

Maritime Durées: Long-Term Structures in a Coastal Landscape

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Abstract The interaction between humans and the maritime coastal landscape must be one of the central theoretical questions for maritime archaeology. How should an academic discipline, which is defined by its studies in a certain physical milieu, avoid the trap of environmental determinism and still be able to argue for the special influence of the maritime factor? And how should this long-term relation to the sea be interpreted and described? In this article, based mainly on material from the central Swedish Baltic Sea coast, three examples of long-term structures regarding the relationship between people and the sea are discussed. The structures, here called “maritime durees”, which almost all coastal inhabitants in the analyzed area seem to have had in common are linked to: exploitation of marine resources, communication over water and the mental presence of the sea. In conclusion the actual meaning of these long-term structures for everyday life and for cultural and social change are discussed in comparison to more short term structures: the changing historical circumstances and possibilities for people to choose different strategies.

Keywords Maritime dureés · Baltic Sea · Coastal landscape · Maritime archaeology · Environmental history · Human ecology · Possibilism · Archaeological theory

Sharing a Maritime Landscape

Almost 12,000 years ago, on its retreat northwards, the great ice sheet passed over the middle of what is now Sweden. After having been covered by a layer of ice several kilometres thick for more than 100,000 years the bedrock was heavily pressed downwards. With the retreat of the ice, there began a strong isostatic rebound and an extensive archipelago landscape soon emerged from the sea on the east coast, stretching more than 200 km out into the Baltic Sea from the main coastline (Risberg 1991). The small windswept skerries closest to the open sea were just bare granite visited by seagulls and

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resting seals (Fig. 1). On bigger islands soon pine and birch started to grow and in the more sheltered inner archipelago forests of oak, alder and other hardwoods developed. Soon the first humans were to arrive in this new maritime landscape.

This process of new land emerging from the sea and being quickly colonised by plants and animals still continues today, the land in the Stockholm area for example, rising by approximately 1 cm a year. The rebound means that this has been a continuously changing landscape, the first small skerries which came up from the sea are today hill tops more than 100 m above today's shoreline and situated far inland. But it is also a paradox, for one just has to go east to the outer archipelago to meet a newborn landscape very similar to that of 12,000 years ago. The Swedish Baltic sea archipelago is therefore a *moving* coastal landscape which has offered rather similar conditions for human occupation throughout that period. All the different coastal inhabitants for almost 10,000 years living in this area have therefore shared a physically very similar newborn maritime archipelago landscape.

A Classic Question

Maritime archaeologists study artefacts and other traces from people who lived in maritime surroundings and try to understand and explain their social and cultural behaviour. Hopefully, by doing this we are also able to contribute a little to a wider understanding of who we are and how society and culture function in general. Considering that the maritime “scene” is something all maritime studies have in common, then whether “living by the sea,” means something special must be a question that underlies almost all studies in maritime archaeology. What is the relationship between a maritime environment with an ever-present sea and the functional, cultural and social strategies that people develop within it?



Fig. 1 “New” windswept islands in the outer archipelago, Södertörn

The way physical conditions and the surrounding environment act upon society and its culture is, as a rather fundamental subject, something, which has been discussed by philosophers and scientists since the classical period. It is of course the sort of question we can never finally solve in a rational scientific way. But what we can try is to illuminate and discuss the question in new ways that contribute to a wider understanding of the relationships involved. Studying the relationship between people and the sea at both local and regional perspectives and at different temporal scales is then a maritime archaeological way to take part in this debate. That is also the purpose of this article.

Already by the fifth century BC there are texts by Hippocrates, which present theories about how the natural environment moulds people and societies in different ways. For example, a variable and harsh climate was said to create physically strong and enterprising people. Similar thoughts about the climate are also found in the works of other classical authors such as Plato (Ambjörnsson and Elzinga 1987:100–101). Many of these early discussions are concentrated on the relationship between the environment and the physical attributes of different nationalities. But in some cases they also concern how geography and climate influence cultural habits and the organization of society. A well-known example of this is the “Histories” of Herodotus also from the fifth century BC.

The classical simplistic and often rather bizarre ideas about the environment’s relationship to ‘man’ was mirrored during the Middle Ages among philosophers and religious thinkers. Probably one of the most famous theories about how the environment influences the nature of society is found in the writing of the French Enlightenment thinker Montesquieu (1689–1755). His so called climate theory, that stresses how certain climates substantially influence the ways people act and predetermines the possibilities for developing culture, is to a great extent a continuation of the Classical discussion. Interesting however, is his writing about geographical circumstances where, among other things, he mentions how, in the England of his time, political and economic conditions were results of the close connection to the sea and the waterways (Liedman 1991:131).

A modern study which deals both with history, environment and the sea in a rather different way compared to the older studies mentioned above is Fernand Braudel’s, “The Mediterranean in the Age of Philip II” (Braudel 1972). In his treatment he rationalises the temporal complexities of history into three levels, *les événements*, which is the short political and military history of events, *les conjonctures*, the interrelated medium duration cycles (*moyenne durée*) of groups, institutions, economy and social structures and last, *les longues durées*, which is the history of the almost unchanging structures in mentality, technologies and landscape. Braudel’s book is a beautiful and inspiring description of long-term history around and on a sea. The first part of the book describes the physical geography of the Mediterranean Sea which constrains yet creates possibilities for human development. An often-discussed question in relation to Braudel’s study however, is how he emphasises the landscape and the long-term structures compared to the short-term social, political and individual histories. In Braudel’s perspective the emphasis seems to be on the first while the latter are just waves on the surface which soon vanish. For an archaeological discussion about Braudel and Annales history see for example Bintliff (1991:6–8); Last (1995) and in a specifically maritime context, Staniforth (1997).

Ecology and Geography

Research dealing with the relationship between humans and their surrounding landscape is carried out within many different scientific disciplines (see for example Hornborg 2004;

Glaeser 1999:319–331; Sörlin 1991). A discipline where the impact of physical surroundings on human social and cultural structures has played a vital role for explanation is of course geography (Worster 1997:150–151). Environmentally deterministic explanation models were used already by such founders of modern geography as Alexander von Humboldt (1769–1859) and Karl Ritter (1779–1859). Also, the early 20th century's most famous geographer Friedrich Ratzel (1844–1904) was influenced by nature determinism even if he sometimes considered cultural circumstances and more particularistic historical development. However, an alternative view to determinism that nevertheless did not deny the impact of nature, so called *possibilism*, was advanced quite early on by the French geographer Paul Vidal de la Blache (1845–1918). He stressed the mutual interaction between environment and humans. Nature was seen as a sort of framework within which humans were acting rather freely (Rubenstein 2002:19; Östman 1985:39–43).

Another scientific discipline, which explicitly deals with the relationship between organisms and their surroundings is ecology. Most ecological studies are carried out on non-human material and concern plants' and animals' relationships to their habitat. However, for a long time there has been an interplay between ecological and social explanation. Theories and observations about nature have influenced cultural explanations but also vice versa: analogies from the human world have been used to explain features and patterns in nature. For an overview of this see Worster (1997), and in relation to archaeology see Rönby (2006). The word ecology was first used in 1866 by the German Ernst Haeckel, who was a pupil of Charles Darwin. Haeckel defined ecology as the study of all complex relationships that Darwin called the "struggle for existence". Darwin's ideas about evolution and concurrence have influenced the discipline up to our time (Worster 1997:49–149).

During the 20th century, most academic studies combining humans and nature were dominated by functionalist and economic ideas. Living organisms were described as being connected in more or less complicated ecosystems. The systems could be divided into subsystems and species were said to act in different habitats and niches. They developed through evolution, influenced each other and competed for space and survival. Detonation of the first atomic bombs, increasing industrial pollution, over population and the extinction of thousands of plant and animal species have made people during the last half of the 20th century slowly start to realize how fragile our earth really is. This added a new, more moral and ethical dimension to the study of our surrounding milieu. Using an ecological perspective and studying the interplay between humans and their environment was no longer merely a scientific description of different phenomena, it was more or less a way to save the world.

Archaeology and Environment

Standpoints and trends in neighbouring disciplines and in society at large have also influenced how archaeologists have viewed the relationship between humans and nature over the years. In its early phases in the mid-19th century, modern archaeology was to a great extent a discipline dealing with artefacts and their typologies. But already by this time there were attempts to relate the physical archaeological remains to the natural world and the environment. The Swedish professor in zoology Sven Nilsson (1787–1883) was fascinated by the prehistoric nutritional economy and used ethnographic parallels for understanding how different artefacts had been used for hunting and fishing. The Dane J. A. Worsaae also considered the surrounding milieu in his interpretation and was, by 1848,

cooperating in a multidisciplinary way with both geologists and biologists in his investigations of Mesolithic oyster middens, so called “kökkenmöddingar” (Nilsson 1868; Trigger 1993:103–105).

The change from artefact studies to an archaeology concerned with settlement structures and population questions during the first half of the 20th century was inevitably influenced by contemporary functionalist and economic theories. Graham Clark’s investigation of the Mesolithic coast hunting station at Starr Carr, Yorkshire, around 1950 is also an early example of where a concerted effort was made to understand the complex environmental and ecological niche that the site and its past habitants had existed in (Clark 1954).

But it was in the 1960’s that a clearer theoretical environmental perspective in archaeology was introduced. Culture was defined, in an often-quoted sentence as: “man’s extra somatic means of adaptation” (Binford 1962:220). In the so called “New archaeology” or processual archaeology of this time, new scientific analytical methods seemed to open ways for reconstruction of almost all components of prehistoric human societies through investigation of the past contemporary environment. The optimistic evangelism of this period was not realised however, and since the beginning of the 1980s the often rather mechanical, ecological emphases of the 1960s and 1970s has been strongly criticized in what are collectively termed postprocessual perspectives (e.g. Hodder 1986; Johnson 1999). For example, it has been pointed out how difficult it is to formulate “covering” laws that explain all human social action, i.e. laws that are cross-cultural and universally applicable. Rather, it is stressed how infinitely varied social and economic structures can be in the same natural environment (Shanks and Tilley 1987:137–185; Olsen 1997:137–144; Preucel and Hodder 1996:23–35). In this light the postprocessual warning against ecological determinism is relevant and has to be considered. However, that people living or acting close to the sea for example, will be influenced by this relationship must be rather obvious. Are there then also certain social structures linked to the sea, which people living at a certain coast have had in common for long periods? An archaeological long-term perspective concerning people who have been living along the Swedish east coast indicates that there are such maritime long-term structures of interaction.

Maritime Durées 1: Maritime Subsistence

Regarding practical and daily life, the possibilities for exploiting marine resources must in almost all cases have been a vital component of subsistence strategies in coastal areas. It is also from a long-term perspective, clear that certain technical solutions and practical strategies regarding exploiting the sea were often very similar over long periods of time. Gathering of maritime resources, fishing and not least hunting for seals are all activities which are possible to identify in the archaeological record for thousands of years on the Swedish east coast.

The rebound after the last glaciation had, by around 10,000 BC, formed a small, windswept archipelago along Sweden’s central east coast (Fig. 2). It was an arctic landscape with a fauna rather like Svalbard today. By c. 8,000 BC the coastline lay where the 75 m contour is today (Fig. 3). What had been isolated skerries were now the hill tops of a myriad of islands. Finds of hewn quartz show that people now had begun to exploit the area more frequently. Along the sandy Arctic shores people sought shelter from the wind behind the smooth bare hillocks of the primary rocks and moraine boulders.

Between the peninsula of Södertörn south of Stockholm and the mainland coast, there were masses of small islands, the highest sections of which nowadays form the

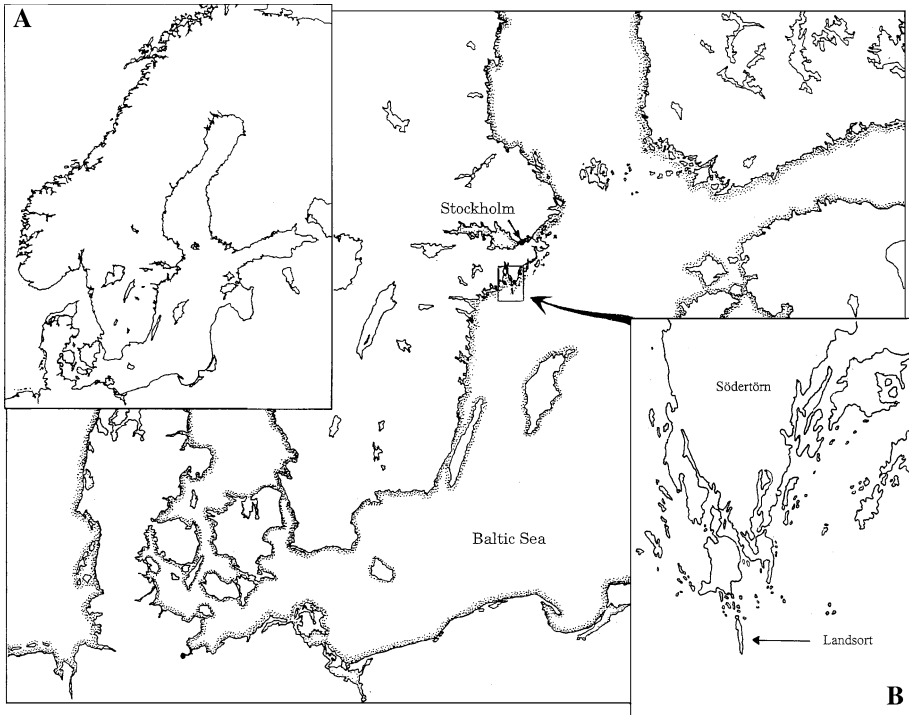


Fig. 2 Scandinavia and the southern Baltic. Inset B: Södertörn and Landsort. (J. Rönnby)

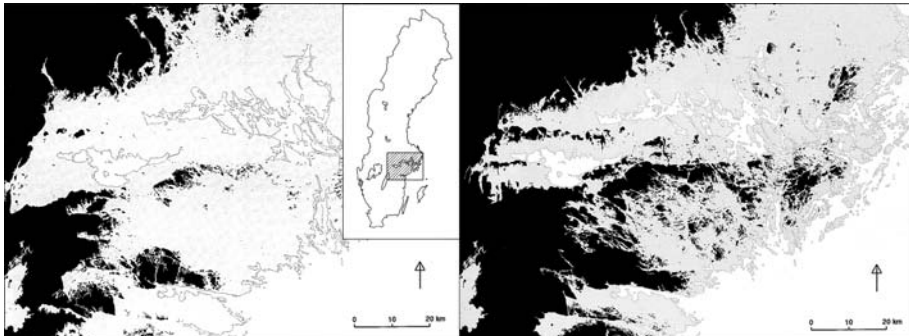


Fig. 3 Paleogeographical maps of Eastern Middle Sweden. Left: the shoreline at 75 metres above sea level corresponding to c. 9,000 years BP. Right: The shoreline 50 metres a.s.l. at c. 6,000 years BP. (After Wikell and Hammar in Åkerlund 1996)

Mälarmården forest area. It has been suggested that this area together with the Kolmården archipelago in the south formed an especially good hunting ground for seals because of its exposed position at the coast (Fig. 3). Besides hunting seals also fishing in small lagoons and inlets, bird hunting and egg collecting must have been possible in this rich marine milieu. Recent archaeological surveys also indicate that this was an area of extensive use. Hundreds of campsites were found and some finds indicate complex tool fabrication from

the quartz. Perhaps an indication that some of the camps were more permanent (Pettersson and Wikell 2006).

During the Neolithic (in this area usually dated between 4200 and 1800 BC) signs of human settlement became more numerous along the Swedish east coast (Larsson and Olsson 1997). Increasing signs of livestock and agriculture also begin during this period and creep northwards. However, along the coast an economy almost solely based on the maritime catch still predominates. The new Neolithic use of pottery is also very clear in the find material at the coast. The sole ceramic ware found along the coast is a type called “Pitted-Ware”. Famous coastal Pitted-Ware settlements are for example Fagervik at Bråviken, Korsnäs in Grödinge (Ohlsson et al. 1994), Stora Vika i Sorunda (Baudou 1966:129–139) and Aijvide on the island of Gotland. Different settlements vary in size but many of the Pitted-Ware sites indicate small “villages” of 15–20 persons. They are situated in sheltered bays and both the artefacts and the analysis of human bones indicate an economy almost entirely based on maritime resources. Seal was probably the most important game and archaeologist Niclas Björk has suggested that Neolithic people in this area were sometimes so effective that they may have overexploited this resource which might explain the apparent periods of discontinuity in settlement pattern of Pitted-Ware communities around 2,800 BC (Björk 1997).

An interesting comparison, more than 4,000 years later, to the stone age hunting settlement is the archaeological remains from some simple buildings in the archipelago which in Swedish are named “tomtningar”. The “tomtning can be defined as the remains of a shore bound building in a maritime environment, consisting of banks of stone (a type of loosely formed dry stone wall) surrounding one or more flat or slightly bowl-shaped stone-cleared areas. In places stone settings or rock ledges may also provide the limitation of the internal area (Norman 1995:44). Tomtningar are no doubt connected with fishing and hunting activity out in the archipelago. Topographically the sites are often strategically positioned with a good overview close to fishing and hunting grounds. There is often continuity with other types of later remains concerned with the maritime catch such as net-drying places, labyrinths (see below), hut foundations, jetties and boat houses (Norman 1995). Both excavation and written sources show that tomtningar are a type of building, which has been used for a very long time and many of them have produced Iron Age and Viking dates. Others were overnight sleeping quarters for the archipelago population and town dwellers during medieval and post-medieval times when they were out fishing.

Even if the places are the same in some cases it is also possible to distinguish at least two different periods. The first is an Iron Age phase, where the buildings are fewer and also higher up in the terrain, correlating with the higher earlier sea levels. These buildings were probably shelters for seal hunters or people coming out into the archipelago for catching birds or gathering eggs. During the Middle Ages there are examples of how tomtningar and also small houses aggregated to form larger fishing camps. They are then organised close together around a suitable bay. Behind this organisation is probably the fact that during this time the archipelago starts to be exploited as a resource by the Crown and the new cities along the coast (Mogren 2000:200–217).

On the island of Landsort in the south Stockholm archipelago a number of tomtningar dated to the Iron Age have been investigated (Landin and Rönnby 2002). The Själkroka tomtning is for example the remains of a simple building consisting of three rough stonewalls without any mortar, set directly adjacent to a rock wall. Charcoal inside the building shows that the foundation was used as a dwelling and not just as a storehouse. The find material was relatively insignificant and limited to a number of whetstones and fragments of flint for tinder. Two C-14 tests indicate a dating from the period 800–1000

AD. Possibly the place was used mainly during the cold season of the year, perhaps as a place to sleep overnight when hunting seal on the edge of the ice. The stones of the walls would in that case have been there in order to support a low but heavy roof of wood, turf or moss to provide insulation against the cold. Examples exist of such buildings from arctic areas showing that they can provide good protection even for over-wintering in the harshest of climates. (See for instance, Chochorowski and Jesinski 1990).

The situation of the tomtning at Själkroka is very sheltered, in the lee of most winds. With the raising of the land this tomtning is now relatively far from the water, but earlier on the sea must have flowed to the north east of the tomtning and here formed a small bay. The tomtning then lay more or less in direct association with the edge of the shore. Phosphate analysis and finds of charcoal on the slope indicate that the whole of this small valley was used as an area of activity, perhaps for the slaughter of seals and the cleaning of fish. Scarcely a hundred metres to the north and west of this small sheltered valley, however, there was open sea with seal rocks, and in the winter presumably also the edge of the ice out towards the deep open water.

The Viking Age site at Själkroka is not a permanent living place so where did the people using it come from? It is probably the people living on the farmsteads inland who are behind most of the activity in the outer archipelago and perhaps it was both smallholders and serfs from the larger farms who took shelter in the tomtning at Själkroka. With increasing numbers of tomtning being found from this period it seems that their contribution to the daily provision of food during the late Iron Age was much greater than was believed by traditional Viking Age research.

Nor did these activities cease in the medieval period. Extensive seal hunting has continued along the Swedish Baltic sea coast up to our day. A rather well described hunting method still practiced during the 20th century was the so-called “fählän” especially famous from the area of the Bottnic bay but the same hunting method is also known from the island of Rågö in today’s Estonia. This kind of hunting was done by a group of 3–5 men during early spring when the ice was still thick enough to walk on (Fig. 4). With a specially designed boat which they could drag over the ice, they spent up to 5 weeks out in the archipelago following the seals along the edge of the open water.

During historical times nets and hooks were the usual methods to catch seals. The introduction of fire arms made it much simpler but old methods were sometimes still the best. In an old documentary film from the island of Harstena in the Östergötland archipelago made in 1947, the cinematographer has managed to catch a vivid hunting scene (Östergötlands Länsmuseum). A group of ten men are slowly and quietly rowing a boat towards a small island where a large number of seals are resting in the sun on the outside of the island. The hunters quietly approach from the opposite side and then, when they have only a few metres left, suddenly accelerate, rowing the boat at full speed up onto the rock. Armed with wooden clubs they leap ashore and run across the island as fast as possible (Fig. 4). The seals are unable to regain the water fast enough and the hunters kill as many as they can by clubbing them on the head. If a group of Mesolithic hunters were somehow transported forward in time to witness the scene they would probably have recognised exactly what was happening and gladly offered to take part.

Maritime Durées 2: Maritime Communication

To live close to navigable waters also enables various means of communication (Westerdahl 2003). Exchange, trade and influences from foreign areas are often part of coastal



Fig. 4 Left: Sealhunter from the Island of Runö, Estonia in 1924. (Klein 1924:177) Right: Seal hunters on Harstena in the Östergötland archipelago, 1947. (Östergötlands Länsmuseum)

cultures. Water links people to each other, but of course in some cases can also separate them. Easy transport over water also assisted exploration of new areas. We do not know from where these pioneer Mesolithic coastal inhabitants arrived. At this time the mainland still lay more than 130 km to the west. One possibility is that they arrived there in kayak-like craft made from animal skins, followed the archipelago eastwards (Åkerlund et al. 1995). Another possibility is that they came from the eastern side of the Baltic. Were they early maritime explorers, who crossed the sea going west for better hunting or just for curiosity?

The Neolithic settlements along the coast traditionally classed, as “Pitted-Ware culture” are as mentioned earlier rather well known (Larsson and Olsson 1997). The settlement pattern clearly shows how coastally orientated these people were and how the sites are located in good positions in the archipelago that would have facilitated communication. The patterns of settlement also show clusters of settlements with more sparsely settled areas between them (Atterberg 2001). Maybe this is an indication of tribes or clans exploiting their special resource areas. The distance between these “tribal zones” are however no longer than a good day’s hard canoeing in a modern kayak, around 30 km and finds on these “Pitted-Ware” sites include flint from the south of Scandinavia and foreign decorated ceramic figurines indicating contact and exchange with coastal areas all around the Baltic Sea.

There are no finds indicating what kind of boats the Stone Age mariners used. However it is highly like that the first Mesolithic seafarers used skin boats similar in principle the traditional kayaks and umiaks used by the Innuït into modern times. The first finds of log boats in Scandinavia go back to 6000 BC and it is possible that later stone age people, such as the “Pitted-Ware” culture, used out-rigger log boats for longer transport and travel over open water. Reconstructions of out-rigger “stone age” log boats have been made on the island of Gotland. Experimental travel with these boats has shown that pitted-ware people

from the Ajvide settlement on Gotland (Burenhult 1979), could reach the Swedish mainland in just 6–8 h. To visit relatives (?) in southern Scandia would have taken just a week. The pitted-ware pots often have a pointed base similar to Mediterranean amphoras. Are they perhaps, like the amphoras, specially designed for storage onboard a boat? The opening could then have been sealed by for example a stretched skin?

Somewhere around 2,000 BC a slow climate change started and during this period the first bronze artefacts find their way to the North. It became colder and more humid as an increasing area of land was exposed through isostasy. In the clay areas of former bays large wetlands developed with alder and birch woods. Near the settlements, on the moraine lands, small, cultivated areas of barley, wheat and flax began to be developed. The wet shoreline meadows were highly suitable for grazing (Karlsson et al. 1997:18–22). The water at this time was still some 20 m higher than today. On the innermost flat cliffs of what were then the shores of the sea fjords, rock carvings were made by the Bronze Age people. The motifs were cupmarks, animals, and humans but the most frequent were boats, long canoe-like vessels with high stems and sterns. Some of the places, for example at Himmelstalund near modern Norrköping, seem to have been very important gathering places, with several hundred carvings (Fig. 5). Other places, for example the five known rock-carving sites at Södertörn, south of Stockholm, seems to be smaller and more local. Despite the differences they are almost all connected to water and also must have been good havens and landing places (see Kinberg 1998). Perhaps it was at these places that the newly imported bronze first appeared? (cf. Larsson 1995). Bronze seems to have been connected to religion and cult but also to power and control in Bronze Age society. Were the places for rock carvings chosen as a sort of communication centre, maybe to impress visiting foreign ships?



Fig. 5 Boats carved on the rock close to the Bronze Age shore at Himmelstalund, Norrköping, Sweden (Photo J. Adams)

Bronze Age long distance connections over water are also obvious in the ceramic material from this period. One of the most interesting places demonstrating this is the small island of Jetteböle in the Åland archipelago (Gustavsson 1997). While excavating here a large amount of pottery was found that came from the region that is now modern Poland. Transporting this kind of cargo across the open sea is an early example of how the waters of the Baltic have tied together the communities around it.

The last period of the Scandinavian Iron age is known as the Viking period (traditionally dated between 800 and 1050 AD). Even if the whole concept of Vikings is to a great extent a romantic, nationalistic 19th century construction, there is no doubt that this time was a period of very extensive maritime contacts. This is a period when most of Scandinavia was still lacking a central government in the form of a state or kingdom. Instead it was a society dependent on strong “chiefs” and families. In a rather mafia-like society power was demonstrated and enforced by threats of violence and violence itself. Alliances were made and broken. It was also a society where transport across water played an important role. The typical higher status Viking farmstead or chief residence was on the east coast situated near former sea bays where the best agricultural land was. These settlements are often still easily visible today because of the grave fields consisting of mounds and stone settings. Even if it is not an archipelago culture, the sea was never far away.

Many small Viking harbours existed along the coast. Surveys using the evidence of place names, topographic criteria, ancient monuments and phosphates analyses, both on the island of Gotland and in other areas along the adjacent mainland coast, have shown how numerous they were (Carlsson 1999). At these harbours the “Vikings” probably stored their ordinary working boats, the craft they used for fishing and seal hunting around places like Landsort and Själkroka mentioned above. Most of these boats were probably rather small lightly built clinker boats rigged with a single square sail (Larsson 1995). These boats could be lifted up on land or moored in simply built landing places between lines of stones (Sw: “båtlänningar”). The long narrow Viking warship and heavier cargo carrier exemplified by the Danish finds at Roskilde needed more permanent and solidly built harbour constructions however.

In their society, crossing the Baltic Sea, going down the Russian rivers (Edberg 2001) or west across the North Sea to England and Ireland and coming back with gold or plunder was a way to achieve status in society or reinforce an already strong position. But “Vikings” were also traders and this is a period where new systems of long distance exchange were starting to develop. The first urban settlements or proto-towns are known from this time. They are almost always situated on the sea with a good harbour. The most well known of them along the Swedish east coast is Birka, situated on an island in lake Mälaren (a former bay of the Baltic Sea). To this place ships came from the whole of northern Europe. Harbours are often central places for trading, long distance cargoes arrive and local products are shipped away. But they are also meeting places for peoples and ideas and can be a bridging point for the introduction of new ideologies and beliefs. It was for example at Viking Age Birka that one of the first known missionaries in this area, Ansgar, started trying to convert pagans to Christianity during the late 9th century. He describes the dangerous voyage in getting there, with marauding pirates and difficult navigation. While at Birka he was not especially successful, and the Christianisation of middle Sweden is not completed before the end of the 12th century.

During the 12th century AD a group of new medieval cities seems to have been established along the Swedish east coast: Kalmar, Visby, Västervik, Söderköping, Nyköping and Stockholm. Some of them might have been trading places or royal manors already

during the Viking age but it is now they turn into more organised towns. The establishment of these is probably connected to the new state power striving for control and economic profit. They are all positioned very close to seaways and communication routes. Often located on bays and with good inland connections through rivers or inland waters. It was to these new towns that the German traders, later organised into the Hansa, soon started to arrive in their new built cogs, carrying among other things new ideas about how to do business.

Besides the larger, more important harbours there also existed smaller landing places and local harbours. These places are often hard to see in the archaeological record but from historical times we know that they could also be important for maritime based exchange and interaction between people. An interesting example of such a place is situated outside Herrhamra in the southern Stockholm archipelago. Today this place is tranquil, but it probably used to be the most frequented natural harbour of the southern archipelago. From the 19th century there are eyewitness accounts of how some 40 large sailing vessels, brigs, schooners and full-rigged ships, from the whole of Northern Europe might lie here and wait for a favourable wind (Öberg 1988:75; Roque 1998). Lying at anchor could, in olden days, be fairly dangerous if a storm suddenly blew up and one had no time to shift anchor. So far nine wrecks have been found on the bed of the anchorage (Rönny and Adams 1994).

On the neighbouring island of Ulfskär, today known as Krogen—(the Tavern) there was indeed a seamen's tavern. Since the waiting time for a favourable wind could sometimes go on for weeks there were regular exchanges and meetings between different crews and also with the local inhabitants. The roughness of the multicultural gatherings at the tavern is also witnessed by the discarded material culture found underwater around the island. Masses of bottles, crockery, earthenware and clay pipes lie all over the seabed.

The earliest evidence for the tavern at Ulfskär is from the end of the 17th century, but the place would probably have been a good “tarrying place” earlier on too. It is interesting that this part in the natural harbour was called Kungshamnudd. The name “kungshamn” was taken to indicate a gathering place of the Viking and medieval *leding*, the early sea defence system based on the idea of the peasantry being duty-bound to equip and man the fleet (See Schück 1959, however, cf. Linnskog 1997).

From a long-term perspective living close to water provided possibilities for long-distance contacts and interaction with people beyond one's own area. But the world over, coastal inhabitants have also been subject to danger from the sea, whether they lived in isolated farmsteads, monastic settlements, coastal villages or even large towns. So from the hill forts of prehistory, to the ‘long walls’ of Athens, and the coastal protection systems right up to our own times (see below), people living on the coast have taken special measures for defence.

A common way to protect one's home from enemy ships on the Swedish east coast was to erect barriers across the sounds and bays with large timbers driven into the seabed. Some of these constructions, consisting of thousands upon thousands of piles, have been dated back to the Viking age, for example at Hallarumsviken in Bleking, Slätbaken in Östergötland or Pålsundet in Södermanland (see Edberg et al. 2001:24). In fact the erection of a pole barrier as a naval defence system was practised by the Swedish military up to the end of the 19th century.

A contemporary example of the reaction to threat from the sea is the newly abandoned 20th century Swedish military installations in the archipelago. During the two world wars and subsequent cold war, bunkers, gun emplacements and other military installations were built almost everywhere in the archipelago. Many young Swedes spent their military service out in the archipelago, patrolling the sea, and nervously scanning the horizon for

the Soviet fleet expected from the east. Since the 1990's almost all these installations have been abandoned and the military authorities have tried to restore the maritime landscape. However, to hide all the rock cracked by explosions and all the concrete from more than 100 years of maritime defence is not easy and these structures are now taking their place as monuments to the past 10,000 years of human activity.

Maritime Durées 3: “Maritime Mentality”

In the light of all the above one can now ask: Does living by an extended horizon and close to something “endless” have certain implications for mental attitudes and beliefs? It has even been suggested that it is possible that our fascination with scenery and the border between land and water is something that is deeply imbedded in the human psyche all over the world (see Saito 2002; Higuchi 1983). A general biological conclusion is however, a difficult field, and it is usually easy to find a contradictory argument. But it is believed for example, not least by those living in the archipelago, that the islands, the open sea and the broad horizon creates a people with a greater love of freedom. As a general conclusion this is a very doubtful but in some ways it can be supported in the sense that the archipelago and the coastal zone has often been a part of the world where abnormal rules and customs applied. Perhaps this is because it was a place where the ability of any central authority to exert control, whether political, administrative or religious, was far more limited. Was this exacerbated by people aware of these limitations and only too willing to exploit them? Coastal zones have often had these characteristics in common with other areas lying outside main settlements such as mountain, desert and forests regions, where social relations feed off the constraints of place. Yet another expression of the archipelago's special influence on people living there is demonstrated in some of Swedish literature's most widely known works such as, *Hemsöborna and Skärkarlsliv*, by August Strindberg. The tough environment creates a special kind of people, but the archipelago is also dangerous for weaker characters. Being a fisherman, seal hunter or a pilot as well as being a parent in often poor and harsh surroundings demands special skills, but again, believing that a maritime milieu in general creates a special kind of people is a simplification reminiscent of Montesquieu's climate theory. The survival of the fittest in a special milieu is also of course an idea inspired by 19th century Darwinian evolutionism and in August Strindberg's case was also inspired by philosopher Friedrich Nietzsche.

Our modern view of the archipelago and its people is also today rather romanticized because this landscape is regarded by most people as a recreational landscape. A beautiful open, free summer landscape with wind and sun. A place for peace, recreation and artistic inspiration.

Trying to generalize about people's ideas and beliefs in connection with a certain landscape or milieu is dangerous. However, our thoughts and ideas are also in some sense connected to the surrounding material world where we live. People living by water will quite possibly create beliefs, myths and gods that are inspired by the sea. From historical times we know for example that a ritual landscape existed in the archipelago connected to good wind, good weather and a good catch. This was manifested in special rituals before leaving the harbour and in place names with special meanings. Other examples of such behaviour are marine rock carvings and arrangements of large stone mazes on the ground to ensure good luck. A well-known place which combines several of these features is the mysterious island of Blå Jungfrun in Kalmarsund (Westerdahl 2002).

For obvious reasons the tracking of different beliefs connected to the maritime milieu is easier to spot and record in historical time. But an example of prehistoric archaeological remains which indicate past awareness of the sea and open horizon, are the Bronze Age burials in the form of cairns and stone settings. Often these graves, which may also have been re-used for ritual activities long after they were first erected, were consciously related to the water, being positioned so that they were visible for miles across the Baltic Sea (see Telldahl 1997). Even if these places may have been partly selected as markers for seafarers, which has sometimes been suggested, they also show the importance of the mental image of a boundary between land and sea, and perhaps between other states of existence: the journey between different worlds, between a state of life and death (cf. Kretz 1996).

In a maritime context where the ship and the boat play a vital part in everyday life, it is also possible that it will play a role in aspects of society that are not directly connected to functional seafaring. The ship can become a mental structure, which influences the ideology and organization of a society (Varenius 1995; Rönby and Adams 1994). The mysterious rock carvings of ships from the Bronze Age have already been mentioned. They might have been drawn with real (foreign?) ships as example. But they are more than pictures of functional ships. They are also linked to socio-religious concerns vested in cult, status, fertility, religion and cosmology. What is certain is that their meaning resides not in simple representation or in myth and magic but in both.

The multifunctional role of the ship in eastern Sweden during the Viking age is also rather obvious. The Viking ship was of course a tool for transport and for communication, but it was more than that, they were prestige objects, named by their owners, mentioned in the sagas and portrayed on rune stones and picture stones. The idea of the ship was linked to central values of late Iron Age society namely power, glory and prosperity. The “ship structure” was also a way to organize tax and people in the Viking Age society (Varenius 1992, 1995, 1998).

During the 17th century, Sweden was for a short period one of the leading “superpowers” of northern Europe. The Baltic Sea was at this time a Swedish “Mare nostrum” and the royal naval fleet was important for keeping the state together. The ship was not however, just a suitable war and transport machine, it was also a symbol or structure of how the king and the rulers thought society should be. When the leading aristocrat of this century, Chancellor Axel Oxenstierna explains his view for the “Riksdag” on how a good society should work he describes the country as a metaphorical ship. He argues that everybody in society, just as on a ship, is dependent on each other in a dangerous sea full of enemies. Everybody on board is also linked to each other from youngest ship’s boy up to the captain. The hierarchical power structure on a ship is also said to be the ideal way to rule a country. The ship therefore, was in Oxenstierna’s opinion a conceptual ideal of how a good society should be run (Englund 1989; Rönby and Adams 1994).

Earlier in this paper the dangers of living on the coast and the risk of being attacked by seaborne enemies were mentioned. In the summers of 1719 and 1720 the Swedish east coast was raided by Russian galley fleets. Farms and settlements in the archipelago were plundered and some of the cities and churches along the coast were set ablaze. The damage was limited however. The attacks didn’t change the course of political history and after about 2 months the Russians went home. The mental impact of this rather insignificant event has however, loomed large in Sweden. The memory of the fearsome seaborne Russians is still strong in the archipelago. There are a lot of detailed stories of what happened and how brave fishermen and their wives fooled the Russian. A lot of remains such as shipwrecks, landing places and stone ovens for baking are also said to be from the period of the Russian looting, even though many are not at all.

Fear of the Russians coming from the east across the sea has, in modern Swedish history, been a concept which has often been politically exploited by different interests. For being a cold war neighbour to the Soviet war machine during late 20th century meant that there existed to a greater or lesser extent a real maritime military threat.

In 1981 a Russian submarine, U137, was stranded in the archipelago outside Karlskrona. The discussion as to whether it was a mistake by seamen drunk on vodka or a Russian nuclear spy boat carrying out operations deep inside the Swedish defence system still continues. And for the next 10 years after the stranding of U137, Russian submarines and divers were said to be seen all around the Swedish coast. The Swedish navy tried to track them with helicopters, with sonar and to reveal them by depth charges but not a single Russian intruder was ever spotted or proved to have actually been there. To a large extent the “submarine fever” of the 1980s can be seen as a continuation of the fear of Russian galleys from the 18th century and maybe of an even more enduring fear of foreign sea-borne invasion by societies living close to the sea.

The Roll of Long-term Structures?

People have lived and worked in the coastal landscape of eastern Sweden for over 9,000 years. There have of course been shifts in climate and vegetation but the marine milieu has been generally similar for all these inhabitants. They have therefore shared the same physical maritime landscape. In this article it is also suggested that they have shared some long-term social and mental structures regarding their interaction with the sea. These are the exploitation of marine resources, communication over water and the mental presence of the sea. This “maritime durees” (Rönby 2003) is then a result of similar physical maritime conditions but could also for periods of varying duration have been culturally transmitted, as in the “fear of the Russians”. A fascinating hypothesis is for example that seal hunting on the Swedish east coast is an unbroken cultural tradition going back to the first Stone Age settlers.

However, societies and humans as individuals are of course also influenced by rapidly changing social and cultural structures, which are more independent of the sea or environment. Political decisions, technological progress, new ideas, tangible events, and people’s own choices of strategy can radically change both one’s way of life and one’s attitude. New social orders and changes in economic and power structures can be a result of inner “conjunctures” and struggles for power between different groups in society. Also the fact that we accumulate knowledge and derive new ideas from others both within and outside our society can also lead to changes and a new way of living.

Braudel doesn’t offer any suggestion on how the relation between *les événements*, *les conjunctures* and the *les longues durées* should be considered. It is probably a wise decision. This is not a question to which one can give a general answer. For many of the people who have lived on the Swedish east coast for so many millennia, the influence of the enduring environment was probably not something that they were consciously aware of. Events, political changes or their own decisions have had more immediate impact on their lives and for changes in their particular situations. However, in other situations, and especially from a long-term perspective it is without question that maritime surroundings and the associated long-term structures of interaction have been a part of what constituted coastal people’s life.

To study and try to understand the character of this relationship between humans and their maritime surroundings must be a central question for the maritime archaeologist and

other maritime culture studies. The challenge is probably not so much to prove that a special environment plays a role in the formation of societies and cultures. It is evident that it does. The challenge is instead to show how people within a very special maritime milieu and linked to “maritime durees” within these surroundings have nevertheless constructed their social situation so differently, developing widely varying strategies and solutions. Such insights, that we both are linked to and dependent on the physical world, but also able to make choices in connection with it, may hopefully be some inspiration for our own choice of strategies connected to the environment.

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