural centres

Concentrations of material remains and relevant toponyms that (for example) refer to settlements,

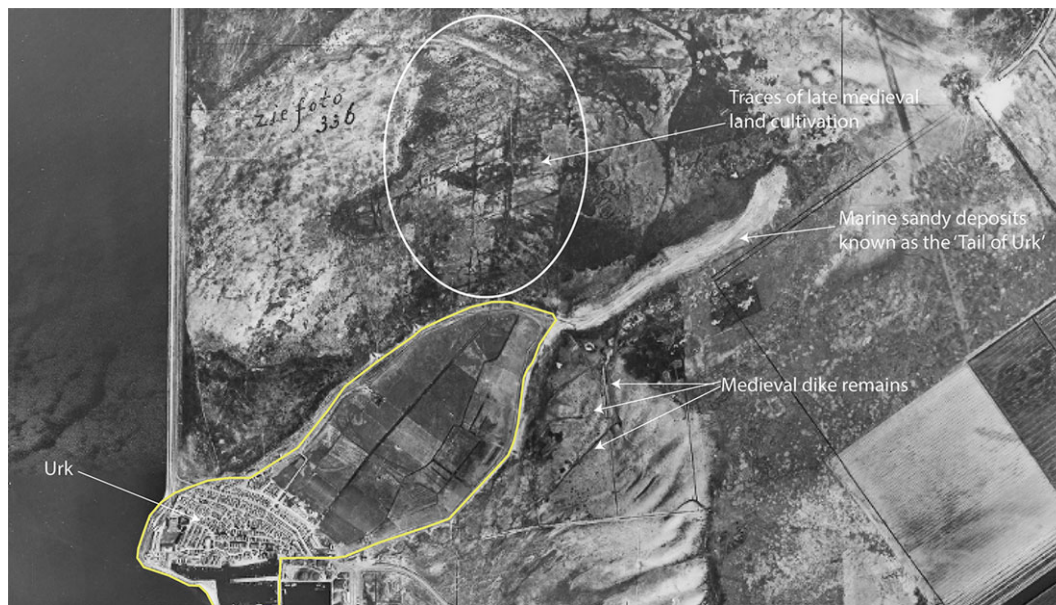


Figure 5. Historical aerial photograph of the island Urk, taken shortly after the reclamation. Traces of land use are clearly visible to the north of the former island, while several medieval dyke remains can be seen to the east (Y.T. van Popta).

harbours, or sea ports should be interpreted as ‘centres’ (Westerdahl, 2013: 738). The north-eastern Zuiderzee region contains multiple examples of these maritime cultural centres, of which some are still preserved, such as Lemmer, Vollenhove, and Kampen, while others have completely eroded away and are only known from historical sources, such as Nagele and Marcnesse. As a result of the reclamation of the Zuiderzee and the construction of the Noordoostpolder, the shoreline shifted almost 15km to the west. This caused many of the remaining settlements to lose their status as maritime coastal centres and their maritime functions, although in some cases the maritime identity remains.

Urk is a good example of a maritime cultural centre that refused to give up its identity, despite the surroundings changing drastically. The island is now part of the mainland, with forest and meadows on its northern and eastern side, whereas the western and southern sections now border a lake instead of a sea (Fig. 7). Urk is nevertheless still an active fishing community, with a fishing fleet that now operates on the North Sea (Geurts, 2005). One can still experience the distinct behaviour and culture of the community when visiting Urk as the settlement radiates seclusion and its inhabitants cherish their dialect and customs. This is illustrated, for example, by the fact that one should not say ‘I am in Urk’. Instead, ‘I am on Urk’ is used, as when Urk was still an island. The words of Greverus (1999: 63) are especially suited to describing Urk: ‘it takes a long time before one can become an “islander”, if it happens at all’. Urk should therefore be considered a cultural island, even though its physical appearance is no longer that of an island.

Maritime cultural areas

Maritime cultural areas are zones with distinct maritime cultural characteristics that supersede other borders and can be distinguished by elements such as settlement structures, boatbuilding traditions, ship types, and place names (Westerdahl, 2013: 738). The Zuiderzee region should not be interpreted as just one distinct maritime cultural area, despite many similarities between the different parts of the region, with regard to social behaviour (mentality) and character of the multiple maritime centres. However, when focusing on the region, differences in maritime culture are visible between its different parts. For example, the northern part of Schokland Island, Emmeloord (Fig. 3), at first belonged to the bishop of Utrecht, as recorded in 13th-century historical charters, and was ruled by the Lords of Kuinre in the first half of the 14th century. The southern part of the island, Ens, is not mentioned in the historical charters and may have developed separately from Emmeloord, although sharing the same island territory. Especially during the 16th century, the division between the southern and northern halves of Schokland was accentuated, with the northern side remaining Catholic and focused on Amsterdam; whereas the southern part joined the Reformation, became Protestant, and focused mainly on Kampen and the east shore (Van Hezel and Pol, 2008: 64).

Transport zones

The traditional zones of transport geography are also known as transport zones (Westerdahl, 2013: 748). These zones need cognitive recognition in order to exist, and can be visualized in a spatial and archaeological

way. A transport zone does not equate to a single path or a coastal sailing route, instead a transport zone is revealed by distinct relationships between multiple aspects such as place names, vessel designs and their adaptations—such as flat-bottomed for shallow waters—shipping systems, the character of coastal settlements, and vocabulary (see also: Westerdahl, 1998; Duncan, 2006: 28; Westerdahl, 2013: 747–748;



Figure 6. Two archaeological examples that testify to the use of the sea: the remains of a fishing vessel (top) and a freighter (bottom) that both wrecked on the Zuiderzee (Y.T. van Popta).

Caporaso, 2017: 8). Transport zones, to a large extent, are influenced by the borders of maritime cultural areas and *vice versa*. Westerdahl, therefore, divided transport zones into seven different types that can overlap and interconnect (Westerdahl, 2000; 2013). In this case, the north-eastern Zuiderzee region should be treated as the fifth type: an estuary lagoon zone, connecting the North Sea to the Dutch, Belgium and German hinterland (Westerdahl, 2000: 15; Westerdahl, 2013: 749). The region connects with zones based on river valleys (such as the IJssel River) and the coastal transport zones of the North Sea and the Baltic Sea (Fig. 8). It highlights the importance of the Zuiderzee, for many ships used it as the transport route in order to reach important (Hanseatic) towns such as Kampen, Zwolle, Deventer, Hoorn, and Amsterdam. It is important to keep in mind that transport patterns, although culturally embedded, should be considered as corridors that exist naturally in the environment. Transport systems are those imposed from authorities, while transport structure is an amalgamation of the two.

Transport enclaves

Transport enclaves are concentrated, perennial settlements of maritime-based societies that have a strong focus on the various means of sea transport. These enclaves have distinct harbour functions and the majority of their inhabitants are involved in maritime activities, serving for example as stevedores, dockworkers, skippers, and crews (see also: Westerdahl, 1994: 267; Westerdahl, 2000: 17; Westerdahl, 2013: 749). It is hard to prove a strong maritime focus for settlements in the Zuiderzee region. On one hand, many of the settlements in the research area depended partially on agricultural resources and did not focus solely on maritime pursuits. On the other, the connection with the water (fishing, transport, sea resources) must have been there for most of the settlements. Against this, settlements such as Veenhuizen have tended to move away from the water, rather than staying close to the shore. Nonetheless, in

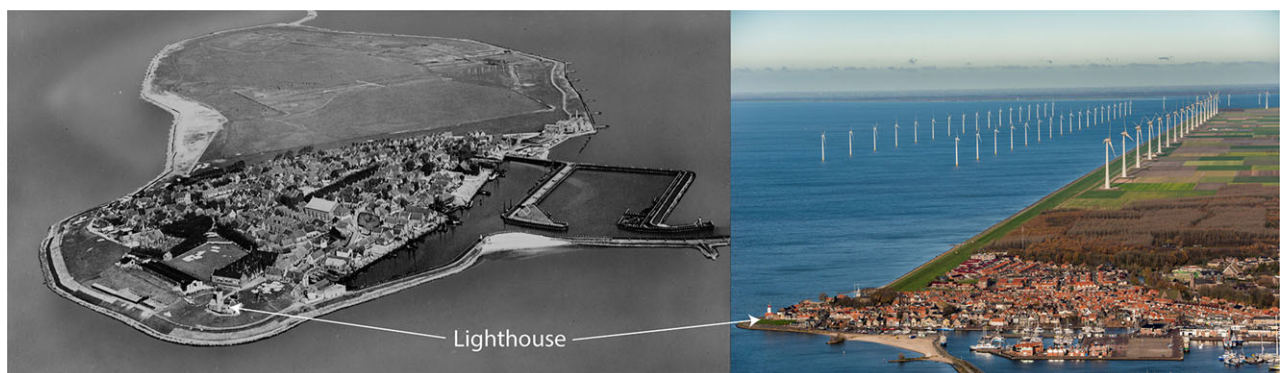


Figure 7. The island of Urk before (left) and after (right) the reclamation of the Zuiderzee. The iconic lighthouse is clearly visible on both photographs (Y.T. van Popta, after Persgroep1.net).

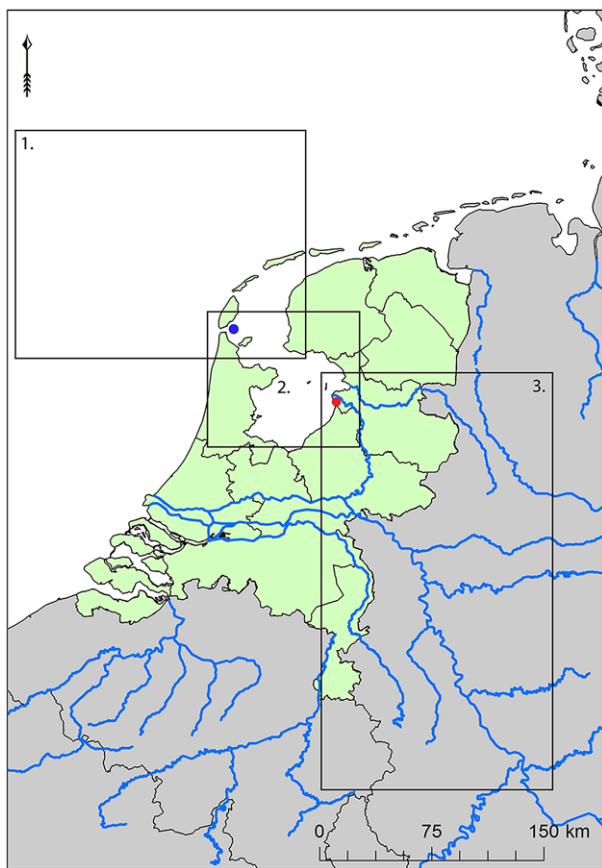


Figure 8. Spatial representation of the three relevant transport zones: 1. Zone of the open sea, 2. Estuary lagoon zone, 3. Zones based on river valleys. The blue dot represents the transit point of the 'roadstead of Texel' (between zones 1 and 2) and the red dot represents the transit point 'city of Kampen' (between zones 2 and 3) (Y.T. van Popta).

a maritime zone such as the north-eastern Zuiderzee area, there have been enclaves that monopolized maritime activities within the zone (Westerdahl, 2007). The most influential transport enclave in the late Middle Ages would have been Kampen, due to its focus on Baltic trade and its position near the IJssel estuary. In fact, Kampen pops up predominantly in late medieval Scandinavian texts and treaties, underlining its influential position (Wubs-Mrozewicz, 2008: 38; Jager, 2015: 114). Other settlements within the research area, such as Urk and Schokland, eventually gained a strong focus on maritime activities as a result of decreased agrarian possibilities, for example decline of arable fields due to storm floods. In the 17th and 18th century, most inhabitants of, for example, Urk started focusing on fishing and cargo trade, making it more-or-less a transport enclave (Geurts, 2005: 76).

Transit points

Transit points can be found in between zones including rivers and inland waters (Westerdahl, 1992: 6; 1994: 268). These points embed maritime changes that

highlight the transition between transport zones. In the study area, the city of Kampen can be considered as a transit point, due to its location near the IJssel estuary where the estuary lagoon zone meets the zone based on river valleys. In the late Middle Ages, large cargo vessels, such as the cogs of the Hanseatic League, would sail from the North Sea across the Zuiderzee to Kampen where they delivered their goods. Smaller (flat-bottomed) ships, such as barges and small cogs, would then transport goods upstream on the IJssel River to other settlements and smaller rivers in the Dutch, Belgian, and German hinterland (Robijn, 2005: 181; Weststrate, 2008: 251; Van Holk, 2010: 135; Weststrate, 2010: 152; Jager, 2015: 113). In the 17th century, the large and fully loaded cargo ships of the flourishing Dutch East India Company were unable to sail across the shallow waters of the Zuiderzee towards Amsterdam, Kampen, Hoorn, and other large ports. As a solution, a new transit point was created at the roadstead of Texel, the most westerly island in the Wadden Sea region. From that moment onwards, imported goods were transhipped to small lighters, such as *kaag*, *wijdschip*, and *waterschip*, which transported the cargo to harbours along the Zuiderzee coast (Petrejus, 1971: 20; Haalmeijer and Vuik, 2006: 93). Although transit points highlight the transition between transport zones, these transitions should not be considered as borders. This can be illustrated by the fact that the late medieval cog vessels (freighters) were able to sail in all kinds of transport zones: open sea, along the coast, in intertidal lagoons, and on rivers, as is proven by the wrecks that have been found in all these different types of waters (Van Holk, 2010).

MCL aspects and archaeological remnants

A maritime cultural landscape can be divided into different landscape types, or aspects, in order to systemize and understand the remains studied using the concept (Westerdahl, 2011: 339; Caporaso, 2017: 3). Each of these aspects has its own way of representing the cultural component in a maritime landscape and can be the subject of an entire study. Each of the aspects is first introduced in general, before it is related to the Zuiderzee region.

Economic landscape (sustenance)

The most influential, economic landscapes are especially important for small (isolated) maritime communities enabling them to support themselves. Study of these landscapes should not only focus on fishing, hunting, and gathering, but also on coastal agriculture (Westerdahl, 2013: 746). In the north-eastern Zuiderzee region, coastal agriculture and fishing must both have been important for the maintenance of the inhabitants of the small maritime communities, although they might at first not have been in perfect balance. There are several arguments that imply a strong agrarian influence in the late

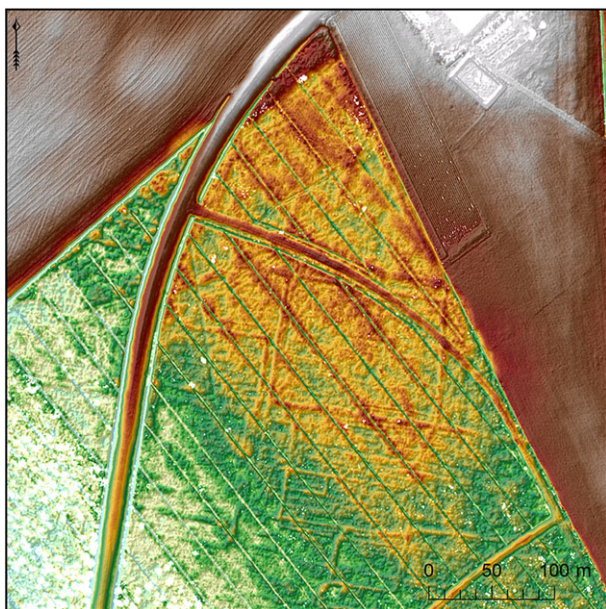


Figure 9. Detailed LiDAR-data, depicting late Medieval and Early Modern traces of land cultivation (network of ditches), close to the eastern shore of the Zuiderzee (Y.T. van Popta).

medieval north-eastern Zuiderzee region. First of all, there are only a few surviving traces that testify to fishing activities, such as several historical charters that mention the fishing rights (Geurts, 2005: 41). It should, of course, be remembered that fishing must have been a commonly undocumented activity, although this implies small-scale activities. Second, the oldest shipwrecks from the area are in many cases freighters (cog-like vessels) and date to the 14th century, while the oldest-known fishing vessel dates to the 15th century (Van Popta, 2012). Furthermore, the inhabitants of multiple settlements, such as Veenhuizen, tried to flee from the water, rather than searching for it. This might, of course, also be caused by the lack of a proper coastal defence. Finally, archaeological research has led to the discovery of late medieval systems of coastal land parcels, likely used for arable farming and grazing (Van Popta, 2017a: 135) (Fig. 9). Altogether, and from an economic landscape aspect, a part of the inhabitants in the research area could be characterized as ‘maritime farmers’.

Transport (communicative) landscape

In general, the main maritime factor, transport landscapes can include all kinds of transport entities such as routes, seamarks, pilotage, harbours, roads, and portages. Moreover, navigation is important as maritime place names and reference points, such as beacons or churches, can help identify a location, a region, or its borders. In general, transport landscape(s) are affected by human choices that are made while travelling through the landscape. These choices depend

highly on the means of transportation (by foot, by ship) and familiarity with the region. The dynamic and ever-changing nature of the research area must have made navigation an important yet difficult factor. Nowadays, little remains of the late medieval nature of the research area, making it hard to estimate which specific entities were used. The most constant navigation factors must have been the skies, (church) towers, and wooden beacons. As a matter of fact, these were still used as important navigation aids in the final era of the Zuiderzee (1800–1932; see for example Havard, 1874).

Relocation of maritime communities, bringing their own cultural baggage, has also been an important factor in transport landscapes, as is proven by studies on transported maritime cultures (Gosden and Head, 1994; Miller, 2002; Westerdahl, 2003; Duncan, 2006; Duncan and Gibbs, 2015). The cause of the relocation of a community can however differ as people may have chased resources (food, raw materials), economic wealth, or had to flee from the water and were searching for new land. The first can be associated with coastal fishing communities (chasing fish) and small island communities with insufficient resources and surplus, such as 19th-century Schokland. The island was completely abandoned as the inhabitants were no longer able to support themselves, lacking space and arable lands. They literally took their own houses and rebuilt them in other towns along the Zuiderzee coast (Van Hezel and Pol, 2008: 212). Chasing economic wealth has also occurred in the Zuiderzee region, for example, inhabitants of the island of Urk migrated to the flourishing town of Kampen in the 14th century (Geurts, 2005: 41). Meanwhile, residents from Kampen owned estates on Urk (De Vries, 1962: 47). The last seems to hold water for the small coastal communities of maritime farmers (for example Veenhuizen) in the Zuiderzee region that were constantly moving from the water, although their way of land cultivation (dehydrating the peat) might actually have turned against them, as it caused rapid erosion and compaction of the peat and consequential increased influence of the sea.

The outer resource landscape

The outer resource landscape is considered mainly for shipbuilding and the equipment of vessels. Due to the poor peat grounds of the north-eastern Zuiderzee region, the local resource landscape for shipbuilding and vessel equipment was very limited. Timber for shipbuilding (especially oak) came, in many cases, from the Northern Netherlands, Germany, the Baltic, or Scandinavia, where appropriate timbers were available in profusion (Van Holk, 2010: 138). Several cog wrecks from the Zuiderzee (NM 107, OG 77, ZC 46, ZO 36, ZN 43) contain timbers that come from the Netherlands and/or Westphalia (Germany), indicating that the ships were built in close proximity to the Zuiderzee region. The city of Kampen owned its own cogs, but they were

not built in the city itself: in many cases, merchants must have purchased the ships from larger cities, such as Hamburg or Lübeck (Jager, 2015: 377). One could state that, although this is a distant factor, the landscape beyond the Zuiderzee region due to these maritime connections is therefore very maritime.

The inner resource landscape

The inner resource landscape represents production of surplus, for trade and for the maintenance of shipping and ship expeditions. The last two aspects should also be seen as social, people and their knowledge being the prime resources. In fact, a cultural landscape is always a social and societal landscape. In the study area, agricultural production was extremely efficient in the late Middle Ages, and a prerequisite for an early development of trade. Urk, for example, profited from arable farming since the 10th century AD. Its lower lands were used as meadows, while higher ground was suitable for crop cultivation of, among others, carrot, beet, and rye (Kerkhoven, 2003: 59). German Emperor Otto I (AD 912–973) donated fields on Urk to several monasteries, which underlines the value of farming in the late Middle Ages. One of these, the St Odulphus monastery of Stavoren, even owned an agrarian manor on Urk (Geurts, 2005: 40). The surplus from the fields that belonged to the manor must have been shipped across the Zuiderzee towards Stavoren itself.

Although the city of Kampen gained its wealth in the late Middle Ages as a result of trade, it focused on the long-distance trade of goods and surplus from the whole of north-western Europe (Frankot, 2012: 77). Regionally available resources and surplus, the inner resource landscape, therefore, played a less important role in the economic focus of the settlement.

The territorial landscape

This aspect of the maritime cultural landscape merges into the ‘power landscape’: the landscape of ownership, control, and allegiance. Both landscapes are often coupled with a landscape of defiance or internal resistance. In the late Middle Ages, the study region was part of the Holy Roman Empire and managed by the bishop of Utrecht, although several parts of the area were gifted to monasteries (Vreugdenhil, 1999: 15–17; Geurts, 2005: 32; Henstra, 2010: 8). In the 13th century, the bishop of Utrecht tried to effectuate his authority by appointing *ministeriales* to control specific regions (De Boer and Geurts, 2002: 33; Geurts, 2005: 35). One of these *ministeriales* was the founder of the so-called ‘Lords of Kuinre’. In the 14th century, the Lords of Kuinre became more-or-less independent earls: they started minting their own money, lived on a strategically placed castle site near Kuinre, and started controlling ‘their’ territory by charging a toll and possibly privateering on the water (De Boer and Geurts, 2002: 42). In the same period, more *ministeriales* tried to become independent earls, causing the territorial landscape to divide and disintegrate.

The cognitive landscape

The cognitive landscape is the most specific aspect of maritime culture, excepting the economic basis and the transport aspect, and the factor that makes the maritime landscape cultural. This element contains references to all other aspects (by way of tradition of usage, and place names). In a way, it is possible to state that many medieval maritime cultural aspects of the study area belong to the cognitive landscape due to the violent erosion of the Zuiderzee. Historical charters mention for example multiple place names of medieval settlements that eventually drowned and physically disappeared. They are, however, still part of the cognitive landscape due to historical and modern references: a few of modern-day polder settlements, such as Nagele, Emmeloord, Ens, and Marknesse, carry the same name as their late medieval predecessors (Fig. 10).

Inhabitants of the north-eastern Zuiderzee region were also able to create mental maps of the late medieval region. This can be illustrated by the case of the somewhat mysterious drowned medieval settlement of Nagele. The name of this settlement is mentioned in multiple late medieval charters and other historical written texts and must have existed somewhere within the research area. However, after the 20th-century reclamations, no archaeological remains have been recovered in the former seabed that point directly towards Nagele. Local folklore led nevertheless to the creation of mental maps that pinpointed Nagele: for centuries, fishermen told stories of their nets getting snagged on grave stones on the seafloor, or that on stormy nights they could hear church bells ring in the middle of the sea, and that during extreme low tide the brick walls of the drowned settlement could be spotted above the water (Reinsma, 2009). Of course, these tales should be taken with some scepticism, but they did lead to the origin of the toponym ‘*De Nagele*’, indicating a large shallow in the Zuiderzee to the north-east of Urk. It is as yet unclear whether this shallow is the actual location of the settlement of Nagele, but there are strong archaeological indications (concentrations of archaeological material) that a late medieval settlement was situated in its proximity (Van Popta, 2016: 85).

There can also be an enormous wealth of place names denoting very small places along, for example, the shorelines. This wealth of names can be retrieved through oral histories and toponyms, for example from maps, or it can depend on a living landscape where all place names still carry a very relevant significance among maritime (and other) people. They disappear when shores recede, but only slowly. Some remain at the same spot. Shore names might for some time appear in a permanently inundated area or for that matter former territorial (inland) names as designations for shallows, fishing grounds, or bottom areas. This is illustrated by a 16th-century map (Christiaan Sgroten) of the research area, which depicts the name ‘*Hofste*’ (house) on a shallow in the Zuiderzee, possibly referring to one of

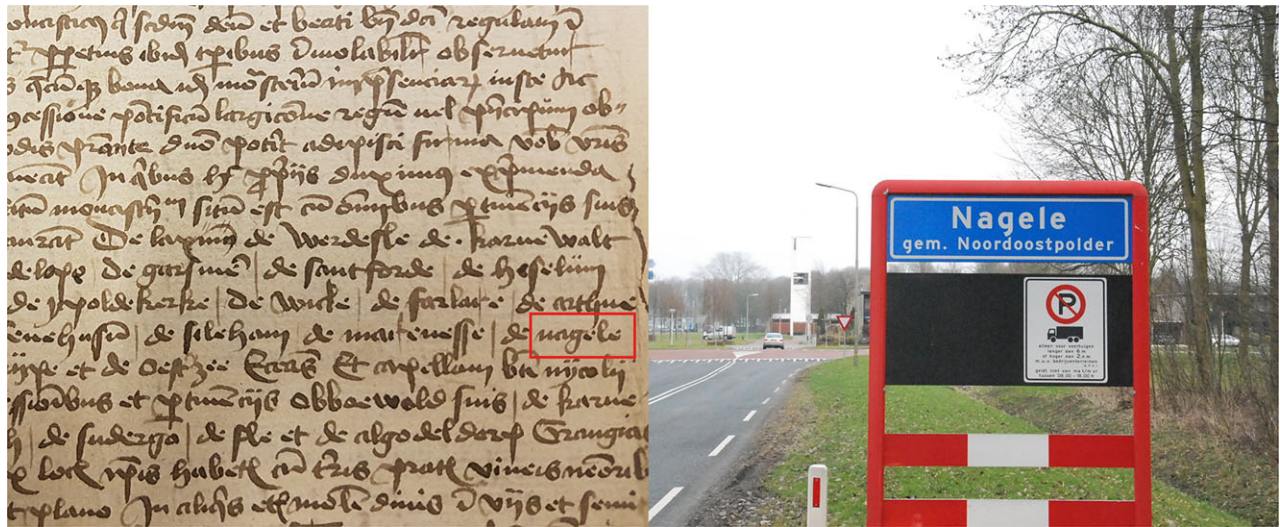


Figure 10. The place name 'Nagele' (red outline) mentioned in a copy of a 13th-century cartulary (left), and the nameplate of the modern village of Nagele, which refers to its medieval predecessor (Y.T. van Popta).

the late medieval drowned settlements in the region that eventually became a shallow.

The ritual landscape

The ritual landscape is often degraded as superstition, but often forms a consistent system of beliefs: rather than names and behaviours being taboo, a system based on what is normal ('Noa' to use the Maori term) can be seen for (place) names and the socially conditioned ways of tackling the vicissitudes of maritime life. These can be seen primarily on board vessels but are also applicable at the shore and in the liminal area of land, however that is defined. A well-known ritual activity is the custom of the seaman's baptism, or initiation of novices, that certainly originated on the coasts of Europe, although mostly connected with the open sea and the Line (the equator). Little is known of the ritual landscape of the Zuiderzee, and the rite of passage occurs relatively far from the region, but there are some examples that testify to a consistent system of beliefs (not superstition). The first focuses on the submerged settlement of Nagele, which has already been introduced as part of the cognitive landscape. The settlement disappeared tragically after several major floods in the 13th and 14th centuries, not only physically, but also from written sources. However, in one oral story handed down through the ages, Nagele is described as a dark place, a place that brings no luck. The story started with two men fighting in a pub at Emmeloord, not far from Nagele. A priest tried to separate the fighters, but instead he was stabbed in the heart. Before he died, he shouted out loud that the ill-fated settlement of Nagele would be taken by the sea and that fishermen would have their nets destroyed on its remains (Van Hezel and Pol, 2005: 44). The fact that this oral story is still told means that it must have had a great impact on the people that sailed on the Zuiderzee.



Figure 11. An example of the use of female ship names in the Zuiderzee region. The wreckage of the ship *Lutina*, named after the skipper's wife, was mentioned in a 19th-century newspaper (bottom; Koninklijke Bibliotheek). The wreck of the ship was eventually discovered in Eastern Flevoland in 1976 (top; Nieuw Land Erfgoedcentrum).

The most commonly known taboo attributed to north-western European maritime communities is probably taking women on board, as it was considered to bring bad luck (Westerdahl, 2005: 9); however,



Figure 12. The lighthouse *Oud-Kraggenburg*, once an isolated location 6km from the mainland (left), now part of the mainland and completely surrounded by meadows (right) (Y.T. van Popta).

many shipwrecks and historical sources prove that at a certain moment in time—definitely from the 18th century and onwards—whole families lived on ships that sailed across the Zuiderzee. During archaeological excavations of shipwrecks, items have been found that can clearly be related to the presence of children and women, such as toys, small leather shoes, jewellery, dresses, and women's leather boots (Van Holk, 1996). Furthermore, historical newspapers mention on multiple occasions that complete families (father, mother, and children) drowned as a result of disasters on the Zuiderzee. In contrast, there was also a positive connection between females and ships, as many skippers would name their ships after their wives. When studying 19th-century newspaper notifications of ship disasters on the Zuiderzee, many ships are mentioned with Dutch female names, such as *Catharina* (wrecked AD 1894), *Eva* (wrecked AD 1885) and *Lutina* (wrecked AD 1888; Fig. 11) (Newspaper Archive Royal Dutch Library).

Leisure landscape of today

Knowledge of the cultural history of the study area can now be experienced or better enjoyed in many ways. The reclaimed land of the Zuiderzee is, however, not the most popular destination for tourists and day trippers. The tourists that do visit Flevoland often search for spacious camp sites and nearby water for recreational purposes. Interest in local culture is often missing. A first step would be to make tourists aware that the surface they are on is actually a former seabed. The tourist business has thought of some ways to illustrate

the maritime history of the region. Many of the wreck-sites have been accentuated with specific signs and the contours of the former island of Schokland are, for example, highlighted by trees that were planted after the reclamation. Former moles and jetties of several harbour towns—for example Kuinre and Vollenhove—have been restored and can still be visited by the public, as well as multiple traditional (fishermen's) houses on Urk, Schokland, and in the former coastal towns. A typical 19th-century lighthouse-keeper's house, *Oud-Kraggenburg*, stands on a 6m-high mound, 6km from the former shore, now surrounded by meadows and fields (Fig. 12). These tangible examples demonstrate the cultural history of the region, but their meaning becomes much stronger when combined with the cognitive aspects, derived from all kinds of sources, for example photographs, maps, folklore, myths, and tales.

To continue: connecting aspects

One might say that, based on the aspects, facets, and examples discussed above, the most useful way to examine the true nature of the maritime cultural landscape is by combining datasets and connecting them to the landscape aspects to which they belong. The maritime cultural landscape concept is, however, still being developed and, due to its multi-faceted nature—which has the unfortunate effect of watering down its strength—it would be incorrect to state that there is only one (methodological) suitable approach. This article underlines that there are many concepts and aspects within and beyond the concept of the maritime

cultural landscape that help understand a region of study. In many cases a maritime cultural landscape study will start with a collection of archaeological remains, historical documents, or a set of memories from the local community. In this study, they testify to a drowned maritime landscape, with multiple settlements and hundreds of shipwrecks. However, they do not directly inform us about the way people managed to live in the landscape, how they named their places of residence, which routes they took to travel to other places, and how they experienced their dynamic environment. Widening the scope, by looking at different aspects of the maritime cultural landscape and using data from other disciplines does help in answering these questions. In this article, first steps are taken in understanding the nature of the north-eastern Zuiderzee region. They are meant to strengthen the interpretations and understanding of the study region, but provide a starting point rather than a conclusion. In the paragraph on the economic landscape it is stated

that the region of study consisted of a fair amount of land in the late Middle Ages, cultivated and exploited to a large extent by farmers. Further interdisciplinary research will lead to an appropriate and detailed late medieval palaeo-geographical perception of the region. This paper also provides first insight on the location and nature of the late maritime cultural centres, transport enclaves, and transit points in the region. Further research will pinpoint the exact locations of these settlements and their nature. In fact, each of the above-mentioned concepts and aspects of the maritime cultural landscape could be the subject of a detailed and interdisciplinary study of the region. However, it is most important to eventually connect and combine them in order to understand the nature of the late medieval maritime cultural landscape of the north-eastern Zuiderzee region, characterized by maritime farmers, international maritime trade, and an ongoing battle against the water. Let us not consider this as the conclusion of the research, but as the starting point.

Acknowledgements

This work was supported by the Dutch Organization for Scientific Research (NWO; PhDs in Humanities, file n. 322–60–006). The authors would like to thank the reviewers and the editor for their useful comments and remarks.

Note

1. The current study based on Van Popta's PhD thesis that focuses on the interrelationships between landscape development (geomorphology), occupation (eroded settlements, lost islands), shipping (wrecks) and the socio-economic background.

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