The Finnish Archipelago Coast from AD 500 to 1550 – a Zone of Interaction

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Abstract

New archaeological, historical, paleoecological and onomastic evidence indicates Iron Age settlement on the archipelago coast of Uusimaa, a region which traditionally has been perceived as desolated during the Iron Age. This view, which has pertained to large parts of the archipelago coast, can be traced back to the early period of field archaeology, when an initial conception of the archipelago as an unsettled and insignificant territory took form.

Over time, the idea has been rendered possible by the unbalance between the archaeological evidence and the written sources, the predominant trend of archaeology towards the mainland (the terrestrical paradigm), and the history culture of wilderness. Wilderness was an important platform for the nationalistic constructions of early Finnishness. The thesis about the Iron Age archipelago as an untouched no-man's land was a history politically convenient tacit agreement between the Finnish- and the Swedish-minded scholars. It can be seen as a part of the post-war demand for a common view of history.

A geographical model of the present-day archaeological, historical and palaeoecological evidence of the archipelago coast is suggested.

Keywords: Finland, Iron Age, Middle Ages, archipelago, settlement studies, nationalism, history, culture, wilderness, borderlands.

1. The coastal Uusimaa revisited

The early Finnish settlement archaeologists often treated the question of whether the country was settled at all during the prehistory: were people in some sense active there, or was the country in an entirely natural state? In 1875, J.R. Aspelin gathered all known Bronze Age metal artefacts found in Finland into his dissertation *Elements of Finno-Ugric Archaeology*. The museum collections only held about ten artefacts. Aspelin thought it was uncertain whether the country had inhabitants at all during the Bronze Age (Aspelin 1875: 58). This drastic interpretation developed into a long-term research tradition that contains the idea of easily perishable human communities and abandoned regions. According to a pertinent description by Karin Viklund, the *"prehistoric time was regarded (...) as consisting of empty waiting-rooms which were suddenly filled with people, just as suddenly to be empty, giving room for new people to come in, often having a new culture and a new language"* (Viklund 2002: 122).

After the number of finds and datings that have accumulated for more than a hundred years, it is doubtful that anyone could seriously suggest that any of the prehistoric periods would have comprised of a lack of settlement in the area of Finland. But one can still encounter the "waiting-rooms", though in a different shape, in texts dealing with settlement prehistory on a regional level, often within a municipality or other administrative unit. Even in the present situation of field archaeology, we are in many situations faced with a paucity of finds, but the distribution map has now been zoomed much closer than during Aspelin's era. The problem is that as the points on any archaeological distribution map have been more densely distributed than before, the empty "waiting-rooms" are now searched for in smaller gaps between the points and shorter time spans between the finds. This approach ultimately leads to an increasing number of "waiting-rooms" that are emptied and filled more and more frequently until the point of absurdity finally will be reached. The simplistic traditional approach seems to be based on assumptions that can be found in the history of research. These assumptions have to be highlighted and discussed. In order to more deeply understand the preconditions, events, contacts and circumstances associated with settlement, the focus of research has to be directed to the regional and local level, that goes into the field-archaeological evidence of the settlement, pollen stratigraphy, local communities, networks, and spatial patterns. This has been one of the aims of the project *Western Uusimaa during the late Iron Age and Medieval Period (500–1550 AD)*.

Characteristic of the maritime living conditions of the early dwellers along the coast and archipelago of Western Uusimaa were the same stratified brackish water, strong seasonal alternation and arctic features of the ecology (Autio *et al*. 1993) as elsewhere in the Northern part of the Baltic rim. Particular to the Southern and South-Western coasts of Finland is shallow fragmented coastal topography. The archipelagos give the coastal Finland, Åland and Sweden a special character, and this evokes the term *archipelago coast* (Granö *et al*. 1999; Frisén *et al*. 2005).

In this specific mosaic of land and water, one can expect that people adopt a subsistence strategy that made use of the special characteristics of the nature. Through ethnographies we are familiar with the economic system, where islanders made use of the archipelago according to seasons in cultivation, animal husbandry, fishing, seal hunting, fowling and foraging (Ahlbäck 1955; Storå 1985; cf. Núñez 1995). This adaptation is generally known as *multiple subsistence strategies* (Fi. *monitoimitalous*, Sw. *mångsyssleri*, Tuomi-Nikula 1982: 44; Storå 1982). So far, very little archaeological research has been done on the long-term development of multiple subsistence strategies. However, the excavations in Gunnarsängen, Hanko, during the 21st century have now brought out evidence on the relationships between agriculture, fishing and hunting during the late Iron Age and early medieval period (Jansson *et al*. 2010; see also Núñez 1995).

Likewise, one could expect archaeological evidence on a roughly similar Iron Age settlement and exploitation of natural resources throughout the Finnish archipelago coast, since is has a roughly uniform nature. Due to the scantiness of archaeological finds from the Iron Age, Uusimaa was for a lengthy period of time regarded as unsettled. With reference to medieval written sources, it has been thought, that Iron Age Uusimaa would have been entirely or almost entirely unsettled between the coast of the Gulf of Finland and the inland lake district of Häme. This zone was exploited by Tavastians, people from Finland Proper and Estonians for long-distance utilization (see article by Georg Haggrén in this volume). This continued until and even after the colonisation of Uusimaa by people from Sweden began in the 12th century. It has been suggested, that the people exploiting the wilderness would not settle down because they would have to cross the ice-marginal features of Salpausselkä and travel tediously by boat along the rivers as they made their way from their homes to the coast of Uusimaa in the south. So instead their trade

was directed towards the west to the coasts of Finland Proper and Lower Satakunta, both of which are regions that served as goods agents of commodities (Masonen 1989).

Uusimaa would thus have been settled rather late. It was thought that the coast would have been dependent on the *interior*. According to this view, the coast was a hinterland, which was not affected by initiatives, population pressure or economic enterprises from the interior. Uusimaa would thus have dramatically differed from Finland Proper and Åland, where the preconditions of settlement and possibilities of success were tied to the geography and history of the *coast*. But why would the settlement dynamics of Uusimaa before the Swedish settlers have been so different? And why would the competence and strategies of the Swedish settlers have been so much more advanced that before them the resources of the sea and land could not be exploited in full scale?

Nonetheless, preliminary and significant indications of an Iron Age settlement on the coast of Uusimaa have been discovered. Archaeological evidence points towards an exchange of goods with the interior as well as across the Gulf of Finland and the Gulf of Bothnia. Not later than during the Viking Age the Tavastians were involved in trade with the coast of Uusimaa (Edgren 1985; Lavento 2005; Haggrén 2008a). Among the place-names a stratum older than the medieval period is evident (Kepsu 2005). Furthermore, pollen analyses indicate clearance, cultivation and grazing not later than the middle of the Iron Age (Sarmaja-Korjonen 1992; Vuorela 1993; Miettinen, T. 1998: 95; Alenius *et al*. 2004; Alenius *et al*. 2006; see also Alenius' contribution to this volume). The number of archaeological sites has increased through archaeological surveys. In 2006, there were 233 sites in the database of the National Board of Antiquities associated with human activity in Uusimaa during the Iron Age, which already corresponds to a fifth of prehistoric sites in the database (Seppälä 2006: 35). A considerable part of the burial cairns along the coast of Uusimaa and Kymenlaakso can be dated to the Iron Age, and the burial sites were typically located by the sea (Haggrén & Jansson 2004; Miettinen, T. 1998: 91–110), reminiscent of the cairns in Åboland.

In 1995 Torsten Edgren wrote that, due to several indications, "the old cherished myth of an unsettled archipelago" should be rejected (Edgren 1995b: 62). The new evidence in the 21st century makes it paramount to continue along this line of thought, re-evaluating the settlement (pre)history of the archipelago coast of Uusimaa and questioning established views. In the following, it is examined how the 450 kilometres long archipelago coast of Uusimaa, Åboland and Åland – using the vocabulary of natural geography it would be called *the archipelago coast of Uusimaa and the Archipelago Sea* – could be viewed from a coastal archaeology perspective.

2. Footprints of the early settlement

Cemeteries and settlement

Valter Lang has presented a concise definition of settlement archaeology. According to him, settlement archaeology is "a study of the establishment and development of human settlement (usually) in a long-term perspective and in its whole versatility, among others: the dimensions, variability and geographic distribution of settlement units, the choice of settlement areas, the mutual influence between man and environment, the creation and re-creation of cultural landscape, the land colonization (so called *landnám*) and land-use systems, the social structure, proprietorship rights and territoriality of society – and all these in their mutual relations and interaction" (Lang 1996: 604). Settlement is thus a network of material culture, socioeconomics, landscape and nature, changing through time. Since a network of this kind can be approached, in addition to archaeology, through history, onomastics and paleoecology, the definition will apply to all research concerning early settlement.

Settlement studies in Finland have focused a great deal on the *landnám* and the distribution of settlement. Since as yet a sparse number of dwelling sites and remains of houses from the Iron Age and the medieval period are known, and their datings are approximate, cemeteries have been used as the main evidence of settlement, due to their considerable number (eg., Seger 1982; Vuorinen 2000a). It is assumed, that where the natural conditions allowed subsistence during the Iron Age and where cemeteries are known to appear, a contemporaneous settlement has existed as well. Here Unto Salo uses the term *cemeterial settlement* (Salo 1995; Salo 1999).

There are, however, some problems related to the use of cemeteries as evidence of settlement.

(1) Cemeteries and dwelling sites have an obvious spatial interrelationship, but which varies from region to region and discovering that depends on the situation of the field research.

(2) Different types of graves and cemeteries are linked to dwelling sites in different ways.

(3) Through a selection mechanism, archaeological surveys may make the interrelationship biased and run into a circular reasoning, if dwelling sites are only or mainly searched for where graves are known to exist (Tuovinen 2000).

(4) In Finland, Sweden, and Estonia there are indications that not all individuals would have been buried in cemeteries. Cemeteries were mainly for individuals in social key positions, such as landowners (Pihlman 2004; Mägi 2002; Göthberg 2000). Thus, a part of the internments remained absent or, in any case, archaeologically invisible. The invisible graves were probably located somewhere else than the visible ones. Thus, even in Finland cemeteries and graves hardly reflect an unbiased pattern of settled regions and the distribution of settlement. Instead, as Sirkku Pihlman (2003) suggests, they rather pinpoint some social and ritual core areas of local communities.

These problems obviously go back to the fact, that we know so little about the traditions, beliefs, and cultural meanings pertinent to the growth of local communities and their activities situated in the cultural landscape. The tradition of burial cairns – which in large parts of the Finnish coast continued from the Bronze Age to the Iron Age (Edgren 1984; Tuovinen 2002; Keskitalo 1979) – included burial monuments that were erected on elevated places, separate from dwelling sites. In some cases, the prevailing principle of choosing the places for burials did not prevent the burial site from being close to houses, but these cases mainly apply to Bronze Age sites (Salo 1970; Strandberg 2002). The maps that Birgitta Roeck Hansen presents from Jomala Önningeby, Åland, illustrate how burial cairns from the Early Iron Age were located further apart compared to the Late Iron Age cemeteries, located close to the progressive central toft area of the hamlet (Roeck Hansen 1991: 116–119).

The burial cairns were followed by later types of Iron Age cemeteries and graves, frequently located near dwelling sites in the coastal agrarian region (eg., Vuorinen 2000b; Schauman-Lönnqvist 1989: 78). The dwelling sites seem to be located on moraine hills, often nearby easily ploughed and quickly drying fine sediments, which were suitable for cultivation (Orrman 1987; Luoto 1988; Saloranta 2000; Kuusela & Tiilikkala 2008). Thus, the community structure, suggested by Pihlman, arose in the agricultural regions of the Late Iron Age: the cemetery, the fields, and the farmstead constituted an economic primary unit[1], which signified the area and expression of early land ownership (Pihlman 2004). During the medieval period, the community structure dissolved as the church centered the burials into consecrated graveyards, although behind the uniform ecclesiastical facade one can distinguish the remains of beliefs and practices of older folk religion. The medieval hamlet cemeteries of Köklax and Finno, Espoo, can be regarded as examples of such remains (Haggrén 2005a; Haggrén 2008a).

The spatial relationships between the cemeteries and dwelling sites or farmsteads were complex and indirect, and they changed during the long-term development of the cultural land-

1 For the concept of *primary unit*, see Blomkvist 2007.

scape of the coast. The distribution of cemeteries and graves does not give a comprehensive picture of settlement and, more importantly, the lack of graves does not *a priori* prove a lack of settlement (Huurre 1995: 141; Mägi 2002: 171–172). For instance, in Dalby (Värmland in Sweden), no Iron Age graves have been discovered, but instead archaeological surveys have brought home plenty of evidence on elk hunting, bloomery iron production, agriculture and animal husbandry beginning from ca 500 AD (Svensson 1998). Kari Pitkänen has probably right when he points out that future research will supposedly reveal that the settled area of the late Iron Age Finland was larger than previously thought by archaeologists (Pitkänen 2007: 47).

In Finland and Estonia, the idea of a linear relationship between cemeteries and settlement can be derived from a positivistic orientation, the central actor of which was A.M. Tallgren (1885–1945). Lang describes Tallgren's idea using a kind of reaction equation:

Economy + natural conditions → distribution of settlement = distribution of antiquities (sites)

It was thought, that the conditions of sources of livelihood and the ecological settings determined the distribution of settlement, which in turn is reflected on the distribution of archaeological finds.

Using a new reaction equation:

Culture ↔ (economy ↔ natural conditions) → distribution of settlement → distribution of antiquities (sites),

Lang gives an expression for a newer view carrying the idea, that in circumstances where the exploitation of natural resources was not restricted by the density of population, the choice of the dwelling site was affected by many other factors than merely those related to sources of livelihood and natural resources, such as cultural factors, the human relationship to the landscape, the natural resources and the territory (Lang 2000: 21–23; Lang 2006: 294). If we consider settlement to be an interaction between material culture, landscape and social life as well as economy, the complexity of settlement obviously cannot be resolved by using the traditional approach alone. A multidisciplinary approach is needed to tackle the evidence from different viewpoints. Regional case studies are required in order to get closer to the local communities of the archipelago coast and to the work and subsistence of the people there.

The terrestrical paradigm

The overall impression one can gather from the local communities of the Late Iron Age in Southern Finland mediated by the literature, sources of livelihood other than agriculture and the exchange of goods remain virtually undetected. They are mainly reduced to fallbacks or secondary occupations of minor importance. The freemen were the presumed primary actors of prehistory and the attention of archaeology has been directed towards finds that can be associated with agriculture. The overall conception of the Iron Age has been rather static throughout the 20th century: the livelihood of the local communities was based on agriculture, cooperation between primary units and the exploitation of the natural resources from the wilderness; the communities had local patriarchs or aristocrats as rulers, which organised the long-distance exchange of goods and wielded advanced weapons. The cooperation of the communities took place within the compass of proto-parishes and municipal leagues (e.g., Salo 1995).

What is missing to a great extent from the overall conception is seafaring, fishing, hunting and foraging at the seaboard, in other words, the multiple subsistence strategies made possible by the natural resources of the archipelago coast. Rather little is known about the development of the multiple subsistence strategies, but what is known tends to be significant. Studies in Kökar, situated in the outer archipelago of Åland, have demonstrated the economic im-

portance of the procurement of seal blubber during the Bronze Age and the Early Iron Age (1500 calBC – 500 calAD). Thanks to the good conditions for transportation, it was possible to supply seal blubber within the southern Baltic rim (Gustavsson 1987; Núñez *et al*. 1997). The long period of production suggests that there was a stable demand for seal blubber, so traces of the production of seal blubber should be possible to discover also somewhere else. So far, the archaeological remains of procurement of seal blubber, the charred-stone cairns, are very few in number outside the island of Kökar.[2]

Although the coastal fishing has been disregarded, there is no reason to believe that the fish stock would not have been exploited. On the contrary, the distribution of remains of the agrarian settlement follows the coast, reaching no more than 10 kilometres from the sea shore of the Iron Age, which implies that coastal fishing must have had a considerable significance (Meinander 1980: 11). Furthermore, during the medieval period there were some coastal municipalities, for example Houtskär, where fishing was the main source of livelihood (Kuvaja 1997).

There are, of course, good reasons to raise the freemen into a prominent role in the prehistoric economy. However, it has lead to a biased tradition of research, that Johan Ling calls the *terrestrical paradigm* in his study concerning the Bronze Age rock art of Bohuslän county in Sweden. In the traditional interpretation of rock art, scenes related to cultivation have been emphasized, while scenes including maritime motifs have been dismissed (Ling 2004; Ling 2008: 15–33). The terrestrical paradigm comes from a Nordic tradition, but it is also a part of a wider paradigm. The idea of agriculture being a universal cradle for culture can be regarded as an axiom within cultural anthropology, going back to the cultural evolutionism of the 19th century. In this view, mankind evolved from simple community organisations to more complex ones, from Palaeolithic and Mesolithic hunter-gatherers to Neolithic herders, and finally to Bronze Age agriculturalists (Dennell 1985: 113–117).

Agriculture involved tilling the soil and changing the local vegetation. Because of this, clearing, burning, pasturage, and cultivation left material traces in the ground – fossil arable land, plough-marks, and traces in the pollen stratigraphy. In addition, agriculture is visible in the archaeological artefacts and animal fossils, while fishing, seal hunting and fowling can only be traced through archaeological finds and osteology. Due to the obtrusiveness of agriculture as compared to maritime subsistence, there is an inherent disproportion that causes the maritime multiple subsistence economy to be underrepresented. To trace the maritime fishing and hunting is often also a question of extensive knowledge and sophisticated equipment in field research.

Since the 1970' s, paleoecology has been an increasingly important method to investigate the sources of livelihood. Pollen and macrofossil analyses have revealed new vital evidence on early agriculture, and thanks to these the initial stage of agriculture in Finland has been dated as far back as more than 2000 BC. At the same time, the detailed and impressive outcomes of pollen analysis have strengthened the position of the terrestrical paradigm in settlement research. Paleoecologists and archaeologists should be aware of the impact of the agriculture on interpretations concerning the character and structure of settlement and the use of natural resources.

3. The written sources and the archaeological evidence

Scarce written source material is something that has been considered to be characteristic of the maritime culture. The burden of taxation was weighted towards land ownership, and maritime means of livelihood, such as fishing and trade, were harder to control than agricultural

2 Other sites of charred stone in pits are Kallio in Rauma, Pyheensilta in Mynämäki and Hannunniittu in Turku (Salo 1983; Väkeväinen 1979; Laukkanen & Vuorinen 1987). All occurrences of charred stone are not related to the procurement of seal blubber. For Sweden, see Larsson 2001.

production (e.g., the Gotlandic tradesmen; Siltberg 2007). The crown and the church had difficulties to control seafarers on the Baltic Sea, which emerged as a field of competition between kingdoms, trade organisations, maritime peasant traders, and freebooters. *The freedom of the sea*, as Nils Blomkvist calls it, was an exception in the medieval society where power was centralised (Blomkvist 2007: 291–311).

Many aspects of maritime culture in the historic times are in any case missing from written sources. Fishing, for example, is rarely mentioned in sources from Sweden and Åland (Norman 1993: 73–75; Henriksson 1987). Christer Westerdahl suggests, that we should talk about subhistorical aspects (Westerdahl 2005a: 259). For example, the land register of Bohuslän, Sweden, contains very few toponyms relating to the natural environment of the coast. A possible explanation is that the preserved names were given and used by freemen, and it was predominantly the agricultural names that were entered into the land register. There is a gap among the place-names, making the people living on the coast invisible, unlike the archaeological record, where they can among others be verified through *tomtningar* (stone enclosures). However, in Bohuslän there are traces of an old stratum of toponyms, in which the element of water is significant. These names represent a prehistoric way to structure the landscape (Lönn 1999: 133–152). The place-names in the Finnish archipelago, collected through extensive fieldwork (Zilliacus 1989), indicate how densely and elaborately the cultural landscape was scattered with toponyms (e.g. Jurmo: Andersson 2008: 39–51).

The archipelago coast of Southern Finland was a traffic zone, where many events related to administration, trade and politics took place. Medieval and 16th century sources mention many places and events that were situated on the archipelago coast. For example, on Åland there are approximately 200 preserved late Medieval documents, most of which are related to the royal and ecclesiastical administration, visitations made by regents and bishops, military operations, trade and judicial issues. Earlier sources only contain fragments of information about fishing, seal hunting and agriculture (Henriksson 1987). More systematic data on taxation can be obtained from the beginning of the 16th century, which allows a closer examination of the settlements, wealth, and population.

Medieval sources contain both place-names that can be identified and names that have disappeared. Places such as towns, monasteries, churches, chapels, castles and manors can mostly be associated with written sources, as well as harbours, such as Gäddtarmen in Hanko or Jungfrusund in Kimitoön (Dragsfjärd). It is uncertain whether some of the possible castles and earthworks by the coast of Uusimaa can be connected to known places (Suhonen 2005). The same applies to the Danish itinerary of ca 1300, which is a list of place-names and distances connecting Denmark through the archipelago of Southern Finland to Reval (Tallinn) (Zilliacus 1994; Breide 2006). In addition, we have names that do not point to any known locations. *Kyrkosunds skär,* which has been mentioned as a guild in 1378, may refer to two different places (Eriksson 1989; Edgren 1999; Edgren 2005). Moreover, in an agreement in 1395, *Wartholm* is mentioned as a castle in Uusimaa, but its location is not revealed. There are good reasons to assume it was equal to Borgbacken in Borgå (Gardberg 1994), although Högholmen in Kimitoön (Hitis), a fortified isle not known in sources, has also been suggested (Nikula 1987).

Although places related to the use of natural resources often stay invisible, fishing in the crown's fishing waters in the outer archipelago was so productive, that a system was established to impose taxes from the production. The outer skerries were visited regularly by bailiffs that collected the taxes. The tax records from the 16th and 17th century fishery of Mörskär, Åland, give an account on, among others the islets where the fishermen lived. It is possible to identify some archaeological remains of fishing activities on the islets (Gustavsson 1994; Tuovinen 2001). On the skerries at the edge of the open sea there are plenty of remains from living and working during different time

periods, but they mostly remain undated and anonymous. However, the number of remains on the isles does not necessarily correlate with what is known about the fishing activities that took place there (Andersson 2003: 359).

Written sources at the time were meant to support the use of ruling power, to influence or dominate things and people and to have control over interpretations. Archaeology *may* have a different point of view altogether. We may search for a strong and expressive archaeological attraction, such as a monument, a work of art, or a luxury artefact, but with some pre-understanding it is also possible to produce a close reading of data and to search for weak signals. As Barbara Bender puts it,

"The material record for a preliterate period is inevitably coarse-grained and incomplete. Nonetheless it is – sometimes – a more democratic record than one based purely upon written sources. It is the material imprint of what Bourdieu calls habitus, the normal, banal, habitual but nonetheless socially and culturally specific environment in which, and through which, people negotiate their lives. It is also the imprint of more consciously created realms of social knowledge and control. Of course the record remains weighted in favour of those with power: they produce the more distinctive, more durable remains. To some degree, the world of the less powerful has to be reconstructed from absences in the record, for example the lack of permanent burials. The world of the less powerful is also imaged in the 'discourse' of the powerful: spaces are constructed to keep 'them' at distance, to prevent them from 'seeing' even though their labour created those spaces" (Bender 1992: 752).

So far, the most obtrusive sites and those sites that can be identified by using written sources have attracted the greatest attention in the archaeology of the coastal Southern Finland. The knowledge concerning the settlement (pre) history has accumulated a great deal, but at the same time an imbalance has seemed to evolve. First of all, those who earned their keep on the sea and on the fields and were not mentioned in the written sources are also underrepresented in the archaeological record. Of course there are exceptions, such as the 14th and 15th century graves that were excavated in the monastery's cemetery in Kökar, Åland. They represent the common people of the archipelago (Gustavsson 1994).

Another current topic is the fact that the archaeological interpretations often are – and, apparently, have always been (Jensen 1993) – dependent on the written sources. Interestingly, the testimony of the written sources has affected even the strategies of archaeological heritage management (Svensson 2001). The sources offer rescuing explanations for archaeological occurrences, the content and significance of which are hard to understand and the fact that the sources are also incomplete and partial are put aside easily. Where and when the written sources are absent, the archaeological evidence is crucial in order to understand what one can see, but where sources exist, it is not unusual that they dominate interpretation. In Uusimaa, for example, previously no archaeological remains of Iron Age settlement were known. The concept of human activities in Uusimaa was mainly based on 14th century documents revealing that dwellers of Häme used to fish on the coast of Uusimaa (Kerkkonen 1966: 13). In Finland Proper freemen were, according to non-archaeological sources, also fishing in the sea (Pitkänen 1985: 362–368), but probably because the Iron Age has been well known archaeologically in Finland Proper for a considerable time, the assumed significance of fishing in Iron Age communities has remained in the background. Fishing is actually often not even mentioned in texts concerning the Iron Age (exceptions: Salo 1995; Nissinaho 2007; Vuorinen 2009).

The impact of the written sources on the interpretation is not so much a problem than other possible hypotheses and interpretations taking to the sidelines. In Estonia, Valter Lang and Marge Konsa investigated the fort of Keava that was a centre for the Harju district until 1224, when it was destroyed by German troops. The archaeological studies give an entirely different view of the of the fort's life span than the written sources (Lang & Konsa 2004). In Värmland, Sweden, it could be pointed out that

the natural resources of the outlands were permanently utilised during the Iron Age in spite of the depressed picture of a desolate and dangerous wilderness that transmits through the early written sources. The negative description of the outlands can be perceived as part of a strategy that served the interests of the king and the church, restricting the freemen's right to utilise the valuable natural resources of the outlands. Interestingly, the northern part of Värmland is one of the regions that has the highest densities of archaeological sites in Sweden, while in marketing for tourists it is described as one of the last preserved wildernesses in Europe (Svensson 1998; Emanuelsson *et al*. 2003; Svensson 2003).

The archaeological evidence and the written sources of history are associated to different segments of the human life and environment in the past and they illuminate different facets of the ancient reality. The difference in the points of view is true for other possible routes to the past as well, such as onomastics and paleoecology. Paleoecology has changed our conception of early agriculture. As stated above, it has had a powerful impact on how the prehistoric societies are generally viewed. Again, the problem is not the paleoecological evidence as such, but the fact that settlement and cultivation were two different spheres of material culture. Especially in maritime environment one cannot presume that the settlement was located only where samples were taken and cultivation was confirmed.

When making connections between fields of research, special emphasis should be put on archaeological and paleoecological records. These records share a common trait: they do not include given meanings in the same manner as written sources. The method is to pose questions to the archaeological and paleoecological record and the written sources separately, starting from their own premises and source criticism, and then compare the outcomes (Berglund 1998; Saunders 1993; Hammer *et al*. 1993). The backgrounds, actors, events and circumstances of the sources are placed in their particular contexts.

The predominant picture of the human activities in coastal Uusimaa during the Iron Age has been static, naturally depending on restricted field-archaeological efforts. Those scholars, who were inclined to take the formerly sparse evidence as a proof of a largely desolated Uusimaa especially during the Late Iron Age, have summed up that the Vikings would have destroyed the settlement in Uusimaa, or that the coast of Uusimaa would have been only utilised by fishermen from Häme (Wickholm 2005). The former conclusion only encompasses the Viking Age and in the latter case, it remains open, why Uusimaa would have been unsettled.

New evidence on early settlement in Uusimaa challenges the traditional view. It is no longer sufficient to refer to scanty finds or written sources. It can be anticipated that the development of settlement has been more complex than what was thought before and that only the tip of the iceberg has been raised up for observation. Still, much field work remains to be done in order to understand the specific character of the settlement (pre)history of Uusimaa. The physical geography of coastal Uusimaa is rather similar to Finland Proper, Åboland and Åland, but the external characteristics of the province differ from the western regions. The challenge for archaeology is to specify and understand those characteristics and to discover the silent evidence that is missing from the written sources and which does not appear in the archaeological record without considerable efforts.

4. Understanding the scarcity of the finds

On the history culture of 'wilderness'

Part of the political process of the building of the national state of Finland during the Period of Autonomy (1809–1917) and in the beginning of the Independence (1917–) was to create a great tale about the origin of the Finnish people. Events, symbols and scenes were needed

to establish a history of the Finnish ”tribe” and its identity and images of enemy. In art and academic history the national imagery was canonised to be presented in schools and colleges and to be mediated in popular culture. It involved a Finnish political tribe organisation, a local administration within proto-parishes and municipal leagues, the conversion and commitment to Christianity and a heroic military power in the distant past, during the Iron Age and the medieval period (Fewster 2006). The Kalevala epic was the flagship which proved the presentability of the Finns among other civilised nations. Since the 1870's, the role of academic archaeology in the creation of a national consciousness was to materialise the Kalevala-epics and to create an affiliation with artefacts, monuments, museums and institutions.

The main ingredients of the construction of ancient Finnishness were adopted from the folk culture of Karelia and the eastern provinces of Finland. Thus the historical perception of *wilderness* (Fi. *erämaa*) was invaluable when Finnishness was constituted. Wilderness was given a kind of most-favoured status in all the conceivable platforms that defined the emblems for the Finns and localised important territories, landscapes, events, organisations and symbols. The natural domicile of the Finnish settlers was the forest, where they were swiddening, hunting, fishing and burning tar. For the artists of the Finnish Golden Age, the landscape of the wilderness represented a piece of an ancient uncorrupted Finland disappearing under industrialisation. The artists crystallised a chronotope of a native culture with pertinent images, such as virginal forests, glimmering lakes, smoke saunas, humble hard-working tar burners, and swiddeners (Lukkarinen & Waenerberg 2004). This was a part of what Maunu Häyrynen calls the "*national landscape imagery*, a systematic 'imagined topography' of Finland". Through the history of the Finnish national landscape imagery, from the 18th century to the post-war period, the most outstanding national landscapes represented wildernesses and distant borderlands. Towards the end of the 19th century the focus of the national landscape imagery turned towards Karelia, the idealised ancient domicile of the Finns, which represented the pioneer ethos of the slash-and-burn agriculturalists, becoming materialized in sublime landscapes, such as the Koli heights (Häyrynen 1997; Häyrynen 2000).

The counterpoints opposite to the wilderness were the hamlets and proto-parishes, from where the wilderness was by and by laid under control with private ownership and was finally settled. The hillforts formed a kind of mediating structure between the settlements and the wilderness. They provided the basis of a military power of organised communities and, for the Finnish nationalists, they still represent a unity of tribes and a permanent state of war, keeping watch and a justified conflict (Fewster 1999).

The ideal of the wilderness has continued its existence during the post-war period, especially in Iron Age research (Fewster 2006). The readings have both stayed the same and altered. Thanks to pollen analyses, the knowledge of early cultivation in Finland has drastically increased, but, as remarked by Evert Baudou, in spite of the development of research methods, swiddening has remained an axiom, which regularly supersedes cultivated fields in the interpretation of pollen assemblages (Baudou 1993: 68). Among the changed views is the notion that a formal military management was not necessary for the troops nor was it necessary in the building and maintenance of the hillforts. The military threat against the Finns was no more coming from the land of the Vikings in the west, such as the Finnish-minded stated during Finland's language strife, but rather it came from the east (Taavitsainen 1990).

The wildernesses were regions where natural resources were not fully utilised, but still held by landowners. The difference between settlements and wildernesses was a continuum reaching from the organised 'culture' of settled regions to the 'chaos' of the wilderness. Through time, areas of wilderness were claimed and converted into settlements as swiddening areas and fishing waters were reclaimed or parcelled out from the ownerships of the original

estates and new settlements were established (Alifrosti 1995; Taavitsainen 1998).

Many archaeologists of the early 20th century organised the places, events, communities, actors, and symbols in relation to a polarity of settled and desolate regions. However, bearing in mind the significance that the concepts of being settlements, desolate or abandoned regions had for early research, remarkably few discussions took place concerning what was really meant by the concepts and what were their archaeological implications. Over time, the implicit meaning of Iron Age settlement has become, with some variations, a primary unit with a minimum number of people, a family or a community, which sedentarily resided in a place where they cultivated manured fields, buried their dead and celebrated seasonal rituals (e.g., Salo 1995; Pihlman 2004). These are regarded as distinctive markers of sedentary agrarian communities in mainland environments. In the archipelago of Åboland, the Iron Age settlement is so far mainly reflected through a detailed local knowledge passed on through generations in the local community. The local knowledge is visible in the spatial references of the burial sites (Tuovinen 2002).

The historical concept of the wilderness has changed along with the general trend of modernisation. The nature conservation movement was founded in the early 20th century to be a part of the project of the national state, to define and highlight a kind of national natural landscape in which the wilderness played an important role (Leikola 2008; Päivärinne 2010). Until the 1970's, they mainly adhered to the traditional ideal of untouched 'indigenous' nature. Later on, the nature conservation movement has, in line with West-European environmentalism (Lowenthal 1999), overhauled the conceptual basis of ideal nature and accepted the conservation biological importance of cultural impact, since it has been realised that many valuable areas with high biodiversity have emerged under the influence of traditional agriculture. The evolutionary origin of some species characteristic of cultural landscapes seems to go back as far as the Pleistocene (Lindgren 2000: 17–28).

Under the influence of modern environmentalism, the portrayal of the settlers of wildernesses has been parallel and related to the idea that prehistoric human populations – hunter-gatherers especially – lived in balance with nature. At the same time, however, it has become clear that the wildernesses hold archaeological remains from several millennia, and it is impossible to extract the original untouched state of wild nature without human presence from that (Kirkinen 2008; Haila 1989).

The modern society has taken strict control of the wilderness. Wilderness politics is a valid political concept, and the Wilderness Act was enacted in 1991 in order to ensure biodiversity and the economy of the indigenous Sámi community. Since a network of forest trails has been constructed to cater to the needs of the forest industry, those forest areas that can only be reached by foot or by skiing are nowadays rare. Thus, in the administration, wilderness is defined as something that only exists in areas where there are no roads.

On the other hand, a wide popular consciousness of the aesthetics and values of the wilderness, such as it was illustrated in painting and photography, has apparently endured into the new millennium. In 2009, the nature magazine *Suomen Luonto* made an enquiry among more than 1000 Finnish citizens, asking them to specify the most beautiful ones among a set of selected photographies of 30 landscapes all over the country. The result was unexpectedly clear: the favourite pictures depict more or less untouched forests, rapids, lakes and heights in the inland. A winter scene from the Oulanka river in Kuusamo wan the first price. Thus, the national landscape imagery that has been created and renewed during more than 100 years still plays a vital role in the present-day impression of a "real", archaic or ancient, and genuine Finnish landscape. Consciously or not, this must have had an influence on the archaeological imagination and the development of the scholar's view of the relationship between culture and nature in the north-eastern part of the Baltic area.

In present-day society, the connotations of the wilderness have on one the hand changed from historical to biological ones whereas the

meaning of wilderness depends solely on the context. When "wilderness" is used as the opposite of human settlement, to express something peripheral and free of human influence, the concept is anachronistic. If the country within the borders of present Finland would only have a population of a few hundred thousands inhabitants, such as it was during the Iron Age (Jutikkala 1987), a modern individual would probably regard the whole country as a wilderness. This has probably even affected archaeological depictions and analogies. Eva Svensson has observed, that the academic depiction of peripheries or marginal regions in the past is bound to the modern urban culture and the scholar's own experience of periphery (Svensson *et al*. 2001).

The Iron Age archipelago in nationalistic history politics

In the 1860's and the following decades, the Finnish nationalistic view of history was dominated by the professor of history, Yrjö Koskinen. According to his doctrine, the Finns and the Swedes had separate and contradictory histories. For him, Sweden was a misrule that converted and repressed Finns, exploited them and shed their blood in battles fought in foreign countries. The real past of the Finns was purely indigenous, lacking any form of foreign or minority influence and reaching as far back in the prehistory as could possibly be traced. According to Koskinen, the first Finnish tribes migrated to Finland around 700 AD (Fewster 2006: 120–127).

In 1905, Alfred Hackman offered an earlier point of departure to the story of the Finns.[3] For him, the Pre-Roman Iron Age, a findless period at that time, was a sign of a total depopulation, caused by hard climatic conditions. He concluded that Southern Finland would have been settled by Finnic immigrants from the southern side of the Gulf of Finland in the beginning of the first millennium AD. The fundamental introduction of the story had thus been defined: *it was the landnám of wilderness*.

The preceding period, the Bronze Age, was in Hackman's opinion entirely "Swedish"; the artefacts and the people originated from Sweden. He felt that the subsequent immigration of Finns would have appeared more understandable, if it could be attested, that the Bronze Age population had left the "inhospitable country of Finland" before the Finns entered the country (Hackman 1924: 19). At the time, very little was known about the economic basis of the Bronze Age. Hackman's thesis can thus be regarded as being anachronistic, which reveals the historical assumption that people with different cultural identities were necessarily headed into competition for natural resources.

The field archaeology of the Iron Age was still in its infancy and the emphasis of the studies was placed to excavate cemeteries. As a result, scarce evidence was gathered about the subsistence economy – arable farming, animal husbandry, swiddening and long-distance utilisation of the wilderness. Analogies were needed to create an imagery of the subsistence economy, and to a great deal the analogies were adopted from ethnographies of the preindustrial agrarian culture. The absence of finds, a *find vacuum*, was established as an archaeological equivalent to the ethnographical wilderness. The settlement process of the country was shaped to a history of settlers whose settlements gradually extended into the untouched wildernesses during the Iron Age and the medieval period (e.g., Luukko 1967) – it was a story about a massive project to conquer the northern nature. One of the important figures in the history was the depiction of a freeman struggling for his subsistence in the harsh conditions. Among them, the hardworking and humble *Bonden Paavo* was prominent, since he had been created by the national poet Johan Ludvig Runeberg in his anthology *Dikter (Poems)* (1830).

In the Finnish nationalistic view of settlement history the land was assumed as a *primar-*

3 C.F. Meinander noted that the migration hypothesis was ultimately formulated by A.M. Tallgren in 1931 (Meinander 1983).

ily desolate Pre-Roman wilderness, waiting for the "Finns" to come. The overall direction of settlement was the expansion into wilderness and the subjugation of nature. In this view, archaeological find vacuums were simply regions, which were not reached by the human settlements. The background assumption was that the *land was supposed to be desolate until the contrary could be proved*. However, during the 20th century, this presumption, *the assumption of primary desolateness*, has proven unstable, because when an area presumed "empty" is being investigated, the number of archaeological finds will either stay unchanged or increase, but it will not decrease. Carrying out field studies thus tends to undermine the assumption of primary desolateness.

The first field-archaeological surveys in the archipelago were carried out in the 1870's. The philologist Axel Olof Freudenthal – one of the first to study Swedish onomastics in Finland – published a review of the archaeological remains in the eastern archipelago of Uusimaa (Freudenthal 1874) in which he described labyrinths and stone ovens found there. These were remains of the historical period which conspicuously differed from the then known prehistoric sites on the mainland. The work by K.A. Bomansson, A.O. Freudenthal, L.W. Fagerlund and H.A. Reinholm, a.o., lead to the conclusion that the only archaeological remains to be found in the archipelago were from the historical period. There seemed to be no particular expectations to find anything concerning the prehistoric archipelago. Towards the end of the 19th century the mainstream of archaeology was increasingly turning towards the interior regions of Finland and to an exploration of the prehistory of the Finno-Ugric peoples in Karelia and Russia (Nordman 1968). The archipelago was apparently not relevant to the construction of the past of the Finnishness. After the pioneering studies, very little efforts were made to find out if any archaeological remains dating between the Bronze Age and the medieval period actually could be found in the archipelago.

The initial view about the archipelago as an unsettled and culturally *insignificant* territory was thus established and it remained so for a long time. As a matter of fact, it continued to the end of the 20th century. In 1931, the view was backed up by A.M. Tallgren. His interpretation was that when Southern Finland was resettled in the beginning of the new millennium after the depopulated Pre-Roman Iron Age (the Hackman doctrine), the agrarian population from the southern side of the Gulf of Finland colonized the mainland regions, but they did *not* extend to the archipelago. In his view, the natural resources of the archipelago were insufficient for the settlers. The archipelagos would thus have been remained devoid of dwellers until the Swedish colonisation began in the 12th century (Tuovinen 2002: 42–44). Interestingly enough, what in Tallgren's view had been favourable and suitable for the seaworthy and self-sufficient "Swedish" Bronze Age people, proved in his mind to be too barren and severe living conditions for the agrarian Finnic settlers of the Iron Age.

Tallgren thus laid the ground for an assumption that has been associated with the archipelago for decades: harsh prehistoric natural conditions. Both public consciousness and many scholars have adopted the idea – with some exceptions, though. Svante Dahlström and C.A. Nordman, both historians with considerable local knowledge in the archipelago of Åboland, did not accept the alleged barrenness of the nature.

For the canonisation of the Finnish past and ethnicity, the maritime archipelago has been something *other*, an alien region and therefore left outside of the mainstream of research, never acquiring the same prominence as the inland regions. The archipelago just did not fit into the prehistoric archetypes of Finnishness. The Vikings would have made life out there menacing (Meinander 1983: 232), since there was no network of symbolically important hillforts as there was on the mainland. Iron Age cemeteries of the classical grave and cemetery types, familiar in the coastal mainland, were not known, and neither were they searched for. The archipelago was a different wilderness, a forest lacking Finns. And finally, a point made by

Christoffer H. Ericsson is that the mainstream of the interests of the researchers and cultural heritage authorities was directed to quite different directions than towards the coasts (Ericsson 1976: 31).

The theses declared by Koskinen and other Finnish nationalists caused a counter reaction from scholars with a Swedish-minded orientation. The literature professor Carl Gustav Estlander regarded these theses as an attempt by Finnish nationalists to project the confrontation into the past, which the nationalists themselves provoked between the Finnish and the Swedish wings. Scholars on the Swedish-speaking side maintained a holistic perspective on the history that was common for both language groups. They emphasised the folklore, the dialects and the toponyms, which in their view proved that the present-day Swedish-speaking population descended from a prehistoric Germanic population that resided in Finland. This was acknowledged even among the Pan-Swedish nationalists in Sweden (Petersson 2007: 131–143). The datings that were proposed for such a Germanic population varied from the Stone Age to the Iron Age. However, by the beginning of the independence of the state of Finland 1917, it was realised that for the sake of a bilingual national state it was necessary to strive towards a common interpretation of history. During the 1930's, the scholars on the Swedish-speaking side put aside the idea about an ancient Germanic population. During the polemic about the origin of the linguistic groups, the archaeologists were more careful than the linguists. Most archaeologists accepted Hackman's immigration theory, the "Finnishness" of the Iron Age population and the medieval origin of the Finnish Swedes. In 1955, when the 'language peace' had prevailed for a lengthy period of time, Olav Ahlbäck summarised the views proposed thus far in history, in archaeology and in philology. He concluded that, except for Åland, the Swedish migration took place after the Viking Age (Engman 1999; Fewster 2000; Huldén 2002; Baudou 2002; Tarkiainen 2008: 49–63).

Chapter one in the common view of history was now written. It included a description of the initial stage and a definition and legitimation of a shared right of domicile. Two migration histories were established. According to the prevailing academic view, the "Finns" migrated into a wilderness from present-day Estonia for some 2000 years ago and the "Swedes" migrated to a desolated coast from present-day Sweden for almost 1000 years ago. The focal point of the interpretation was the archipelago coast and the question, whether the settlers met any native "Finns" when they inhabited the archipelago and started to utilise the natural resources of the region. The thesis about a desolate archipelago was suitable for the demand for a common view of history, as a part of a peaceful solution to the language strife. The archipelago was not included in the sphere of interest of the Finnish-minded, and for them the archipelago was in any event a periphery because of the "harsh" natural conditions. Any conceivable settlement was unimportant to the terrestrical paradigm. For the scholars on the Swedish-speaking side the archipelago offered a non-controversial no-man's land, where migration would supposedly not have headed into competition or conflict. The abstraction of the archipelago as an originally peripheral and isolated region was also welcomed by the political coalition movement (Sw. *samlingsrörelsen*, Andersson 2006) that strived to unite the Finnish Swedes under common political and geographical concepts and symbols.

Among the views and abstractions concerning the prehistoric and early historical actors, Åland takes a special position due to a great extent to the political history of the isles after the Finnish War 1808–1809. For scholars of the early 20th century, the early history of Åland was a wealthy and dynamic period. However, after the World War II, the approaches regarding Åland have changed (Sjöstrand 1998). On the one side, the isles have been regarded as an Iron Age periphery of Central Sweden, by its very nature a marginal backyard, where cultural and social influences from the centres were degraded into more or less primitive versions.

"It often appears as if the group of isles even during the prehistory would have been surrounded by

dominant nations of the same magnitude and significance as today" – this is how Ilse Tarsala puts the anachronistic aspect of the centre/periphery view (Tarsala 1998: 114). An alternative idealised view, promoted by Matts Dreijer (1979), elevated Åland to a centre of early Christianity and the place of the town of Birka. This position was also dependent on the mainland since it indispensably denied the significance of either of the mainlands. These perspectives looking at Åland from above have mostly been unable to grasp the whole range of the "native" archaeological material gathered through excavations (Tarsala 1998).

Was the archipelago somehow different?

By the 1960's new archaeological finds from the Pre-Roman period challenged the concept of a desolated country. By 1980 the idea of the migratory origin of the Finns was rejected and replaced by the view that the region of present-day Finland was continuously populated from the Stone Age to modern times. As a hiatus in the settlement history no more was plausible, the search for the 'roots' of Finns could be extended into the Stone Age. This "heralded a nationalist dream fulfilled; accordingly, the *Finns* had always lived in *Finland*", as put by Derek Fewster (Fewster 2006: 400).

Since the assumption of primary desolateness is no more meaningful, more complex abstractions and exceptions to rules have been introduced to advocate find vacuums. A primarily desolate region cannot be assumed anymore, so it must be explained, how and why any region was desolated and how the particular region could have remained "empty" during a particular period. Eljas Orrman states: *"The desolateness or depopulation of the coastal regions of our country and of Åland at the end of the Iron Age is in many respects a puzzling phenomenon that has been tried to explain in many ways, but a comprehensive and fully satisfactory explanation or complex of explanations has not yet been proposed"* (Orrman 1999: 380).

Since the desolateness is hard to grasp, one must ask, if the archipelago coast and Åland really were desolate throughout the Iron Age or only a part of it. Why would these regions make an exception from the present-day scholarly consensus of continuity of the population? So many Stone Age and Bronze Age sites are known in the archipelago that even the sceptic would probably accept them as representing settlement. But what kind of catastrophe would have struck the islanders after the Bronze Age? Why would, for example, the South-Western archipelago have been depopulated and remained empty for at least a 1000 years, although there are no traces of any kind of prehistoric eco-catastrophe?

As far as the archipelago of Åboland is concerned, I have examined how the interpretations concerning the archipelago have deviated from the consensus about continuity of settlement. The hypothesis about a desolate Iron Age archipelago, raised in 1931, still surfaces in literature, although its basis was rejected long ago. Some views of the archipelago are based on incomplete knowledge of the archaeological record and on over-interpretation (Tuovinen 2002: 42–45). In addition, Hackman's assumption that people of different cultural identities would of necessity have headed into competition for natural resources, still seems still to be vital. It was presumed that the archipelago must have been desolate by the time of the migration, because Finnish-speaking natives and Swedish-speaking settlers would never have been able to share the natural resources peacefully – in other words, a modification of the thesis of two separate and contradictory histories by Yrjö Koskinen. Support for the assumption has been searched from two cases in court records, concerning disagreements in the use of natural resources. In 1303, Swedish settlers in Närpes, Ostrobothnia, came into conflict with their Finnish-speaking neighbours after having reclaimed the neighbour's forest. In 1347, some inhabitants in the parishes of Sibbo and Helsinge (Vantaa) in Uusimaa were allowed to use fishing waters that were previously utilised by people from Häme (Kerkkonen 1966: 99–101). These cases demonstrate that collisions of interests between people of different languages did occur in some places. However, collisions

of interests occurred even among people speaking the same language. In Åboland, for example, during the 16th and 17th centuries some neighbouring hamlets litigated on the utilisation of grasslands and fishing waters. Recorded cases are known from Utö, Jurmo, Björkö and Kittuis (Andersson 2008: 196; Öhman 1993: 14; Ehrensvärd & Zilliacus 1997: 38; Ahlbäck 1952). However, these disputes between people speaking the same language did not prevent life from continuing, nor was the villagers' livelihood threatened. The cases in the court records in fact do not support the idea that the cultural identity would be in the core of conceivable problems in the use of natural resources.

It seems that alternatives to the supposed no-man's land have been difficult to perceive, probably due to the incompatibility assumption. The question of the encounters between the natives and the settlers may have been regarded as politically incorrect, since one might associate it with the language strife that was settled for more than a half a century ago. So, it has been tempting to hold on to the idea that the Swedish settlers arrived into a desolated region, took the natural resources into their possession without being entangled in competition with anyone, and earned their right of domicile in a politically correct way. This abstraction has surfaced, often implicitly, during the past century, occasionally even during the last few years.

Two fundamental and closely related questions remain. First of all, what can be said, on the basis of evidence, about the alleged desolate archipelago coast? Secondly, what can be said about the alleged confrontation that would have been a necessary consequence of the encounter of people of different cultural identities, including different languages?

Above it was examined, how the archipelagos were left outside of the mainstream of research and of the number of archaeological finds remained scarce. Since the 1980's, some fieldwork has been done in the archipelagos, although on a very small scale when compared to the mainland coast. These studies question the Iron Age desolateness. Excavations and paleoecological studies on the coast of Southern Ostrobothnia have revealed a clear picture of continuous agriculture and settlement during the Iron Age (Baudou *et al*. 1991; Wallin & Segerström 1994; Viklund & Gullberg 2002). On Åland, the development and the geographical subdivision of the grave types, the structure of the settlement, and the pollen analyses indicate a continuing settlement throughout the Iron Age rather than a formerly alleged hiatus around 1000–1150 AD (Edgren 1983; Edgren 1984; Roeck Hansen 1991; Sarmaja-Korjonen *et al*. 1991; Núñez 1993; Núñez 1995; Vasari *et al*. 1996: 285–290; cf. Hellberg 1987). In the archipelago of Åboland, new Iron Age evidence includes a number of burial cairns with Iron Age characteristics, the market place at Kyrksundet, and pollen analytical indications of cultivation (Tuovinen 2002; Tuovinen 2005a; Edgren 1995a; Vuorela & Hicks 1995). Among the Finnish place-names that have been loaned into Swedish there are old names of such character, that they can only have come into existence in a community of freemen being engaged in animal husbandry and cultivation (Pitkänen 1985: 352–355). The state-of-art of the settlement research in Uusimaa is examined in the other articles included in this volume.

The assumption that people of different cultural identities of necessity headed into competition for natural resources, either universally or more specifically on the Finnish archipelago coast around 650–850 years ago is anachronistic since it is based on concepts such as "nationality", "Finnish", "Swedish" which did not exist in the Iron Age or the Middle Ages. The assumption carries with it experiences of social development that took place during the 20th century which are questionable if moved to entirely different ancient local communities. Obviously, things do not become more understandable, if it is assumed that the natives and the settlers would not have been able to share the natural resources peacefully – in as much as it was necessary to share resources.

The evidence does not as such suggest a competition for natural resources. The carrying capacity of the nature in the archipelago coast

did not prevent a settlement expansion by the time of the Swedish migration. Rather, the limits of the production of the land, forest and sea were not visible until the late medieval period, and even then only in the more densely populated regions (Alifrosti 2000). The studies by Teija Alenius, including paleoecological analyses of the lakes Petarträsk in Ingå, and Storträsk in Raseborg, reveal that land-use continued without major interruptions over the colonisation period, also indicating that there was no shortage of natural resources.

Some parts of the interaction between people living during the migration may have been preserved in the toponyms. In 1985, Ritva Liisa Pitkänen demonstrated that a considerable part of the known 1008 Finnish place-names that were loaned into Swedish in the archipelago of Åboland during the medieval period were originally given during the Iron Age. Finnish names were still given to natural places as late as in the 16th and 17th centuries. The Finnish names include, in addition to names of natural places, names related to fishing and animal husbandry, names of hamlets, farmsteads, outbuildings, smithies, mills, harbours or havens, borders, means of communicating, persons and, among others, names related to Fi. *hiisi* (places marked off within inhabited areas; see Anttonen 1996: 116–123). The place-names illustrate a stable community of freemen and a traditional name landscape, parts of which the settlers later absorbed and adapted to their own language. The borrowing of names into Swedish has, according to Pitkänen, required a permanent, peaceful and organised co-operation, common interests, and agreements between people with different mother tongues. An additional prerequisite must have been a bilingualism of a certain degree. Short-term, sporadic or hostile contacts could not have resulted in Finnish names being borrowed into Swedish (Pitkänen 1985: 352–357; Zilliacus 1994; Pitkänen 2007).

To summarize, the evidence supports neither a desolated archipelago coast nor an assumption of an unavoidable competition for resources. A desolated archipelago is actually not only something that we really might, although unexpectedly, discover in archaeology, but it was also an indispensable historical construction to the parties compared to the rough-and-tumble nature of the alternative nationalistic views of the prehistory in a symbolically important region. The circular reasoning inherent to the alleged desolateness goes back to the period of the first archaeological field studies that lead to the conclusion that there were no early settlement of interest in the archipelago. Due to the absence of interest, very few field-archaeological efforts were made, and this strengthened the depiction of desolateness. The circle is being gradually broken by a new development in the archaeology of the coastal environment. The research history of the archipelago coast is an illustrative example of the significance of pre-understanding in field archaeology (Åkerlund 1999).

While the mainstream of research in Finland is directed towards the past of the mainland and agriculture, the past of the Swedish archipelago has not been left outside of the mainstream in the same manner. In Sweden, nationalism has been anchored to the archipelago culture and its significances in emphasising national identity and unity, as well as to Viking romanticism and the royal navy (Cederlund 1998). The archipelago has not appeared to be alien or desolate. Instead, as David Loeffler points out, prehistoric Norrland has for a century been stamped as a stagnant periphery, which had its effects on the political imbalance between the Northern and the Southern Sweden (Loeffler 2005).

Yet more on assumptions

Intuitively it seems natural to conclude that if no archaeological traces were found from a certain area representing a certain period, there were no human beings there to leave traces; or at least there could not have been many of them; or at least not for a long time. However, keeping the principle of Occam's razor in mind – the explanation of any phenomenon should make as few assumptions as possible – some implications can be derived.

The demographic long-term trend. The population of Finland has multiplied in the course of many millennia. According to Eino Jutikkala, the population of Finland in the Stone Age was 2500–10 000 people, and by the Famine Years of 1695–1697 the population had risen up to a half a million. The growth of the population was not monotonous, but the trend of the development must have been ascendant in the long run (Jutikkala 1987). This must have given rise to a slowly expanding and a denser settlement, including the reclamation of new natural resources. The settlement continuity inherent to this trend has made it feasible to build culture-historical bridges over dozens, even hundreds of generations when discussing continuities in material culture and archaic cultural practices, categories, and phenomena, such as beliefs, rituals, and institutions pertinent to the cultural traditions of wildernesses (Sarmela 1984), the linguistic footprints of early iron industries (Salo 1993), boat constructions (Itkonen 1941), the history of agricultural tools (e.g., Vilkuna 1971), and old etymologies (Häkkinen 1999). The disappearance of settlement, its desolation, is thus a specific development in prehistory, a phenomenon deviating from the overall expansive trend. We cannot *a priori* assume desolateness without a *case-specific* empiric explanation.

The method and practice of field archaeology. It is a well-known fact that the field-archaeological efforts that have been made through decades are not evenly distributed. Due to several factors, some areas have been surveyed more or better than others and some types of sites have been excavated more than others. Trying to make as few assumptions as possible implies that observed regional differences in quantities, such as frequencies, densities or spatial patterns of sites, must be approached with source-criticism. It cannot be assumed in the first place that the differences would be a result from actual variation originating from the past. Rather, the first check to be made is the field-archaeological status that is central to what can be initially known about any area. Reports made by the National Board of Antiquities in Finland reveal that due to the incomplete status of archaeological surveys, a preliminary overview of the archaeological heritage can only be presented for a part of the country (Komiteanmietintö 1993). The archaeological survey of the country is still non-uniform and there are probably many cases where an archaeological distribution is ostensibly delimited by the borders of the parish where the survey was made.

At one point archaeological survey differs from the inventory of, for example, forest resources and buildings of architectural and cultural historic value. The archaeological sites are more or less infrequent and hidden. In sampling theory it can be shown that discovering rare sites in field work requires a large sample size, especially if the population representing the phenomenon has a clustered spatial distribution (Nance 1983: 312–318), which is not unusual. Theoretically, nothing can be said about rare remains of settlement based on a small sample, not to mention an unrepresentative sample. There is every reason to try to avoid overestimating the significance of something that seems to be missing. Among the interesting aspects of archaeology is the fact that it is often easier to show the human presence and activity in place and time, than to do the reversed thing, to substantiate an absence.

The regional factor: a matter of scale

Whether an area is actually findless or only appears to be so is connected to the size of the area. If we randomly select one are of ploughed field and collect surface artefacts there, the outcome will probably be zero, or anyway a small number. The more we enlarge the area to be exploration, the greater number of artefacts is probably gathered. The find frequency is a function of the size of the area, the distribution and density of the artefacts, the number of field collecting efforts made, the physical characters of the artefacts and the soil, the skills of the field archaeologists and so on. Find frequencies and their relationships should be examined in a

scale that is meaningful from the point of view of the problem to be studied. Applied to settlement studies, a sufficient regional scope and regional representativeness are crucial necessities for settlement studies and measures of the odds of the occurrence of remains of settlement.

The studies on the development of the coastal settlement in Southern Ostrobothnia during the Iron Age may serve as an example of the significance of the regional factor. For a long time the only prevailing concept was that the Iron-Age settlement which is represented by cemeteries and graves with abundant finds until the 7th and the 8th centuries, began to vanish from this area in the 9th century, and Ostrobothnia was finally abandoned (e.g., Meinander 1977). Sporadic finds have been reported from this area from the Late Iron Age, but according to the traditional opinion they do not indicate a continuity of settlement; instead, they have been interpreted as being left there by hunters and "wilderness men" who came from the province of Satakunta further south and exploited the region for long-distance utilization. The present settlement of the region would not have started until the beginning of the medieval period with the migration from Sweden and from the inland. The concept was challenged by a research team from the University of Umeå that started excavations and pollen analyses in 1986. Attention was paid not only to central settlement regions with abundant finds but also to regions exposed by rapid shore displacement with very few, if any, registered finds from the Iron Age. It turned out that the conditions of cultivation and cattle breeding in the region changed in the Late Iron Age due to the shore displacement which had a great effect in the flat and even landscape of Ostrobothnia. The settlements moved gradually towards the shore, where there were coastal meadows and vegetation suitable for fodder (Baudou *et al*. 1991; Baudou 1991; Wallin & Segerström 1994)[4]. Investigations at Pörnullbacken, Vörå, revealed indications of continuous cultivation of manured fields 0–1000 AD. Following this, a restructuring of settlements and arable lands took place (Viklund & Gullberg 2002). These studies demonstrate how difficult or near enough impossible it may be to distinguish a movement of settlement from an abandonment of settlement without extensive regional studies.

The Iron Age settlement on Åland went through a restructuring during the Late Iron Age and the medieval period. Even here the change is best understood on a regional rather than local level. The change involved a shift from dispersed single farmsteads to agglomerated hamlets. The co-operation between freemen increased when two-course rotation came into use and the boundaries and toponyms changed. All settlements were not restructured similarily, rather there were considerable local variations. The background factors for the development include the shore displacement and the emerging power of the kingdom and its interests of tax collection, markets and harbours (Roeck Hansen 1991).

5. The Finnish archipelago coast: a borderland approach

When heading out of the mainland coast towards the open sea the big islands along the route gradually give way to smaller islands and finally rocky islets. The open stretches of seas begin to dominate the landscape until the last skerries and reefs have passed by and the Baltic Sea opens. The archipelago coast can be characterised as a geomorphological transition zone between the mainland and the maritime spheres. The landscape turns to more maritime when one sails through the archipelago. The

4 Some criticism has been raised against the Umeå research team (see Orrman 1993; Orrman 1994; Orrman 2002; Baudou 1993; Engelmark *et al*. 1993; Viklund 2002; Viklund & Gullberg 2002). The criticism does not affect the value of the studies as an illustrative methodological example.

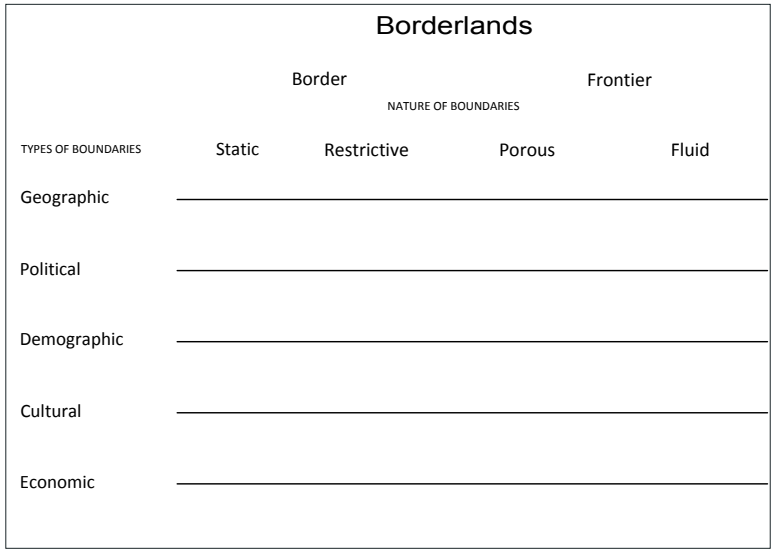


Fig. 1. The continuum of boundary dynamics according to Parker (2006).

archipelago coast was also a transport zone, along which goods and cultural capital were shipped. The coast constituted a borderland where dwellers of the interior and people from coasts within the Baltic rim met. The archipelago coast can be thought of as a forum where individuals, communities and cultural identities were in contact and goods were exchanged. Centres were often established in such zones of interaction; the medieval town of Turku appears to be such a centre, arisen on borderland (Pihlman 2003).

The physical geography of the archipelago coast (Granö & Roto 1989; Frisén *et al.* 2005) provides a frame that helps to structure the evidence concerning early settlement and to characterise socio-economic, cultural and historical zones, corridors and boundaries. The study by Christer Westerdahl (1990) on cultural boundaries on the coast of Västerbotten, Sweden, makes use of such an approach. In the present study, the model of *continuum of boundary dynamics* by Bradley J. Parker (Parker 2006) is being applied *mutatis mutandis* to examine the possible geographical, political, demographic, cultural and economic boundaries within the archipelago coast of Southern Finland.

The model includes a terminology to identify and describe different types of boundaries and to some extent, enable cross-cultural comparisons. The *borderlands* are defined as areas between political or cultural entities. They include parallel and sometimes overlapping *boundaries* that are defined as ”unspecific divides or separators that indicate limits of various kinds”. The boundaries in turn can be divided into *borders*, referring to ”linear dividing lines fixed in a particular space” and *frontiers*, denoting ”loosely defined areas or transition zones that lie between political or administrative entities or between one such entity and a hinterland” (Parker 2006: 81).

Geographical boundaries

There are geographical frontiers parallel to the coastline of the archipelago coast of Finland. The structure of the frontiers is determined by the bedrock. The gradual topographical transition from the mainland coast to the open sea was first described in 1900 by Ernst Häyrén in a study dealing with phytogeographical zones. Later the zones have been specified on the basis of the change of the relation of land and water areas in a zonal succession or *toposequence* from the mainland coast to the open sea. The toposequence can be divided into four zones, (1) the skerry zone bordering on the open sea (shoals, reefs, small skerries), (2) the outer ar-

chipelago zone, where the land area is less than 10 per cent of the total area (skerries), (3) the inner archipelago zone, where the proportions of land and sea are approximately equal, and (4) the edge of the mainland composed of the large islands in front of the mainland and the mainland coast (Granö *et al*. 1999: 27–38). Sometimes a fifth zone is added, the middle archipelago zone between the outer and the inner archipelagos.

The coastal topography of the Baltic Sea is particularly fragmented on the coasts of southern and South-Western Finland, Åland and the eastern coast of Sweden. The fragmentariness is a result of the top surface of the deep-worn basement in southern Finland, the subcambric peneplain descending in gentle undulation towards the Baltic Sea and forming the archipelago off the coast. There are 73000 isles off the coast in a zone of 10–30 km in breadth. The archipelagos of Åboland and Åland together constitute a zone which is more than 150 km in width, which is actually the most extensive archipelago in the world (Granö *et al*. 1999: 11–15).

The relief of the peneplain reflects zones of the minerals, the folding tectonic, the lengthy weathering and erosion, the shear zones of the bedrock, the fracture valleys, the displacements and depressions, and the wearing and accumulating effect of the Fennoscandian ice sheet (Fogelberg 1986; Fogelberg & Seppälä 1986). These factors are prone to shape the fragmented and small-scale mosaic landscape in which the outlines of the shores – straits, lagoons, coves, isles – follow the general directions of the bedrock and the fissure systems. The complex natural variety of sea, shores, rocks, landforms and different patterns of natural resources available for man contributed to a high degree of geodiversity in the maritime landscape.

For the early islanders, the structure and scale of the natural landscape had two important consequences: a good protection against the heavy sea, and good communications along sea routes. The shallow coastal waters have a magnifying effect on the steepness of the waves rolling from the Baltic Sea, which sometimes generates significant wave heights up to more than three meters in the outer parts of the Archipelago Sea (Kahma *et al*. 1997). The breakwater effect and the safe places for dwelling, pastures, routes, landings sites and havens that the topography offered, were certainly significant for the islanders. The protection against heavy sea reduced the dependence on the predictability of storms and annual weather variations that was peculiar to early maritime communities in Northern Europe (Perdikaris & McGovern 2008: 189–190). The distances were short, which helped the transportation of cargo, livestock and people as well as fishing, cultivation, animal husbandry, hunting, fowling and foraging. The routes opened out to fishing waters and seal reefs and made areas suitable for cultivation, grazing and gathering of winter fodder accessible, contrary to the mainland where the navigability of the rivers hampered communications and not until the Late Iron Age did land traffic start to develop (Masonen 1989).

The sea routes contributed to communications pertinent to the subsistence as well as to connections to the contact field of goods exchange within the Baltic rim. Seafarers approaching the coast were in need of local knowledge of the difficult archipelagic waters, dotted with underwater shoals. Before the state pilotage was organised – the pilotage decree was passed 1696 – pilotage was the business of the islanders. Although pilots on the Finnish waters were first mentioned in the medieval period, it is quite evident that pilotage had been organised earlier than what is related in written sources. Contacts with seafarers might also have lead to commerce or signing on ships. And, as noted by Stig Blomkvist, in maritime circumstance rulers and inhabitants of the coast might encounter each other in quite a different and egalitarian way contrary to the medieval society as a whole, characterised by a strictly divided social space (Blomkvist 2007: 292).

For the dwellers of the archipelago coast, the contact field was open for the exchange of goods and long-distance utilisation of natural resources on its own keel as well. It has been substantiated that long-distance communica-

tions between the Åland isles and the southern coast of the Baltic Sea existed already during the Bronze Age (Gustavsson 1997). Later on long-distance activities of the islanders were shipping, the so-called peasant sailing and the fisher's long-distance voyages along the coast.

While the topographic structure of the archipelago was a benefit for the islanders, the situation was different for cargo ships headed towards the mainland coast. The voyage over the open sea did not require exact determination of position (Breide 2006: 195–196). But when making land, there emerged a navigation problem that needed to be to be solved. The seamen had to find the starting point of the route towards the coast among the reefs and shoals of the skerry zone and find their way through the archipelago without running aground. This required a good visibility and an infallible local knowledge. The risks and consequences of bottom contact depended – in addition to the weather – on the manoeuvrability and weight of the vessel, which in turn to a great degree depended on whether the vessel was driven by sails, oars or both of them.

Regardless of the type of vessel, the problems of navigation could not be ignored in route planning. Therefore it seems natural that the Danish itinerary (Gallén 1993; Breide 2006) remarks that during favourable winds, the voyage from Arholma on the eastern coast of Sweden to Hanko in Finland could be sailed directly across the open sea without having to turn off to the troublesome route through the archipelago. In fact, the route over the open sea appears as the primary alternative of voyage if the conditions were favourable.

Of course, the risk of bottom contacts caused shipwrecks. It was one of the reasons why the medieval burghers of Turku developed strategies in order to manage the risks of business (Kallioinen 2000). Remains of shipwrecks can be found in the bottoms of the Gulf of Finland and the Archipelago Sea. There are good reasons to presume that shipwrecks did occur during the Iron Age, although the evidence is lacking after the wreck in Lapuri, Virolahti (Uusimaa) was re-dated and found to originate from the 13th century (Mökkönen 2006). Five known wrecks have been dated to the medieval period (Wessman 2007), and more wrecks are reported in medieval sources (Gallén 1989: 19–21). An insight into the navigational circumstances is given by the Dutch seafarer Lucas Janszoon Waghenaer. He published the first sea charts of the coast of the Gulf of Finland and the Archipelago Sea in 1584–1585 and 1592. In a cartouche he mentions that the waters of the *Finssche Scheeren (Finnish Skerries)* were shoaly and rambling, very peculiar to the seamen who were used to open ocean coasts (Johnson & Nurminen 2007: 252–255). Navigation in the archipelago is still a challenge for present-day seafarers.

As the thermal economy of the Baltic Sea is an essential regulator of the coastal climate, the zonal structure of the relation between land and water comprises a frontier over which the climate changes from maritime to mainland-like. Åland, Åboland and Finland Proper are nowadays the only regions in Finland belonging to the hemiboreal climatic zone (Solantie 1990). The archipelago is characterized by mild winters, springs with scanty precipitation, and early summers. The average sum of effective temperature is the highest in the country and the mean duration of the vegetational period is the longest in the country. Adding that frosts disappear earlier in the spring than on the mainland and that the annual variation of frosts is small (Solantie 1987), the archipelago coast obviously appears as a potentially favourable region for cultivation and animal husbandry. As the physical cause of the favourable climate is the capability of the sea water to store warmth, we can without a doubt assume, like Orrman (1991a: 201), that the climatic gradient between the archipelago and the mainland was nevertheless very much the same as today, although exact numerical values can not be given.

There was also another aspect, which promoted cultivation on the archipelago coast as compared to the interior. The coastal clay layers were deposited during the *Litorina* stage of the Baltic Sea. The light *Litorina* clay was more suitable for the early medieval tilling tools than

the heavy *Yoldia* and *Ancylus* sediments of the interior. The difference between the soils caused the spread of cultivation to the heavier soils to be delayed (Orrman 1991b).

The geographical borderland of the archipelago coast is characterised by three potentials.

(1) The resource potential of the maritime landscape. The potential is archaeologically visible through, for example, the stability of the multiple subsistence strategy of Åland. The same basis of economy was continued for more than 4000 years, until around 400 AD, when the indications of cultivation began to increase (Núñez 1995; Núñez 1991).

(2) The agrarian potential enabled the cultivation to begin around 4000 years ago, initially mainly as swiddens and towards the Late Iron Age increasingly as cultivation of manured fields (Vuorela 1998).

(3) The transport potential generated by sheltered inner routes, havens, landing sites and overseas contacts.

The potential of the archipelago coast was affected by the glacio-isostatic land uplift, resulting in shore displacement. The shore displacement was a partial factor of the fluctuation of the salinity of the Baltic Sea, participating in the cooling period after the climatic optimum of the Holocene (Emeis *et al*. 2003; Tuovinen *et al*. 2008; Solantie 2005). The present-day apparent shore displacement along the southern coast is 1.5–4.5 mm per year. The movement is smallest in Eastern Uusimaa and greatest along the coast of Ostrobothnia (Kakkuri 1997; Vestøl 2006). In the course of the last 3000 years, the surface of the land has risen about 10 meters in western Uusimaa and 15–20 meters in the Archipelago Sea and Åland (Miettinen *et al*. 2007; Eronen *et al*. 2001).

Fig. 2. In the outer archipelago there are thousands of treeless skerries exposed by shore displacement. One can imagine the landscape to be like this in the Iron Age – especially if the ships, telecommunication towers and wind farms on the horizon are excluded. Trunsö Kalkskär, Nagu. Photo by the author 1985.

Due to shore displacement, new reefs, skerries and islets have risen out of the sea on the edge of the open sea, while the islands close to the coast have grown fast into the mainland or remained separated by narrow straits. Land uplift has not resulted in the disappearance of the archipelago which has slid very gradually further out towards the Baltic Sea. At the same time the difference remains between the outer archipelago, dominated by stretches of open sea, and the inner archipelago, characterized by large coalescent islands. In Southern Ostrobothnia, the flat topography together with rapid land uplift has through millennia evoked a rapid outwards movement of the shoreline. From the Stone Age to the Late Iron Age the settlement was concentrated on the coast. As the shoreline retreated, the settlements gradually followed (Miettinen 1989; Miettinen, M. 1998). The result of the shore displacement is that the further away from the coast an archaeological site is found, the older it usually is – and vice versa, the further out in the archipelago a site is located, the later it is. This tendency, which may have and actually has local deviations, has been called *the stochastic time gradient*, reaching from the present day edge of the mainland through the inner zone to the present day outer archipelago zone (Tuovinen 2002: 201). The gradient can be distinguished in many shore displacement environments, such as among the burial cairns of Northern Ostrobothnia (Okkonen 2003) and the Bronze Age rock art in Bohuslän, Sweden (Ling 2008: 107–158). In Åboland, the time gradient is marked by the burial cairns of the outer archipelago, which are all of Iron Age character (Tuovinen 2002).

The local effects of shore displacement on the landscape are crucial. Here and there the inner archipelago of the Iron Age has turned into mainland and the inlets have disappeared. For example, the Iron Age agrarian settlement of Åland was concentrated near the shores, and due to the great many straits and fjords that split up Mainland Åland, the sea was everywhere in the vicinity of settlement. The Ålanders had inherent maritime communications and sheltered harbours, which seems to be reflected in the grave goods, containing artefacts imported from the west as well as from the east. The pastures enlarged as the shores moved, but at the same time the straits and fjords became shallower. The latter has been regarded as one of the most important structural changes in the settlement history of Åland and, among others, a cause for changes in land ownership (Roeck Hansen 1991; Núñez 1993; Núñez 1995). In Masku, Finland Proper, the farmsteads were also located near the sea shore. The change in communications caused by shore displacement in Masku seems to not have as much significance as on Åland, but the pastures, meadows and fields, exposed by shore displacement, definitely had a positive effect (Nissinaho 2007; cf. Viklund & Gullberg 2002; Vuorinen 2009). In the archipelago of western Uusimaa, the farmsteads on the isle of Ors, Ingå, were relocated as the shore had moved too far. This underlines the economic importance of fishing waters and grazing islands (Alenius *et al*. 2004).

Political boundaries

The research project *Western Uusimaa during the late Iron Age and Medieval Period 500–1550 AD* starts from the middle of the first millennium AD. In southern Finland it was a period of the final advance of the freeman society, economically based on manured fields and animal husbandry. The project reaches in the other end to the social transition period and the reinforcement of the state during the reign of Gustav Vasa. For local communities, a most important change during the period 500–1550 AD was the economic, political and cultural development approximately between 1100 and 1400 AD that is called the *Europeanization* of the Baltic rim region (Blomkvist & Lindström 2007). In Finland, the Europeanization involved the emergence of hamlets and towns, the organisation of permanent taxation, the introduction of technical innovations in seafaring, agriculture, architecture, and handicrafts etc., the organisation and monopolisation of the trade within the Baltic Sea, the reinforcement

of the power of the church and the king, and the assimilation and spread of a new religion and new knowledge, beliefs, ideas and symbols (Orrman 1987; Orrman 1991b; Blomkvist 2007; Gaimster 2005). The period of Europeanization included even the migration from Central Sweden into Finland that is comparable to migrations in Scandinavia and Central Europe (Lindkvist 2002).

During the 13th century the political and economic centre of the valley of Lake Mälaren emerged. The military resources of Svealand were now concentrated, enabling the monarchy to use military power to back up commercial interests on the coasts of the Gulf of Finland and to integrate Finland into the kingdoms of Sweden. The campaigns of the Swedish monarchs against Novgorod in the 11th and 12th centuries were at least partly legitimised by explaining them to be crusades, the goal of which was to save the pagan Finns and unify them with the Catholic church and, at the same time, to push away the infidel population of the east (Lindkvist 1996; Christiansen 1980: 109–117).

However, the monarchy that was established in Finland and started to change the society, was in the European perspective weak and dependent on the loyalty of the elite. According to Thomas Wallerström, the ruler used interventions to the local culture and economy as a political instrument in order to assert his power and provide him support on the local level. The monetisation was an intervention by the monarchy into the local cultures, evoking a separate economic system to evolve and enabling the local economies to be incorporated to wider economic networks. The legal code interfered in traditional local norms concerning criminality, and the establishment of castles and towns was the final intervention which increased the collection of taxes and connected the local economies to extensive economic networks. By creating and promoting markets the monarchy ensured that it was in the sphere of interest for those, who were dependent on the markets, to act locally in favour of the ruler (Wallerström 2001). The strategy thus affected social structures which were most developed in the coastal regions.

The economic basis of the power of the monarchy was an internal exploitation of the surplus of the agrarian production (Lindkvist 2006b). The agrarian population retained their relatively free position, although they had to support the king and the church by paying taxes and charges. On Åland, the monarchy was more powerful than on the mainland, superseding the early medieval local elite, which might be a parallel phenomenon to an earlier superseding of the upper class in Central Sweden (Larsson 1997). Archaeological finds indicate that the monetisation of Åland took place as early as in the beginning of the 13th century, which implies the emergence and reinforcement of new institutions (Sjöstrand 1994: 544–557; Klackenberg 1992: 158–176).

One might ask whether the archipelago coast indeed was a political borderland otherwise than as a porous frontier in terms of the Parker model. The towns, monasteries and most of the castles were situated on the coast as well as the bridgehead of the monarchy and the church, the aristocracy, the education, the professional specialisation and organisation, and the wealth. The innovations proceeded to the inland, which is indicated by archaeological finds of coins, the spread of which can be followed due to the fact that coins can be dated rather accurately. The monetisation took place first on Åland, then in Finland Proper and Uusimaa, and finally in the inland (Haggrén 2008b). The time range of several generations in the dispersion was certainly not insignificant.

It is mainly from a European point of view that the country which later became Finland may be called a borderland. From the point of view of the Catholic Church, Finland was located in the north-eastern borderland. The towns of Finland were not subordinated under the Hanseatic League and the Teutonic Order to the same extent as Tallinn, for example. Perhaps this saved the freemen from serfdom and let them keep the small production units and some degree of freedom (Kallioinen 2001).

In written sources not much is revealed about the freemen's and fishermen's experience about the centralisation and stratification of the society and the increasing control. Lit-

tle is known about how people adapted to the new power and how its impact could possibly be ignored or avoided. The studies by Aino Nissinaho in Masku, Finland Proper, indicate that the freemen adopted different coping strategies as a response to the growing pressure from the monarchy and the church. The hamlet of Kankainen, where the regional power holder Klas Lydekason established a manor in the beginning of the 15th century, shifted to a new production system possessed by a landowner whose wealth and power was based on official duty and work done by tenants on the farm. The other hamlets remained more egalitarian, striving on the one hand to adapt to the new power, and on the other hand trying to avoid it (Nissinaho 2007). The medieval coastal settlement of Uusimaa has been regarded as based on freemen, but according to new studies the nobility and the manors played a significant role in the expansion of settlement and cultivation, propagation of Christianity and the construction of churches (Haggrén & Jansson 2004; Haggrén 2005b; Haggrén 2006).

Demographic boundaries

During the 12th and 13th centuries, peasants started to migrate from Central Sweden to Åland, Åboland and the coasts of Uusimaa. The coast of Ostrobothnia received people that, judging from place-names, came from the northern provinces of Sweden (Harling-Kranck 1990: 353–355).

Possible reasons for the migration may be divided on the one hand into negative factors that compelled people to consider emigrating and on the other hand to the advantages or attractions which the new settlement area could be expected to offer (Orrman 1991a: 198). The favourable natural conditions of the archipelago coast were certainly suitable to promote the migration. The linguistic development of Swedish spoken in Finland indicates that the settlers continued to keep a contact to Sweden (Ahlbäck 1956: 5–17), so we can assume that more or less correct information about the potentials of subsistence and success in the new land was carried back to the departure areas. Written sources, such as the council records from Stockholm reveal that some individuals originating from Swedish-speaking parishes in Finland were living there, but written records have survived only from the 15th century onwards (Orrman 1991a: 198, 262–264).

For the most part, the explanations for the migration have been searched among the internal social conditions of Central Sweden, the settlement expansion of the early medieval period, the emergence of the upper class, the emancipation of tenants and the emergence of a taxation system. The traditional view is that the migration was designed and controlled by the crown. On the other hand it has been pointed out, that in the early medieval society there hardly existed such an ecclesiastical or secular power which could have been able to generate and control such a significant and long-lasting migration. The migration should rather be understood as an unforced spontaneous action of the rural population. Even so, the groups or communities that disembarked on the Finnish coast, probably had leaders, and the personal names included in the place-names suggest that there were individuals who played an important role in the course of events (Larsson 1997: 177; Sjöstrand 1994; Lindkvist 2002; Lindkvist 2006a). However, in Eastern Uusimaa there are indications that the monarchy actively contributed to the settlement (Tarkiainen 2008: 135–136). Doubtless the settlers acted for the most part independently and spontaneously, but at the same time they prepared the way for the centralised power to be firmly established in the eastern part of the forthcoming domain.[5] Their independence as such does not rule out the possibility that there would have been different factors involved in the settlement process in different parts of the coast (Rosendahl 2008b).

5 A completely reversed point has been made by Mauno Jokipii. He outlines three military bases, the power of which would have been used to protect the Swedish settlers. The suggested bases are the hillfort of Vanhalinna in Lieto, the castle of Hämeen linna and the town of Viborg (Viipuri) (Jokipii 2003: 324–326).

The migration to the Finnish coast was parallel with a migration from Sweden to the coast and the islands of Estonia, even this was probably an unforced migration of a rural population. According to Felicia Markus, the Swedish settlement in Estonia can be viewed as a part or as the result of long-lasting contacts over the Baltic Sea, or at least it can be understood in the context of such contacts. There are traits in the archaeological record that indicate overseas contacts in Sweden long before the migration, such as Celtic fields, *tarand* graves and many artefacts from the Middle and Late Iron Age (Markus 2004).

No accurate estimates of the number of immigrants have been presented. The estimation is complicated by the fact that before and in unison with the migration there was a period of population growth in Finland and other Nordic countries (Benedictow 1996). The population of the Iron Age must be estimated on the basis of the archaeological record. As relevant early written sources have not been preserved, the estimates of the medieval population must be carried out retrospectively using the oldest tax records, dating back to the 1540's. The problem is how to combine these two fundamentally different types of evidence. When discussing this problem, Sirkku Pihlman concludes that in the parishes of Lieto, Maaria (Turku) and Raisio in Finland Proper, the population doubled from 440 individuals at the end of Iron Age to 873 individuals around the year 1300 (Pihlman 2004). The assumptions included in Pihlman's estimate can be discussed (Asplund 2008: 314–316), but the trend of the development is nevertheless obvious: on the mainland coast of Finland Proper the population expanded over several centuries. The population growth at the end of the Iron Age surfaces also in the paleoecological studies made by Teija Alenius that indicate an expansion of cultivation approximately 700–1200 AD (see Alenius's contribution in this volume).

The tax records of the 1540's have been examined by Eljas Orrman using a retrospective method that resulted in estimates of the number of farmsteads around the year 1350 in the provinces of Finland. Although the size of the population was not an exact function of the number of farmsteads, there was certainly a correlation with the number of farmsteads, enabling quantitative estimates. The examination yields that in all provinces there was an expanding trend, though with considerable regional differences. The expansion was slowest in Åland, Åboland and the mainland of Finland Proper. Here the increase of the number of farmsteads from around 1350 to the 1540's was less than 200 % (from 4900 to 8100). In Uusimaa the number of farmsteads doubled from 2000 to 4200, and especially in the eastern parts of the Uusimaa the expansion was considerable from the middle of the 13th century to the beginning of the 14th century. In the inland of Savo and Häme the expansion was as much as 420 % and 567 % respectively (Orrman 1996). It can be concluded that the coastal areas were densely settled while colonisation was still going on in the inland. The statistics cover a time span to the time when the migration from Sweden had ceased, except for the eastern part of Uusimaa. In the latter mentioned area the rapid increase in the number of farmsteads indicates that the migration was still continuing during the latter part of the 13th century. Judging from the statistics presented by Pihlman and Orrman, the emergence and expansion of the Swedish-speaking population must have been extensive, but it alone did not account for the expansion of the settlement.

In addition to the archaeological record and the taxation records, a relevant group of evidence is provided by Swedish place-names and place-names that have a specific Swedish form. More than 300 000 such place-names have been recorded, though most of which have been given after the medieval period. The number of names of hamlets and parishes is 2800 (Huldén 2002). Although the number is equivalent to only one percent of the place-names, they are regarded as an important evidence of medieval settlement, since they belong to the oldest names. Lars Huldén has observed the important fact that the Swedish-speaking regions have expanded through a process, in which Finnish-speaking people gave up their lan-

guage for Swedish. This is true especially for Ostrobothnia, but also for other parts of Swedish speaking Finland (Huldén 2001: 463). The Swedish-speaking proportion of the population was thus greater than what was brought in by the migration only.

The expansion of the native population since the late Iron Age and the early medieval Swedish migration together contributed to a frontier of dense population on the archipelago coast. The settlers took lands and waters on the archipelago coast into their possession. The carrying capacity of natural resources was not an obstacle to the growth of population and the expansion of settlement. The limits of the land, forest and sea began to surface not until the late medieval period, and even then only in densely populated regions (Alifrosti 2000). The utilisation of natural resources expanded when towns and population growth opened markets, resulting to an efficient utilisation of the fish stocks in the outer archipelago (Storå 2003; Friberg 1983).

Cultural boundaries

The distinction between the land and the sea is a cultural deep structure, characteristic of maritime cultures. The cultural meanings of the polarity of land and sea express themselves as connotations attached to places, cultural categories, practices, terminologies, beliefs, and symbols. Christer Westerdahl has captured one aspect of the opposition of land and sea into the following rule:

"what was visible or what could be taken or mentioned in a specific way on land or from land shall not be visible or be taken or mentioned in the same way onboard or on the sea" (Westerdahl 2005a).

The life of the maritime human being was divided into two modes of tasks and beliefs, distinguished by magical tension. A qualified individual could break and transgress the borderline with the help of rites of territorial passage, shifting to a liminal state. The human beings, animals, objects or symbols that make crossing the borderline between land and sea possible, are called *liminal agents* by Westerdahl. Referring to the archetypal character of the dichotomy of land and sea, he finds it most reasonable and necessary to search for signals in the archaeological record that might be related to the two basic opposed modes of reality (Westerdahl 2005b).

One of the most illustrative examples of exceeding the boundary between land and sea is included in the Bronze Age and Pre-Roman rock art in Bohuslän, Sweden. According to Johan Ling, the maritime scenes of the rock art were related to sea voyages that were protected by rites. The imagery of the rock art represents the actors, contents and meanings of the rites (Ling 2008: 231–242).

The polarity between land and sea might help us to understand the culture of death in the Bronze Age and the Iron Age in the maritime setting. The burial cairns are scattered along the Finnish archipelago coast, forming a zone that follows the coast at the time of the burial custom. Anywhere the coast was open, such as in the Middle and Northern Ostrobothnia and in Satakunta, the cairns were erected on elevated places, not far from the seashore. Anywhere there was an archipelago off the coast, such as in Finland Proper and Åboland, most of the cairns were placed on islands (Okkonen 2003; Tuovinen 2005b). The burial custom was associated with a specific maritime ecology and it represented an extended and deep-rooted culture of death. The coastal zone of burial cairns might well be interpreted as a liminal frontier between the land and the sea, a space where the memories of ancestors and the consciousness of an intellectual capacity greater than humans were present as the transition took place. The passage would have crossed a landscape where the islands, landforms, textures, proportions, and waters separating islands were all accurately remembered and attached to meanings and connotations accumulated during bygone generations. The voyage was composed of sequences of passing by ancestral burial sites on islands. The passage between the islands towards the open stretches of sea can be understood as an experience of a transition from one physical and cognitive realm to another, supposedly something very much the same as the

anthropological notion of the *limen of fishermen* (van Ginkel 1987).

One can approach the cognitive structure of the maritime landscape from the sea, viewing it from a seaman's or a fisherman's perspective (Ilves 2004). On the other hand, the views from the burial sites and their spatial references suggest that we also have to direct our gaze from the land to the sea in order to understand the special character of the burial sites. The natural places for the graves were perhaps chosen in order "to allow the deceased to see even from his last place of rest his dearest field of work, the sea" as put by Aarne Äyräpää in 1922 (Europaeus 1922: 186), but the living community and the renewed visits of the survivors to the burial sites is another matter, which must be taken into consideration when contemplating the careful choices of the natural places that were to be used as burial sites.

However the choices of the places are interpreted, the cultural meanings of the places were only relevant to the communities themselves, for people with local knowledge who were conscious of the places where their deceased were buried. This is to say that the cairns were very rarely if ever discernible from the sea without modern optic aids. The cairns were simply too small details in the landscape to be distinguished if the distance was even a little longer. In other words, the cairns could not possibly have meant anything to people who came from somewhere further away, and did not know the landscape before (Tuovinen 2002: 248–250). Consequently, cairns cannot possibly have been signs of propriety or territorial landmarks *directed at outsiders*. Instead, they should be understood from the point of view of internal cultural meanings within the local community. They may have consolidated the identity of the family as a group to confirm that they were entitled to exploiting natural resources or the identity of islanders as a group of people sharing a conception of what Catherine Frieman (2008) calls *islandness* (2008), defined in relation to people living on the mainland. Many interpretations might be suggested.

Anyway, for present-day people it seems to be really inviting to regard the cairns as signs to some outsiders, declaring that the land had been taken into possession, but in my view this idea is actually an ideological projection of present-day proprietary right to the past.

The cairns represent a continuum of about one hundred generations. The oldest ones date back to the end of the Neolithic (see Henrik Jansson's contribution in this volume). At least in the south-western part of the country, the burial custom endured at the very least to the Viking Age, both on the mainland and in the archipelago. Along the coast there are scattered indications that the tradition of burial cairns continued into the medieval period (Tuovinen 2002: 276–278; Miettinen 2003: 48). During the Iron Age, new grave and cemetery types began to be established on the mainland of Finland Proper and western Uusimaa, but still some deceased were buried in cairns. In the archipelago, the cairns were the exclusive burial custom while on the mainland other types of burials were used alongside with cairns. This kind of parallelism can be noted in Uusikaupunki (former Kalanti), for example (Salo 2003: 53–58). The differences in forms of burial thus draw a cultural boundary between the archipelago and the mainland.

The linguistic interactions between communities seem to contribute to another cultural boundary. The languages spoken on the archipelago coast were in contact with each other. The connection to the Sami language was upheld for a long time (Lehtola 2008). The extensive vocabulary of prehistoric words in Finnish, borrowed from Scandinavian, German and Baltic languages, suggests that the linguistic contacts were maintained for long periods of time, comprising many walks of life. The ancient field of linguistic contacts might be compared to the field of cultural contacts as reflected by the burial cairns, indicating something common to the Finnish coast, Åland, the east coast of Sweden, and the coastal Estonia, and contrasting the northern regions of maritime ecology to the southern agrarian Baltic rim.

An important context of linguistic contacts during the Iron Age was the exchange of goods which, judging from archaeological evidence, was mostly aimed at provinces in Sweden

and the East Baltic (e.g., Salo 1991; Carpelan 1980). On Åland, some graves were furnished with artefacts originating from the Finnish mainland (Tomtlund 2005; Kivikoski 1963), so goods were also transported between different parts of the archipelago coast. Some degree of multilingualism must have been indispensable to the tradesmen and tradeswomen who were involved in the exchange.

The inhabitants of the archipelago coast came in contact with religious influences. At the early stage these surface in the form of Christian-related ornaments in imported artefacts during the Migration period. According to Unto Salo, the cemetery of Luistari in Eura (Satakunta) represents a Christian population as early as during the 7th century, but it still took an additional 200 years for the Christian theology to be firmly established in South-Western Finland. The contacts to the Christianity in Central Europe cannot be explained by referring to the exchange of goods solely, so Salo puts forward the idea that men originating from Finland served as fighters in troops in Central Europe and, having returned, acted as couriers for the new religion in their local communities (Salo 2005). They must have possessed adequate authority, probably based on land ownership. In a study concerning manors in South-Western Finland, Georg Haggrén comes to the conclusion that it was wealthy landowners that promoted for Christianity and contributed to the construction of churches. Their impact may have begun already during the Iron Age (Haggrén 2005b). While Salo sees Christianity as a spontaneous and endogenous phenomenon, Paula Purhonen emphasises the role of active missionary work and tradesmen as innovators acting for the new religion, eager to get their trading partners convinced of their faith. She refers to the possibility that Christianity became familiar to men who participated in Viking raids or served in foreign troops and dates the process of Christianisation to a slightly later date than Salo does (Purhonen 1998: 135–151).

The migrations pertinent to the Europeanization brought new kinds of knowledge, conceptions, experiences and expertise to the destination areas and promoted the spread of innovations (Blomkvist 2007: 302–306). This is the case even for the coast of Finland. German burghers took up residence in towns, especially in Turku, and to some extent in the rural provinces. Ecclesiastical, Christian and commercial words were borrowed from the Lower German into the Finnish language as well as terms related to handicrafts and urban life. Especially the south-eastern dialect of Finnish was influenced by the German language, indicating the commercial relations between Viborg (Fi. Viipuri) and the Hanseatic dominated towns of Tallinn and Narva. Interestingly, an important group of loan-words is those related to fishing, revealing the importance of the German tradesmen in the fish market of the Baltic rim (Bentlin 2008). The impact of Russian is reflected in placenames, reaching as far as Turku in the west (Salo 1982: 92–96; Jokipii 1985: 64).

The contacts over the Gulf of Bothnia as reflected in material culture and language suggest that the Swedish settlers of the early medieval period had their predecessors in Finland. However, they cannot be made concrete in terms of time and place. Along with the medieval migration the Swedish-speaking population can be identified more specifically. The regions settled by them might be characterised as a frontier of linguistic interaction. As discussed above, the borrowing of names from Finnish into Swedish has, according to Ritva Liisa Pitkänen, required a permanent, peaceful and organised cooperation, common interests, and agreements between people with different mother tongues. Several centuries after the Swedish migration, in 1589, the Dutch seafarer Richard Slotboom wrote a brief account of Finland in an appendix to the sea chart by Lucas Janszoon Waghenaer. He noted the difference between the Swedish-speaking coastal zone and the inland, speaking an "own peculiar" language, and he added that "in many regions both languages are spoken, and therefore preachers of each language have been engaged in these regions" (Miekkavaara 2008: 66–67).

Owing to the emergence of the Swedish and German-speaking populations the archipelago

coast gained strength as a frontier where people changed goods, experiences and knowledge and, depending on the place and the social situation, spoke different languages and identified themselves with different groups. Not later than during this phase it is conceivable that the population was in contacts with the multicultural and pluralistic ports of trade on the Baltic rim (Werbart 2006). A significant indication of cultural contacts is the fact that not less than 500 students from Finland were matriculated in the German universities in the 15th century (Gläser 2007: 56; cf. Nuorteva 1997: 440).

Economic boundaries

The multiple subsistence economy of the archipelago coast in the historic times was based on cultivation, animal husbandry, fishing, hunting seal, fowling and seafaring. If one of these resources failed, the loss could be compensated for by strengthening the use of other resources (Ahlbäck 1955; Tuomi-Nikula 1982; Storå 1985; Storå 2003: 85–110). The more specialised agrarian settlement on the mainland formed something of a contrast to the multiple subsistence economy, although the Iron Age settlement on the mainland had an obvious orientation towards the use of maritime resources (Meinander 1980; Núñez 1995; Nissinaho 2007).

The development of the subsistence economies in the Baltic rim suggests that the multiple subsistence economy even in Finland originates from the Iron Age and ultimately dates back to the Bronze Age. According to Marek Zvelebil the Bronze Age in the eastern part of the Baltic rim region was characterised by a subsistence strategy emphasising minimal risks and low productivity. As long as tools of iron were nonexistent the yield of an agricultural household was, under the circumstances, very insecure: it was life close to the extreme limits of cultivation. The circumstances varied drastically according to the seasons of the year but there was more to it: the risk of a total crop failure occurred once a generation or once a century due to extremely cold years. The risks were compensated for by animal husbandry and diversified use of natural resources. The introduction of iron was the most significant technical and economic feature of development in the Iron Age. This development was of particular importance since it decreased the risks involved in agriculture by increasing the yield of fields and meadows. The development made possible and necessitated surplus production and the creation of regional markets (Zvelebil 1985). Since iron tools could be used not only in cultivation and animal husbandry but also in the diversified utilisation of natural resources and in the context of low intensity land use such as clearing and swiddening, it can be concluded that the impact of iron affected multiple subsistence economies as well as more specialised agrarian economies.

Reijo Solantie pinpoints the risk of frost and the insecure overwintering of the crop as the worst problems of early agriculture. The cultivation of fields fertilised with animal dung was not possible as a main source of livelihood before the introduction of iron, since – according to him – only iron tools were efficient enough to reap winter fodder for cattle. The final breakthrough of cultivation happened not earlier than during the late Roman Iron Age 200–400 AD (Solantie 2005), enabling a specialised agriculture directed towards the cultivation of manured fields and stock-raising. However, in an analysis concerning the productivity of barley and rye during the Little Ice Age, Jari Holopainen and Samuli Helama conclude that cultivation was still an insecure subsistence even in the most productive South-Western part of Finland (Holopainen & Helama 2009).

The small-scale topography, favourable climate, suitable soil and good communications of the archipelago coast obviously constituted a benefit for the multiple subsistence economy. I find it a most momentous hypothesis concerning economic boundaries that while the cultivation of manured fields was introduced on the mainland coast and the intensified settlement and community structure of the agrarian region was emerging, the settlers of the archipelago adhered to the traditional multiple subsistence

economy, adapted into the maritime environment. This resulted in a transition zone or a frontier between the multiple subsistence economy and the agrarian economy. The economic contacts, such as goods exchange or long-distance utilisation of natural resources, crossed the frontier both within the archipelago coast and overseas, reducing the risks of agricultural production.

For two reasons, Finland Proper and Åland will be illustrative regions for the study of economic boundaries. In both regions, the archaeological and historical records are large, and the mainlands are guarded by extensive archipelagos. In Finland Proper, the economic frontier predicted by the hypothesis seems to be evident in the taxation system that was introduced in the 13th century and indirectly documented in the tax records of the 1550's. Depending on the form of production, the freemen paid taxes to the church in butter or in rye (according to the Swedish and the Finnish law respectively). The freemen of the agrarian regions on the mainland coast paid their taxes in rye, while the tax in butter was levied from two regions, the farmsteads in the archipelago and the pioneer settlements in the upriver woodlands of the mainland (Orrman 1983). Three taxation zones parallel to the coast took form: the archipelago and a part of the mainland zone (large islands off the shore of the mainland) – the mainland coast – the upriver woodlands. The tax records reveal that the largest sown areas were cultivated in hamlets located on the mainland, 5 to 15 kilometres from the coast, while the areas to be sown were considerably smaller in the archipelago and the smallest areas were cultivated along the upper reaches of rivers (Alifrosti 2000). The maps composed by Suvianna Seppälä illustrate that the geographical pattern of the medieval church taxation endured into the crown taxation in the 17th century (Seppälä 2009: 110, 133). The regional differences in taxation thus reflect relative economic significances of cultivation and animal husbandry in different parts of the archipelago coast, supporting the hypothesis of economic boundaries above.

Another evidence of the character of the transition zone has been presented by Ritva Liisa Pitkänen. She has shown that there is a relationship between some place names in the archipelago of Åboland and place names on the mainland coast. For example, the names of the hamlets *Jälist, Kivis*, and *Poutuis* in Väståboland (Nagu) originate from the names of three neighbouring hamlets on the mainland coast, (Fi.) *Järäinen, Kiveinen*, and *Puotuinen*. The connection between the coastal zones suggests that the places in the archipelago named after hamlets on the coast were in fact outland domains (Pitkänen 1985; Pitkänen 2007).

So far, only few archaeological studies have yielded evidence on the economic transition zones of the archipelago coast. An important study by Juha-Matti Vuorinen concerning the dwelling site of Mulli in Raisio sheds light on the agrarian subsistence economy on the coast of Finland Proper during the period 900 to 1300 AD. In Mulli, the pollens and plant macrosubfossils indicate a stable cultivation of manured fields. The archaeofaunal remains of this site yield that the sheep/goat husbandry and the fowling of sea and freshwater birds constituted important parts of the subsistence. The most distinctive sea birds were the common eider (*Somateria mollissima*) and the razorbill (*Alca torda*). Bones of the pike (*Esox lucius*), the perch (*Perca fluviatilis*) and Cyprinids were also identified from the site. These species appear in brackish water as well as in freshwater, but since sieving was not practised during the excavation, it is not possible to assess how representative the fish bone sample was (Vuorinen 2009: 150–154, 170–176). Vuorinen's study shows that the agrarian economy seems to have retained some components deriving from the old multiple subsistence economy. From the point of view of economic boundaries, the most interesting evidence from Mulli is the bones of the eider and the razorbill. Both species indicate contacts between the mainland and the archipelago. Essentially the birds could have been captured using air-nets, although air-nets were mainly used for catching long-tailed ducks (*Clangula hyemalis*). However, according to a description by Rev. Samuel Ödman in 1788, the razorbill was so "sharp" (sharp-beaked and strong) that a normal air-net was too weak to

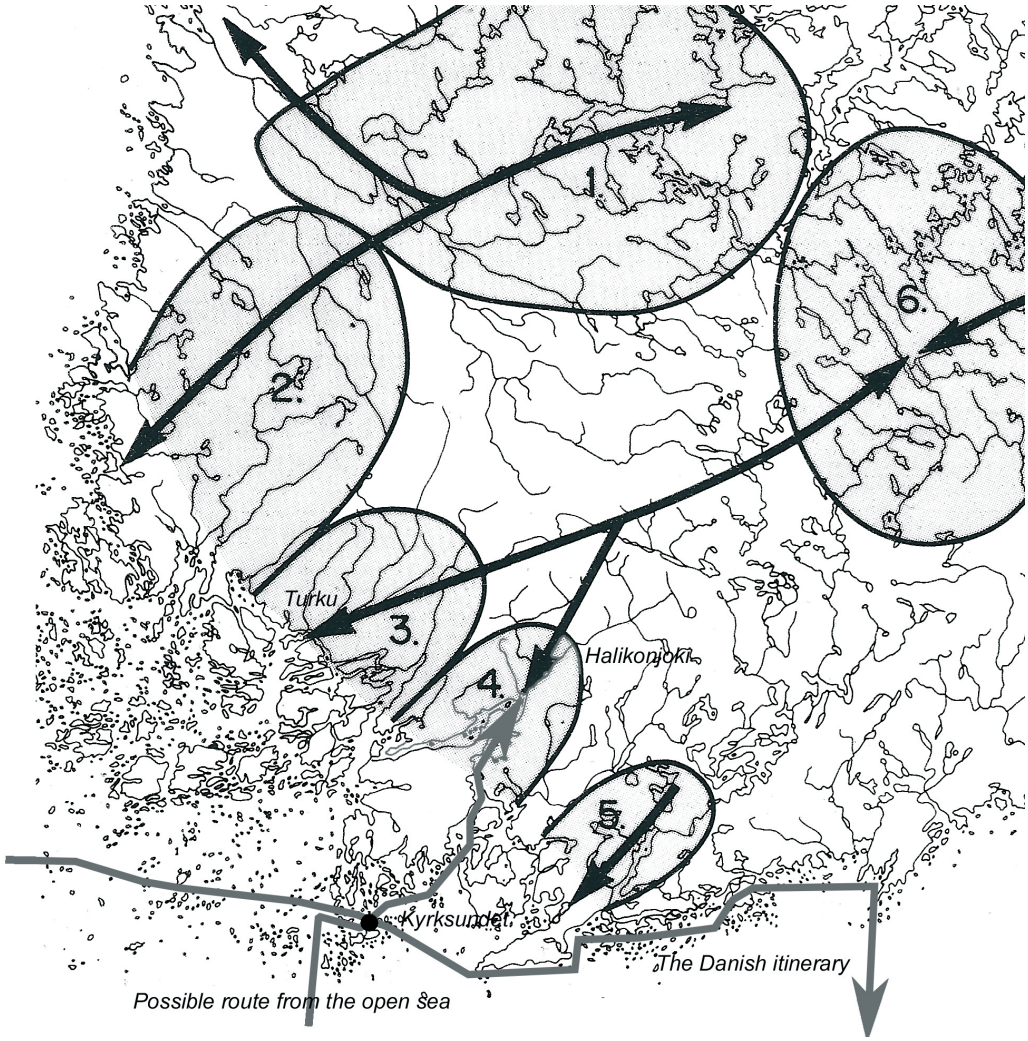
catch the bird (Storå 1968: 190). Thus, other catching methods were probably employed. An alternative would be to disembark on the cliffs or skerries where the birds bred and use hooks, nets or bare hands. This was probably the method used by the Neolithic hunters of Ajvide, Gotland (Mannermaa & Storå 2006). In SW Finland the razorbill typically nests in colonies on treeless skerries in the outer archipelago some 40–80 km from Mulli. Regardless of whether those who caught the seabirds came from the mainland or from the archipelago, the hunting of seabirds must have involved long-distance utilisation and special skills.

The number of archaeological artefacts in coastal Finland imported from the coasts of the Baltic rim is so considerable that it must implicate the existence of commercial networks of some kind. It has been suggested that the coastal communities of the Iron Age maintained the networks and supplied products of the Baltic trade from the coast to the inland (Pihlman 1987). Finds of imported artefacts on Tytärsaari, one of the outer islands of the Gulf of Finland have been interpreted as indications of settlers of the outer islands functioning as suppliers between the coasts of the Gulf of Finland (Carpelan & Uino 2003). The archaeological evidence of the Baltic trade and market places should be discoverable somewhere on the archipelago coast, but the number of actual finds has been small. Unto Salo regards the coastal trade as a more primary institution than the trade of the inland. In 1982, he traced a network of coastal market places by examining islands bearing the name *Björkö*, Engl. 'Birch Island', which were geographically suitable as market places. According to him, the toponyms indicate marketplaces where the Swedish commercial *Law of Björkö* regulated life. The *Björkö* islands were a part of the trade with Birka, places where products of the wilderness, such as furs, were supplied. After the destruction of Birka in 795 the commercial contacts with Gotland increased and some coastal market places developed towards proto-urban settlements (Salo 1982).

Nine years after Salo's overview, the first known Iron Age marketplace on the Finnish coast was found. Although the name of the place is not *Björkö*, it is nevertheless on the shore of an island, located in Kyrksundet in the inner archipelago of Kimitoön (formerly Dragsfjärd). The site was used approximately from 800 AD to the 11th century. Excavations carried out on the site have yielded artefacts signalling contacts to the interior of Finland as well as to Åland, Sweden and Estonia. Oriental and Central European coins are also included. The character of the site is demonstrated by weights of bronze and iron, and there are traces of bronze casting as well (Edgren 1995a; 1995b; 1999). The finds reveal nothing about the use of the site after the 11th century, and it is unknown why and where the activities were relocated.

The idea about market places connecting commercial actors on the archipelago coast to the cargo traffic on the Baltic Sea and to the distant interior has thus gained empirical support. It is noteworthy that the artefacts from Kyrksundet which point towards the interior have their counterparts in Häme (Edgren 1995a: 209). Jaakko Masonen has identified four regions on the south-western coast that during the late Iron Age and early medieval period supplied products from the Baltic sphere of trade to Häme and exported goods from there to the coast. One of the regions determined by Masonen is the valley of the river Halikonjoki (Masonen 1989: 130, 152–160). Interestingly, Kyrksundet is located in the archipelago off the mouth of Halikonjoki. The geography thus seems to link Kyrksundet with Häme, suggesting that it was a market place and a port of transhipment in the cargo traffic, possibly a harbour where victuals were loaded. The place had obvious geographical advantages. It could be approached quite safely from the open sea provided that the seamen were able to observe the natural passage that lead them northwards, passing the isle of Örö along its western side and turning to the east (Fig. 3). There have been routes to Kyrksundet through the archipelago as well, since it is evidently equal to *Örsund*, mentioned in the Danish itinerary (Zilliacus 1994: 71–75). Although the activities in Kyrk-

Fig. 3. The traffic regions of Finland Proper that supplied streams of goods to the interior, according to Jaakko Masonen (1989: 130). 1. Upper Satakunta – Pirkanmaa. 2. Lower Satakunta – Kalanti. 3. The valley of the river Aurajoki. 4. The valley of the river Halikonjoki (Uskelanjoki). 5. Karis. 6. Vanajan Häme. 7. Päijät-Häme. The market place of Kyrksundet, the Danish itinerary passing Kyrksundet (according to Zilliacus 1994) and a possible route from the open sea to Kyrksundet and further to the valley of the river Halikonjoki.



sundet seem to have ceased already by 1100 AD and the Danish itinerary was written down around 1300 AD, the fact that the route passed Kyrksundet does not however appear to be a coincidence; it rather suggests that the Danish seafarers used a traditional route that provided a more or less safe path between shoals, probably assisted by local pilots.

The possibility that Kyrksundet was a port of transhipment where vessels were reloaded

for further transportation towards the mainland, is further supported by the fact that it was located at the boundary of three different types of sea transport zones, namely the *routes of regular transportation across water* (routes over the Baltic Sea), the *coastal transport zones hugging the coast* (routes within the archipelago) and the *zones based on river valleys or other continuous water courses* (routes towards the mainland) (Westerdahl 2005a: 257). The market place was connected to the mouth of the river Halikonjoki through a narrow route between the island of Kimitoön and the mainland. The distance between the places was around 40 nautical miles, logged in ten hours when doing a speed of four knots. There probably was a harbour or a place of discharge at the mouth of Halikonjoki, discussed by Salo but not yet discovered (see Salo 1982: 63–74). The "harbour of the Tavastians", *portus tauestorum*, mentioned in the context of the so-called Second Crusade to Häme in 1239 or 1249 (Tarkiainen 2008: 97–99), might be located here.

It can be asked, whether the archipelago coast can be seen only as a destination of foreign tradesmen or a set of ports for transito traffic, or did the inhabitants of the Iron Age coast participate on the business trips themselves. Salo concludes that the skills in boatbuilding, indicated by the boat graves, show that tradesmen with Finnish background sailed the coasts of the Baltic Sea not later than by the 7th century (Salo 1982: 17). He shares Gunvor Kerkkonen's (1959) opinion; she regarded the so-called peasant sailing over the Gulf of Finland as a form of exchange that must initially date back to the Iron Age. Another reason to date the self-sufficient local seafaring to the Iron Age is the self-sufficiency of the countryside in the external trade of the medieval period. In comparison to Central Europe, a considerably larger proportion was transported by the peasants to the ports along the Baltic Sea coasts, passing the burghers who had been guaranteed the monopoly on trade by the monarchy. The most important ports of destination were Stockholm and Tallinn (Kaukiainen 2008: 60–66). The fact that the peasant sailing continued in spite of the royal effort to concentrate the trade into towns suggests that the peasant sailing had started and established the required business relations long before it was finally recorded in written sources in the 1320's.

By the medieval period, the Gulf of Finland had evolved into being a part of the transportation zone called *Ostsæ* by Westerdahl (1995). It was an important route between the Swedish domain and the Russian commercial centres of Novgorod and Pskov. Hanseatic products were shipped to the east and raw materials and semi-finished products were shipped to the west. Given the difficult navigational circumstances in the Finnish archipelago, the transito traffic was probably bound to the open sea or hugging the coast of Estonia, remaining archaeologically almost invisible. But in towns and outside them there are archaeological imprints of cargos of ships having the port of destination on the Finnish coast. Among the indications of Hanseatic trade the most extensively distributed is probably the German stoneware pottery that was a considerable novelty in households (Gaimster 2005). Stoneware has been found in the wrecks of Egelskär, Väståboland (Nagu) and Lapuri, Virolahti (Wessman 2007; Mökkönen 2006). It has been discovered in the cultural layers of medieval towns, in the Franciscan monastery of Kökar (Gustavsson 1994) and in hamlets and manors along the coast, among others, in Perniö, Espoo, Snappertuna, Siuntio, Hanko, Ekenäs, Tenala, Ingå, Pernå (Loviisa) and in the castles of Raseborg, Junkarsborg and Hushholmen (Haggrén *et al*. 2003; Jansson 2004; Jansson *et al*. 2010; Haggrén 2005a; Pihlman 2005; Rosendahl 2008a; Haggrén *et al*. 2007; Pellinen 2007; Niukkanen 1998; Mökkönen 1997; Suhonen 1999). In the interior German stoneware has been found, for example, in the manor of Laukko, Vesilahti (Uotila 2000). A substantial typological diversity seems to be characteristic of the imported crockery on medieval settlement sites in Uusimaa (Haggrén & Jansson 2004) and in the medieval town of Turku (Pihlman 2002), for example in recent finds from the waterfront of the town.

6. Outlines for a model of economic zones

The freemen-fishermen

*"The Ålandian fisherman was a freeman and a fisher in the same person".*This is how Nils Storå characterises the freemen of the 18th and 19th centuries who gathered their livelihood from all sources that the land and the sea could provide. The annual rotational cycle comprised works needed to be done during each season of the year in fishing, seal hunting, fowling, cultivation and animal husbandry, including preparations, transports, reparations etc. Some works were done in the infields and fishing waters nearby while fishing in the outer archipelago and selling goods in the marketplaces in towns required a long voyage by boat (Storå 2003: 103–106). The distinguishing features of the traditional multiple subsistence economy were *the variety of the sources of livelihood, the broad mobility, and the field of contacts*. The field of work of the freeman-fisher was a *taskscape* (Ingold 1993: 158–162) divided into concentric zones. The nearest one included the central toft of the hamlet, the buildings, fields, havens, hop gardens and pastures, the next zone included the fishing waters, grasslands and grazing islands. The outermost zone ranged tens or hundreds of kilometres away. Particularly the herring-fishers had to sail long distances after their catch. They came from Ostrobothnia to Åland, and some fishermen from Åland and Åboland are known to have visited regularly the crown fisheries of Svenska Högarna and Huvudskär in Sweden in the 16th and 17th centuries (Ramsdahl 1946; Högnäs 1989). Storå calls this mobile long-distance utilisation of fish stocks as *herring nomadism* (Storå 2003: 239–246; Storå 1979: 141–146).

The geographical, political, demographical, cultural and economic zones and frontiers of the archipelago coast have been reviewed above. It appears that all prerequisites for the multiple subsistence economy and mobility existed during the Iron Age. The zonality of the freeman-fisherman's taskscape was a long-term adaptation to structural and historical factors, above all to the maritime environment. Viewing the relation of the coastal people to the sea from a Braudelian point of view, Johan Rönnby discusses what he calls the *maritime durées*, long-term structures related to the maritime subsistence, the maritime communication, and the mental presence of the sea (Rönnby 2007). This perspective can be applied to examine the economic geography of the Finnish archipelago coast.

Outland resources

In Fennoscandia and the northern Atlantic Europe, different practices to utilise natural resources located in outlands outside the primary units of settlement are known. During the warm period of the year, the cattle were led to pastures located beyond the infields. The outlands were used for pasturing, collecting winter fodder, cultivation, tar burning, hunting, fishing and at places for quarrying rocks or minerals and producing iron in bowl hearths. The use of outlands contributed to the increase of winter fodder for the stock, and increased the cultivated area and the amount of products that could be sold on markets. The outlands were an economically important part of the agrarian subsistence economy that emerged during the Iron Age and continued into modern times (Svensson 1998; Emanuelsson *et al*. 2003; Widgren 1997: 17).[6] Gunvor Kerkkonen regarded the use of outlands in Finland as a conceivable part of the multiple subsistence economy that compensated for risks caused by the unreliable agrarian production (Kerkkonen 1966). Helmer Smeds considered that outlands were needed because of the insufficient nutrient content and hay production of the infields' pastures (Smeds 1944).

In Finland, little is known about the archaeology of outlands. In principle, they should be

6 For the difference between outland and wilderness, see Svensson 1998: 14–15.

able to be archaeologically identified in the vicinity of farmsteads and hamlets, outside the most intensively utilised area. In the regions of the classical Iron Age grave and cemetery types of the Finnish mainland, the outlands should be sought for mainly in the moraine and rocky areas between the river valleys and on the large islands off the edge of the mainland. For example, according to a court record from Pargas (Väståboland) in 1556 nearly all areas suitable for slash-and-burn cultivation were deforested due to frequent swiddening (Säihke 1963: 26), which indicates the outland character of large islands. On the isle of Kimitoön, large areas were swiddened and clearance burned for fields and meadows as late as in the 17th and 18th centuries (Sahlberg 1942: 173–181). The outlands might become archaeologically visible if the structure of the Iron Age settlement turns out to be hierarchical, as suggested by Sirkku Pihlman. The point made by her is that on the mainland coast of Finland Proper there were, in addition to independent farmsteads, also more or less dependent or subordinate farms, a kind of subfarmsteads that did not have their own cemeteries. In the medieval period, the subfarmsteads begun to be levied individually, which caused the dispersed settlement units to split and the subfarmsteads to become independent (Pihlman 2004: 66–67). It probably must be assumed that the subfarmsteads were located outside of the most productive arable lands, so the gaining of their independence would have been a part of the settlement process of the outlands. Pihlman's idea is supported by evidence from Åland, suggesting that the settlement of the late Iron Age was structured hierarchically (Núñez 1993).

So far the pollen analyses that have been carried out constitute the most important evidence on the character of outland use. In samples from Åboland and Uusimaa, indications of clearing, grazing, burning, hay making, and long-term cultivation of low intensity can be traced. These kinds of activities continue, depending on the sample spot, from the Bronze Age or Pre-Roman period to about 700–1200 AD. Then an intensification of cultivation and an expansion of pollen of rye follow (see Alenius' contribution in this volume). The paleoecological evidence thus lists several indications of the use of outlands. Grazing is a most significant signal, since it suggests that the place the signal comes from once was located so near to a farmstead that it was possible and worth the effort to transport the cattle to the outland and deliver dairy products to the farmstead. Other hallmarks than the paleoecological ones have to be identified by means of archaeology, zooarchaeology, history and onomastics.

A pertinent part of the outland use was the shielings (Sw. *fäbod*). By 16th century shielings were built as sheds for herders for the grazing periods. Sheilings are known in Finland mainly from the eastern inland provinces of Savo and Karelia, and from the coasts of Ostrobothnia and Ladoga (Smeds 1944). In Ostrobothnia the stock was usually transported by boat to large islands off the coast, occasionally even to smaller ones (Toivanen 2005). The use of sheilings continued until 1921 when forest grazing was forbidden by the new Fencing Law. At places the use of *fäbodar* for other purposes continued until the 1960's (Dahlberg 2007).

From Åboland there are scattered pieces of evidence on sheilings, but they come from a late period (Moring 1987: 19; Gardberg 1931: 125; Appelgren 1931: 186–187). Toponyms including the affix *-bod* 'hut', however, suggest that shielings have existed in more ancient times. On large islands the affix denotes shielings while on the islands in the outer archipelago it denotes fishing huts (Zilliacus 1989: 210–214; Fortelius 1999: 330). Using the toponyms however, it has not yet been possible to locate *bod* huts (Zilliacus 1994: 39–40).

The outer archipelago

In the taskscape of the freemen-fishermen, the outlands and the outer archipelago appear as parallel in the sense that both regions were located far from the farmsteads and the utilisation of them required that a part of the people of the farmsteads moved out for a part of the year. Outlands and outer islands probably

shared some similar beliefs, cultural categories and practices.

On the small islands in the skerry zone at the edge of the open sea, there are plenty of remains related to fishing and living, probably mainly deriving from the last 100 or 200 years, but among the remains there are older ones, including medieval ones. Judging from the evidence concerning prehistoric seal hunting (Gustavsson 1997; Núñez *et al*. 1997) it may be concluded that the skerry zone was an intermediate resting place for seal hunters heading to the ice of the open sea. The skerry zone was even more important for fishing and seal hunting that took place during the ice-free season. However, very little is still known about the coastal fishing in the Iron Age and the medieval period. Partly because of the excavation techniques that were used, partly due to taphonomic reasons, fish bones tend to be underrepresented in the archaeo-osteological materials. As a result, the importance of fish in the supply of foodstuff to the town of Turku has so far been impossible to estimate (Tourunen 2008: 123–124).

However, on the basis of written sources one can put together a picture of the fishing in the outer archipelago as a major factor in the supply of foodstuff to towns. One of the important fisheries for Stockholm was Kökar (Åland), a densely populated group of islands, the economy of which was based on fishing and seal hunting. In the 16th century Kökar alone was responsible for more than a fourth of the products of fishing and hunting that were shipped from Åland to Stockholm (Friberg 1983: 179–181). On the small skerries of the fishery of Mörskär, a crowd of people assembled annually to fish herring and cod. There still remains *tomtningar*, a field labyrinth, a beaching place for boats and a haven (Gustavsson 1994; Tuovinen 2001). It is known that the fishermen constructed small huts for staying overnight. In his diary of the 16th of August 1651, the Swedish student Petrus Magnus Gyllenius mentions the huts of the isles of Mörskär. In Utö, there was ”*Eneskäär, på huilket ganska månghe fiskiare Mayor och Bodar bygde ähre*” (Enskär, where quite many fishermen’s huts have been erected (Hausen 1880: 166–167)). He adds that in the terrain there were foundations of something that he without a doubt regarded as the remains of “ancient” fishermen’s huts. The fact that Gyllenius mentions the huts in Finnish (*Mayor*, Fi. *maja*) as well as in Swedish (*Bodar*, Sw. *bod*) implies that the fishermen’s community was bilingual.

The huts were simple log-built constructions, often erected on the bare rock (e.g., Törnroos 1980: 97–105). In addition to the still existing huts there are decaying remains of older constructions. The *tomtningar*, rest places lacking floor constructions, are better preserved as they usually have at least two drywalls of stones (Norman 1993; Norman 1995: 44; Tuovinen 2001: 29–32). The function, frequency, geographical distribution, context and age range of the *tomtningar* are inadequately known in Finland. It is quite possible that they were in use during the Iron Age. In Malax and Korsnäs, Ostrobothnia, *tomtningar* have been radiocarbon dated to the Pre-Roman period (Holmblad 2009). As far as the *tomtningar* of the southern coast are concerned, the shore displacement, the context of occurrence and the oral history imply that most of them were built during a long time span from the medieval period until the fishing boats were equipped with engines (ca 1925–1930) and the traditional fishing disappeared. Especially many *tomtningar* have been found in 2007 by Henrik Jansson in the archaeological survey of the Eastern Gulf of Finland National Park (pers.comm.). They are less frequent in the archipelagos of Åboland and Åland. The *tomtningar* are mostly concentrated to the outer archipelago, except for those located on large islands in elevated places far from the shore. The latter belong to some other, probably older context.

The number of known *tomtningar* along the Finnish southern archipelago coast is in the hundreds while the Swedish east coast has no fewer than 1250 *tomtningar*. The difference in the frequencies can be assigned to the fact that archaeological surveys of the Finnish archipelagos were initiated not until the 1980’s, mainly with scarce economic resources. But

maybe there is also a structural factor, related to the late urbanisation of Finland. In Sweden, most fishermen came from other parishes along the coast and many of them were burghers from towns. The fishing, controlled by the monarchy and the tax-exempt farms (Sw. *frälse*) was important for the supply of foodstuff to Stockholm and other towns in Central Sweden (Norman 1993). The Finnish archipelagos were visited by Swedish burghers buying fish and fishing in the waters owned by the crown. Beginning from the 17th century, the fish buyers used well boats to transport fresh fish to Stockholm (Storå 2003: 54–64). The fish stocks were also exploited by freemen-fishermen, burghers from the towns, fishermen employed by the demesnes, and Estonians (Rinne 1963: 89–96). Fishing along the Finnish coast was thus tied to the market, but it seems to have to a higher degree passed the towns than in Sweden. One possible explanation is the fact that there were only six towns in Finland in the medieval period. Their demand for food supplies was still quite small (Kallioinen 1995). The great number of *tomtningar* in the archipelago of eastern Uusimaa might imply the demands for food supplies of Viborg and Tallinn and the traditional economic contacts over the Gulf of Finland. In addition, the shore displacement is slow in eastern Uusimaa, so not many new islands suitable for fishermen rose out of the sea. It can be assumed that the islands in the outer archipelago were used over a long period of time, resulting in a high frequency of *tomtningar*.

The economic zones of the archipelago coast

The specific economic and social resources of the archipelago coast enabled conditions for the utilisation of natural resources, population growth, intensification of agriculture, urbanisation, specialisation and cultural pluralism. The discussion above aims to compile the evidence of Iron Age and medieval settlement, making the archipelago coast distinctive as a transition zone composed of geographical, political, demographic, cultural and economic frontiers.

The idea of the archipelago coast as a (pre) historical-geographical zone is not new. In 1984, Helena Edgren examined the relationship of the Iron Age burial cairns on Åland to the topography, the sea, the arable land and the other types of burials. She concluded that there were three types of burial cairns differing from each other in the degree of maritimity of the places chosen as burial sites. The groups of the graves can be associated with communities, the economies of which were based on fishing, multiple subsistence strategies and agriculture, respectively (Edgren 1983; Edgren 1984). Another example is the analysis of the medieval settlement process in Finland Proper by Kari Alifrosti, making a comparison between the geographical zones of the archipelago coast (Alifrosti 2000).

Below I will present an outline of an economic model covering the southern archipelago coast.[7] The frontiers of subsistence economy and the streams of goods are placed in the classical geographical model of the archipelago coast, and the zonal succession of physical landscapes (Granö *et al*. 1999: 27–38). The aim is to paint a generalised picture of the local subsistence economies in the zones reaching from the open sea to the upper reaches of rivers. The most important components are illustrated in Figures 4 and 5.

The fishing zone comprises the geographical *skerry zone*: the open sea, the outermost islands and skerries, and the extensive stretches of open sea. It is by nature a margin that, due to the land uplift, has slid gradually further out towards the Baltic Sea. The result is that the prehistoric fishing zones are now located somewhere inner in the archipelago. Depending on the ice conditions, it must be assumed that the fishing and the seal hunting were seasonal. Remains of working and living on the islands, such as *tomtningar*, stone ovens, beaching places for boats (Sw. *uppdräkt* or *båtlänning*), net-drying constructions, field labyrinths, inscriptions on rocks, and remains of huts, can be found.

7 After this text was submitted for printing, Peter Norman introduced a model of archipelago settlement in Sweden that is partly based on similar ideas as my model (Norman 2009).

The zone of multiple subsistence strategies refers to the region extending from the outer archipelago to the inner archipelago. The still preliminary and insufficient present-day evidence implies that the subsistence economy of the archipelago was based on cultivation and animal husbandry in combination with the utilisation of natural resources, such as fishing, seal hunting, and fowling. Fishing especially required long seasonal voyages to the skerry zone. Animal husbandry was probably more important than the cultivation of land. The archaeological signature of the zone is the burial cairns of Iron Age character, often placed on islands in places with an open view towards the sea.

The agrarian zone refers to the large islands in front of the mainland and the mainland coast. By 500 AD the settlement of this zone comprised of single farmsteads, with varying in the degree of dispersal. The intensification of agriculture had shifted the subsistence economy towards the cultivation of fields, fertilised with animal dung, and animal husbandry. The farmsteads were typically located by the bottoms of sea bays and along rivers, not distant from the sea shore, which enabled access to the outlands at the upper reaches of rivers. It also indicates barter trade taking place with the islanders and/or long-distance utilisation of the resources of the archipelago. The archaeological signatures of the agrarian zone are the classical Iron Age grave and cemetery types (*tarand* graves, cemeteries of the Kärsämäki type, level ground cremation cemeteries, mounds, inhumation cemeteries, etc.), the burial cairns, the cup-marked stones, the fossil fields and the hillforts. Most of the known Iron Age dwelling sites are located in the agrarian zone. The agrarian zone expanded through the settlement expansion of the early medieval period.

The outlands were located at varying distances from the farmsteads, on moraine areas, mires and elevated clayey areas that had not yet been cleared up for permanent cultivation. Areas of low intensity were formed on the large islands in front of the mainland, in the forests between the settled river valleys, and by the upper reaches of rivers. The outlands were pertinent both to the agrarian zone and to the zone of multiple subsistence strategies, since they completed the agricultural production. Yet not much is known about the archaeological signatures of the outlands, but pollen analyses provide increasing evidence about them.

The long-distance utilisation refers to mobile activities of subsistence economy of self-sufficient households and local communities within and between the geographical zones of the archipelago coast. The utilisation involved seasonal use of the fishing zone and the outlands as well as the transportation, equipments

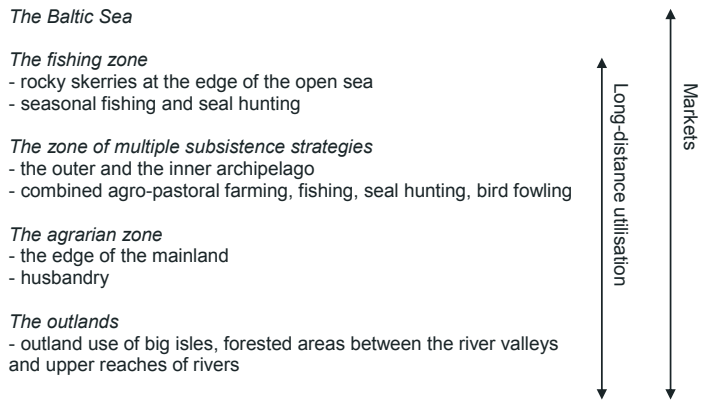


Fig. 4. The economic zones of the archipelago coast around 500–1550 AD.

Fig. 5. A schematic map of the economic zones of the archipelago coast (not in scale). Drawing by the author.

and practises that were related to fishing, seal hunting, fowling, and egg collecting in the outer archipelago and the fishing zone – and, on the other hand, related to clearing, fire culture, hay making, and grazing in the outlands.

The markets refer to the external exchange and sources of livelihood of the local communities, such as streams of goods into market places or towns, piloting, seafaring, shipping, and peasant sailing. The medieval rural population was rather self-sufficient in the production of many commodities, and the burghers of the towns had to do business with them in order to get their foreign trade running smoothly (Kallioinen 1995). Thus the markets include the economic interaction between towns and rural regions.

Discussion

A glance at the map is enough to show that the topography of the archipelago coast is a fragmented and small-scale mosaic. The patches where humans utilised the natural resources and altered the nature to their own needs, were by nature small and formed patchy regional structures. It would be rather predictable if the intensity of agriculture had varied similarly, locally and in small scale. In an overview of the development of the agrarian cultural landscape in Sweden, Mats Widgren notes the considerable variations in time and space of the intensity and development of the cultural landscape Widgren 1997: 56). The factors behind the variations were not ecological ones alone, since the local communities might have had remarkably varying strategies of production, division of

labour and cooperation (e.g., Svensson 1998: 181–187).

The economic model above includes a generalisation that should cover some local variations. The agrarian zone is most clear-cut in the region of the classical grave and cemetery types covering the mainland coast from Laitila and Uusikaupunki (Kalanti) in Finland Proper to Ekenäs (Tenala) and Raseborg (Karis) in Uusimaa and the Mainland Åland. In Ostrobothnia archaeological field studies imply that the burial cairns were a central burial custom of the Iron Age, indicating rather multiple subsistence economy than intensive agrarian specialisation.

From the point of view of physical geography, the large islands in front of the mainland belong to the mainland. So far, the indications of the agrarian zone on the islands are few. Due to shore displacement, the largest of the islands, the island of Kimitoön, grew together during the Iron Age from several islands into one coalescent land area, separated from the mainland by a narrow strait. The natural environment was mainland-like. In the present-day municipality of Kimitoön, including an extensive archipelago, no Iron Age cemeteries with agrarian mainland characteristics have been discovered (Asplund 2008). Instead, 168 burial cairns have been recorded, 75 of which are of Iron Age character (Tuovinen 2002).[8] The Viking Age market place of Kyrksundet (Edgren 1995a) and the medieval harbour of Jungfrusund (Kallberg 1990) are located in the southern part of the parish. As far as the burial custom is concerned, Kimitoön differs from other parts of the agrarian zone in Finland Proper, but only partly since the burial cairns were used in the agrarian zone as well. The Iron Age archaeology of Kimitoön reminds clearly of some other parts of the archipelago coast where the most distinctive signature of Iron Age settlement are the burial cairns, e.g. the coast of Rauma, around 120 kilometres to the north, where the number of Iron Age burial cairns is significant, the stochastic time gradient of the cairns appears clearly and pollen analyses indicate an Iron Age cultivation (Tiitinen 1988).

Five pollen analyses have been made on the island of Kimitoön. *Cerealia* pollen occurs sporadically during a long time span until the continuous cultivation is introduced in the late Iron Age or the medieval period. In a sample from Söderbyträsket, Kimitoön (Dragsfjärd), such types of pollen occur from the Bronze Age to the Viking Age at low but constant levels, which indicate human impact and sporadic cultivation until the continuous cultivation starts in the 11th and 12th centuries. The samples show indications of fire culture, clearing, grazing and mowing during the Iron Age (Alenius 2008; Asplund 2008: 187–196). The character of the use of natural resources suggests that the sampling sites are located in ancient outlands, a bit apart from the settlement. Although the island of Kimitoön is geographically a part of the agrarian zone, multiple subsistence economy and use of outlands seem to be characteristic of the area.

In a paper discussing paleoclimatology, Reijo Solantie comes to the conclusion that the risk of frost, the insecure overwintering of the crop, and the adequacy of winter fodder were critical problems for the early agriculture (Solantie 2005). If he is right, the conclusion emphasises the role of multiple subsistence economy as a risk minimising strategy, which is further accentuated in the archipelago by the fact that the sea routes made it possible, as opposed to mainland, to transport food supplies, livestock, raw materials, fuel, and catch within or between the zones and reduce the risks of a more intensive mode of agricultural production.

8 In his doctoral dissertation Henrik Asplund summarises the classification of Bronze Age and Iron Age burial cairns in Åboland, made by me (Asplund 2008: 73, 369–372). He finds no problems in the datings and does not dispute the chronology. However, except for some rare exceptions, he ignores the Iron Age burial cairns in Åboland (e.g., fig 62), although they obviously are crucial to the main argumentation of his study, the Iron Age abandonment on the island of Kimitoön. In the appendix (p. 454–461, 490–493) Asplund ignores most cairns in the archipelago although they are located in his research area and published in research literature (cf. Tuovinen 2002, Appendix 3). Thus the abandonment postulated by him seems to be thinkable only if some for him inconvenient evidence is simply eliminated and not presented to the reader. Needless to say, Asplund's argumentation remains misleading and fatally defective. It will not be discussed further here.

It can be assumed that local people moved between the zones, sailing to market places or fisheries. The cargo vessels of the Baltic trade sailed through the archipelago, enabling opportunities for islanders to pilotage and trading. Judging from the finds, Kyrksundet was a harbour serving the cargo traffic of the Baltic sphere. It was possibly a port of transhipment for traffic to the interior, but this does not say anything about where the vessels came from. Gunvor Kerkkonen and Unto Salo hold the view that cargo traffic sailing on its own keel, the so-called peasant sailing, emerged during the Iron Age. The finds from Kyrksundet provide an interesting analogy that while they imply contacts to the interior during the Viking Age, the debenture bonds of merchants in medieval Tallinn (Kerkkonen 1959: 90–99) reveal that the ownerships, business contacts and streams of goods of the peasant sailing continuously reached into the interior.

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