

Burials at the End of Land – Maritime Burial Cairns and the Land-Use History of South-Western Uusimaa

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Abstract

The maritime landscape of Uusimaa has been quite an unknown territory for archaeologists up to recent years. Only the archipelago of Ekenäs in the western part of the area was surveyed extensively before the year 2002. In this article recent research is presented. The focus is on the most maritime area between Hanko in the west and Espoo in the east. The viewpoint is from the sea, meaning that the relationship between the burial cairns and the maritime environment is especially emphasized, but the larger geographical context is not forgotten, either. Another important aspect is the perspective of the landscape. How are the sites located in the landscape and what meanings can be derived from the patterns in the landscape? Questions about the chronology of erecting cairns in the maritime zone will be discussed - when did the phenomenon start, how long did it continue, and when did it end? The main question is: How do the spatial and morphological patterns of the burial sites and stray finds reflect secular land use?

Keywords: archaeology, maritime areas, landscape, Bronze Age, Iron Age, burial sites, land-use.

1. Introduction

The maritime landscape of Uusimaa has been quite an unknown territory for archaeologists up to recent years. Only the archipelago of Ekenäs in the western part of the area was surveyed extensively before the year 2002. Most of the archaeological field activities had up to that point been concentrated to the more inland agrarian landscape of Uusimaa. In 2002–2003, archaeologists and historians, in a project named *Our Maritime Heritage* organized by the department of Archaeology at the University of Helsinki, started surveys in the coastal and archipelagic areas of south-western Uusi-

maa (Jansson & Latikka 2006)¹. During the surveys hundreds of formerly unknown sites were documented and reported. The data gathered during that project forms the basis for the discussion in this article. A more detailed analysis of the material had to wait for the following project (2004–2006) called *Uusimaa during Iron Age and Middle Ages*². Part of that work is presented in this article.

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- 2 The project was funded with the generous contributions of the Kone foundation.

The focus is on the most maritime area between Hanko in the west and Espoo in the east (Fig. 1). This is also the part of Uusimaa that during medieval times formed the coastal and archipelagic part of the county of Raseborg. The term maritime area is used to define the area between the mainland seashore and the open sea areas. It consists of an archipelago with islands of various sizes. The scale of the archipelago depends on its location within the larger area. The land uplift process in the area demands that changes in shorelines are taken into consideration. The shoreline has changed depending on the profile of the land cover, which means that the coastline in the former parish of Snapper-tuna (Raseborg) and the parish of Siuntio was several kilometres to the north of the present shoreline as relatively recently as in 1000–1500 AD. In other parts the changes were minor and larger fluctuation, such as the drying of inlets of the shoreline, has taken place only locally.

During the whole Holocene period, the maritime area of Western Uusimaa has been a coastline broken by several fjord-like inlets running from north to south. Geological rift formations form east-west-oriented natural causeways in the archipelago, which are quite easy to navigate nowadays with marked sea lanes. In the north-south direction, the archipelago is quite narrow, only about 20 km at its widest. In some areas, such as in Hanko, the archipelago consists of only a few scattered islands on the brink of the open sea.

The inner archipelago consists of large islands (more than 15 hectares) with narrow straits and smaller islands forming a mosaic of shallow and narrow waters around them (Häyrén 1900). There is no real middle archipelagic zone in the area; the archipelago opens up to the outer archipelagic zone quite rapidly.

In this paper, land use during the Bronze Age and the Iron Age in the maritime area of



Fig. 1. The area discussed in this article. Darkest grey shows the shoreline approximately 1000 AD, the lighter grey approximately 500 BC and the lightest grey approximately 1500 BC. The tilting effect of the area has been taken into consideration.

Western Uusimaa is discussed. Also the issue of when the archipelago was permanently settled will be addressed, but the main focus is on land use in general, of which dwelling is only a part. The main question is: How do the spatial and morphological patterns of the burial sites and stray finds reflect secular land use? The site types have been chosen because they are the most common and in many cases the only prehistoric types of sites in the maritime areas. The lack of Bronze Age and especially Iron Age settlements is not only a maritime problem but also a problem for more inland areas.

The viewpoint is from the sea, meaning that the relationship between the burial cairns and the maritime environment is especially emphasized, but the larger geographical context is not forgotten, either (cf. Jasinski 1993). Another important aspect is the perspective of the landscape. How are the sites located in the landscape and what meanings can be derived from the patterns in the landscape? Questions about the chronology of erecting cairns in the maritime zone will be discussed – when did the phenomenon start, how long did it continue, and when did it end?

In addition to the lack of recent field research in the mainland area, also more theoretical studies and publications have been scarce. One exception has been the work of Anna Wessman (Wickholm) on the Iron Age burial sites in the area (Wickholm 2000; 2005; 2007; Wessman 2010). It is important that the maritime areas are considered in relation to these areas in order to obtain a complete picture. Also studies in neighbouring areas need to be given some attention, especially the coastal areas and archipelago of Finland Proper where interesting new results have been published during the last 10 years (Asplund 2001; 2008; Tuovinen 1985; 1990; 2002).

The archaeological material from mainland burial sites in Western Uusimaa has not been included in field studies by the author and therefore only previous publications and studies are used in the discussion regarding them.

2. Some perspectives on burial cairns as indicators of land use

Burial site and burial cairn

The term burial site or burial cairn is used to signify a site whose main purpose is the burial and/or the ceremonies regarding the deceased, whether it was the primary or secondary place of burial. The burial sites were places concerned with the actual burial, the funerary rituals, or rituals involving the ancestor and concerning the living (Barrett 1996:397).

Representativity

In Finland, the land-use and settlement history of the Iron Age especially and to a large extent also the Bronze Age of southern Finland has been and still is mostly based on burial sites (Kivikoski 1961; Salo 1981; Edgren 1992; Salo 1995; Lehtonen 2000; Pihlman 2004:84–85). Especially during the early years of archaeology, but also still in the late 20th century, studies tended to focus on burial sites, especially on the rich cemeteries from the late Iron Age. In Uusimaa, only two Iron Age settlement sites were studied before the 21st century (Wickholm 2005).

In this paper, burial and stray finds are used as indicators of land use because they are the only type of prehistoric sites that can be found throughout the area. The existence of Iron Age settlements in Western Uusimaa is almost non-existent, and there are only a handful of possible Bronze Age settlements (cf. Forsén et al 1993). When burial cairns are used as indicators of land use, it has to be remembered that they represent only a part of the wide spectrum of activities that made up the life of a prehistoric person. This raises the question of how representative the material is.

Physical representativity means the physical coverage of, for example, surveys done by professional archaeologists and the representativeness of the number of sites and their geographical distribution. Fieldwork done in most maritime areas can be considered as representative. The coastline and archipelago were surveyed in the same project during 2002–2003 using a standardized documentation method. Over 90% of the islands and coastal areas have been visited and mapped by professional archaeologists. From 2002 to 2004, several teams of archaeologists carried out surveys in the area with a standardized field and documentation method, which should make the material comprehensive enough for this paper. Most of the sites have been visited and redocumented by the author. In complementary surveys, done after the 2002–2003 extensive surveys, only a few sites have been found, and all of them were other stone structures than burial sites. This shows that the burial sites used for this article are representative enough to be used as indicators of land use even if no statistical comparison has been done.

The question of what could be called *cultural representativity* is more complex. This term is used to signify how large a part of the past activity in the area the burial sites represent. No exact figure can be given, but it can be discussed what the erecting of burial cairns in an area could have meant. Burial places are related to rituals and death. According to Kristina Jennbert, burials and rituals concerning burials give a perspective on the world of ideas of past humans and the burial places are consequences of *rites de passages* (Gennep 1960; Jennbert 1993:71). The burial sites can therefore provide a picture of the religion and ways of seeing the world in prehistoric societies (cf. Kaliff 1997).

In less complex societies that existed during prehistory, religion and rituals were probably intertwined with every aspect of life (Kaliff 1997:11–13). Hence burial sites have often been used in studies of the social structure of past people. They have been thought to reflect hierarchies and social status in the society. For

example, Lewis Binford saw the relation between mortuary practises and the complexity of a society as quite straightforward (Binford 1972:235). This view has been criticized since by several authors (cf. Trigger 1989; Lagerlöf 1991). Michael Parker Pearson has shown, by studying English graveyards, that an egalitarian mortuary practice does not always reflect an egalitarian society and care should be taken in the analysis of social structure based on burial sites (Parker Pearson 1982). Studies have shown, despite the criticism, that burials, rituals and ceremonies are connected with other structures and activities in society (cf. Tilley 1994 on the *double bind* and power; Kjeld Jensen et al 1997; Mägi 2002).

The religious rituals and ceremonies that ended in the burial sites we find today were in an interdependency and complex dialogue with other aspects of life (Cassel 1999:30). The religious beliefs and ritual were connected to everyday life and could be used, for example, to emphasize status or the rights to certain areas or activities. This means that by understanding the ritual and motives behind the burial places, also other aspects of past human life can be interpreted. Because the religious beliefs and rituals connected to these were closely connected to the more profane parts of life, they can also reflect other types of land use than only ritual or religious. However, interpreting patterns and places with ritual function should be done carefully. The presence of burial sites means that the area had a meaning and was considered important. The lack of burial sites does not, on the other hand, mean that there was no land use in the area (cf. Huurre 1979:141). It could only mean, for example, a change of meaning, ritual, or belief system and not necessarily a hiatus in land use (Fitter 1995:8–9; Barrett 1999:257–258).

Care should be taken especially in the discussion of settlement history by using burial sites. Studies have shown that an increase or expansion of burial sites does not automatically mean the expansion or intensification of settlements (Rasmussen 1993; Skoglund 2005:101).

In Finnish archaeological studies concerning Bronze Age and Iron Age settlement history, burial sites have traditionally been used as indicators of sedentary settlements. Especially the Late Iron Age cemeteries have been assumed to be in close connection to the settlements (Kotivuori 1992; Raike & Seppälä 2005; Wickholm 2005:6; Vuorinen 2009). Therefore burial sites without settlements have been considered reliable indicators of settlement at or close to the site³. This assumption has not been extensively critically evaluated because there are still only a few examples of research directed at contemporary settlements in Finland.

In the study of other types of burial sites than cemeteries in an agrarian landscape, the correlation is more complex. This has been discussed by Tuovinen (2002):

“Where does the line run within archaeological finds between sedentary settlement, mobile residential settlement, and desolate wilderness? On the mainland coast of Finland Proper there are more than 600 registered Iron-Age graves and cemeteries which have undoubtedly been interpreted as indications of sedentary agrarian settlement. But what about the more than 200 Iron-Age cairns in Åboland at the distance of 10–70 km from the mainland coast towards the archipelago; are they wilderness interments or graves within sedentary settlement?”

On the other hand, some connections have been shown also between Bronze Age burial cairns and dwelling sites, for example, on the eastern and western coasts of the Gulf of Bothnia (Kotivuori 1993; Baudou 1995:100; Okkonen 1999). As discussed earlier, it has to be kept in mind that burial sites connected to rituals are not direct indicators of local sedentary settlements. Other evidence, such as that provided by dwelling sites, toponyms, and pollen analysis, is needed to make such interpretations.

Burial sites were primarily places dealing with death in the community and therefore they

become embedded with strong symbolic meaning. On the other hand, these places were not used for ceremonies that put an end to life, but instead they were places that enabled a new existence after death (Kaliff 1997:20). Thereby burial sites were links between the world of the living and the world of the dead, where contacts with ancestors were made (Cooney 1994). The ritual was connected to the life of the living and the places had other embedded meanings than just as a burial place for an ancestor. By studying the places in their landscape and their spatial pattern, also these underlying meanings of more secular nature can be interpreted.

Burial sites make it possible to interpret how past people looked at themselves and how they understood the surrounding world (Cassel 1999:30). One more secular aspect concerning the latter, and the main focus of this article, is the use of an area. The right to use an area was important for any prehistoric society because its survival depended on it. In a hierarchical society, this right could be connected to power and controlled by a smaller group or even by an individual. These rights had to be manifested somehow. Before the time of maps or written documents, the landscape provided the means for this. It could be done by emphasizing certain places and upheld by rituals and ceremonies, such as *ancestral rituals*.

Places, space, and landscapes

The places for the burial sites were not chosen at random. They were erected in a landscape already filled with meaning, derived from its natural features and possibly the relics of cultural features (Barrett 1999:255). The places chosen for the ritual that led to the erection of a monument were always located in a context that we call landscape. Sometimes the term environment is used to mean a context that is always there, while the landscape needs a perceiver (Ermischer 2004). In this article, the term landscape is used in order to emphasize the perspective of the perceiver.

³ Unto Salo (1995) uses the term *cemeterial settlement* (fi. *kalmistollinen asutus*) for places defined as settlements based on cemeteries without the actual dwelling site.

Landscape has attracted the interest of archaeologists for a long time. It was only in the 1990s when the concept of landscape was more widely theorized and the term landscape archaeology became more widely used (e.g., Barrett et al 1991; Tilley 1993, 1994; Bradley 1993; Barrett 1994; Bender 1998; Knapp & Ashmore 1999a). Archaeologists, predominantly from Britain, criticized the earlier views of the landscape as a passive medium that humans utilized. The landscape was seen as an active entity with a complex relation to humans (Tilley 1994; Knapp & Ashmore 1999b:2). It was furthermore not considered stable but an unstable concept moving along a natural and cultural continuum (Tilley 1994:37).

The burial sites had a multitude of meanings as argued above. The same case can be argued also for the landscape. Mircea Eliade (1968) has put forward the idea that space can be separated into *profane* and *sacred*. In the *profane* spaces there are *hierophanies* (Eliade 1968:20). These are holy places where people can interact and communicate with gods. Burial sites may have been used over a long period of time for rituals and might therefore be interpreted as *hierophanies*.

From a landscape perspective, the division between *profane* and *sacred* can be problematic. Many studies use definitions of landscapes related to the *profane* space when studying secular activities like subsistence and dwelling. This has resulted in terms like *taskscape* (Ingold 1993) or *production landscape* (Löfgren 1981). The division of the landscape into such categories has been criticised by Richard Bradley (1997:216), who writes:

"All too often the prehistoric landscape is studied for evidence of settlement and subsistence. This is the task of "landscape archaeology". Monuments associated with ritual and ceremonial use are usually studied separately, and these are the province of "social archaeology". Such a division of labour is faint-hearted, and ultimately it is impossible to maintain".

The landscape should be considered as one entity where the natural cannot be separated

from the cultural or the sacred from the profane (Barrett 1991:8). The profane and sacred are intertwined and no *sacred* or *religious* landscape can be separated from the already mentioned *taskscape* or *production landscape* related to more mundane activities that people are carrying out as a part of the landscape (Johnston 1998:61–64). In order to understand the land use or the *profane*, the ritual or sacred must also be understood, and the other way around (van Dommelen 1999:281). This is what Coones (1992) called *seamless totality*.

The landscape is also always contextual in relation to the perceiver (Johnston 1998:56). Hence the landscape cannot be separated from society because it is the outcome of the process between people and their engagement with the world they live in (Hirsch 1995). The landscape and its significant elements, which can be studied by archaeologists, are therefore the product of specific local and historical conditions and they have been and are in constant change (Coones 1992). This means that landscape by definition never can belong to only one period and when sites are studied in their landscape, a fourth dimension – time – always has to be accounted for (Crawford 1953).

In understanding the sites it is important to understand how, why, and when they were initially created. Why did they emerge as specific places in the wider landscape? This does not mean that they were not conceptualized or ritualized places before a monument was raised or an ancestor buried at the place. The landscape was filled with natural elements embedded with meaning, but for some reasons, certain places were chosen for erecting burial cairns. (Bradley 2000). According to Christopher Tilley, the monuments acted as a focus or a *lens* through which the wider world of experience was to be viewed (Tilley 1994). The place was given a strong communicative role in many senses including communication with the people and the surrounding landscape.

Some points on scale and classification

As discussed above, a cairn does not point to the coordinates of the place where the people who erected it dwelled, fished, hunted, or tilled their fields. Therefore the approach in this study is regional. It is related to Klas Selinge's settlement region (swe. *bebyggelse* region) and not to the settlement unit (swe. *bebyggelse* enhet) (Selinge 1977). Instead of locating the specific unit itself and giving sites specific coordinates, the study stays on a macro level.

Burial cairns and stone settings are classified in field conditions. The classification of stone heaps into morphological groups has been criticized (cf. Bolin 1999:59–60). It is a fact that giving a burial cairn a definition based on the outline or shape of the cairn is difficult. Hans Bolin has furthermore shown that cairns have undergone ritualistic reshaping and rebuilding phases (Bolin 1999:60–62). Therefore most of the sites in this study are defined into one category, undetermined. Every site that lacks proper description or is ambiguous in any way has been classified into this group. No attempts have therefore been made to differentiate between, for example, round or oval shapes, because they are difficult to determine due to the quality of documentation and the non-specific character of the sites.

On the other hand, there are some easily distinguishable stone settings or cairns that can be classified, and they are the focus of this study. Two morphological types have been distinguished and named *rectangular cairns* and *elongated stone settings*. Stone settings and cairns that were built for a certain regular shape, especially the angular ones, are considered to be specifically designed to a certain shape (Tuovinen 2002:154–155). The two types can clearly be defined and measured and thereby also classified and separated from the rest of the burial cairns and stone settings. One reason why these specific types of burial structures are in focus is that they are distinct to the maritime areas of south-western Uusimaa.

2. Physical landscape change in south-western Uusimaa during the last 3500 years

The landscape and its appearance are affected by the physical changes caused by natural phenomena. An important factor is climate, which affects precipitation, erosion, and vegetation, among other things. Another process that is very clearly visible in the maritime areas is the land upheaval. In the area of this study, the present-day land upheaval, according to the isobases, varies between 3.2 and 3.8 mm/year (Kääriäinen 1963). In another part of this publication, Arto Miettinen discusses the land uplift processes during the last 2500 years. According to him, the Baltic sea shoreline varied between 8.5 m a.s.l. (west part of the area) and 6.5 m a.s.l. (east part of the area) around 500 BC and 1–1.5 m a.s.l. around 500 AD. The results furthermore suggest a gradually lowering sea level without any clear transgressions.

The study by Arto Miettinen did not include the Bronze Age, but it and the earlier period are covered by two other studies. One studied the shore displacements in the Tammisaari–Perniö area (Eronen et al. 2001) and the other the same processes in the Helsinki–Kirkkonummi area (Hyvärinen 1999). Both studies focused on earlier periods, but according to their shore displacement curves the shore line would have been approximately 15 m a.s.l. in the western part and around 11 m a.s.l. in the eastern part of the area at the beginning of the Bronze Age around 1500 BC.

The effects and changes in the landscape caused by the shoreline displacement process have varied quite a lot. In the north-western part of the area, in the former parishes of Bromarv and Tenala (today part of the town of Raseborg), where the topography is steeper, the changes are not that significant. In the former parish of Snappertuna (today part of the town of Raseborg), the archipelago stretched several kilometres further towards the north compared to the present-day shoreline still during the Early Middle Ages.

The vegetation in the area has probably been quite similar to that of today for the last 3500 years. An exception to this are some of the larger islands, Älgö and Orslandet, where pollen analysis discussed by Teija Alenius elsewhere in this publication shows a significant opening of the landscape around 400–800 AD. Today, these larger islands are more covered by forest than they were during that period. This is due to the regression in population and agriculture in the maritime areas during the last 50–80 years. Old fields and meadows, as well as pasture islands, have been reforested. The vegetation on these islands today resembles that of the period before 1500 years ago more than that of the agricultural maximum that occurred later.

3. Earlier research on Bronze Age, Iron Age and early historical settlement history in western Uusimaa

Few synthesizing studies of settlement and land use in the prehistoric periods in western Uusimaa have been done so far. Fieldwork was quite intensive up to the late 20th century (Fast 1989). Some of the mainland burial cairns and burial sites from the metal periods, especially in the Karis area, were excavated already during the late 19th and early 20th centuries. The maritime areas, though, were ignored. The first synthesis of the mainland areas, especially the parish of Karis, was written by Olof af Häggström, who also excavated several sites before he wrote a book on the prehistory of Karis (1948).

Hällström dated the cairns in the area to the Bronze Age and believed they were built by seafarers or an archipelagic population (Hällström 1948:24). At that stage, there were no pollen analyses or dwelling sites from the Bronze Age known in the area that would have supported a theory of local settlements. He dated the beginning of the tradition of building cairns to around the year 1000 BC. Hence the Bronze Age would have lasted for only 600 years in this area. Hällström divided the cairns

into two groups. The monumental burial cairns, positioned in an elevated position and often with a stone cist, he dated to the early Bronze Age, while the later Bronze Age cairns included cremation burials without stone cists (Hällström 1948:25–27).

The four-sided settings in Uusimaa and a tarand grave at Kroggårdsmalmen were dated by Hällström to the early Iron Age. In accordance with the contemporary views of a settlement hiatus during the Pre-Roman Iron Age, he sees especially the Kroggårdsmalmen site as a cemetery built by Estonian immigrants during the first centuries AD. He furthermore states that the origin of the grave form is in Estonia and the four-sided stone setting is a form of tarand grave with only one tarand (Hällström 1948:43). After the colonization, the settlements would have increased in number, with a peak in the area during the Merovingian period (Hällström 1948:58). According to Hällström, the end of the Viking Age meant an end to the permanent settlements in the area.

Also Ella Kivikoski compared the four-sided stone settings with the single tarand graves from northern Estonia. Like Hällström, she believed them to be tarand graves. She concluded that they were incomplete or smaller than contemporary tarand graves in Estonia due to the smaller population in Finland during the Iron Age (Kivikoski 1961:128). Later Valter Lang has stated that the four-sided stone settings and single tarand graves, a type more thoroughly studied after the publications by Kivikoski and Hällström in the north-eastern part of Estonia, are to be considered as belonging to the same burial type (Lang 1996:323).

Pekka Honkanen (1981) discussed the Iron Age settlement development in the Uusimaa area with an emphasis on the Migration and Merovingian Periods. Like previous and later authors on the subject, he discussed the settlement development by using burial sites because of a lack of properly studied settlement sites. According to Honkanen, there is a decrease in burial finds in the 6th century and an increase again in the 7th century (Honkanen 1981:92–93). The so-called four-sided stone settings he

dates from the Late Roman Iron Age to the end of the Merovingian Period (Honkanen 1981:37, 99). One important feature in the tarand graves is the collectiveness of the burials. The finds and bones are spread out on top of and among the stone setting inside the square kerb.

By comparing the historical borders of the Medieval hamlets and the burial sites in the area, Honkanen concluded that 7–8 settlement units should have existed in the area during the Iron Age (Honkanen 1981:125–127). Like af Hällström before him, also Honkanen remarks that the settlements were all located towards Lake Lepinjärvi. From this lake a pollen sample was taken already in the 1970s, indicating a continuation of the agricultural activities from the 8th century forward and up to modern times. (Tolonen et al 1979; Tolonen 1985). This contradicts the fact that no sites have been dated to the period between the late Viking Age or after 950 AD and the early Middle Ages. However, Honkanen concludes that this did not mean abandonment of the area; instead, one explanation would be the adoption of Christian burial rituals (Honkanen 1981:139).

In the middle of the 1990s, Jukka Moisanen and Björn Forsén (1995) published an overview of the Mustio river valley and the settlement development in that area, including the Lepinjärvi area, during the Bronze Age, Iron Age, and Middle Ages. In the prehistoric part of the article, they analyze the chronology and types of burial cairns in the area. According to them, the Bronze Age population seems to have been concentrated in the Tenala–Pohja area (northern part of present Raseborg), and they further argue that settlements seem to be maritime-oriented (Forsén & Moisanen 1995:27). Looking at the spatial pattern of the contemporary burial sites, they concluded that during the Pre-Roman Iron Age there were three clusters of settlements: the *coastal group*, the *Mustio group* and the *Lohja group* (Fig. 2, Forsén & Moisanen 1995:31–32, my translation). The dominant site types from this period are cairn areas that can be burials or clearing cairns from early agriculture (cf. Gren 1991 & 2003). In

some cases, also settlements between the cairns have been found.

During the centuries after the Pre-Roman Iron Age, three new settlement clusters appeared in the Karis, Tenala, and Meltola-Romsarby areas. The three groups from the Pre-Roman Iron Age continued during the Roman Iron Age, but at least the *Lohja group* and the *coastal group* seem to disappear during the Migration Period. For the coastal group, this period coincides with the time when the inlet, around which this group was located, ran dry. This population moved to the Lepinjärvi area, which seems to be settled at the same time (Forsén et al 1995:31–32).

According to Forsén and Moisanen, the population reached its maximum during the Migration and Merovingian Period. During the Viking Age, this population went into a regression with the latest find from the area from around 950 AD (Forsén & Moisanen 1995:38). Also as stated above, pollen analyses show that at least the agriculture continued uninterrupted up to the Middle Ages. This is also recognized by the authors, and combined with the place names they conclude that there should have been a Finnish peasant population in the area when the Swedish colonization arrived.

Anna Wickholm discusses the much-debated settlement regression and hiatus in settlement during the end of the Viking Age and continuing until the Swedish colonization in the early Middle Ages (Wickholm 2001; 2005). The discussion for and against a hiatus is reviewed by Wickholm, and she points out that pollen diagrams are not ethnically determinant (Wickholm 2005:5). She points out that the question is still symbolically loaded and more research is needed (Wickholm 2005:7).

The datings of the Iron Age sites in Uusimaa are quite old and based mostly on typology, especially during the Younger Iron Age. This is an issue that should be evaluated and discussed, but it is outside the scope of this paper. The hiatus in late Iron Age finds, for example, is one problem that should be tested also on the sites that have been excavated earlier.



Fig. 2. Map over the coastal, *Mustio* and *Lohja* group. Map drawn after Moisanen & Forsén 1995.

4. Maritime settlement and cairn studies in neighbouring areas

Two recent studies that are geographically and thematically close to the theme of this article need to be given more attention. The first one is Tapani Tuovinen's PhD dissertation on burial cairns in Åboland (fi. Turunmaa), which is a synthesis of over 20 years of work on the subject (Tuovinen 1985; 1991; 1994; 2002). The other, which is also a synthesis of decades of work, is Henrik Asplund's PhD dissertation (2008). In his work the cairns are only a part of all the data he uses for a long diachronic study of the settlement history of the island of Kimi-toön and the neighbouring areas.

Tuovinen analysed the cairns with the aid of GIS, mainly viewshed analyses, and statistical studies. He made a basic classification of the cairns into P (Bronze Age) and R (Iron Age) groups. It is interesting that the viewshed analyses of the cairns in the P group have a

more terrestrially oriented location, while the R group has a more maritime orientation. According to Tuovinen, the general trend is continuity, even if there are changes in the locations of the cairns and their orientation in the landscape. Tuovinen interprets this as an expression of conservatism and a consciousness of ancestors. (2002:242–243, 245)

In contrast to the mainland cairns, the maritime cairns do not seem to cluster into cemeteries in the P group and they are located both on the largest islands and on the outermost skerries (Tuovinen 2002:200). In accordance with an earlier observation by Vuorinen (2000:181), Tuovinen also observes a correlation between the size and age of the cairns, where the younger ones were built further out in the archipelago as the land rose from the sea. This phenomenon he names *stochastic time gradient* (Tuovinen 2002:201). This means that Iron Age cairns should be found in greater numbers the farther out in the archipelago one goes.

He criticizes territorial interpretations of the burial cairns that are based on the overestimation of the visibility of the cairns (Tuovinen 2002:248; cf. Salo 1981). Many of the cairns are not visible due to the low profile or setting and they are not dominant places or *milieu dominant* (Eskeröd 1947). Even visible cairns in open places are not visible very far without visual aid. Therefore they probably represented internal spatial categorizations and knowledge (Tuovinen 2002:202–203, 248).

Especially the continuity of maritime cairn building from the Bronze Age to the Iron Age has been discussed by Henrik Asplund (2008). He criticizes the grouping of the cairns into two main chronological groups. In his opinion, the Bronze Age/Pre-Roman Iron Age period was not a major change, but instead the major periods of change came later, in the Early Iron Age periods (Asplund 2008:370–373). He thinks that the division of the cairns into a Bronze Age and an Iron Age group is not sufficient to show the major changes in the settlement pattern of the maritime areas. On the other hand, Asplund generally agrees with the other arguments for Bronze Age–Iron Age continuity presented by Tuovinen, such as ecological sustainability, but he suggests that there might be a separate Bronze Age and a separate Early and Late Iron Age phase of cairn building, with a possible weakening if not break in between (Asplund 2008: 373–374). He bases his view on the lack of dates or finds from the Early Iron Age and especially its later periods in the archipelago.

Asplund sees a change in the settlement structure during the Early Iron Age when the settlements moved northwards towards the mainland. At the same time he sees a change where the cairns are built closer to the settlement sites, which according to him is related to a new territorial shaping of the landscape. (Asplund 2008:383–384) During the Early Iron Age, there was a change in the settlement structure. The Bronze Age and earlier disparity in settlement pattern changed when the settlements moved into the agricultural central areas in the mainland. According to Asplund, this led to a decreased interest in the archipelago.

He sees an increase in interest again during the Viking Age with stray finds, cairns, and palynological evidence of continuous agriculture (Asplund 2008:374–375). Looking at his diagrams showing the amount of stray finds in the archipelago the change is very small, though, with a total of only 1–2.5 finds per period! (Asplund 2008:146, diagram 60). On whether this indicates a permanent settlement, he says the following (Asplund 2008:377):

In addition to the dating of the Makila Majberget cairns and the small increase of Viking Period stray finds in the archipelago, the pollen data indicates increased Late Iron Age permanent utilisation of areas further away from the mainland central settlement areas. How significant this was in terms of population numbers remains unsolved.

Even if one can read this to mean that there might be a possibility of Iron Age settlement in Kemiönsaari (Kimitoön), it seems, though, that Asplund still follows the traditional interpretation of a Swedish medieval colonization of an uninhabited archipelago (Asplund 2008:390 cf. Orrman 1991):

It was not before a new religious and political system began to be established at the turn of the Iron Age and the Middle Ages that the importance of the old territories finally seem to diminish or change into other types of organizations. In combination with a process of immigration, the outcome was that whole new settlement regions developed in former peripheries like Kemiönsaari, now occurring in the written form Kymittä. At that time, the original scheme of the Iron Age territories, promoting central settlement areas and ritual sites, had finally broken up.

The divergence between the mainland and archipelago that Asplund notices is also dealt with by Tuovinen. He suggests that people in the archipelago had a different mode of life than the people on the mainland. The archipelagians would have continued the conservative way of erecting cairns while rituals and grave types changed on the mainland. He furthermore sees a kind of barter system between the archipelago and the mainland settlements where the archipelagic maritime food sources played an important role in providing stability to the

more risky agriculture (Tuovinen 2002:275). Asplund does not agree with Tuovinen on the basis that he does not accept the idea of two different groups, but sees only one group utilizing the archipelago (Asplund 2008:390).

5. Cairns and their morphology and topographical and geographical location

Sites defined as burial cairns from all of the coastal parishes in western Uusimaa have been included in this paper. The coast and archipelago were systematically surveyed and sites documented by the author and colleagues in the same project during 2002–2005 (Jansson & Latikka 2006). In the more inland areas, such as Karis and Pohja, information on the cairns has been gathered from the register of ancient monuments by the National Board of Antiquities⁴. The focus is on two types of stone structures: *rectangular cairns* and *elongated stone settings*.

The fact that part of the material was not surveyed by the project and part of it was makes the material somewhat heterogeneous. On the other hand, all the rectangular cairns and elongated stone settings located more inland, on which information was gathered from reports, have also been visited by the author. The register of ancient monuments is in itself of varying quality and heterogeneous. It seems that there have been no general guidelines to how sites should be registered. Even in the basic categorization of sites, there is a great variety in how cairns have been defined. Because of this, the sites from the register have been critically evaluated and only those cairns that have clear definitions, measurements, and descriptions have been included in the study.

The total number of burial structures accepted for this study after the evaluation is

396. These are located in 324 sites, meaning that some of the structures are grouped together. Burial structures form a quite complicated site type, especially in survey situations. Stone heaps of all kinds have been built through centuries, for example, when clearing fields, marking shipping lanes and sometimes as a recreational activity. These can sometimes resemble prehistoric burial cairns quite a lot in shape, size, and topography. Many *kummel* or beacons for the shipping lanes were destroyed and ruined in times of war and they can resemble burial cairns. Also the moving of shipping lanes and changes in shoreline could result in the abandonment or destruction of the stone beacon. Therefore it is important to study the surrounding of the cairns, understand the historical land use in the area, and use historical sources. Even so the definition can sometimes remain ambiguous without excavations.

Because of uncertainties in the character and descriptions of the cairns, many sites were left out of this study. Only cairns that had enough information and for which other historical or prehistoric functions could be ruled out were included. More fieldwork is needed to determine whether the more ambiguous sites should be included, and this has not been possible especially for the more inland areas.

The burial cairns accepted for the study can be divided, based on their description, into morphological groups (Fig. 3): *round cairns* (150), *oval cairns* (22), *rectangular cairns* (32), *triangular stone settings* (4), *elongated stone settings* (17), and undetermined cairns (171). The largest group, undetermined cairns, includes sites with not enough information or unclear descriptions of the morphological character. On the other hand, a large part of the undetermined group consists of cairns that cannot be defined as belonging to any other group because of secondary disturbance or original complex shape.

As expected, the second largest group is round cairns, which is also the most common shape in other areas (Tuovinen 2002). The difference between round cairns and oval cairns is that the round cairn has a similar diameter measured in any direction while the oval has a

⁴ The register is available at <http://kulttuuriymparisto.nba.fi/netsovellus/rekisteriportaali/portti/default.aspx>. For this paper also the Museoverkko web application has been used.

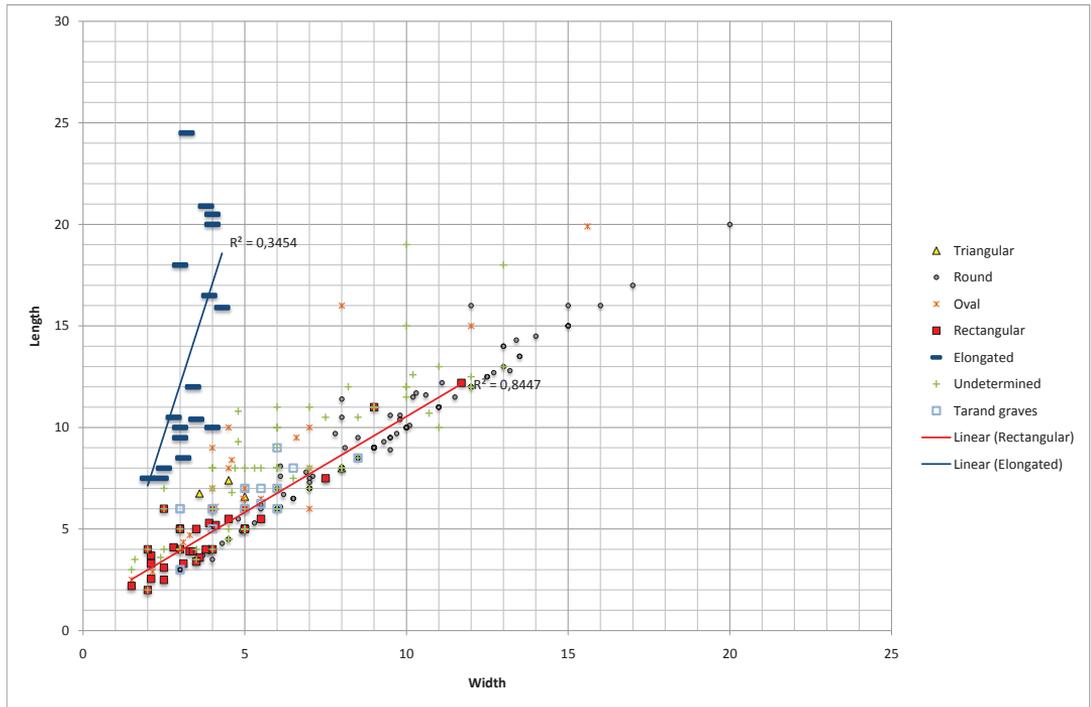


Fig. 3. Length-width diagram with the morphological groups

diameter that is clearly longer in one direction. Because this definition is difficult or in many cases even very ambiguous, the two groups are discussed together.

Rectangular cairns are defined as having straight edges, four corners, and a generally rectangular or sometimes trapezoid shape. I have named them cairns to distinguish them from the single tarand graves that have a clear kerb of large slabs or stones with a low stone setting, often mixed with soil, inside. The rectangular cairns often have a slightly convex profile even if they are low (height generally 0.3–0.4 m). They have a visible kerb in many cases on at least one to three sides, but several lack any structures.

Another morphologically distinct type is the elongated stone setting that is defined by having a length:width ratio of over 2:1. Furthermore, it always has a low and even profile with straight long edges and either straight or slightly convex short edges. Sometimes parts of

the edges have a kerb structure of larger stones. The elongated stone setting consists mostly of one to three layers of stone. It always has a very low profile with a surface that follows the underlying bedrock.

There are also triangular stone settings that have been located also elsewhere in Finland. Their number is small and none have been excavated or studied closer. Therefore they are not discussed in detail in this paper.

5.1. The elongated stone settings

In the length-width diagram in Figure 3, the elongated stone settings can clearly be distinguished as a separate group. The longest stone setting on Björkholmen, in the archipelago of Ekenäs, is 24.5 m long, but only 3.2 m wide at its widest and 0.3 m high. It consists of only one to three layers of stone. When looking at

the geographical distribution of the sites, it is very striking how maritime the distribution is (Fig. 4). All but one site are located in the present archipelago and most of them around a geological rift formation that still forms a natural fairway named *Leden* (eng. *route*). Attempts to locate this kind of sites on the mainland and further out in the archipelago have been made but none have been found.

It is striking how the elongated stone settings are located in topographically similar places. All are built on the highest part of a bedrock plateau or ridge. Most of them are built so that they cross low hollows in the surface of the bedrock. A large part (89 %) of the stone settings are built close to low escarpments. Most of them have been built on a peninsula on the islands. None of the elongated stone settings are positioned under 15 m a.s.l. but most

of them are built at a height of 20 m a.s.l. or higher.

Tuovinen mentions similar structures in the Archipelago Sea, but otherwise this is a different type of structure than the so-called long cairn (swe: *långröse*, fi: *pitkäröykkiö*) in Sweden and on the western coast of Finland (Tuovinen 2002; Okkonen 2003:111; Baudou 1968). The long cairns are also clearly elongated but they are different in shape and structure, and they can be crosswise convex, often rampart-shaped, and up to one meter high. The elongated stone settings are all flat structures consisting mostly of one or two layers of stones with carefully placed stones. They are clearly built to follow the bedrock surface and the stones are carefully placed. The long cairns and elongated stone settings resemble each other in the fact that they are both located high up in the

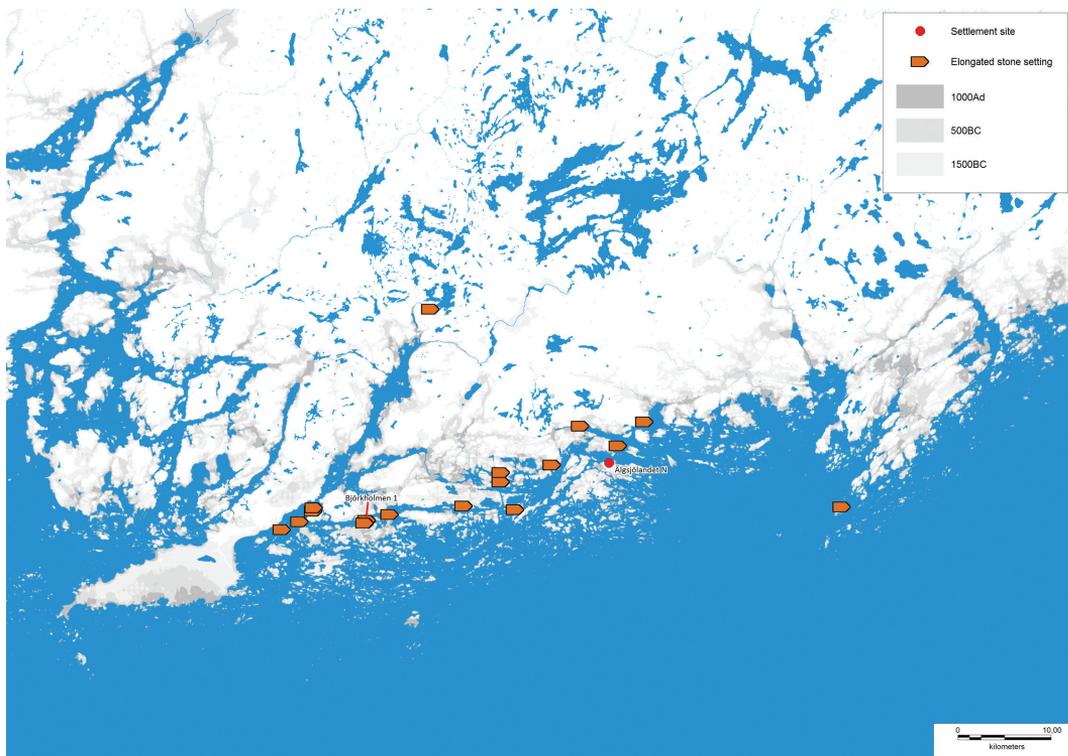


Fig. 4. Map over the geographical location of the elongated stone settings. In the map also the settlement site at Älgsjölandet, Ingå.

topography. The long cairn is considered to belong to the early Bronze Age or even late Stone Age (Okkonen 2003:35).

All but one of the elongated stone settings have been erected in the outer archipelago at the fringe of the open sea. The stone settings were all constructed in a very maritime setting with a sea-dominated landscape around them. They were not very visible in their surroundings. On the other hand, from the places they were built there was extensive visibility over open water. Interestingly, many of the elongated stone settings are placed on the mainland side of the islands and skerries they were built on. This was the more sheltered side, but besides this practical reason, the place could have also been chosen because it was connected in that direction to the mainland and the inhabited areas.

Björkholmen 1, Raseborg

Only one of the elongated stone settings in Uusimaa has been studied by excavation. The site Björkholmen 1 in the inner archipelago of Ekenäs was excavated in 2001 (Fig. 5, Jansson 2001). The relatively long (20.9 x 4.10 x 0.3 m) stone setting was erected in the north part of the island, which has given its name to the site, on a cliff top that slopes gently towards the north for the first 20–30 m, after which it falls as a steep slope to the seashore approximately 20 m below. The stone setting is constructed close to a 1–1.5-m-high escarpment on its S side. It is NE–SW-oriented and stretches over a low hollow in the bedrock. The shape of the stone setting is rectangular with slightly convex ends. The stones gave the impression of being very carefully placed and two chains of stones were distinguished as intentionally built kerb structures.



Fig . 5. The elongated stone setting at Björkholmen 1, Raseborg, before excavations.

The stone setting consisted of one to two layers of stones. After removing the first layers of stones, two underlying inner cairns, built of clearly smaller stones ($\bar{A} \leq 5\text{cm}$), were found. The stone material of the stone setting and the inner cairns consisted of naturally rounded stones that can be found all around on the shorelines and slopes of the island. The inner cairns were both oriented in the direction of the stone setting and situated only 1.5 m from each other. One of the cairns had a chain of carefully placed larger stones along its south edge.

Inside one of the cairns, three flint arrowheads with straight bases were found (KM 32797). They were all located under the stone packing against the bedrock, clearly positioned there before the stone setting was built. One arrowhead of the same type was found outside the inner cairns in the south part of the stone setting, also against the bedrock. The arrowheads are all of a similar type. One was a broken tip with a clearly patinated fracture plane. They are carefully shaped using bifacial retouching of the surface. All four are of a relatively short and wide type that dates them typologically to the late Neolithic period and Early Bronze Age (Carpelan 1962).

An early date for the whole group of elongated stone settings is indicated by the very homogenous attributes of the group. It is striking how similar they are in shape and geographic and topographic location. Furthermore, only two of the elongated stone settings are located between 15–20 m a.s.l., while the rest are located over 20 m a.s.l. Even though the location in relation to the present sea level cannot be used directly as a dating mechanism, it is striking that they are all built high in the topography and only on islands that rise more than 20 m above the present sea level. This does not necessarily mean that they are located on highest point of the island. It seems that closeness to the sea was a factor in choosing the places.

The long cairns on the west coast of Finland are dated to the Late Stone Age–Early Bronze Age. In one of the long cairns in that area, a quartz arrowhead with a straight base has possibly been found (Okkonen 1999:120). A flint

arrowhead with a straight base has also been found in a cairn, which is not a long cairn or an elongated stone setting, from the inner part of Finland, at Saunalahti in Siilinjärvi. The cairn was interpreted as a sacrificial cairn (Pohjakallio 1978). The long cairns, even if they have a different morphology, resemble in one attribute the elongated stone settings – the elongated shape is present in both. It seems that there might be an early tradition of building long cairns or stone settings on the coast and in the archipelago of southern and western Finland.

Also 112 quartz artefacts were recovered inside the stone setting (Rankama 2001). Of the total amount, 18 (16%) have been classified as implements, 87 (78%) as production debris, including 4 (4%) cores, and 7 (6%) as raw material. Among the implements are, as whole artefacts or fragments, scrapers, knives, and a burin, for example.

The quartz artefacts do not seem to correlate with the inner cairns, but they were distributed all over the stone setting, mostly in the western part of the stone setting (Fig. 6). In contrast to the flint arrowheads, these artefacts were also found in the stone packing between stone layers one and two. Some of the artefacts were also very carefully placed under stones or in between two stones. Interestingly, some of the quartz artefacts were found below two outcrops on the south side of the stone setting. These were located by the southern edge of the structure under the low escarpment. First they were thought to be the result of erosion and natural movement of the stone setting. Based on stratigraphic observations and the quartz findings, the outcrops were actually a part of the stone setting.

No burnt or unburnt bones were found. Unburnt bones would probably not have been preserved because of the poor conditions with rainwater and air running unhampered through the structure. The early date of the stone setting, based on the finding of the arrowheads, is a period of inhumations, and uncremated burials can be found in contemporary cairns. The underlying cairns that are about 2 m in diameter are well sized for a human body. The cairns



Fig. 6. The spatial distribution of the finds from Björkholmen 1. Map drawn by Jaakko Latikka 2001.

could have had a practical function, because they covered the body and sheltered it better than the thin layer of heavy stones that the stone setting was built of. This practice is not necessary in the burial of a cremated individual, whose bones can be placed in a crevice or under a small setting of stones. On the south-west edge of one of the underlying cairns, a straight chain of larger stones was observed. This could also have had a practical function, for example, for holding down a textile covering the body.

The distribution and stratigraphic observations of the quartz artefacts suggest that they are not only related to the inner cairn. Hence they cannot be interpreted as coming from an underlying settlement layer, as the underlying surface is bare bedrock. They must have been deposited into the stone setting at the ritual of the building of the stone setting or later during the use of the site. The outcrops were probably built later than the stone setting, but it is of course impossible to say how long this time difference was – it could have been 15 minutes or 150 years. But the distribution of the finds

might indicate a post-burial ritual where people returned to the place.

The re-use of burial cairns and repeated visiting have been acknowledged by Hans Bolin on the Norrland coastline in Sweden (1999). He suggests that the cairns were long-term monuments used by local population groups (Bolin 1999:63). The elongated stone setting at Björkholmen could have been returned to in order to reconnect with the dead ancestors. The burial places were places of memory and liminal places between two worlds, where a connection with the ancestors could be made⁵ (see also Okkonen 1999:237). The static monument could have been a dynamic structure, and what we see is only the end of a long period of ritual use.

3000–4000 years ago the elongated stone setting at Björkholmen 1 was located on a small peninsula, close to the shoreline, in the outermost archipelago. Björkholmen was a small skerry with sandy beaches around the cliff

⁵ Anna Wessman discusses the cremation cemeteries under level ground as liminal places (Wessman 2010)

where the stone setting was constructed. This was an area where people came to fish or hunt and it might be that an important stage in the hunting trips was to conduct rituals, including deposition of quartz artefacts and asking the ancestor for good hunting or fishing.

5.2. The rectangular cairns

In the map (Fig. 7), the locations of rectangular cairns, cairn areas, and single tarand graves are shown. The rectangular cairns have been divided into size groups. The division was made by counting the smallest possible rectangular area that the cairns can be fit into (length x width). The rectangular cairns are also quite distinct in the length-width diagram (see Fig. 3). They are all quite small in size, except for two cairns

that are clearly larger. These differ also in topographical location. The two larger cairns are located more inland on the mainland and in connection with round monumental cairns that can be dated to the Bronze Age at least based on analogous datings from the area. Both are also clearly larger than the other ones with areas of 99 m² and 143 m². One is a rectangular cairn found in relation to a cairn area dated to the Early Iron Age. The cairn itself has been dated to the Early Roman Iron Age (Hällström 1952; 1959). The third largest rectangular cairn has an area of only 30 m². The majority of the rectangular cairns differs from the tarand graves in that they are clearly smaller (Fig. 8).

Of the clearly smaller rectangular cairns, 9 are located on the mainland and 21 in the present archipelago. Most of the mainland cairns are placed so that they were on an island as late as the Viking Age, or they are located more or

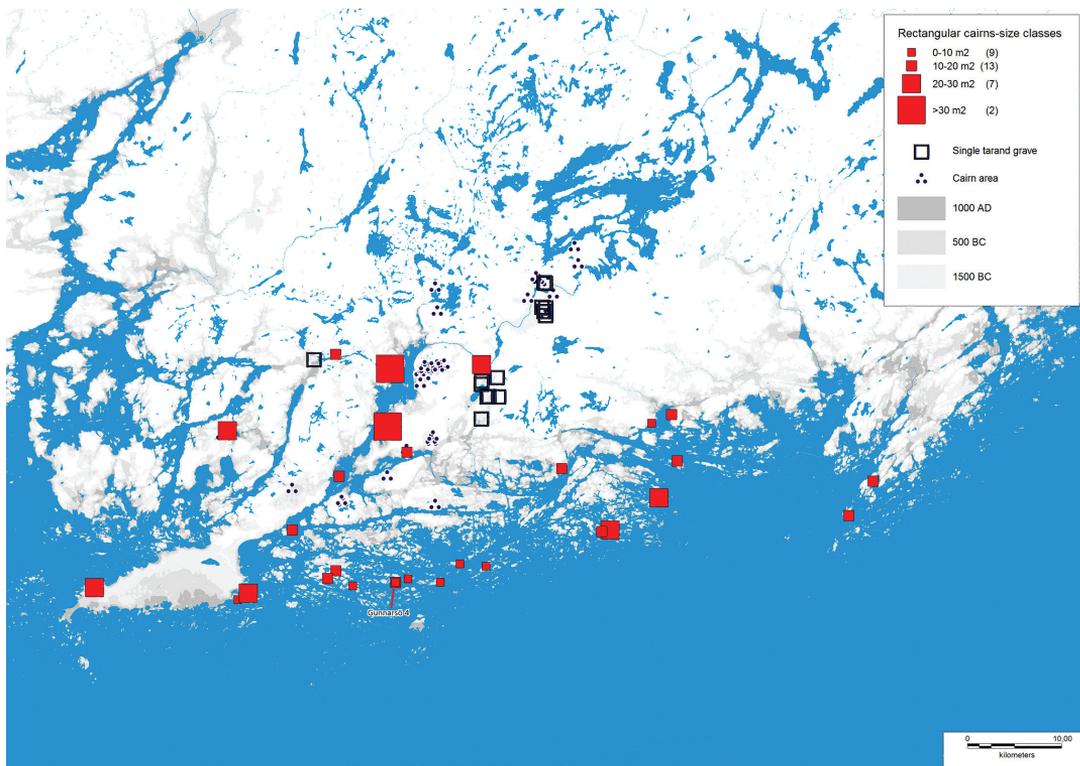


Fig. 7. The geographical distribution of tarand graves, cairn areas and rectangular cairns. The rectangular cairns are classified into size classes depending on the smallest rectangular their area could fit in.

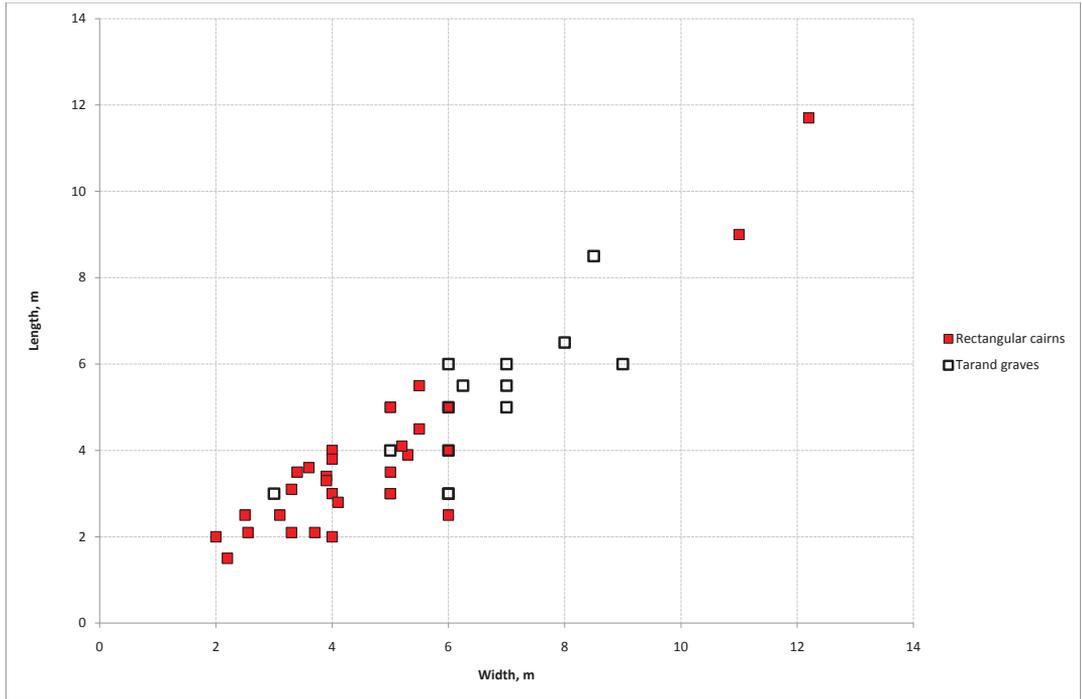


Fig. 8. Length-width diagram with the tarand graves and rectangular cairns.

less on an open unsheltered coastline lacking a wider archipelago (Fig. 9). The rest are all located on today's coastline or in the archipelago in the southern part of the study area. The ones in the archipelago are not erected on the largest islands, but mainly on smaller islands around them, some in the contemporary outer archipelago.

Topographically the cairns are mostly located on bedrock terraces next to the shoreline or at the end of peninsulas and they have sometimes been built very close to the sea. They are very seldom placed on elevated places. Instead it seems that closeness to the sea and water was important in choosing the place. If one looks from the sites towards the sea, an area with extensive open sea opens outside most of the sites. The latter is similar to how cairn sites are located in the Archipelago Sea (Tuovinen 2002:242–243).

The topographic location differs from the so-called four-sided cairns in the Åland is-

lands that have been studied by Helena Edgren (1983). There they most often appear in groups of cairns and in sheltered places. The rectangular cairns appear mainly as single structures.

Gunnarsö 4, Raseborg

On a site named Gunnarsö 4 in the archipelago of Ekenäs, two rectangular cairns were excavated in 2000 (Jansson 2000). It is an island located in the outer part of the archipelago. The site is located on the south-eastern part of the island and has been built on a terrace that forms a peninsula towards the south. The site consists of three cairns, all rectangular and of various sizes. Two of these were excavated. The largest cairn A (4.8 x 2.8 x 0.35 m), did not have any structures and was clearly built in a rectangular shape. It was built over a low (0.2 m high) threshold in the bedrock. Below this threshold, under three layers of stones, a small amount



Fig. 9. The rectangular cairn at Gåsö, Ingå outer archipelago. The cairn has a partial kerb and is located only 5 m above sea level.

of burned bones (12 g) was found in a small area under it. On top of the burned bone, a tight packing of smaller stones was observed. They seemed to have been purposely put against the wall of the threshold to form a tight packing. The bones had been exposed to very high heat and were in such small pieces that they could not be identified by osteologists (Mannermaa 2000).

The second excavated structure was cairn B. The cairn had a clear kerb on three of its sides and in between these, under the stone layer, there was a layer of silt mixed with unburnt and burnt clay. The bedrock under the cairn slopes towards the south, and in the southern part of the structure, there was a 0.2-m-deep crevice in which a large amount of charcoal was found. A sample of the charcoal was C^{14} -dated to 1300–1700 cal AD (Hel-4498). Study of the excavation plans shows that the charcoal is probably secondary and can originate from a forest fire,

as traces of tree roots were observed in the silt. The crevice where it was found was in the lower part of the cairn and formed a natural gathering place for water and sediments. Therefore the dating cannot be considered reliable.

The burned bones from cairn A were C^{14} -dated to 530–690 cal AD ($\Sigma 2$), that is, mainly the Merovingian period. The result has been corrected in order to take the marine reservoir effect into account. The date fits well with the height above present sea level, which is around 8 m a.s.l. The cairns at Gunnarsö 4 were not built on an elevated place, but instead very close to the shoreline on a bedrock terrace only 10–15 metres from the sea. Outside the site, towards the south, east, and west, an open seascape opens up.

This is the only excavated site of this type in the archipelago. The archipelagic cairns are clearly smaller, located lower in relation to the present sea level, and consist only of ap-

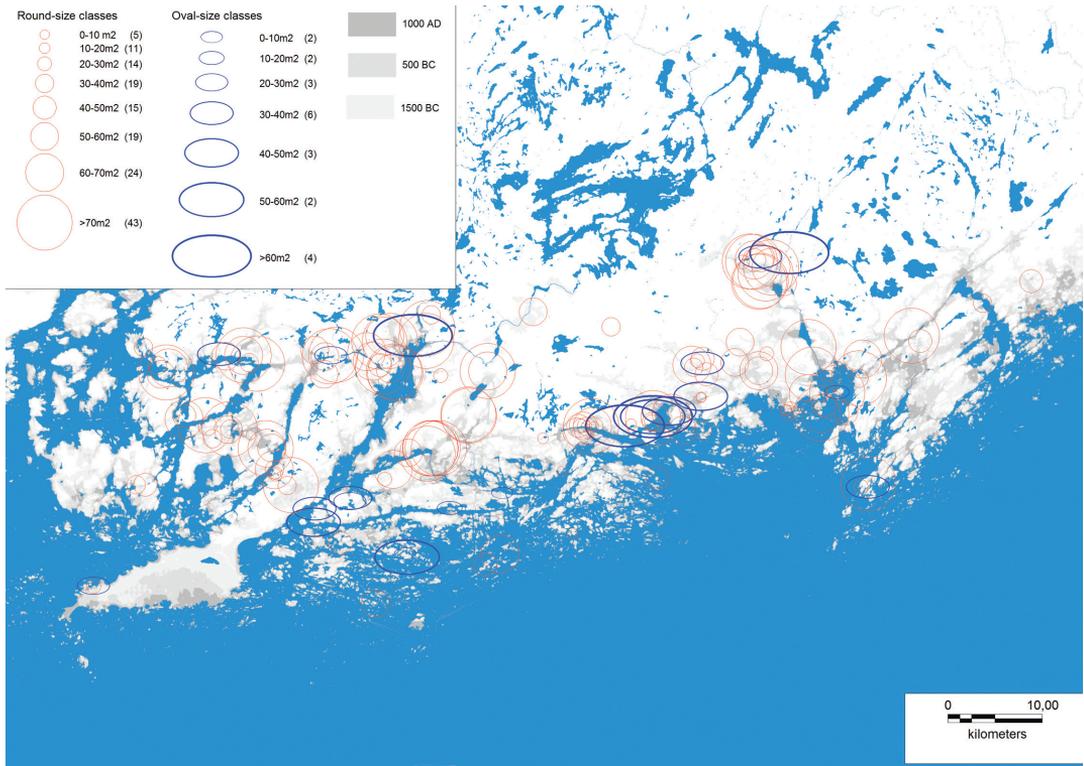


Fig. 10. The geographical distribution of the round and oval cairns. The cairns have been classified into size classes depending on the smallest rectangular they could fit into.

proximately 2–4 layers of stones. They are also mostly single sites with Gunnarsö being an exception with three cairns at the same site. Over half (17) of the cairns are located so low in relation to the present sea level that they can be given a *terminus post quem* dating to the Iron Age. As with the elongated stone settings, the rectangular cairns are also homogenous in shape and topographic and geographic location, and therefore one date from the Gunnarsö site is a strong indication of an Iron Age burial type.

5.3. Other morphological groups

The round and oval cairns seem to have a tendency of the largest structures being located on elevated places along the present coastline (Fig. 10). Some concentrations of large cairns can

be observed on the mainland. In south-western Finland it has been shown that cairns are smaller the further out they are found toward the coast and that Iron Age cairns are on average smaller than Bronze Age cairns (Vuorinen 2000:181–182). The geographic distribution in western Uusimaa supports this and the pattern suggests that the cairns in the archipelago are later than most of the cairns on the mainland.

Round and oval cairns, as well as undetermined cairns, can be found at any height above the present sea level and they are also present all over the area. Some of these have been excavated or finds from them have been reported.

Four triangular stone settings have been observed in the area. Because of the small number and the fact that none of them have been studied more closely it is difficult to draw any conclusions about the group.

Kärrängen, Ingå

One important site for this study is Kärrängen (Ingå), which was excavated in a rescue excavation in 2006 (Seppälä 2006). This cairn has been located in the inner archipelago during prehistory, even though today it is on the mainland. The cairn had been partly destroyed, but in some parts the stone setting was still in place. Also sediment layers in hollows of the bedrock were excavated. Due to the poor preservation of the cairn, its morphology cannot be ascertained. The site plan, though, shows a cairn that could have originally been rectangular with a possible kerb in the south-eastern and north-eastern part of the cairn. The excavators observed that the stones were carefully placed and often small stones were placed as support for the larger ones (Seppälä 2006:29).

In a small hollow in the bedrock under the north-western part of the cairn, a small amount of bones (1 g) was found together with charcoal. In the same spot, a pendant made of amber was also found (KM 35867). The C¹⁴ dates of charcoal show that the trees have been cut down at the end of the 8th century. That means that the burial could have been made during the Viking Age or between the 8th and 11th centuries (Seppälä 2006:32).

6. Single cairns and groups of cairns

Most of the cairns are found as single sites, but 39% (153 sites of the total number) can be defined as *groups of cairns*. Half of the groups

consist of groups with two cairns (76 sites, or 19% of the total number, see Table 1). All of the groups are located on a bedrock hill or ridge. They are located either very close to each other, or inside a radius of 100 m. Almost all of the groups of cairns are of the round, undetermined, or oval type, and they are located on the mainland often on elevated places and at the ends of inlets.

One special group type consists of *cairn areas* that were already described by Forsén and Moisanen (1995, see above). All groups with more than six cairns belong to this group type. Besides the number of cairns, this type can be distinguished from the group of cairns type on the basis of their location, often on moraine or sand slopes, and their structure, which is very low and mixed with earth. They are dated to the Pre-Roman and Roman Iron Age. Some of the sites seem to continue into the Migration Period. This is a problematic type of site to interpret, because often finds in the cairns are very scarce and settlement finds have been found in excavations between the cairns. The functions of the cairn areas, of which the largest ones consist of more than 50 cairns, could actually be settlements with clearing cairns for agriculture around them.

In the map (Fig. 7), the *coastal* and *Mustio* groups can be seen as two concentrations of cairn areas. Since Forsén and Moisanen made their map cairn areas have been found further to the south as far as the present inner archipelago. The cairn areas are all located in sheltered places close to the contemporary seashore. All places are accessible from the sea and they show a maritime orientation that is common to all the other types of burial cairns in the area.

<i>Total sites</i>	<i>Group of cairns</i>		<i>cairn areas</i>
100 %	39 %		9 %
396 sites	153 sites		37 sites
two structures	50 %	76 sites	
three structures	23 %	35 sites	
four structures	14 %	22 sites	
five structures	13 %	20 sites	

Table 1. The groups of cairns in numbers.



Fig. 11. The stray finds in the area.

7. Stray finds

All the sites where stray finds had been reported were test-excavated and studied closely in the 2002–2003 surveys. There were no indications of settlements, burials, or other past activities on or around the sites. On most of them, the conditions were such that finds would have been expected if there had been any at any time.

Only eight stray finds have been found in the archipelago (Fig. 11). They are all dated to the Iron Age. Two are elliptical fire-striking stones, one from the island of Skedö in the archipelago of Ekenäs and one from Porkkala in Kirkkonummi. Such stones were used from the Early Roman Iron Age to the Merovingian Period, with the main period of use being the Late Roman Iron Age and the Migration Period. They are often found in places connected with other land use than settlements, such as slash and burn agriculture (Pellinen 1999).

The rest of the finds are from the Viking Age. In Hanko, a spearhead, a bracelet from the 10th century (KM 8594), four Arabic coins (KM 9623) minted in the mid-9th century, and two Viking Age brooches have been found at four locations (Granberg 1966:173; Talvio 2002:151; Kivikoski 1951:6 & fig 680). In Ekenäs Lökholmen, a spearhead of the Petersen M type dated to the 11th century and two hanging grinders (KM 8591, 8308:1–3; 9388) have been found, and in Kirkkonummi Hästö, a 9th-century Arabic silver coin has been found (KM 3570) (Granberg 1966:174; Petersen 1951; Talvio 2002:198).

The stray finds from Uusimaa have been discussed in earlier studies. The maritime stray finds have been interpreted as the remains of trading places where trade with passing Vikings was conducted (Kivikoski 1961:196–197). This interpretation is contradicted by the fact that no other observations of prehistoric activity were

made during the surveys. If these sites had been market places, at least some other finds would have been expected in the vicinity. This was not the case, and among the finds there are jewellery, coins, and weapons.

The stray finds have also been connected to the sea routes and to the places mentioned in the later Medieval Danish itinerary (Edgren 1992:220; Jansson 2006). All finds come from sheltered places close to the shoreline mostly at the ends of inlets. In the Hanko area, there are not many sheltered inlets, and Viking Age stray finds are known from almost all of them. The inlets were suitable as harbours for small vessels. It is interesting that the places do not show any other indications of activities. This suggests that the places were accessed from the sea for short periods of time.

8. Discussion

The general geographical distribution of the burial cairns shows that they were not randomly placed in the landscape (Fig. 12). They were built in specific places that had to have meaning for the builders – the place and the landscape were important. The spatial pattern shows that the cairns were built along natural waterways and the coastline, as well as on the islands in the archipelago. This is especially clear in the west part of the studied area where the burial cairns follow specific west-east-oriented natural waterways. The cairns in this area are always located in narrow places in the waterways and on islands or peninsulas. The same pattern has been noticed also in the neighbouring Kemiön-saari area (Kimitoön) to the west (Cleve 1948: 492–493).

This distribution shows a very clear maritime appearance in geographical location and



Fig. 12. The geographical pattern of all the burial sites in the area.

setting. Most places have a good visibility towards the sea and they are often located on peninsulas protruding into the sea. Therefore it can be assumed that the maritime landscape was important for the people who erected the cairns. The maritime pattern and visible setting of prehistoric burial cairns can be seen in many areas in Scandinavia (Selling 1977; Salo 1981; Baudou 1995:99–101; Okkonen 1999; Tuovinen 2002:242; Asplund 2008; Nord 2009:208).

Knut Helskog (1999) has noticed that the prehistoric rock carvings in Norway, in Norrland (Sweden), and around the Karelian lakes (Russia) are all located in shore zones. He sees the sites as places where cosmological worlds had counterparts in the elements of nature and where they met in symbolic oppositions. In his opinion, the images included in rock carving panels indicate that these could have been liminal places and water should be part of the explanation (Helskog 1999:74; see also Westerdahl 2005).

Similar observations have been made by Antti Lahelma regarding Finnish rock paintings (Lahelma 2005:40; see also Sepänmaa 2007:110). For the burial cairns, the view over the sea seems to have been important. According to Unto Salo, it was the wide viewshed that raised “the feeling of infinity and the eternal” (Salo 1981:125). The spatial pattern suggests that they were liminal places, and they were also located in a liminal area – the area where land met water (see also Helms 1988:25; Scarre 2002; Westerdahl 2005:11).

In that sense the cairns had a double communicative role – they communicated with the ancestors and with the landscape. The cairns in the study area seem to be distributed both in the coastal areas and far out in the archipelago. However, examination of the spatial patterns of the round cairns shows that most of them follow the prehistoric shoreline, as would be expected if they were constructed in a liminal area.

Especially in the 20th century, the visibility and closeness to the sea has led to many territorial interpretations and interpretation of the cairns as markers of proprietary rights to exploit the area (cf. Baudou 1968; Salo 1981:125–131; 1984:133–137). Lars Forsberg has pointed out

that if the cairns had been external territorial markers for outsiders, they should have been located around the borders of the territory (Forsberg 1999:254). Interpretations have also been made to the effect that the burial cairns could have been ancient beacons for seafarers (cf. Krantz 1940; Wigren 1987:121–125). This has been disputed by Tuovinen, who shows that the cairns have never been really visible from the sea without optical aids. Even the more monumental cairns would not have been visible very far (Tuovinen 2002:202).

The geographical pattern of *elongated stone settings* (Fig. 4) and most of the *rectangular cairns* (Fig. 7) is different from the rest of the burial sites. They are predominantly located out in the present archipelago. If the early date of the elongated stone setting is accepted, then it is evident that they were built on smaller islands on the brink of the outermost archipelago. The places seem to have been chosen carefully geographically and topographically and the setting in the landscape is very homogenous in each group. The geographical distribution shows that the outermost archipelago was a ritualized landscape already during the Early Bronze Age or even Late Stone Age. Thereby this landscape must have been an integral part of the contemporary societies.

The elongated stone setting is not a visible type of monument, but the settings were built in visible places in the landscape. The visibility from the places was important. This means that understanding of the meaning connected to these places was dependent on the social group the spectator belonged to. The elongated stone settings and the other cairns should be seen as forms of internal communication inside the population group.

The burial sites, including the cairns and stone settings, were places of communication among the living themselves or between the living and the dead or the past. They were what Anna Wickholm (Wessman) calls *sites of memory* (Wickholm 2008:94; Wessman 2010:86–88, see also Nora 1996). The meaning of the places had relevance for those who belonged to the group that built the elongated stone setting (see also Tuovinen 2002). Further-

more, they show an early knowledge of the area that could only have been obtained by repeated visits. People knew how to move in open sea areas and came to the small islands where rituals were performed.

One of the few settlements dated to the Late Stone Age and Bronze Age in the study area has been found at Älgsjölandet (see Fig. 4). It is dated based on finds of ceramics and located on the northern part of an island that was at the time quite small and situated in the outer archipelago. The nearest elongated stone settings are only a few kilometres away. To the south of the island, the open sea began and the archipelago ended. During a survey of an abandoned sand quarry, ceramics with a striped surface and quartz artefacts were found. The profile of a hearth was also observed on the edge of the quarry (Jansson & Latikka 2006). The site is probably a small hunting station and indicates that more are to be found in future surveys.

Why are the elongated stone settings found only in the contemporary outermost archipelago? Where did the idea come from? The conceptual idea behind the elongated stone setting had to have a meaning related to the landscape it was built in, which in this case is the open sea with its small islands and skerries. They seem to concentrate into a certain level of the archipelago in the north-south-direction. They form a kind of barrier or portal between the outermost archipelago or the open sea and the inner archipelago. As the burial is a portal between the living world and the world of the dead, the elongated stone settings could be seen as portals between two worlds – the relatively safe inner archipelago and the more dangerous open sea. In order to move from the archipelago to the open sea you had to pass through the zone of stone settings. In that sense, they were also geographically liminal places between two physical worlds (Tuovinen 2002:246).

Islands are known to have been considered liminal places and links between different worlds (Coney 2003:326). The islands where the elongated stone settings were built form a link or portal between the sheltered inner archipelago and the open sea. By building stone

settings for burial and ritual places the meaning of this zone was strengthened and they became *hierophanies*. The rituals made it possible to safely move from the sheltered sea out to the treacherous open sea. The geographic pattern thereby emphasizes a population adapted to maritime life that moved over large areas of the sea, fished among the outermost skerries, and stayed there for some time, as shown by the settlement at Älgsjölandet.

No dates from the period between the Bronze Age and the Merovingian Period are known from the archipelago. The discussion between Tuovinen and Asplund about a possible continuity in the maritime landscape between the Bronze Age and the Iron Age is quite difficult to answer, mostly because of the present research situation in the area. More datings from several sites are needed. Sites dated to the period in question have been studied on the mainland. According to earlier studies, cairn areas seem to date from the Pre-Roman Iron Age to the Migration Period. Already in the Pre-Roman Iron Age, a clustering of the sites can be seen in the coastal landscape (Forsén & Moisanen 1995).

Furthermore, there seems to be a scattered occurrence of cairn areas in the south-western coastal areas. This shows that more research of this site type is still needed before a deeper understanding is possible. In the 1980s and still in the 1990s, the cairn areas were widely considered as belonging to the earlier part of the Iron Age. Later research especially in Sweden has questioned this view (cf. Engman & Nordström 2001). The cairn areas are considered to be chronologically more complex, with a strong occurrence in the Medieval periods (Ericsson 2004:43–45). This shows that care should be taken before any of these sites are dated based on analogies to a certain period.

Later Bronze Age burial cairns were constructed closer to the arable lands, and it has been observed that changes in settlement structure started during the late Bronze Age (Salo 1981). The clustering of cairns into large areas with tens of small, low small cairns from the beginning of the Iron Age is a natural continu-

ation of the development already started in the Bronze Age. The sites are connected with agriculture, as some of them could be clearing cairns and not burials. The appearance of the sites and their spatial pattern seem to be connected to the early stages of agriculture observed in the pollen analyses from the area (Alenius 2011, this volume).

Agriculture would explain the large clusters combined with the scarcity of finds in the excavated cairns. On the other hand, it has to be remembered that burial and agriculture do not exclude each other. The agriculture was most intense around the settlement areas where burials were made, and even if the population were mobile some kind of close land or *inägor* could have been a part of the landscape. The burials and ritual connected to the sites could be, as the cemeteries under level ground, connected with the agriculture.

The cairn areas, regardless of their function, were directed towards the maritime landscape. Also, they are all located in direct connection with the contemporary shoreline, either the sea or inland waters. The subsistence based on hunting, fishing, and small-scale agriculture, at least at the mainland sites, meant that the maritime areas were visited and utilized. But did someone erect graves in the archipelago during this time? So far, no dates have been obtained from the Pre-Roman Iron Age to the Migration Period in most maritime areas. This does not mean, however, that the knowledge of the meaning of the earlier burial cairns was lost or that the importance of these places had disappeared (cf. Holmblad 2005:42–44). These places of meaning could have been upheld by means of oral traditions over the generations.

Somewhat earlier than the earliest Iron Age dates of cairns in the archipelago, influence from Estonia is evident in the form of *single tarand graves* on the mainland. No single tarand grave has been found in the archipelago. The site type is dated from the Roman Iron Age to the Merovingian Period on the mainland of western Uusimaa. They show a change in the geographical pattern, as they occur mainly in two clusters in the area. One cluster is around

the lake of Lämpträsket (Raseborg, Karis), where an increase in archaeological sites can be seen during the Merovingian Period with an increase already at the end of the Migration Period. When the period of tarand graves ended, new burial customs occurred with the cremation burial under level ground being dominant from the Merovingian Period.

The single tarand graves and the cairns in the archipelago could be interpreted as having been constructed by Estonian fishermen or colonizers, as has been suggested earlier (Hällström 1948; Kivikoski 1961). However, the new burial types do not mean external immigration into the area. Instead, it seems, as Forsén and Moisanen (1995) state, that an internal restructuring of the settlements occurred. One reason for this was the intensification of agriculture. Hence the settlements moved to the more arable lands and tended to concentrate around these.

The spatial connection between the earlier Iron Age sites and the single tarand graves suggests continuity. As Forsén and Moisanen suggested, the single tarand grave was only a new burial ritual adopted by the local population during a subsistence and social change that restructured the society.

The maritime rectangular cairns seem to be later, even if only a few dates are known from the archipelago of Uusimaa. One quite large (8.3 x 7.7 x 0.7 m) rectangular cairn was excavated in 1986 at the cairn area at Furunabb on the island of Houtskär. No finds were made, but through group analogy the cairn was dated to the Migration Period. The analogy was made to Eckerö on Åland, where several rectangular cairns have been built in a cemetery with 83 cairns (Tuovinen 1990:58).

Rectangular shapes in cairns can also be found at or in connection to the cairn areas in Uusimaa (Hällström 1952). This could be seen as an indication of continuity in the cairn building tradition. Carl Fredrik Meinander, on the other hand, suggested that the rectangular shape was an Iron Age phenomenon (Meinander 1969:32–34). Rectangular cairns are found, though, in a Bronze Age context, but they are not dated by excavation. The rectangular shape

is hence not a new thing in the Merovingian Period. The elongated stone settings, on the other hand, show that the rectangular shape was used already very early in the Bronze Age, even if Bronze Age cairns are predominantly round.

According to the palynological studies by Teija Alenius (Alenius et al 2005; Alenius in this volume), the start of the erecting of rectangular cairns in the maritime landscape coincides with the start of permanent and intensive agricultural activities on the island of Orsländet. On the other sampled island in western Uusimaa, Älgö, regular cultivation and opening of the landscape use started during the Merovingian Period as well. The intensification of agriculture starts on Älgö in the Crusade Period. However, the sample site at Älgö is problematic, because it is located at the periphery of the site and the basin was also larger (Alenius in this volume).

Even if the tarand graves and rectangular cairns resemble each other in morphological character, they are different in one aspect. In the excavated cairn A on Gunnarsö, a single burial was studied that was clearly deposited as such under a packing of small stones. All of the excavated tarand graves include collective burials where no individuals can be distinguished. This is an important ritually based difference (cf. Wessman 2010). The tarand grave belongs to the burial tradition that is later connected to the cremation cemeteries under level ground, while the rectangular cairn clearly belongs to the tradition seen in the burial cairns from the Bronze Age.

The rectangular cairns in Uusimaa are also predominantly maritime burials, while the chronologically earlier tarand graves are located close and directed towards the fertile lands more inland. Especially the small cairns (of size category 1–3) are located in the present outer archipelago. The date of Gunnarsö and the even later Viking Age date of Kärrängen show a tradition of burial cairns in the maritime landscape that stretches to the end of the prehistoric times.

The geographical pattern of the rectangular cairns is similar to that of the elongated stone settings. They are also located on the fringe

of the archipelago where the open sea begins, which seems to have been important for the builders. Also the rectangular cairns could be interpreted as liminal places and gates to the open sea. Where there is no archipelago, the cairns are built on the outermost peninsulas.

The datings of the cairns in the archipelago mean that from the Merovingian Period onwards, different burial rituals were performed only a few dozen kilometres from each other. On the mainland, the dead were buried collectively in cremation cemeteries under level ground. Anna Wessman (2010) has discussed this burial type recently, and she remarks that the cremation cemeteries under level ground are mostly located on moraine hills close to the fields, waterways, and settlements (Wessman 2010:67–68). Thereby they were visible locations distinguishable by local people who could return to the cemetery to perform rituals and commemorate the dead.

At the same time, an individual cremation burial custom was in use in the archipelago. The dead were buried separately in separate graves. The answer to how this situation appeared may be found in the small amount of bones. In both excavated maritime cairns, only a very small amount of burnt bones was found. It has to be remembered, though, that the Kärrängen cairn was partly destroyed. On the other hand, the small amount of bones is a common trait in the cairns in Åboland as well (Tapani Tuovinen pers.comm.). In the case of Gunnarsö, the small packing of stones and the topography show quite clearly that the original amount of deposited bones was small. This means that only a small part of the cremated body was brought to the site.

Hence it is possible that the rectangular Late Iron Age cairns in the Uusimaa archipelago are actually not primary graves but ritual places where only part of the cremated body was brought. The primary grave was the collective cremation cemetery under level ground on the mainland. The spreading of the deceased into several graves is actually mentioned in the Icelandic sagas, where an important man was buried in six different mounds to bring good

fortune (Jennbert 2004:194). In the maritime rectangular cairns, part of the cremated ancestor was deposited. The place was ritualized and became a place with greater meaning. If the idea of the cairns being part of a ritual that is connected to the mainland cremation cemeteries under level ground is accepted, no separate group of people burying their dead in cairns is needed in the interpretations. The rectangular cairns were erected by people using maritime outlands and not by a separate archipelagic population.

The idea behind the building of cairns could have been a reproduction of older grave types, as has been suggested in Ostrobothnia (Holmblad 2005). On the other hand, cairns were still built for burials in the beginning of the Iron Age, with the rectangular shape present in connection with the cairn areas on the mainland. The tradition of Late Iron Age maritime cairns could hence have developed locally as a continuation of earlier periods. This is also indicated by the fact that the burial cairns almost everywhere and in all periods were very maritime in character. Water was an important element present almost everywhere where burial cairns were erected. Hence it is very logical that the tradition of constructing cairns for the deceased and to mark important places in the landscape continued in the maritime landscape.

Taavitsainen (2003) has suggested that the small amount of bones in the inland cairns is a result of people utilising faraway areas and depositing some bones in the cairn to mark ownership, while the rest of the bones were disposed somewhere at their home farm (see also Asplund 2008:374). Also the rectangular cairns in the maritime areas are mostly located on the fringe of the archipelago with a view towards larger open waters. In that sense, they really could have marked the territory, but as the cairns were poorly visible from the sea, this marking must have been visible only to people sharing the same perception of the landscape. The boundaries existed only in the minds of the persons who understood the meaning of the places.

Also the topographic situation of the rectangular cairns could be compared to the cremation cemeteries under level ground that are located close to the field on moraine hills. The cairns are mostly erected on smaller rocky islands. They are all built on low terraces very close to the contemporary water level and looking over larger open sea areas - the sea-field. For the people moving in the outer archipelago, the sea was a provider of food and transport, but also a source of danger, because in the wrong conditions one could perish.

Why did the building of ritual rectangular cairns start in the Merovingian Period? At the same time, there seems to be a restructuring of the settlements into clusters on the most fertile land, while burial cairns are erected in the archipelago. Earlier studies by Hällström and Honkanen stated that a peak in population occurred during the Merovingian Period (Hällström 1948; Honkanen 1981). Also other studies in south-western Finland show an increase in population during the Merovingian Period and the Viking Age (Pihlman 2004:82–84). This was also a period when the central, more agriculturally based areas were settled and the Late Iron Age regions appeared (Asplund 2001:250).

Along with sedentary and agriculturally based settlement, also the sense of ownership might have changed. Anna Wessman suggests that the re-use of cremation cemeteries under level ground over and over again was “*caused by land ownership and thus legitimized hereditary rights to the land.*” (Wickholm 2010:96). The rectangular cairns that were ritualistic burials connected to the mainland burial sites could be related to this phenomenon. The ownership could have stretched to the waters that were utilized regularly and the cairns thereby legitimized the rights to use the archipelago.

Agriculture during the Migration and Merovingian Periods on Orslandet must have meant at least semi-permanent stays on the larger islands. During the Late Iron Age, an expansion of agriculture outside the settled areas has been reported from southwest Fin-

land (Pihlman 2004:86). On the other hand, we might ask why agricultural investments were made on the islands when more fertile land could probably be found closer to the settlements. Most probably there were large areas of outlands and wilderness around the sites in the areas of Låpträsket (Karis) and Bonästräsket (Tenala). These areas had to be more suitable for agriculture than the small patches with less fertile land and barren soils that can be found even on the largest islands in the archipelago.

The people who used the archipelago may have done so for long periods of time. In order to maximize fishing and hunting yields, it was necessary to stay close to the fishing places for some time. This was common up to the introduction of faster motorized boats in the early 21st century. The traces of this can still be seen in the fishing hut remains that can be found by the thousand along the coasts of Finland and Sweden (cf. Norman 1993). On the eastern Swedish coast, fishing huts have been excavated and dated to the Viking Age (Rönnyb 2003:176). In southern Finland, no fishing huts have been excavated so far.

People had to stay on the islands at least for some longer periods, for example, during spring and autumn, which are the most optimal fishing and hunting seasons. Sheltered inlets close to the outer archipelago and inner archipelago could have been used as temporary stations. During the stays, the clearing of the larger islands started and some kind of semi-permanent settlement occurred. It was natural that small-scale agriculture started and in order to fertilize the fields, small numbers of domestic animals were brought to the islands.

Making the trip out to the outer archipelago was an investment in time and human resources. Fishing and hunting provided more resources, but at the same time, the human resources needed for the maritime trips were missing from the mainland agriculture. Small-scale farming that needed attention only periodically made the fishing and hunting in the outer archipelago more profitable. Farming and small-scale grazing could have made longer fishing trips possible. This evened out the stress

on the people who stayed in the settlements on the mainland.

From this situation, of course, there is only a short way to permanent settlements if, for example, the population grows on the mainland. It has been suggested that the settlement pressure that occurred during the Viking Age could not be handled by means of internal colonization, and therefore the pressure to colonize new areas arose (cf. Pihlman 2004; Asplund 2001; 2008). The Merovingian Period, on the other hand, is considered to be the time when the population maximum occurred in western Uusimaa. This coincides with the intensification of agriculture and permanent settlement on Orslandet, as indicated by the pollen analyses.

The burial cairns show that the archipelago can be seen as a part of the mainland settled zone already in the Merovingian Period. If the islands already had prepared land and a tradition of cultivation and grazing, they would have been attractive also as settlement sites. In general, the pattern of intensifying settlement in existing settlement zones is more common in the human use of space than colonizing virgin wilderness (Olausson 1993:102). Urban Emanuelsson has calculated that 3–10 times more effort is required to clear unmodified forest for agriculture than to maintain already cleared fields (Emanuelsson 1988:116). This would have favoured the already grazed islands with small fields as potentially new places for dwelling.

Similar colonization processes, where hinterlands were first extensively utilized for grazing and agriculture and later settled, have been studied in Norra Uppland (Sweden) (Broberg 1990:95; Windelhed 1995:114). Also in the archipelago of Sörmland (Sweden), a pattern of extensive use during the Late Iron Age has been observed (Norman 2006:68–70).

The stray finds show that in the Viking Age there was an increase in the deposition of artefacts. They seem to concentrate on good harbour places and places that are conveniently located for ship traffic. One comparable place is Kyrksundet in Hitis, where a large amount of metal finds has been found along the shoreline

of a strait. The site has been interpreted as a harbour and trading place (Edgren 1995; 2005).

The situation in the late Viking Age and the following periods is still archaeologically uncertain. Palynologically it seems clear that there is a strong continuous settlement structure from the Iron Age into the Middle Ages. Finds from settlements excavated in Hanko and Orslandet indicate that there might even be a continuity going back to the Iron Age at some of the medieval settlements in the maritime zone (Jansson et al 2010).

9. Conclusions

In this paper, the maritime land use history of nearly 3000 years has been discussed. A deep time perspective is needed in order to understand the processes and the reasons behind them. The main material for this discussion has consisted of the burial cairns. This situation has arisen out of necessity, because no settlements or other types of contemporary sites are known from the area.

The interpretations emphasize a holistic approach in the study of the cairns in their landscape. They were burial places and places for ceremonies, but at the same time they were connected to more secular activities that were also ritualized. This dualistic interpretation underlines how difficult it is to distinguish between what is called sacred and profane. These concepts were intertwined with each other in every aspect of society and life.

A general picture of the land use history of the maritime areas can be drawn. The present archipelago was probably used from the time it arose from the sea by humans living in western Uusimaa. The early elongated stone settings show that the archipelago was a conceptualized area at least 3500 years ago. The sites were revisited, and the outer archipelago was already by that time a vital part of the landscape of coastal populations. During the Bronze Age, most of the monumental cairns were built in the inner archipelago or coastline, but still with a very maritime appearance and location at certain waterways.

None of the dated burial cairns in the present archipelago can be dated to the Roman Iron Age. This can be due to a lack of excavation, but on the other hand, a restructuring of the settlement pattern seems to have started already during the Pre-Roman Iron Age. The change meant a movement from a disparate mobile settlement pattern towards a more stable settlement pattern with some areas becoming more central, while others became peripheral. The settlements during the Pre-Roman Iron Age were still very maritime, though, because they were all connected directly to the sea. During the Migration Period and the following Merovingian Period, the settlements concentrated around the best arable land, which was around the lakes of Lämpträsket in Karis and Bonästräsket in Tenala.

During this period, there seems to be a revitalizing of cairn building in the archipelago. Older cairns could also have been revisited, as can be seen in Kirkkonummi, where an arrowhead from the Iron Age has been found in a Bronze Age cairn. At the same time, the burial customs changed on the mainland. This shows that the burial cairn is a very maritime structure that was connected to the sea and the archipelago for more than 3000 years. Small rectangular cairns were erected at least from the Merovingian Period on smaller islands around some of the largest islands and peninsulas in the area. They were mainly built in the outer archipelago and on the open coastline next to large open water areas. The cairns were most probably built by the local population that was utilizing the archipelago, although settlement at that time concentrated around the lake of Lämpträsket and Tenala.

This extensive use of the islands in the archipelago, which included small-scale farming and grazing, led to permanent settlement when the population grew and pressure was put on the core settlement area. During the Merovingian Period and the Viking Age, permanent settlements occurred on the largest islands and on peninsulas suitable for agriculture and grazing. The colonization process probably took place slowly in stages with semi-permanent settlements before the places were permanently set-

tled. Therefore it is natural that the dates from the pollen analyses vary between Älgö and Orslandet, for example.

Along with permanent settlement, also everyday life had moved permanently out into the archipelago.

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