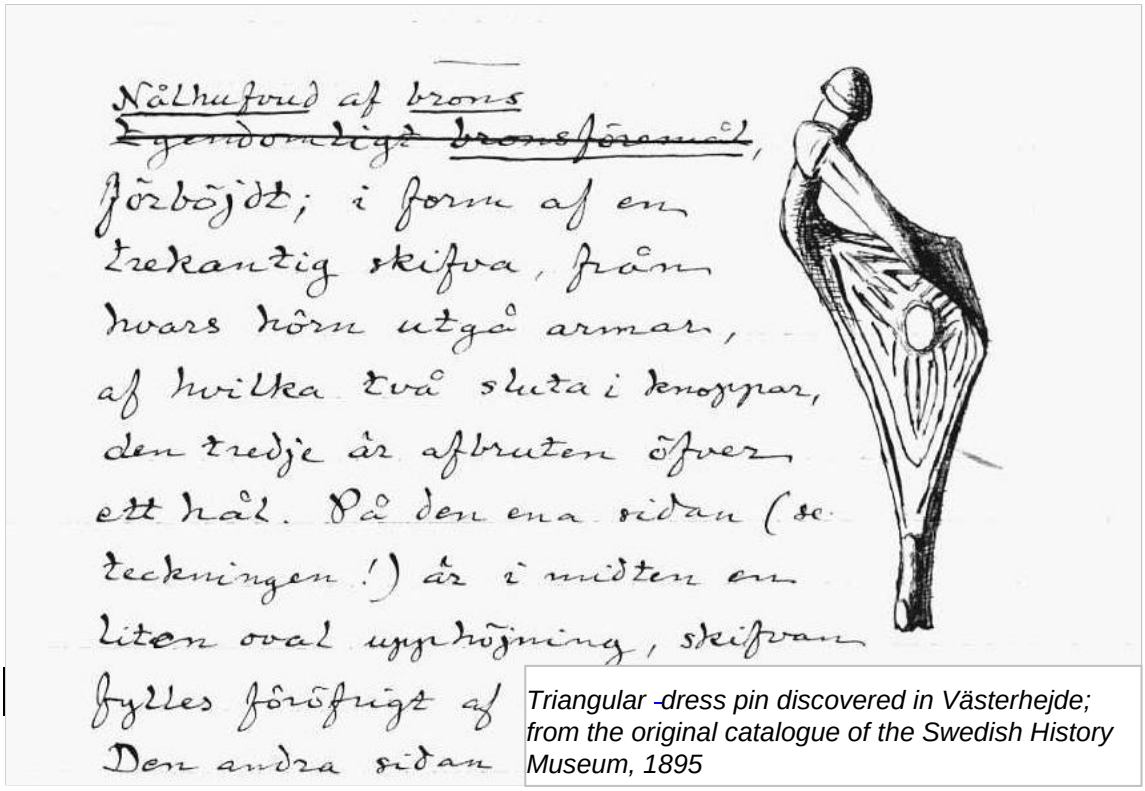
Högskolan på Gotland
Passion & vetenskap

The distribution of Bronze artefacts of Viking Age Eastern Baltic types discovered on Gotland

Iron Age Networks and Identities



Triangular -dress pin discovered in Västerhejde; from the original catalogue of the Swedish History Museum, 1895

Gotland University
2013/Spring
Master (one year) thesis/Magisteruppsats
Author: Daniel Gunnarsson
School of Culture, Energy and Environment
Supervisors: Helene Martinsson-Wallin & Alexander Andreeff

Abstract

This thesis has compared the distribution of certain types of Viking Age Eastern Baltic bronze artifacts discovered on Gotland. This was done in order to observe different parts of Gotland´s interaction with different groups in the Baltic Sea region and how this might have influenced the identities and ideas of the individuals involved in the interaction. The objects and their finding contexts were subjected to a geographical analysis and applied to a map of Viking Age Gotland. Different distribution can be observed for different types of artifacts, as well as a shift in patterns of interaction in the Baltic Sea region over time.

Denna uppsats har jämfört spridningsmönstren för olika vikingatida objekt från Baltikum som påträffats på Gotland. Detta för att kunna studera hur olika delar av Gotland har interagerat med andra grupper i Östersjöregionen och hur detta kan ha influerat individens identiteter och idéer. Föremålen samt deras kontexter har analyserats geografiskt, samt applicerats på en karta över det vikingatida Gotland. Olika spridningsmönster kunde observeras för olika typer av artefakter. Även förändringar i interaktionsmönstret över tid i östersjöregionen kunde noteras.

Keywords:
Eastern Baltic, Viking Age, Baltic Sea, Gotland, Interaction, Networks, Cross-cultural, Identity

Table of Content

1 Introduction

When material of foreign origin discovered on Gotland is discussed, it is usually the silver hoards and Arabian dirhems which attract the attention. When connections with the Eastern Baltic area are discussed it is usually the Gotlandic material discovered overseas that is highlighted. However, a small and usually overlooked group of the rich archaeological material of Gotland are the artifacts originating from the Eastern Baltic area; indicating a network of interactions across the Baltic Sea. How these artifacts ended up on Gotland has been the subject of some debate. Partially, this is because of the different interpretations of the character of the interactions between different groups and individuals around the Baltic Sea in Late Iron Age. Obviously, there may be a different story behind each of these artifacts, as there are many ways in which humans interact with each other as well as with artifacts. Trade and plundering are the most obvious example of interaction, but also exogamy, tribute and gift giving are interaction that exchanges material artifacts, as well as the movement of the individuals owning or making the artifacts. All these forms of interaction are possible reasons for the Eastern Baltic artifacts to have ended up on Gotland. The different possible forms of exchange will be discussed, but the primary aim of this thesis is to explore the directions of the contacts rather than the means.

Bronze artifacts were chosen as the material of this study as they are a functional part of the dress mostly, rather than prestige goods. Many artifacts of silver discovered in deposits on Gotland has designs typical of the Eastern Baltic region, but as silver had a specific role in Gotlandic society that has been discussed elsewhere (Burström 1993; Östergren 1989) it is possible that these artifacts ended up on Gotland during different circumstances and for entirely different reasons than their bronze or copper counterparts.

Identifying specific artifacts as of Eastern Baltic origin compared to Gotlandic types is relatively easy, but to identify it with a specific group is difficult, as many artifacts occur over a wide area and were used by different cultural groups,

whatever these can be defined as ethic, linguistic, social or archaeological entities. Nevertheless, there are tendencies that could give valuable information about the interactions between different groups in Iron Age.

Aim and Purpose

The aim of this thesis is to explore the Viking Age interactions between Gotland and the Eastern Baltic area. This was done by comparing the distribution of certain types of Eastern Baltic bronze artifacts discovered on Gotland. This in order to better understand in what ways different groups in the Baltic Sea area interacted and how this shaped their own identities. In this way we may acquire a deeper and more detailed view of the life on- and around the Baltic Sea during Viking Age.

General research questions

The distribution of bronze artifacts of Eastern Baltic types discovered on Gotland from Viking Age will be compared with artifacts of Eastern Baltic types from earlier phases of Iron Age.
Questions of identity and ethnicity as reflected in the Eastern Baltic artifacts will be discussed in accordance to the findings.
The distribution patterns of the artifacts will be compared to the locations of Viking Age harbours, parishes and geographic features such as lakes and coastline. The find locations will be the subject of investigation, in order to analyse possible patterns, and nodes of interactions on Gotland.
A few specific finds will be taken up as separate case studies and discussed in greater detail, as these specific finds may provide additional relevant information for the thesis.

2 Glossary and definitions

In this thesis, the term Eastern Baltic is referring to the area roughly corresponding with the modern states of Lithuania, Latvia and Estonia. The term Prussia will be used when referring to the area of the modern Russian enclave of Kaliningrad and the surrounding areas in Poland and Lithuania. Baltic Sea region is used to refer to the areas surrounding the Baltic Sea.
The English translations of Latvian and German archaeological terminology mostly are the ones presented in J. Graudonis' dictionary of archaeological terminology; *Arheoloģijas terminu vārdnīca* (1994).

2.1 The regions inhabited by ethnically and linguistically separate groups in the eastern Baltic area

Archaeology in the eastern Baltic Sea region during Iron Age is closely connected with the cultures known from Early Middle Age. The relevance of connecting cultures defined by archaeological research with the regions known from medieval and early modern time is not self-evident and has been discussed at length (Lang 2001: 53; Callmer 1992:99). However, most archaeologists agree that at least during Late Iron Age there are variations in material culture corresponding more or less with the historically known ethnic groups (Mägi 2000: 20pp).
A brief introduction to the regions of the cultures in question is in order. The regions corresponding with modern nations are not mentioned here (e.g. Estonia). For a map of the regions, see *Appendix 1.22*.

Prussia roughly corresponds with the area of the modern Russian enclave of Kaliningrad as well as minor parts of Poland and Lithuania.

Couronia or Kurland consists of the western part of Latvia south of Riga bay as well as a small part of north western Lithuania.

Semigallia is located in the middle part of southern Latvia and northern Lithuania. In the north the region is limited by the river Daugava. It is roughly corresponding with the modern Latvian province with the same name.

Latgallia consists of the north-eastern, eastern and south-eastern parts of modern Latvia. It is not corresponding with the modern Latvian province of Latgallia.

The *Liv* regions are harder to define. Liv settlements in Iron Age were located along the rivers of Gauja and upper Daugava, as well as along the western coast of Latvia north of Riga bay and in the northernmost part of Couronia. The four regions have some local variations, but can in general be considered to belong to the same culture. As the other areas in this thesis are referred to by the names they were known by in medieval time, the consequent choice would be to refer to the Liv area as 'Livonia'. However, Livonia is generally a term reserved for the medieval state of Livonia, containing also Estonia and Latgallia. To avoid confusion, the terms 'Liv region' and 'Liv areas' were used instead in this thesis.

The island of *Osilia* (Ösel) or Saaremaa in Estonian can during Viking Age be considered a culture separate from the mainland Estonians. Generally, the material culture of Saaremaa has many elements in common with the Livs and Couronians, but also some that are unique to the island. The name Saaremaa is the generally used name in modern time. The name Osilia will however be used in this thesis, as it is the international term traditionally used (Mägi 2002: 24).

2.2 Cronology

Chronology is problematic when discussing international subjects. As this thesis mainly discusses material from Gotland the general Swedish Iron Age chronology will be used.

Swedish Iron Age periods		Latvian Iron Age periods	
Roman Iron Age	1-400 AD	Early Iron Age	1-400 AD
Migration Period	400-550 AD	Middle Iron Age	400-800 AD
Vendel Period	550-800 AD		
Viking Period	800-1050 AD	Late Iron Age	800-1200 AD

3 Demarcations

Even though intensive interactions between Gotland and the Eastern Baltic area can be seen already in the Bronze Age and Early Iron Age, this thesis is limited to the Iron Age and primarily to the Viking Age. Interactions with mainland Sweden, Russia, Byzantium and other regions will be referred to, but not discussed in detail. The main focus of the thesis will be on the Late Iron Age. As has been recently concluded, no mayor change in material culture on Gotland or in the Eastern Baltic area occurred in the mid-11th century at the end of the chronological Viking Age (Thunmark-Nylén 2007: 358). For this reason the thesis will not be limited only to the chronological period Viking Age 800-1050 AD, but to the material from the period 9th to 12th century AD as there is a continuity in material during this entire period. This also corresponds with the Latvian Late Iron Age. No more specific analysis of the chronology of the artifacts will be carried out in this study, as most of the artifacts in the analysis cannot be narrowed down more than a proximity of at best one or two centuries. Only material that can, with some degree of certainty be said to have originated in the Eastern Baltic region or was inspired by influences from the Eastern Baltic area are used in the analysis of this thesis. This includes artifacts with ornamentation or style more typical for the Eastern Baltic area, as well as artifacts with clear parallels in the Eastern Baltic area or artifacts commonly occurring there. On Gotland a small number of tortoise brooches have been discovered which might have originated in the Eastern Baltic area. Also a type of penannular brooch described by archaeologist Anders Carlsson as BRE:J has been argued as originating from the Eastern Baltic area (Carlsson 1988; Thunmark-Nylén 2006:365). These were however not included as their origin is

not well established and the scope of the thesis did not allow for an analysis of these material groups.

4 Evaluation of sources

Care should always be taken when interpreting an artifact as belonging to a specific culture. The interpretation of the origins of material in this thesis is based on the frequency of similar artifacts in a specific region, and might thus not necessarily reflect actual conditions in prehistoric times. The chronology has its own problems, as artifacts might in some cases have been inherited or have circulated for generations before being placed in graves, deposited or discarded (Thunmark-Nylén 2007: 363p). This down-the-line exchange of artifacts will be further discussed in the theory chapter.

All material of different copper alloys is referred to as bronze within this thesis. To do an analysis of the different metal isotopes in the artifacts has been used to establish the origins of certain artifacts in similar studies. Such an analysis is however too large an undertaking for a thesis of this size. Also, it is quite possible that the bronze used on Gotland and in at least Latvia during Viking Age came from the same source (Svarāne 2013: 107pp).

5 Previous studies/ Historical overview

The first studies of the interactions between Gotland and the Eastern Baltic area can be said to have begun already in the beginning of modern archaeology in the late 19th century. Swedish scholar's interest in the eastern Baltic Sea region was at first mainly directed towards Russia, but the radically changed political situation after 1st World War made the Eastern Baltic area an easier accessible subject for archaeology (Androshchuk 2008: 529; Jansson 2006: 139). In the summers of 1929 and 1930, Swedish archaeologist Birger Nerman together with Latvian archaeologist Francis Balodis carried out a large scale excavation in the city of Grobin in western Latvia. Here was a rather large Iron Age settlement located, as well as several grave fields of Gotlandic and mainland

Swedish appearance. Over a hundred graves were excavated, and test pits were made at the hill fort in Grobin. The results were eventually published by Nerman in 1958, and are still the largest collection of Gotlandic material discovered outside Gotland (Nerman 1958). It should however be mentioned that some of the excavations in Grobin by Nerman were carried out in a rather careless manner, for example only very limited excavations at the hill fort; and the culture layer was described as thin. Later core sampling at the site have showed culture layers several metres thick. Also, artifacts which did not fit with Nerman´s interpretations of the site were sometimes deliberately ignored (Virse & Ritums 2012: 35pp).

A still frequently quoted publication is Birger Nerman's "*Die Verbindungen zwischen Skandinavien und den Ostbaltikum in der jüngeren Eisenzeit*" published in 1929. This book can be seen as the first scientific study of Iron Age interactions across the Baltic Sea, and has set the standard for publications in this field of study. Several other books and articles on the subject were published during the inter-war period, as well as numerous articles in the Swedish archaeological journal *Fornvännen* (Jansson 2006: 139).

During the Soviet occupation of the Baltic States, the dogma of Marxist theory, with its focus on internal development hampered any research on cross-cultural interactions. The pressure on archaeology was however not as heavy under Soviet occupation as on history as "*The Soviet political elite did not consider prehistory an important field for class and ideological war"* (Vasks 1999: 7). The interactions with Scandinavia during Viking age was usually mentioned in the archaeological overviews produced in the period, but very little new theory was added. Several large excavations were however carried out, which later science have received much information from, including further excavations in Grobin, Daugmale and at Salaspils Laukskola (Vasks 1999: 9).

Scandinavian scholars such as Birger Nerman and Baltic scholars in exile such as Marija Gimbutas and Arnolds Spekke did however continue their research, though the access to new material from the Baltic States was limited for them. The general interpretations also remained largely unchanged during this period. Many of the works by scholars in exile also had clearly political and nationalistic overtones, see for example *The story of Latvia* by Arveds Schwabe (1950). The interest in Sweden for Eastern Europe did however decrease during the 1960s

and 70s. Zaiga Blumbergs presented her dissertation at Stockholm University in 1982 on the distribution of bronze studs in Gotland and the Eastern Baltic (Blumbergs 1982) but otherwise little was written on the subject of interactions during this period (Jansson 2006: 133).

In the 1980ies the large archaeological Courland-project was carried out by the University of Leningrad led by Valerij Petrenko. In the course of the excavations, among other things a Gotlandic picture stone was discovered in Grobin. This discovery, together with the end of Soviet occupation led to a renewed interest in cross cultural issues in the Baltic Sea in general, and between Gotland and Couronia in particular. The full results from this excavation have not yet been published, but in 2012 Latvian archaeologist Juris Urtans published a book with some of the more important finds and discoveries in Grobin during the 1980s (Jansson 2006: 133; Petrenko 1991; Urtans 2012).

The defrosting relations between eastern and western Europe rekindled the subject. This renewed interest resulted in various conferences and publications in the 1990s, particularly on the theme of cross cultural contacts between east and west. Among others Swedish archaeologists Jan Peder Lamm and Ingmar Jansson participated in conferences and published papers along with Baltic colleagues (Jansson 1995 & 2006; Petrenko & Urtans 1995)

The Culture Clash or Compromise project (CCC) has produced some of the most excellent sources for information on the subject of cross cultural contacts in the Baltic Sea area. The theme of the project was mostly concentrated on the inclusion of the Baltic Sea area into the western Catholic world system in the early medieval period, but much information about the Viking Age is also presented. The 13 publications in English by scholars from the countries surrounding the Baltic Sea includes works by Swedish historian and initiator of the project Nils Blomkvist (2004), Swedish Culture geograph Dan Carlsson (1999), Estonian archaeologist Marika Mägi (2002), Latvian archaeologist Juris Urtans (2008) as well as several publications with articles by multiple authors.

In the books Die Wikingerzeit Gotlands I-IV Lena Thunmark-Nylén has dedicated a considerable part of the material discussion to material from the Eastern Baltic area and the regions relations with Gotland (Thunmark-Nylén 1995, 1998, 2000 & 2006). The material analysis identifying artifacts as of

Eastern Baltic origin in these books was made in collaboration with Latvian archaeologist Arnis Radinš (Thunmark-Nylén 2000: 174).

6 Theoretical perspectives

Different theoretical perspectives may help to answer different questions. Thus, several theoretical perspectives will be used in this thesis and one theory does not necessarily have to exclude the other.

Down the Line exchange is a model of inter-personal exchange of artifacts, where one person gives an artifact to another who in turn gives it to someone else. Such a perspective is important when analysing patterns of distribution of artifacts.

In order to interpret different possibilities of interaction, different approaches of network theory will be explored here which can give valuable insight in how communities and individuals interacted. As the bronze artifacts of Eastern Baltic origin found on Gotland are not likely to have been used as trade goods, they indicate other forms of intercultural meetings. Network analysis offers an intriguing possibility to catch a glimpse of the world of travellers across the Baltic Sea during the Late Iron Age.

Material culture as expression of identity and group belonging is a central subject in the analysis of archaeological cultures and will also be discussed in this chapter.

6.1.1 Down-the-line exchange

A theoretical perspective worth mentioning when discussing exchange of artifacts over cultural borders is the model of Down-the-line exchange. This model of exchange as described by Colin Renfrew and Paul Bahn (2000) refers to an inter-personal exchange where an artifact is handed from one individual to the next who in turn will hand it to another individual. This exchange may be in the form of trading, inheriting or other forms of exchange. In a system of Down-the-line exchange, artifacts may move over significant territories and between

individuals of many groups (Renfrew & Bahn 2000: 368). Applying the Down-the-line model to the material, the artifacts originating in the Eastern Baltic region might have changed hands many times before they ended up where they were discovered. This is a problem best countered by analysing a relatively large number of artifacts, as the distribution will still show concentrations at the sites closer to the source within the network. The time aspect of Down-the-line exchange poses a problem for building chronologies; as it keeps artifacts moving for longer than they probably would have done otherwise. Artifacts discovered in graves may in fact have been viewed as antiquities already when they were placed there. To this problem there is no simple solution, other than to rely on that statistics of a large number of artifacts together will have a more correctly dated age than the individual artifact (Renfrew & Bahn 2000: 371; Thunmark-Nylén 2007: 363p).

6.2 Network Theories

6.2.1 Scale-free networks

The first aspect of network theory we are going to explore is the Scale-free network of nodal points. The idea of a network where a few nodes have more connections than others originally was presented as a mathematical algorithm by physicists Barabási Albert-László and Reka Albert (1999). It was later applied to social sciences by French sociologist Bruno Latour (2005). It is referred to as a ‘scale-free network’ as it is (in the case of traders) mostly formed by the wish to have as many prospective trading partners available as possible. Danish archaeologist Sören Sindbaek adapted these theories for the interpretation of Viking Age trade in his article *Networks and nodal points: the emergence of towns in early Viking Age Scandinavia* from 2005. Sindbaeks interpretation is based on the works of Paul M. Hohenberg and Lynn Lees(1996), which suggested that a separation should be made between “network towns” and the traditional “central places” in early medieval Europe. Network towns would in this interpretation be the focus of most of the long distance trade, while central places were more local centres of trade and crafts. Sindbaek thus makes a clear difference between how the local centres and the nodes of long distance trade (network towns) were located. For a local centre, accessibility is very important. But for a long-distance trader a few extra days of

travel would not be considered a great inconvenience if it meant a greater availability of possible exchange partners. Thus these long-distance nodes were quite few and far between (Brughmans 2010: 278; Sindbaek 2005: 120, 128). The ideas of Sindbaek are possible to apply to the material of this thesis, though the word “town” in this case would be misleading. Instead, the possible nodes of interactions would have been the harbours, as identified by Dan Carlsson (Carlsson 1999: 187). What speaks against this interpretation is that these are located quite close to each other. However, it is possible that only a few of them would have been frequently active nodes in long distance trade, while others were visited less frequently and would have served a more local flow of traffic mostly.

6.2.2 Small worlds theory

An alternative perspective of network theory is the model of Small Worlds. Small Worlds; as presented by Dutch archaeologist Tom Brughmans are defined as groups of units with many contacts between each other, but relatively limited interactions with other groups of units. A few of the nodes in the Small World will however have more interactions with other Small Worlds, as they act as necessary go-betweens bridging this world of small worlds (Brughmans 2010: 278).

These differences between the types of network discussed above would in Brughmans opinion have been significant for how the urban centres related to each other also on other levels than just trade; for example in how and if political power religious ideas spread out. Therefore he stresses the importance of comparing different kinds of network models when interpreting a material. Also, Brughmans points out how networks are never stable, but changes over time, which also is a significant factor to be considered in network analysis (Brughmans 2010: 280-283).

6.2.3 Small worlds and networks around the Baltic Sea

If comparing the theories of scale free network with that of the small worlds, both are to some degree possible to apply to the situation in the late Iron Age Baltic Sea area. Beginning with the scale free network, the location of nodal points of long distance trade is according to Sindbaek more defined by

geographical restrictions, forcing traffic together in corridors (Sindbaek 2005: 128). The river of Daugava could qualify as such, as it provides one of a few relatively easy access routes to the river Dnjepr and thus also to the Black Sea. This would also have been true in the theory of small worlds, as the Daugava River and the urban centres of the Livs and Semigallians located at its banks would have become necessary go-betweens on the road from the Black Sea to the Baltic Sea.

Turning to the interactions with Couronia; the settlement of Grobin, frequently mentioned as a centre of trade does not fit so well into the definition of a network town in Sindbaeks description. Though Grobin is located by the river Alande, this river is fairly small and does not connect with any other large body of water. It should however be mentioned that the river Alande has changed course several times only in the last few centuries. Also, very little of the culture layer has as of yet been excavated in Grobin (Urtans 2012; Virse 2012). However, if considering the theory of small worlds, perhaps Gotland and the area around Grobin would at the time have been part of the same small world, while other parts of the Eastern Baltic area was not. To study Gotland and Couronia as parts of the same "small world" has its own problems. Firstly, the different languages, though the long-standing contacts between the groups probably meant that some of the traders did pick up at least rudimentary skills in the languages of the other groups. Perhaps it is more fruitful to view Grobin as an appendix of the Small World of Gotland.

There are several indications that Gotland was a part of an eastern European sphere of trade, rather than a western European during Viking Age, as emphasized by Sindbaek and others (Roslund 2007:505; Sindbaek 2005: 126). According to a theory by Blomkvist, while Gotlandic people were very active in long distance trade themselves the island itself was not as frequently visited by traders. This Blomkvist bases on the lack of western European sources speaking of Gotland before the 12th century (Blomkvist 2004: 382). However, the explanation to the lack of sources might be that Gotland was a part of an eastern sphere of interactions mostly, and that word of them thus seldom reached the western chroniclers. Traders from the Eastern Baltic Sea area might have been very active in their trade with Gotland, though the general lack of written sources from these areas have rendered them invisible to history.

The Latgallians however seems to not have taken a large part in this sphere of interactions and were instead oriented mainly to influences from the east. There have been some finds of Scandinavian artifacts in Latgallia, but not as many as in the regions of Couronia, Semigallia or Liv areas (Apals & Apala 1992: 9p; Radinš 1999: 174). Thus, the Latgallians cannot be considered to have been a part of the same “small world” of the Baltic Sea area during the Late Iron Age.

6.3 Material culture as expressions of ethnicity and group belonging

Turning to the question of identity and ethnicity, another theory becomes necessary. The one presented here will be Hodder´s study of material culture as expression of ethnicity (Hodder 1982) but also more specifically to the subject of identity in burials, as discussed by Latvian archaeologist Andris Šne (Šne 2009).

The identity of individuals and the group they identify themselves as belonging to is frequently expressed in their material culture. However, not all artifacts belonging to an individual reflects the individual´s identity or identification with a group, while some artifacts do so only on a subconscious level (Hodder 1982: 35, 40).

As presented by Hodder, what artifacts a group considers markers of identity can be very varied and difficult to observe in the archaeological record. As an ethnoarchaeological example; in the area around Lake Baringo in Kenya the jewellery used by the different tribes was quite consistent with the tribal borders as the members of the tribes experienced them. On the other hand, for example the same type of spears was used by all of the tribes (Hodder 1982: 35, 58,185).

6.3.1 Group identity and graves

Moving on to the situation of Viking Age Baltic Sea area; to sail from Gotland to Saaremaa or Couronia during Iron Age would in good weather have taken about 1, 5-2 days (Westholm 2008: 111). This distance is quite small compared to other distances crossed by Scandinavians during the same time period.

However, distances that are small in kilometres can be considerably larger in cultural differences. The way of dressing, types of jewellery, languages, beliefs and traditions varied depending on the regions. Together these aspects are parts of a cultural package forming the individual's identity. This package forms both the surrounding society's ideas about an individual, but also the individual´s ideas about him or herself. For archaeologists today, usually only a few of the material aspects of identity are usually visible. Such a small visible fraction of an individual's identity makes analysis very difficult. Also, a person may have several identities within a lifetime, depending on the situation, sometimes even switching back and forth between being a member of different tribes. In the cases presented by Hodder, the individuals even had special sets of clothing and jewellery which they used for visits to the group they did not normally belong to (Hodder 1982: 18pp).

With this in mind, it is important to remember that it is ultimately the living who decides what the dead are to carry with them. The burial of a person is usually organized by the relatives or family of the deceased and the burial itself is not only the disposal of a body. The ritual of burial also serves to express needs and aspirations of the living such as stressing the importance of the deceased individual or of the family, and thus strengthening their own statuses (Šne 2009: 23p).

As the artifacts of Eastern Baltic origin discovered in graves were probably consciously placed there by the family of the dead individual. The reasons for this can be many and different from individual to individual and there is thus need to discuss this further as will be done in the discussion chapter.

7 Written sources

Written sources describing the conditions in Viking Age in the Baltic Sea area are scarce, but in some cases writings from medieval time may shed some light also on previous times. The only more or less contemporary source is the Vita Anskarii, written during the 9th century AD by the archbishop Rimbert of Hamburg-Bremen recording his predecessor Ansgarius mission to Birka. The book mentions a raid by the inhabitants of Birka to the Couronians (Cori) and

also supposedly the relations between the groups (Blomkvist 2004: 205p; Rimbert 1986: 58; Stašulāne 2008: 22).

The Guta Law and Guta Saga have also been used to explain the situation in particularly Gotland during Viking Age. The Guta Law is the regional law of the countryside of Gotland during medieval time. It was written down in the 13th century but supposedly it is older (Blomkvist 2004: 203, 311). The medieval Guta Saga has a passage claiming that every third inhabitant on Gotland had to leave the island because of overpopulation (Gutasagan 2000: 5). This was later used by Nerman to explain the Gotlandic settlements in the Eastern Baltic area and Russia, as well as the supposedly Scandinavian origin of the people Goths. Later scholars have however generally discarded this assumption (Androshchuk 2008: 531; Nerman 1958: 199).

A few of the Icelandic Sagas mentions visits by Scandinavians to the Eastern Baltic area, particularly to Couronia. For example, in Egil Skallagrimsson´s saga a Couronian hill fort and the lifestyle of the inhabitants are described (Stašulāne 2008: 21, 109).

The chronicle of Henry of Livonia (Henrich der Letten) was written between 1225 and 1227 by the priest by the same name in the newly Christianized Livonia. The chronicle describes the event in the late 12th and beginning of 13th centuries, the wars and political events are the main subject, but also other facts about the Latgallians and Couronians occur (Blomkvist 2004: 510; Stašulāne 2008: 24).

The rhymed chronicle (Die Älteren Livländische Reimchronik) was written around 1280 AD by an anonymous writer. It records the events of the conquest of Couronia by the Livonian Order mainly, but also gives some details on the pre-Christian societies in the Eastern Baltic area (Blomkvist 2004: 104).

8 Method

The choice of methodology is essential in any work of science. In this thesis I have strived to combine different methods in order to gather as much information as possible from the material at hand.

The international theme of this thesis results in that there are several different typologies for each material, usually one for each country. When suitable for a material, the typologies presented by Estonian archaeologist Marika Mägi (1997 & 2002) and Latvian archaeologist Arnis Radiņš (2012) were used. In other cases, typology and dating are based on Latvijas PSR Arhaeologija (1974) or the one set up by Swedish archaeologist Lena Thunmark-Nylén for Viking Age material discovered on Gotland (1995; 1998; 2000; 2006). The terminology is from Graudonis dictionary of archaeology; *Arheoloģijas terminu Vārdnīca* (1994) mainly. Apart from the literature, databases of archaeological material were used for establishing whether the find was of Eastern Baltic origin or not. The database of Tallinn University Historical Collections Department of the Institute of Archaeology (Tallinna Ülikooli Ajaloo Instituudi Arheoloogiakogude osakond) was used for comparing with Estonian archaeological material. For comparison with south western Baltic material the database of Berlin Museum of Prehistory and early history, Prussian collection (Berliner Museum für Vor- und Frühgeschichte, die Prussia Sammlung) was used. Also, I have had the opportunity to study the typological reference material available at the Latvian Museum of History personally for comparison with the material discovered on Gotland.

The material of the study was collected from the catalogue of Viking Age material on Gotland in *Wikingerzeit Gotlands IV* (WZG) mostly, as well as from the artifact database of the National Museum of History in Stockholm and the reports for the finds available there (SHM). For the comparison with Bronze studs, the dissertations and an article of Zaiga Blumbergs (1972 & 1982) were used. Regarding the Crossbow brooches, a publication of polish archaeologist Anna Bitner-Wróblewska (1992) was used.

The information regarding the material is available in appendix 2. The information has been presented in the analysis chapter in the form of diagrams, displaying the composition of types of finds, origins and contexts.

The map analysis was carried out in the program ArcGis by the author of the thesis. The available coordinates of the finds were placed on a modern map of Gotland. The coordinates used are approximate; as no greater precision was needed for the aim of the analysis. The coordinates were obtained from the FMIS database when available for the artifacts. In the case of stray finds, the

coordinates of the farm where the artifacts were discovered was used. If only the parish was known, the coordinates in the centre of the parish were used. The stray finds where the location of the find was un-known have not been included in the map analysis. The modern map was then substituted, and replaced by the approximate coastline and lakes of Gotland in 950 AD. This coastline was obtained from the Palaeographic map presented by SGU (Sveriges Geologiska Undersökningar) in 2006. This map was produced by combining a model of land rise in Scandinavia with the current elevation data as well as other minor aspects (SGU 2006: 10pp).

The distribution of the Viking Age material are compared to the distribution in two groups of older material interpreted as of Eastern Baltic origin and discovered on Gotland. Both these materials of comparison are interpreted as originating in the area of Couronia and Prussia. First to the distribution of bronze studs dated to Roman Iron Age, based on the information provided by Zaiga Blumbergs (1982). The second material of comparison was the crossbow brooches with long narrow foot dated to Migration period. The information for this material was provided by Anna Bitner-Wróblewska (1992).

A map of the Viking Age harbours was also used for comparative analysis. It was based on a map presented by Dan Carlsson (1999: 187). This map shows the locations of both known Viking age harbours, and possible harbours. However, in this analysis only the locations of the larger known Viking Age harbours (hereafter referred to simply as harbours) were used as the abundance of possible but unconfirmed harbours would hide any visible pattern. Some of these possible harbours will however be investigated in the discussion chapter.

Three particular finds deserves to be discussed in more detail. The Spillings Bronze deposit contains among other artifacts the largest amount of bronze artifacts from the Eastern Baltic area found as of yet. Also, it appears as if the deposit contains artifacts from both quite different times and origins. The Eastern Baltic artifacts discovered as a stray find at Huglajvs in Silte parish have been frequently mentioned as possibly coming from a woman´s grave, and thus need to be discussed further. The third find is a neck ring of child size apparently discovered in Hogrän. As this is the only currently known child

jewellery of Eastern Baltic type discovered on Gotland it is a unique find which deserves to be discussed separately.

9 Material of the thesis

9.1.1 Arm bracelets

Arm bracelets differ from arm rings in that they do not form a closed ring, but rather an open, C-shape. Two of the types of arm bracelets discovered on Gotland have been interpreted by Lena Thunmark-Nylén as possibly of Easter Baltic origin. The groups in question are the types defined by Thunmark-Nylén as AB5 and AB4a. Type AB4a consists of band –shaped, decorated arm bracelets with stylized animal headed terminals (*Appendix 3.1*). Type AB5 also have stylized animal headed terminals, but are unusually thick (*Appendix 3.2*) (Thunmark-Nylén 2006: 165, 177 p). Also several arm bracelets not belonging to any of the larger groups defined by Lena Thunmark-Nylén were interpreted by her as probably originating in the Eastern Baltic area (Thunmark-Nylén 2006: 173 pp). These are in this thesis referred to simply as “Eastern Baltic type” (*Appendix 3.3; Appendix 3:4*), or as of the type of the specific region it may have originated from; e.g. “the bracelets of Estonian origin”. 58 arm bracelets discovered on Gotland have been included in the analysis.

9.1.2 Neck rings

Neck rings are a very widely used form of ornament during the whole Iron Age in the Eastern Baltic area and further east. In the Eastern Baltic area bronze neck rings were used from the early Iron Age and onwards, the ones discovered on Gotland were however all dated to the 11-12th centuries AD (LV PSR 1974: 111; Thunmark-Nylén 2006: 162). 15 neck rings discovered on Gotland have been included in the analysis.

Several neck rings of iron have also been discovered on Gotland. As there is no evidence of any neck rings of iron used in the Eastern Baltic area during Viking Age, these were not included in the study. According to Estonian archaeologist Valter Lang, neck rings made of Iron was produced during the Pre Roman Iron

Age in Estonia and further east in Russia (Lang 2013). This does however fall outside the field of this thesis. The neck rings discovered on Gotland possibly originating in Eastern Baltic Iron Age were identified by Lena Thunmark-Nylén with the help of Latvian archaeologist Arnis Radinš (Thunmark-Nylén 2006: 162, 174).

Though several types of neck rings are common in the whole Eastern Baltic area, some are more specific for certain groups.

The term *flat neck rings* (*Appendix 3.5*) actually refers to several types originating in different cultures. Neck rings consisting of a simple band of bronze occur in most of the Eastern Baltic cultures during Viking Age, but have their closest parallels in Estonia. Thicker rings which have been hammered flat are more likely to have originated in Latgallia. Both types have punched decorations (arheoloogia.ee: AI-K 36:1; Radinš 2012: 179). The flat neck ring GF C 9948 is because of its small size most likely that of a child, and will be discussed separately later in the thesis.

Massive neck rings (*Appendix 3.6*) are those rings that consist of a single piece of metal which have been made into a ring and not flattened. Massive neck rings can be smooth or adorned with punched patterns or spirals of metal wire surrounding the actual ring. The type was common in most of Latvia during the Early- and Middle Iron Ages, but was during Late Iron Age mostly used in Semigallia, Couronia and Latgallia (LV PSR 1974: taf 50, 56, 65; Radinš 2012: 80pp, 128, 179).

Twisted neck rings (*Appendix 3.7*) are usually twisted out of two or more metal wires. The most common type of twisted neck ring in Latvia consists of three twisted strings with a loop and hook at the terminals for closing. The terminals can sometimes also be more elaborate, such as poppy-like terminals or crutch-and-saddle terminals. Twisted neck rings are sometimes adorned with spirals of metal wire surrounding the actual ring. Twisted neck rings were common in Prussia, Couronia, Semigallia and Latgallia. They have also been found in Liv areas, but are not as common. The type is typical for Late Iron Age (Ciglis,

Zirne & Žeiere 2001: 31; LV PSR 1974: 201, taf 48, 50, 61; PS: PM IV,41,5440a).

Toreutic rings (*Appendix 3.8*) are decorated by twisting a single metal ring. Sometimes only parts of the ring have been treated in this way, while other parts are smooth or have been flattened and ornated. The type is typical for the Eastern Baltic area, and most commonly found in Semigallia and Couronia (LV PSR 1974: taf 41, 62).

9.1.3 Dress pins

Dress pins have been used in the Eastern Baltic area at least since the beginning of the Iron Age (LV PSR 1974: 393). The Eastern Baltic type dress pins discovered on Gotland are however almost certainly all from the 8th-13th centuries. Dress pins are also present in the traditional equipment of Gotlandic women, but the Eastern Baltic types are very different from these. Gotlandic dress pins are generally smaller than the pins from the Eastern Baltic area, and have an elongated or ovoid shaped head (Thunmark-Nylén 1998: Taf. 117-121). The Eastern Baltic pins are usually roughly triangular shaped, or cross shaped with round ends. Also a few pins with rings instead of a head have been discovered on Gotland. Similar pins have been found in Estonia (arheoloogia.ee). The cross shaped pins have by some scholars been interpreted as Christian influences from the emerging Orthodox Christian church in the east, but have by others been interpreted as a sun symbol (LV PSR 1974: 160; Radinš 2012: 286p). However, the triangular and cross shaped designs of the pins have been interpreted by Lithuanian archaeologist Audroné Bliujiené as symbolising a tree; an important concept in Lithuanian mythology (Bliujiené 1999: 176p). 24 dress pins discovered on Gotland have been included in the analysis.

The pins of Eastern Baltic origin discovered on Gotland can be separated into six different groups. Only the types of dress pins discovered on Gotland are presented here.

Cross shaped pins (*Appendix 3.8*) begin to appear in the 9th century in Latgallia, Semigallia, Couronia, Estonia and the Liv areas. The terminals generally consist of large, circular plates (LV PSR 1974: 160, Taf 40p). Local variations of the theme exist, such as pins with a perpendicular attachment below the “cross”. This type is specific for Estonia (arheoloogia.ee: A1-5295:210). In the appendix of artifacts, these subtypes were not used. However, the different origins of the subtypes were included.

Closed cross shaped pins (*Appendix 3.9*) are a development of the cross shaped pins. The plates forming the cross have developed into a single plate, perforated by four holes. The type is commonly found in Estonia and dated to the 12-13th centuries AD (arheologia.ee: A1-K3:44; Mägi 2002: 104).

The *Triangular pins* (*Appendix 3.10*) have a triangular plate, with the needle extending from one the lower terminal. The two other terminals can be round, spherical, heart shaped or pointed. The pins begin to appear in Semigallia and Couronia during the 6th century AD. During the Viking age slightly different types of triangular pins are spread over Couronia, Semigallia, the Liv areas and Saaremaa. The triangular pins with patterns of lines and heart shaped terminals have their parallels in Saaremaa, Liv areas and Couronia. The pins with a leaf- or flower like pattern likely originated in Saaremaa or the Liv areas. Pins with geometrical patterns of triangles are typical for the area of Couronia. (LV PSR 1974: 403p, 413pp; Mägi 2002: 103p). In the appendix of artifacts, these subtypes were not used. However, the different origins of the subtypes were included.

The *Nurmuiša type* (*Appendix 3.11*) is named as such after the archaeological site of Nurmuiša in northern Couronia. The type has also been found at sites in Semigallia; but is generally attributed to the Liv culture. The type is closely related to the triangular pins, but has openwork holes through the plate similar to those found on the flat fibulae. The type is dated to Viking Age (Jansson 1995: 89; LV PSR 1974: Taf. 50).

The *Animal style pins* (*Appendix 3.12*) are roughly triangular and lavishly decorated with stylized animals. They show some similarity with the Nurmuiša type. It has been discussed whether the Animal style pins were made in Scandinavia and imported to the Eastern Baltic area or the other way around. It has the same functions in the dress as other dress pins, but the ornamented, stylized animal style has more in common with Scandinavian ornaments of the same time. Animal style artifacts do occur in the Eastern Baltic area; primarily in Couronia but is generally considered to be of Scandinavian origin. The pin discovered on Gotland (SHM 4078) is more or less identical with one discovered at the cemetery at Ludzas odukalns in Latgallia. The find from Ludza was dated to 10th century AD (Jansson 1995: 85; Radinš 2012: 149).

Ring needles (*Appendix 3.13*) have a round or oval ring in the top instead of the pin head of other dress pins. They do however fill the same function in the dress. Ring needles appear in Semigallia and northern Lithuania and spread from there to Estonia and Finland during the early Iron Age, but otherwise seem to have been relatively unusual in the Eastern Baltic area. They were however still used in Estonia during the 11th century (LV PSR 1974: Taf 30; Mägi 1997:60p).

9.1.4 Plate Fibulae (Appendix 3.14)

Three plate fibulae of clearly Couronian or Semigallian origins have been discovered on Gotland. The fibulae are made of bronze plate in openwork, geometrical patterns with rectangular holes through them. The fibulae discovered on Gotland have all been dated to the 11th-12th centuries AD (LV PSR 1974: Taf. 57; Radinš 2012: 141; Thunmark-Nylén 2006: 92).

9.1.5 Spiral decorated belts (Appendix 3.15)

Spiral decorations have been used by several of the cultures in the Eastern Baltic area. Couronians and Semigallians have used these in their traditional dresses from Late Iron Age and into early modern time (Ciglis, Zirne & Žeiere 2001:85p; LV PSR 1974: Taf. 59).

The belts with spiral decorations found on Gotland have been dated to Viking Age. They have been thought to either be made on Gotland after Eastern Baltic patterns, or imported directly from the Eastern Baltic area (Geijer & Arbman 1940). 6 spiral decorated belts discovered on Gotland have been included in the analysis. As spirals discovered as stray finds could also have come from other artifacts, (e.g. beads and head ornaments) only the ones identified by Geijer and Arbman (1940) and one find discovered later (1992) during archaeological excavations have been included in the study. Information about the latter (SHM 32391) was taken by the author from the SHM database.

9.2 The material of comparison

The two groups of material that is to be compared with the Viking Age material in this thesis will here be described.

9.2.1 Bronze studs (Appendix 3.16)

Bronze studs as an element of decoration in dresses have been discovered in Lithuania and Prussia during Roman Iron Age, as well as in central Europe. Bronze studs have in English literature also been referred to as rivets or knobs. All these are translations of the German word ‘Beschlag’. The word ‘stud’ was used in this thesis, as it was the English term used by Blumbergs. Relatively large amounts of studs have also been discovered on Gotland, as will be discussed more in detail later. Stray finds have also been discovered in Latvia, Estonia and Finland. No finds of studs have been recorded on the Swedish mainland. The studs in the Eastern Baltic area and Gotland have been used as decoration of both male and female dresses (Blumbergs 1972: 162pp). The tradition of decorating with studs on Gotland have been interpreted by Blumbergs as an influence from Prussia and Lithuania that was relatively short lived on the island (Blumbergs 1972: 166p). Blumbergs has interpreted the artifacts with studs in Estonia and Finland but does not discuss whether the artifacts on Gotland were imported or made on Gotland after foreign patterns. On Gotland bronze studs have been discovered on 26 grave fields which have been included in the analysis.

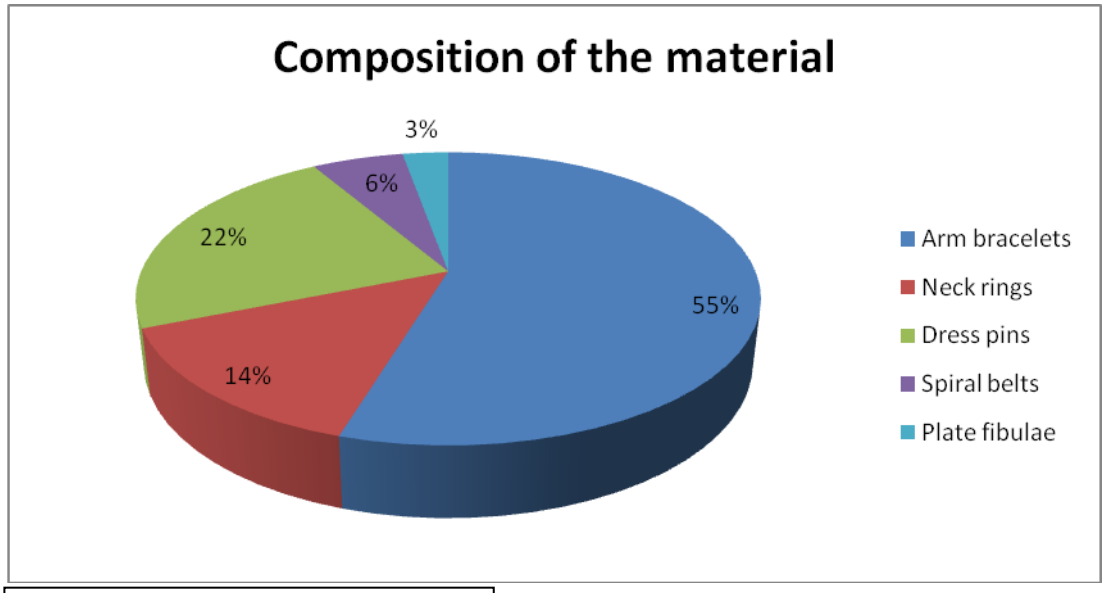
9.2.2 Crossbow brooches (Appendix 3.17)

Many different types of crossbow brooches have been defined during Iron Age in the Baltic Sea area (Bitner-Wróblewska 1992: 27). This thesis will focus on one certain type of crossbow brooches discovered on Gotland and analysed by Polish archaeologist Anna Bitner-Wróblewska (1992), which have been interpreted to have Prussian and Lithuanian origin. Crossbow brooches with long, narrow foot type has been discovered over a wide area around the Baltic Sea, but was most common in Prussia and north-western Lithuania. Many have also been discovered at Öland and Gotland. The type has been dated to around Migration period; that is 4th to mid-5th century AD (Bitner-Wróblewska 1992: 29pp). The distribution maps as presented by Bitner-Wróblewska (1992) were used as comparison in the analysis.

10 Analysis

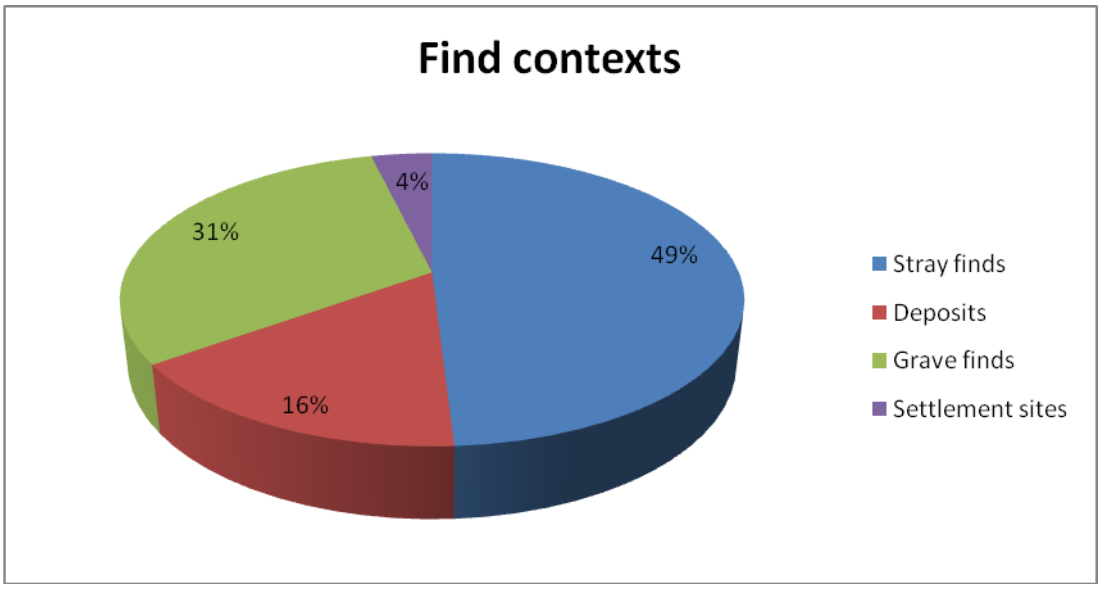
10.1 Statistical analysis of the material

The analysis included in total 106 artifacts. The materials of comparison described in last chapter (bronze studs and crossbow brooches) were not included in the statistical analysis. A list of the artifacts in the analysis is presented in appendix 2. The statistic data for this analysis was prepared by the author and presented below in staple and circle diagrams.



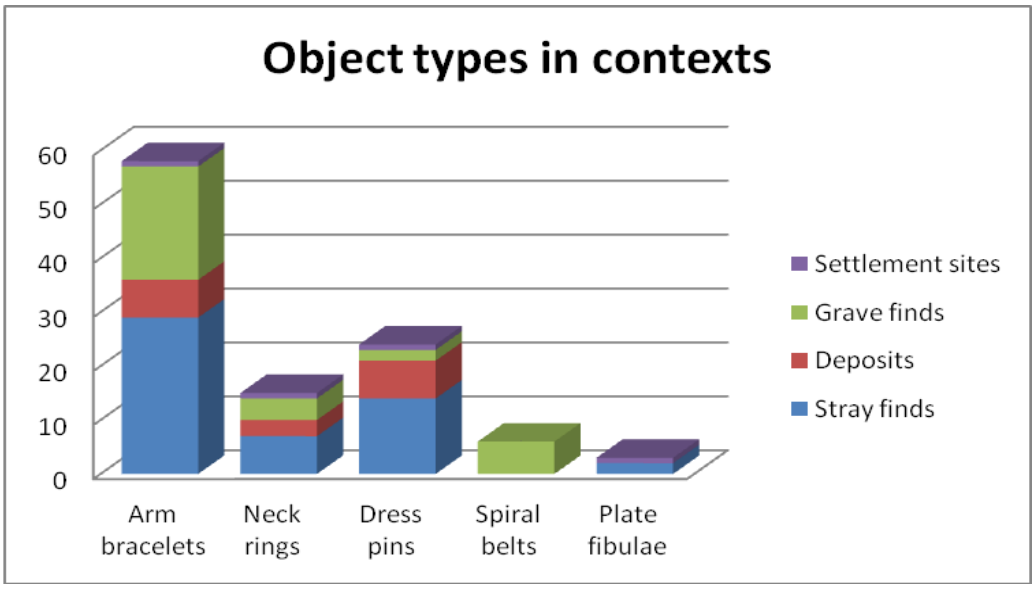
1 ill. The composition of the material.

As can be observed from the diagram, the arm bracelets are by far the most numerous category of artifacts included in the study. Only relatively few spiral decorated belts were included in the analysis, as only those discovered in graves have been included in the analysis. If stray finds of spirals would have been included, it is possible that this category would have had a similar amount as neck rings or dress pins.



2 ill. Percentage of the find contexts.

Almost half of the artifacts in the study were discovered as stray finds. A positive aspect of the large proportion of stray finds is that the interpretation of the distribution is less likely to be influenced by the varying amount of archaeological excavations in different parts of Gotland. However, grave finds provides a greater amount of information. Of the artifacts included in the thesis, 33 artifacts have been listed as grave finds. 22 of them were discovered at excavations at grave fields. 9 stray finds was in the SHM catalogue listed as graves. These have been included in the analyses as stray finds, except the 11 artifacts discovered at churchyards, which were listed as grave finds. A fairly small percentage of the total amount of artifacts has been discovered as deposits and in only a few cases have artifacts been discovered in settlement contexts. Settlement context is essentially stray finds discovered at settlement sites, in this case Viking Age harbours.



3 ill. The artifact types by find context.

As can be seen from the above diagram, most of the material discovered as grave goods consists of the arm bracelets and spiral bracelets. As the latter was only included when discovered in graves, this is to be expected. However, the neck rings also have a fairly high percentage of grave finds. Only a few dress pins were discovered in graves.

The artifacts could not be said to be specific for one culture, but rather for an area comprising several cultures. Regional similarities may represent larger or smaller areas. As few of the artifacts could be said to be specific for only one culture, the cultures have here been grouped together in six groups after how the material could be specified. Therefore, some cultures are mentioned in several groups. These groups will be used consequently through the analysis to avoid confusion. The six groups in question are Couronia/Semigallia, Couronia/Saaremaa/Liv, Saaremaa/Liv, Liv, Latgallia and Estonia.

The different types of artifacts that could be tied to each region are presented below:

Couronia: Couronian arm bracelet type, Triangular dress pins

Couronia/Semigallia: Arm bracelet type 5, Plate fibulae, Spiral decorated belts, Cross shaped dress pins, Massive neck rings, Touretic partially twisted neck rings

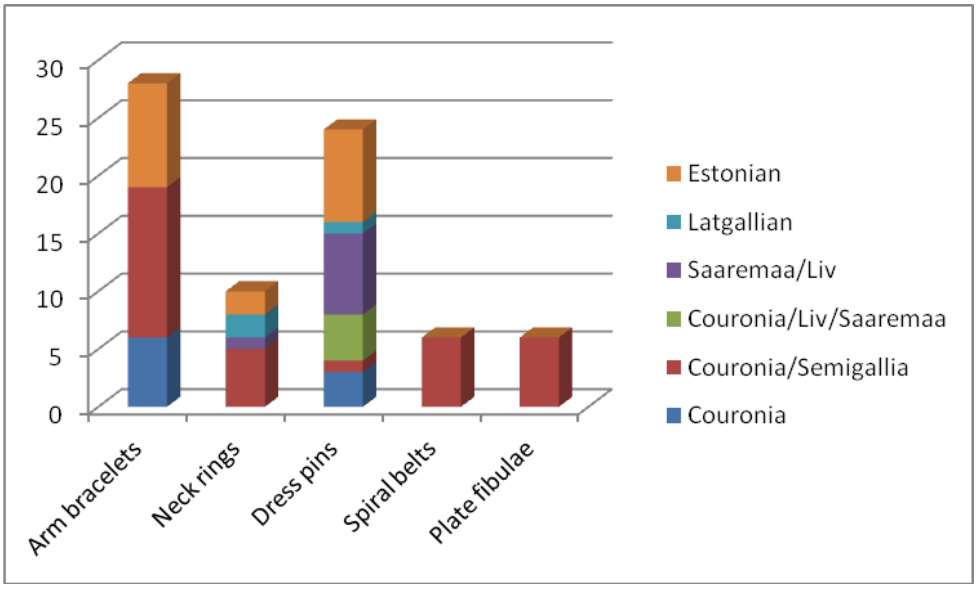
Couronia/Liv/Saaremaa: Triangular dress pins, Cross shaped dress pins

Saaremaa/Liv: Triangular dress pins, Smooth neck rings with spirals

Latgallia: Flattened neck rings

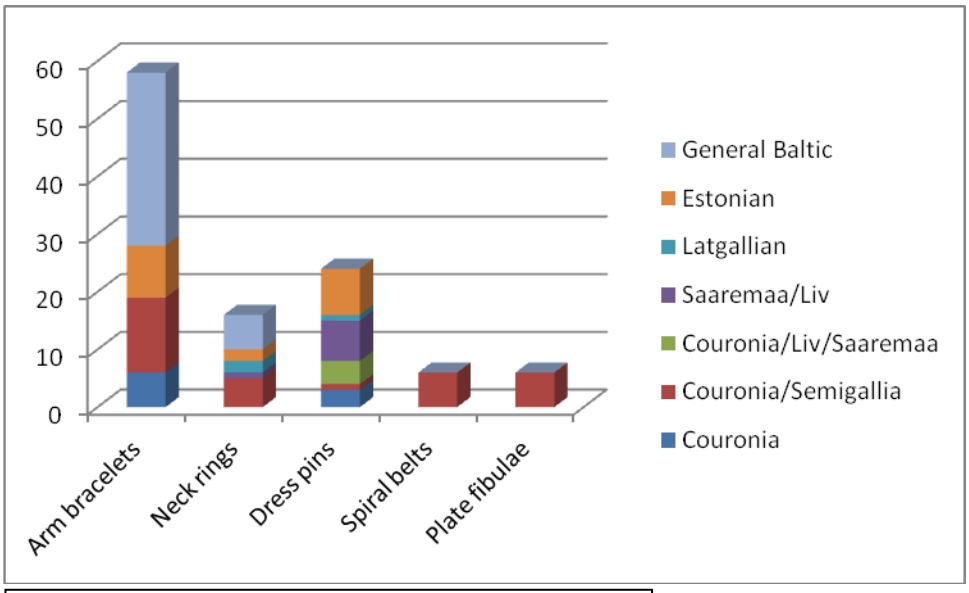
Estonia: Estonian arm bracelet type, cross shaped dress pins, closed cross shaped dress pins, Ring needles, Flattened, band shaped neck rings

General Eastern Baltic types: General Eastern Baltic type arm bracelets, Arm bracelet type 4a, Twisted neck rings



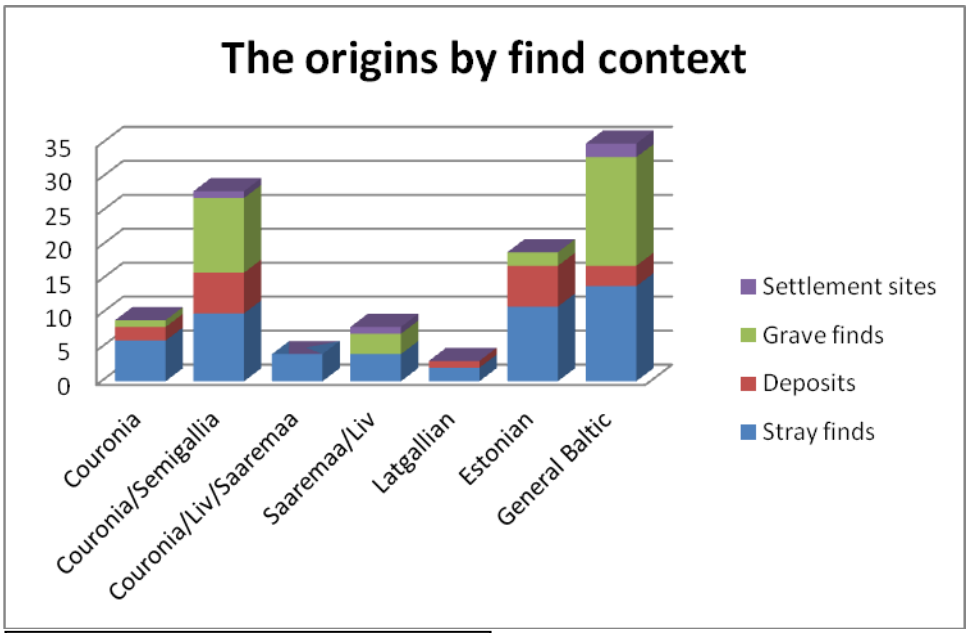
4 ill. The origin of the different artifact types, excluding general Eastern Baltic types.

The artifacts where the origin could be narrowed down to a more specific area than to the Eastern Baltic region are presented in the diagram above. For comparison, these are presented together with the artifacts of general Eastern Baltic types in a diagram below.



5 ill. The origin of the different artifact types, including the general Eastern Baltic types.

The relatively large amount of Estonian dress pins can partially be explained with the discovery of the Spillings Bronze deposit, Othem parish. Four dress pins of Estonian origin were discovered here, together with two dress pins of probable Couronian origin (SHM 33757). The Spillings bronze deposit will be discussed specifically as a case study later in the thesis.



6 ill. The origin of the different artifacts by find context.

Showing the artifacts both by origin and find context, it appears as if the Couronian or Semigallian artifacts have a considerably higher amount of grave finds than the second largest group (excluding the

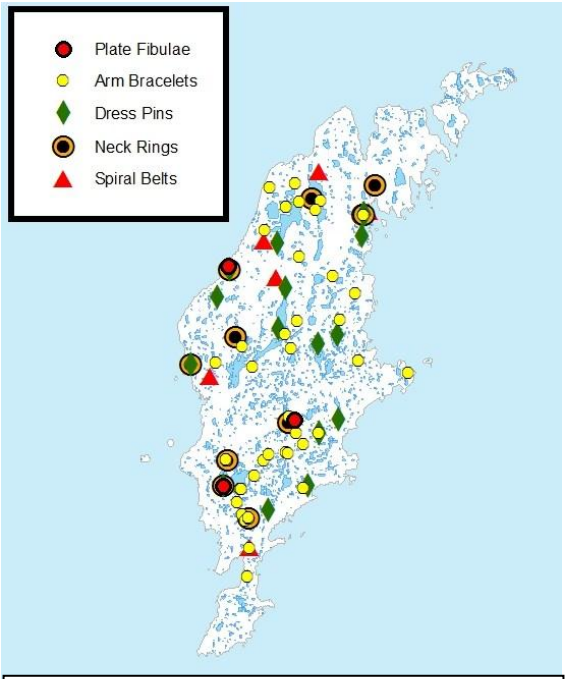
artifacts of general Eastern Baltic origin). Though it should be mentioned that the Spiral decorated belts in the study of Couronian/Semigallian origin are all listed as grave finds, the difference is still notable. The high number of Estonian artifacts discovered as deposit finds is mostly caused by the large bronze deposit discovered at Spillings, Othem parish (SHM 33757).

10.2 Map analysis

All of the maps used in the analysis can be found in Appendix 1.

10.2.1 Distribution

When looking at all the types of Eastern Baltic material, it is obvious that most of the artifacts have been discovered close to the coast or by what during Viking Age would have been inland bodies of water. As water provides both food and possibility of travel the concentration of activity and thus also accumulation of archaeological material is hardly surprising. A cluster of artifacts can be observed in Visby, this may be interpreted both as caused by the importance of Visby as a trade centre during Viking Age, but might possibly also to some degree be explained by the high level of activity in the area during modern time (*Appendix 1.1*).



7 ill. Map of all Viking Age Eastern Baltic artifacts. Also in appendix 1.1

10.2.1.1 Plate fibulae

As there are only three plate fibulae of Couronian/Semigallian type discovered on Gotland, no conclusions can be drawn from the distribution only of this group (*Appendix 1.2*). However, when studied together with other groups of material, it is clear that the plate fibulae are found at locations where also other Eastern Baltic materials have been found. One of the plate fibulae was discovered together with a triangular dress pin and a neck ring at Huglajfs in Silte Parish. It

has been interpreted as a possible grave find, which will be analyzed as a case study (SHM 17514).

10.2.1.2 Arm bracelets

Arm bracelets of the Eastern Baltic types are spread over much of Gotland. Three clusters of finds can be observed, similar to the distributions of many of the other artifacts; in the north western part of Gotland, in the central areas and in the area south of Lojsta Hed. Also, the distribution seems to follow the shores of the Viking Age lakes, or on occasion the sea coast (*Appendix 1.3*).

Type 5 arm bracelets

The type 5 arm bracelets have mostly been found in the southern part of Gotland, two of them were discovered in the northern part of Gotland. In this they correspond with much of the other material interpreted as of Couronian or Semigallian origin (*Appendix 1.4*).

Type 4a arm bracelets

The type 4a arm bracelets have been discovered in most parts of Gotland. The artifacts are somewhat more concentrated in the southern part of Gotland. Except for the one bracelet discovered in Visby, the type has only been discovered close to large inland bodies of water (*Appendix 1.5*).

Couronian type arm bracelets

The arm bracelets described as Couronian Type are quite few. Two have been found in the southern part of Gotland, one in Lummelunda Parish in the north and one on the peninsula of Östergarn Parish (*Appendix 1.7*).

Estonian type arm bracelets

The Estonian type arm bracelets are also relatively few. Three have been found in the area between Visby and Bogeviken and two in the southern part of Gotland. The locations of the latter two are remarkably close to the finding places of the two Couronian arm bracelets (*Appendix 1.8*).

10.2.1.3 Dress pins

The dress pins of Eastern Baltic types have been discovered over a large part of Gotland; in the north, middle as well as in the southern parts. The pins have mostly been found close to the coastline, and in some cases near what during Viking Age would have been inland bodies of water. As very few dress pins of

each type has been discovered, the distribution of each type will not be discussed separately. The different types of pins will instead be brought up later under the analysis of the distribution of artifacts by origin (*Appendix 1.9*).

10.2.1.4 Neck rings

The neck rings have a slightly different pattern of distribution than many of the other categories of artifacts. Neck rings have been discovered mainly in the western parts, in most cases in relative proximity to harbours. As in the case of the dress pins, the distribution of each type of neck rings will not be discussed separately here but under the analysis of the distribution of artifacts by origin (*Appendix 1.10; Appendix 1.11*).

10.2.1.5 Spiral decorated belts

The spiral decorated belts have mainly been found in the northern part of Gotland. None of the ones discovered in the southern part have been found particularly far from the harbours. They have mostly been found in the same areas as the female artifacts of Couronian or Semigallian origin (*Appendix 1.12*).

10.2.2 Comparison to the older materials

10.2.2.1 Bronze studs

For a better overview of the distributions, see Blumbergs (1982: 44-45).
The distribution of bronze studs is quite different from those of the Viking age materials, though there is some resemblance in that the studs usually are discovered in grave fields close to lakes. Also the amount of artifacts is very different; with over 40.000 studs discovered on Gotland. However, as some of the stud decorated dress item could have hundreds of studs; the numbers are not as huge as it appears at first. Most of them have been found in the northern part of Gotland, though they also occur in smaller amounts in the southern parts. The grave fields with the largest amounts of studs have been found in the parishes of Väskinde, Sjonhem and Vallstena; each numbering over 5000 studs per grave field (*Appendix 1.22*; Blumbergs 1982: 44p).

10.2.2.2 Crossbow brooches

For an overview of the distribution, see Bitner-Wróblewska (1992: 29).

As with the bronze studs, Crossbow brooches with long narrow foot show a different pattern than the Viking Age material. However, a similar concentration can be observed in the southern part of Gotland as in the distribution of many of the Viking Age material groups. A few of the brooches have also been found in the northern part of Gotland, all of them by the sea coast (Bitner-Wróblewska 1992: 29).

10.2.3 The different origins by culture

When dividing the artifacts by assumed origin, certain clusters do appear on the map. As few of the artifacts could be said to be specific for only one culture, the cultures have here been grouped together in six groups after how the material could be specified. Therefore, some cultures are mentioned in several groups. These groups will be used consequently through the analysis to avoid confusion. The six groups in question are Couronia/Semigallia, Couronia/Saaremaa/Liv, Saaremaa/Liv, Liv, Latgallia and Estonia.

When studying the material assumed to be of Couronian or Semigallian origin, it is clear that there were two areas of distribution of these types of artifacts on Gotland. The first is the area between the Viking Age harbours of Fröjel, Badlunde and Barshalder in the southern part of Gotland. The second is the area between the harbours of Visby and Bogeviken in the northern part of the island (*Appendix 1.13; Appendix 1.14*).

The distribution of Estonian artifacts has a pattern somewhat different from the one of the Couronian/Semigallian artifacts. In this case the largest concentration of artifacts is in the northern part of the island between the harbours of Visby and Bogeviken. A belt of three finding places across the middle part of the island in an east-west angle can also be observed. Two artifacts have also been discovered in the south eastern part of Gotland; close to the Badlunde harbour (*Appendix 1.19; Appendix 1.20*).

No artifacts that could be specifically tied to Saaremaa have been discovered on Gotland. A few dress pins which might possibly have originated on Saaremaa have been discovered on Gotland, though the type is also known from Liv areas. Also dress pins of possibly Couronian, Liv or Saaremaa origin have been discovered on Gotland. The distribution of these two types of artifacts corresponds with the distribution of the Couronian or Semigallian

artifacts in northern and southern Gotland, though it is difficult to draw any conclusions with this few artifacts (*Appendix 1.15; Appendix 1.16*).
Artifacts specifically of Liv origin is difficult to specify on Gotland. Only one neck ring of Liv origin and two dress pins which could be narrowed down to likely Liv or Couronian, with a higher likelihood of Liv origin has been found (SHM 2870; SHM 11122).Therefore, a map of all the artifacts of possibly Liv origin was made. As can be seen from this map, the pattern is similar to the distribution of the Estonian and Couronian or Semigallian artifacts, with perhaps a tendency to be discovered closer to harbours and coastal areas. As many of these artifacts may however also have originated in Couronia or Saaremaa, it is difficult to draw any conclusion of the distributions of them (*Appendix 1.17*).
Only one artifact of possible Latgallian origin discovered on Gotland has a known finding place (*Appendix 1.18*). A dress pin in animal style has discovered in Eke Parish. As has been previously mentioned, it has been argued that this pin could have been made in Gotland (SHM 4078). A similar dress pin has been found at Ludzas odukalna kapalauks in Latgallia (Jansson 1995: 85; Radinš 2012: 149). Two neck rings of possible Latgallian origin have been found on Gotland but the places of discovery is not known in either case (SHM 23849; GF C 286-287).

10.2.4 Three areas of denser distribution

North Gotland

Most of the different types of material have been discovered in this area. It is however visible most clearly in the distribution of neck rings, spiral decorated belts, type 5 arm bracelets, type 4a arm bracelets and Estonian type arm bracelets. Many of the artifacts of Estonian and Liv or Saaremaa origin have been discovered in this area, as well as artifacts of Couronian or Semigallian origin. The distribution appears most dense close to the large lakes in the northwestern part of Gotland.

Middle Gotland

The area is defined by large inland bodies of water, stretching across Gotland with only small distances between them during Viking Age. In material, the area

is visible most clearly in the distribution of neck rings, dress pins, arm bracelets of the general East Baltic types and type 4a arm bracelets. Artifacts of Estonian origin as well as of general Eastern Baltic origin have been discovered in this area. Very few artifacts of Couronian or Semigallian have been discovered here, and only by the eastern and western edges of the area. One pin of Couronian, Liv or Saaremaa origin has been discovered on the northern edge of one of the lakes in the system, but must be considered as found in the northern distribution area due to the proximity to Visby.

South Gotland

The area of distribution is visible most clearly in the distribution of neck rings, dress pins, type 5 arm bracelets and type 4a arm bracelets. Many of the artifacts of Couronian or Semigallian origin have been discovered in this area as well as artifacts of possibly Liv or Saaremaa origin. Also, two arm bracelets of assumable Estonian origin were discovered here. The only possibly Latgallian artifact with known finding place on Gotland was discovered in this area.

10.3 Case studies of specific finds:

10.3.1 Case study: The Spillings bronze deposit

Several of the dress pins in this study were discovered as a possible deposit in Spillings, Othem Parish. After the discovery and recovery of the silver hoards at Spillings, the surrounding area was investigated closely. The result was among other artifacts a deposit of bronze artifacts placed in a wooden chest or box. The deposit had probably been placed in a wooden chest and contained in total over 400 artifacts. The artifacts were in rather poor condition when they were deposited, and the deposit has been interpreted by among others Lithuanian archaeologist Audroné Bliujiené as a trader´s hoard of scrap metal meant for re-casting. Other bronze artifacts have been discovered at Spillings, which could indicate that bronze was cast at the site. Also, many of the artifacts in the deposit were in a half-melted condition (Bliujiené 2008: 170; SHM 33757; Westholm 2008: 112).

Two types of pins where among the artifacts. They were dated to the 8th-10th and 10th-11th centuries respectively. The older pins (with cross shaped heads) have been interpreted as originating in Couronia while the younger pins (with

oval ring heads) could have come from Estonia. Three whole neck rings and about 50 fragments of other neck rings were among the artifacts. Most of them were of general Eastern Baltic types; twisted or smooth. Only the whole neck rings of East Baltic types were included in the analysis. This was because it would be too hard to identify the origin; and even the actual number of neck rings as they are mostly in a very fragmental state. It is however likely that many of them also originated in the Eastern Baltic area. 55 arm bracelets were also discovered at the site. Most of them were undecorated and not possible to tie to any specific region, but two of them were identified by Thunmark-Nylén as probably originating in Estonia (Bliujiené 2008: 171; SHM 33757; Thunmark-Nylén 2006: 704p). A third neck ring of an unusual flattened type was also in the deposit (SHM 33757:B32). I have not found any similar neck ring in the literature or databases. Possibly it has its origin further east than the Eastern Baltic area.

10.3.2 Case study: The assumed grave at Huglajvs, Silte Parish

The discovery of a Plate fibula, a triangular dress pin, two arm rings and a neck ring at Huglajvs in Silte is frequently mentioned as a possible grave find with East Baltic artifacts. The artifacts were discovered during the spring of 1923 by a farmhand while plowing up a field. Whether they were found together is not mentioned in the report. No other information was provided in the original report, apart from descriptions of the finds appearance. Archaeologist Ture J Arne described some of them as likely from Latvia or Lithuania and the others as probably of the same origin (Arne 1924: 139pp; SHM 17514).

In the interpretation by Lena Thunmark-Nylén the artifacts are likely to have belonged to a woman from the Eastern Baltic region living on Gotland. However, she also raises the possibility that the artifacts were a deposit. Deposits of local types of jewellery are known on Gotland from Viking Age (Thunmark-Nylén 1983: 318).

Supporting the possibility that the artifacts might have come from one or several graves is the proximity to the grave field at Hallvards (RAÄ Silte 50:1). The grave field consisted of flat graves and was excavated by archaeologist Holger Arbman between 1938 and 1944 before it was removed. The 17 graves

excavated were dated by Arbman as of various ages, with most of them from Viking Age (SHM 22087). As the graves were flat graves, it is plausible that the artifacts from Silte Huglajvs would have come from one or several such graves. In this thesis the artifacts are however treated as stray finds, as they were not discovered at an archaeological excavation.

10.3.3 Case study: The child neck ring from Hogrän

The neck ring in question was handed in to the museum by a farmer from Hogrän in 1956. It was handed in together with a bronze finger ring and a Viking Age key, but it is not known whether the artifacts were discovered together (GF C 9948). It has a diameter of approximately 9, 5 cm. As this is much too small for the neck of an adult, this is most likely the neck ring of a child. The ring itself consists of a thin, undecorated bronze band with a clasp in the neck. In the middle the ring is slightly widened. Neck rings consisting of a simple band of bronze occur in most of the Eastern Baltic cultures during Viking Age, but are more commonly found in Estonia (TUHC). Child sized jewellery, and other miniaturized artifacts of the same types as the adults had are known from excavations in Latvia. They are mostly found in children graves, rarely in settlement contexts (LV PSR 1974: 223).

The presence of a child neck ring on Gotland raises several possibilities. Firstly, it might have arrived as scrap metal, as has been suggested for other Eastern Baltic type bronze finds. However, the rarity of children jewellery in settlement contexts speaks against the likelihood of this. Also the ring is intact, which would be unlikely for a fragile artifact treated as scrap metal. A perhaps more intriguing possibility is that the ring might have been worn by a young girl on Gotland. A child wearing the neck ring might have arrived along with its mother to Gotland if the mother was going to be married to a local man. The ring might also have been made locally after an Eastern Baltic pattern; if both or either of the parents of the child originated in the Eastern Baltic area. Another possibility is that the ring was simply a childhood memory, brought along by a woman who had already outgrown it by the time she moved to Gotland. In any case, the discovery of a child neck ring on Gotland highlights the complexity and diversity of the interactions between the Eastern Baltic area and Gotland.

11 Discussion

11.1 The composition of the material

A 55 percentage of the possible East Baltic artifacts discovered on Gotland consist of arm bracelets. It is quite possible that the arm bracelets have been viewed in a different way than the neck rings, dress pins and plate fibulae as they seem to have been used together with traditional Gotlandic jewellery. For example, in the grave 117-118 at the Hablingbo Havor grave field was found both an arm ring of type 5 and an animal headed brooch (SHM 8064).

Turning to the possible origins of the artifacts, it should first be mentioned that some groups are somewhat over-represented in the material since certain materials are easier tied to specific groups. For example, the spiral decorated belts in the analysis were all discovered as grave finds. As all of these have been classified as of probable Couronian or Semigallian origin, this group will appear to have a higher amount of grave finds. Nevertheless, the origins of the material give valuable clues in the interactions between Gotland and the Eastern Baltic area.

It is clear from the analysis that most of the artifacts came from the areas of Couronia and Semigallia, as well as from Estonia. A smaller amount of artifacts originating in Saaremaa or the Liv area are also present, while very few artifacts from Latgallia have been discovered on Gotland.

The cause to this might be Latgallias inland location, though it should be mentioned that the important travel route of Daugava River passes though the region. Other possibilities for this will be discussed in the chapter “Interaction and relations”.

11.2 Distribution of the Viking age artifacts

Generally, most of the material has been discovered close to inland bodies of water. All the areas of dense distribution can to a greater or smaller extent be said to be defined by the presence of lakes (*Appendix 1.1*). As waterways have historically been the main method of transport, it can hardly be said to be surprising that a material that supposedly originated overseas are found in

larger amounts in areas close to water. Also, population density has likely been quite high close to water compared to the areas without lakes and rivers: A perhaps more intriguing possibility is however that these artifacts could have been deposited in water or bogs as ritual offerings, a practice known to have occurred on Gotland and elsewhere in prehistoric times.
The spiral decorated belts show a slightly different pattern than the other Viking Age material. Five of the six belts discovered were found in the northern parts of Gotland, and none of the ones in the southern part of Gotland has been found particularly far from a harbour (*Appendix 1.12*). One explanation could be that they were taken up as a new element in the Gotlandic dress in northern Gotland rather than an artifact indicating belonging to any group. Thunmark-Nylén has stated that they were probably worn in a different way than those discovered in Latvia (Thunmark-Nylén 2006: 147). Thus, the belts could have either been local copies, or imported and spread by the down-the-line model in the northern part to be worn by individuals who had possibly never seen them worn by the peoples east of the Baltic Sea. The ones discovered in the southern part of Gotland probably also were taken home as a foreign and interesting artifact, but perhaps for some reason never became popular in this area. As the belts are quite limited in number, it is however difficult to draw any certain conclusion of their distribution.

Comparing the distribution of the Viking Age material to that of the migration period crossbow brooches, the patterns of distribution are quite similar. This indicates the long-lasting character of the relations between the groups. However, the separation between the northern and southern parts of the island is not as obvious during Viking Age, as quite many Couronian/Semigallian have been discovered in the northern part of Gotland, mainly between the Viking Age harbours of Visby and Bogeviken. Perhaps it is possible to here observe the same pattern as with the spiral decorated belts; though in the case of the crossbow brooches it is in the south part of Gotland the brooches are taken up as a new element in the dress. The same pattern cannot be seen in the distribution of the Roman Iron Age bronze studs which are more evenly distributed over both north and south Gotland. Lojsta Hed is however also empty of bronze studs. It is possible that the bronze studs have been taken up

as a new element in the local dress in a similar way as the author of this thesis has suggested that the belts with spirals were on Gotland a few centuries later. Also Blumbergs has suggested that an in archaeological terms short lived phase of 3-4 generations decorated their dresses with bronze studs on Gotland before these disappear from use (Blumbergs 1982: 111).

11.3 Areas of distribution

When studying the distribution of artifacts, three distinct areas of more concentrated distribution can be observed. The first is in the northern part of Gotland, between the harbours of Visby and Bogeviken. Several large lakes were at the time located in this area. The second notable area is following the large bodies of water across the central part of Gotland. Going from east to west, the area can roughly be described as beginning in Norrlanda, Anga and Kräklingbo parishes, passing Roma and ending at the western coast in the area of the harbour of Paviken. The third area is the southern part of Gotland, south of Lojsta Hed but not including the peninsula Sudret consisting of Vamlingbo, Sundre and Hamra parishes. Lojsta Hed between the middle and south areas of distribution is almost empty of finds. This part of Gotland have however been relatively sparsely populated even into early modern time. The southernmost and northernmost parts of Gotland as well as the island of Fårö are also empty of Eastern Baltic finds, which may be explained by the lack of known Viking Age harbours in these areas. Possible locations of harbours in these areas have been suggested, but none are yet confirmed (Carlsson 1999: 187). As can be observed from the maps, all the areas of distribution can to some degree be specified by their proximity to harbours and waterways. Speaking against the connection between the harbours and the areas of concentrated distribution is the fact that very few of the artifacts have been discovered at the actual sites of harbours. However, as all the areas of concentrated distribution to some degree can be connected with the areas between different harbours there is nevertheless a strong connection between the two. It should also be mentioned that most of the artifacts in the analysis is not the type of artifacts easily dropped by accident, and would thus not accumulate in the culture layer at a settlement site.

The different types of finds in the different parts of Gotland indicate that the regions might have interacted through different patterns of network. Looking at the differences between the areas of distribution, the contrasts between the north and south parts of Gotland becomes quite clear.The Burial traditions on the southern and eastern coast of Gotland with grave goods such as ceramics, metal vessels and tools during the 11th century have been interpreted as influenced by Eastern Baltic traditions. By this time these types of grave goods had ceased to be used in the northern and central parts of Gotland. Particularly the Couronians, Livs and inhabitants of Saaremaa has been assumed to have influenced the burial traditions in southern Gotland during this time (Mägi 2002: 31; Trotzig 1983: 375p). This is an interpretation which to some degree corresponds well with the distribution of the material, with a more dense distribution in the southern part, though the amount of artifacts from Couronia or Semigallia is quite high also in the northern parts. Also, it has recently been concluded that two types of runes were used in the northern and southern parts of Gotland. In northern Gotland only picture stones with short twig runes have been discovered, while in the southern part only picture stones with long-branch runes have been found. It should however be noted that the traditions were not simultaneous but separated by 250 years (Källström 2012: 127p). Nevertheless, it seems likely that northern and southern Gotland did receive influences as well as material from different directions and different trading partners.

11.3.1 Visby-Bogeviken area

The distribution of artifacts in the area of distribution between the harbours of Visby and Bogeviken is greatest in the northwest, close to large inland bodies of water. A certain concentration of artifacts can also be observed in the area northeast of Visby and in the city itself. This can perhaps partially be explained with frequent activity in the area in modern times. However, there are also several suitable natural harbours located along the coast north of Visby, and the city itself has its origin as a Viking Age harbour (Carlsson 1999: 187). Most of the dress pins and arm bracelets interpreted as of Estonian origin have been discovered in the northern part of Gotland, even if the four Estonian pins from the Spillings deposit are excluded (*Appendix 1.19*). This indicates that the northern part of Gotland had more interaction with Estonia than the other

regions. Also quite many artifacts originating in Couronia and Semigallia have been found in this area, as well as artifacts of possibly Liv or Saaremaa origin (*Appendix 1.13; Appendix 1.17*). It is possible that the northern part of Gotland had a more northern orientation in their travels than the southern part. The artifacts originating in Couronia or Semigallia does also link this area with the south western part of the Eastern Baltic area; indicating a wide network of interaction in the Baltic Sea area.

11.3.2 Middle Gotland

This area follows the large bodies of water across the central part of Gotland. The area has a fertile soil and has historically been quite densely populated (Carlsson 1979:55). Going from east to west, the area begins in Norrlanda, Anga and Kräklingbo parishes, passing Roma and ending at the western coast of Gotland in the area of the harbour of Paviken. The harbour of Fröjel marks the south western point of this area of distribution, where this area of distribution touches on the south area of distribution. It could be argued that the high number of eastern Baltic finds simply is the result of a higher population density and thus also of more finds in general. This would however not explain the different types of finds in the different parts of Gotland.

In the western end of this belt the harbour of Paviken was located, in the Parish of Västergarn. Several possible harbours have been suggested in the eastern end of this area (Carlsson 1999: 187). It is possible that the lakes could have been used as a way of transport from the eastern coast of Gotland to the central parts, at least during parts of the year. This corridor might have been used by inhabitants of Gotland living in central Gotland, returning from voyages in the east. The Eastern Baltic artifacts discovered in this corridor might therefore possibly have been gifts or exchanged for provision or lodgings.

Practically no artifacts of Couronian or Semigallian origin have been found in this area (*Appendix 1.13)*. This is curious, as this is otherwise the largest group of East Baltic finds on Gotland, except the general East Baltic artifacts. The few Couronian or Semigallian artifacts found in this area have been discovered by its eastern and western ends, indicating that this area had more interaction with Estonia than with the other regions in the Eastern Baltic area (*Appendix 1.19*).

11.3.3 South Gotland

By South Gotland is meant the southern part of Gotland, south of Lojsta Hed but not including the peninsula Sudret consisting of Vamlingbo, Sundre and Hamra parishes. This part of Gotland has a more loose soil that is easier to farm but is not as fertile as in the northern parts (Carlsson 1979: 45p). The southern part of Gotland has into historic time been separated from the rest of the island by Lojsta Hed. The southern part of Gotland could therefore have formed its own local cultural distinctions, and established contacts with other groups that the northern parts of the island did not take part in. Like the northern area of denser distribution; the distribution in the southern part to some degree corresponds with the area between harbours of Bandlunde and Barshalder. The harbour of Fröjel marks the north western point of this area of distribution, where the southern area of distribution touches on the central area of distribution. Also the distribution of artifacts is higher close to the larger lakes in the south, though not on the same scale as can be observed in the north (*Appendix 1.1*).

The southern part of Gotland seems to have had less intensive interaction with Estonia than the northern part, which might possibly be attributed to a generally more southbound orientation in their travels (*Appendix 1.19*). Looking at the distribution of Crossbow brooches, it is obvious that South Gotland during the Migration period had quite intensive interaction with the Prussia and Couronia (Bitner-Wróblewska 1992: 27). This seems to still be the case during Viking Age, with quite many artifacts originating in Couronia or Semigallia discovered in this area (*Appendix 1.13*). The only artifact of possibly Latgallian origin with a known finding place was also found in this area (Appendix 1.18).

11.4 Imports of ideas or artifacts

The discussion of whether the actual artifacts was transported; or rather new ideas of shapes were introduced has also been discussed by Androshchuk, regarding swords with Scandinavian elements of design discovered in Russia. As can be observed in the case of the swords, both alternatives might be true. Some blades do indeed seem to be of Scandinavian origin, though the hilts were of local designs (Androshchuk 2008: 531). Similar alternatives must also

be considered for the materials of this thesis, particularly the bronze studs and belts.

The question of whether artifacts or ideas were imported is highlighted especially in a dress pin discovered in a deposit at Smiss in Eke Parish (SHM 4078). The pin has the same functions as other Eastern Baltic pins, but its animal style decoration is more typical for Scandinavia. To further complicate the interpretations, a more or less identical pin has been discovered at Ludzas odukalna cemetery in Latgallia (Radinš 2012: 149). Swedish archaeologist Ingmar Jansson has questioned if all artifacts of seemingly eastern Baltic origin actually came from there. Jansson has interpreted the name of the farm Smiss ("Smith" in Gotlandic accent) as possibly connected to the making of jewellery. It is worth noting that also another dress pin was discovered as a stray find on the farm Smiss in Alskog. In Jansson´s interpretation, some of the dress pins of Eastern Baltic type discovered on Gotland as possibly produced on the island, and meant for export (Jansson 1995: 85).

However, other scholars have interpreted these artifacts as broken or the results of failed castings, and then sold as scrap metal for re-casting (Bliujiené 2008: 170; Westholm 2008: 112). That some of the artifacts might have been treated as scrap metal for re-casting is an obvious possibility. 16 percentages of the artifacts in the analysis were discovered as deposits and might thus have been gathered for re-casting. The broken and half melted conditions of many of the artifacts discovered in the Spillings bronze deposit supports such a hypothesis. That scrap metal was imported from the Eastern Baltic area to Gotland does however not mean that artifacts produced on Gotland could not have been sold back in the Eastern Baltic area and returned to Gotland.

11.5 Interactions and relations

The chronicles and Sagas display a dark picture of the Viking Age, with mutual raids and aggressions between the peoples around the Baltic Sea and beyond. In particular the Couronians were described as particularly violent. Their reputation for cruelty was however most likely caused by the fact that Couronia had by the time of the writing of the chronicle only very recently joined the Christian world. That some sailors and coastal settlements were indeed

attacked by the inhabitants of Couronia is beyond doubt, but the real situation is likely to have been more nuanced (Blomkvist 2004: 158p, 172; Stašulāne 2008: 21p).

That Couronia should have been subjugated by the king in Birka during Viking Age is frequently mentioned. The statement originates in a passage in the Vita Anskarii, where it is mentioned that the Cori had previously been dominated by the Swedes but had revolted (Rimbert 1986: 58). This was interpreted by Nerman and others as that a part of Couronia had been a part of the formation of an early Swedish kingdom. As later scholars have concluded, it was probably not a domination in the sense of territorial domain, but rather tributes demanded (Androshchuk 2008: 531p; Blomkvist 2004: 205p).

In this region and time with no written laws or agreements; personal relations with other traders are imperative for the success and personal safety of the traders themselves when travelling in foreign regions (Lesley 2012: 28).

As has been previously mentioned, some of the Viking Age female artifacts from the Eastern Baltic area discovered on Gotland might have been buried with the individuals who carried them in life. The reasons for them possibly coming to Gotland will now be discussed. That the women possibly from the Eastern Baltic area discovered in graves on Gotland would have been taken hostages during raids by Gotlandic Vikings is obviously a possibility. However, it is somewhat unlikely that they would have been carrying their finest clothes and jewellery with them to Gotland if that was the case.

Trade is a traditional explanation of cross cultural contacts, and the regions around the Baltic Sea certainly have various resources that could and has been traded in historic and prehistoric times. Perhaps most notably, the Eastern Baltic area had for a long time been the source of much of the amber in Europe, but also such resources as pelts, honey and wax were products desired in both east and west (Gimbutas 1963: 121pp). British historian Lesley Abrams has stressed the significance of building a network of personal relations for long distance traders during Viking Age (Lesley 2012: 28). It is quite probable that the rulers of Daugmale and other settlements along Daugava held some influence over the trade passing by the river. Thus, the traders from Gotland and elsewhere would have had interest in being on good terms with these groups.

Further, Swedish scholar Mats Roslund has described how traders in medieval time were given quarter in private homes and was therefore under the responsibility of the head of the household (Roslund 2007: 143). According to the chronicle of Henry of Livonia when speaking of the German merchants gaining a foothold by the Daugava River, the merchants had been joined in friendship with the Livs or as Blomkvist interprets it, had become '*as families are*' –Blomkvist 2004: 550. This indicates how important personal contacts were in trading during this period, but might also indicate that intermarriages between the groups were common. Blomkvist also mentions that strategic marriages were an important aspect of the Liv culture, as well as it have been in many other cultures. Mägi also have mentioned the grave of a Saaremaa woman discovered at the Vampenieši I grave field near Riga, indicating the same. This all points to that strategic marriages between groups probably was fairly commonplace (Blomkvist 2004: 505, 543; Mägi 2002: 103).

As previously has been mentioned, there have been only very few artifacts originating in Latgallia discovered on Gotland. It has earlier in this thesis been suggested that this might have been because of Latgallia being landlocked, as opposed to the other regions. Another possible explanation for this might be found in the structure of Latgallian culture. According to Blomkvist and other scholars, Latgallians might have had a system of matrilocalized society, where the husband moves to the home of the wife rather than the other way around. Support for this theory has been seen in the medieval chronicles (Blomkvist 2004: 188). If indeed the artifacts discovered on Gotland did arrive with the persons carrying them on themselves, this might partially explain the lack of typical Latgallian female artifacts. Possibly male artifacts from Latgallia would be difficult to identify, as male artifacts are very similar in the whole Baltic Sea area and beyond during this period. The reasons might however also be the longer distance to Latgallia, and therefore possibly lower interest in founding alliances with them. Another possible reason for the lack of Latgallian women ornaments is the decrease of use the easily identified dress pins in the Latgallian dress during the 10th century. Instead, more generic penannular brooches with spiral ends were used (Radinš 1999: 172). This would make possible graves of Latgallian women on Gotland very hard to identify, as these

brooches have been popular both among men and women over all the Baltic Sea area and beyond.

11.6 The possibility of male Eastern Baltic immigrants to Gotland

Though this thesis mostly concentrates on female artifacts and thus on the women owning them, the possibility of male immigrants from the Eastern Baltic area to Gotland should be discussed. The male dress in the Baltic Sea region during Iron Age is in general harder to distinguish between different groups in archaeological material. Male graves generally contain fewer artifacts connected with dress than women graves (Wyszomirska-Werbart 1992: 68) and the male dress in general was apparently quite similar in most of the Baltic Sea region during this time. This has been interpreted that women have used a more traditional, local type of dresses, while the men have received more influences from other regions. The reasons for this would be the greater mobility of the male role as a trader during this period (Thunmark-Nylén 1990: 50).
The possibility of male individuals moving from the Eastern Baltic area to Gotland should be considered, though there are as of yet no archaeological evidence proving it. It is stated in the Guta law that non-Gutnic people could own farms, even if the selling of a farm to someone outside the family would have been rare (Siltberg 2007: 179). The child neck ring discovered in Hogrän might indicate the arrival of an entire family; or at least that not every newcomer to Gotland did arrive in the role of wife to a trader from Gotland, though the neck ring could also be explained in other ways, as will be mentioned in the case study.

11.7 Identity

In this section the artifacts discovered in graves and interpretations of them are discussed. When artifacts are discovered in graves it is important to remember that grave goods do not necessarily have to have been personal belongings of the deceased.

However, the general consensus is that the dress details worn by the individuals in the graves in Gotland and Scandinavia are the artifacts they would have carried with them through life (Trotzig 1983: 372). Specific grave goods did occur in Couronia during Viking Age, but not in the form of dress details (Stasulāne 2008: 60).

The traditional dresses worn by an individual is for the most part the most obvious and immediate signalling of what group the individual belongs to. Therefore, it is interesting to see how some new elements from the Eastern Baltic Area are integrated into the traditional dresses of Gotland during Iron Age, while others are not.

When we as archaeologists study the ways individuals dressed during ancient times, we mostly do that through what they wore in their graves. What is important to remember is that a person does not bury him or herself. Therefore, the clothes, jewellery and other grave goods is in most cases the conscious choice of the group of living individuals performing the ritual of burial (Šne 2009: 124). In other words, what a body wears in the grave might not necessarily reflect what the individual wore in life. It is possible that the persons buried in the traditional dress of their region of origin actually did wear clothes and jewellery more typical for the area moved to later in life. An example of how individuals may have more than one ethnicity and choose to identify with different groups depending on the situation can be observed through ethnoarchaeological parallels (Hodder 1982: 18 pp). It is therefore interesting that 33 of the artifacts in the study were discovered as grave finds, and 9 other as suspected as coming from graves.

As has previously been discussed, it is quite possible that at least some of the individuals arriving on Gotland from the Eastern Baltic area might have done so in order to strengthen an alliance between different groups through a network of strategic marriages. To bury the individuals originally from the Eastern Baltic area in the clothes and jewellery typical for their area of origin might thus be interpreted as a means for the remaining group members to reinforce their links with the other group, not to lose it with the demise of the individual symbolizing this bond.

Another obvious possibility is that the persons buried in Eastern Baltic outfits form a minority, and that most of the ones arriving were indeed assimilated, as indicated by Thunmark-Nylen (Thunmark-Nylén 1983: 318).

Other artifacts might have been integrated as new elements in the traditional Gotlandic dress. The reasons behind why certain artifacts of eastern Baltic origin could have been used on Gotland while others were not may be explained by applying what Hodder describe as 'the fittingness' of artifacts. Some of the ornaments 'fit' and can be integrated into a whole without any altering of its functions while others are too different (Hodder 2012: 113). An arm bracelet of type 5 could easily have been worn together with more traditional Gotlandic jewellery. However, a dress pin has a more complicated function in holding up the dress and could not have been integrated without altering the dress itself. This might be the possibility that arm bracelet more often appears in graves than dress pins. Apart from the arm bracelets, the spiral decorated belts might to some degree have 'fitted', as well as crossbow brooches and bronze studs during earlier periods. Neck rings, dress pins and plate fibulae would however have been more difficult to integrate in a dress.

11.8 The aspect of time: A Larger world in Viking Age

A difference can be observed in the type of interaction between Gotland and the Eastern Baltic area when looking at the aspect of time. As have been seen in the material; the interaction in earlier periods was somewhat different from the Viking Age. The Vendel period settlement of Grobin is probably the most frequently mentioned site when interaction between Gotland and the Eastern Baltic area is discussed. Since it was first excavated in 1929 the site has been interpreted in several ways; the currently generally accepted ideas is that of a settlement of about 300-500 individuals originating from Gotland, mainland Sweden and also locals. As most of the information comes from the graves, not much is yet known of the role of the settlement area. The total absence of scale weights and almost total absence of coins does however speak against it being interpreted as a trading site (Nerman 1958; Virse & Ritums 2012: 35).

It has been suggested that Grobin instead represents a local central place, as several small Scandinavian grave fields possibly serving farmsteads consisting of a single family have been discovered in the surrounding area (Petrenko, Urtāns 1995: 13, 18; Šturms 1949). Such an area, with quite limited contact with the outside world seems to fit the idea of a small world as defined by Brughmans (Brughmans 2010: 278). Whether Grobin and its surroundings should be considered a small world in itself or a part of the small world of Gotland might be discussed further. Vladas Žulkus has expressed an idea that settlements with a Scandinavian population similar to that of Grobin might have been present in other parts of Couronia, though his theory has so far not been supported by the archaeological remains so far (Virse & Ritums 2012: 38). However, a possible settlement contemporary to Grobin with artifacts of Gotlandic types has been discovered at Wiskiauten in the Kaliningrad area. However, not much is yet known of the site (Androshchuk 2008: 517 pp). Grobin, Wiskiauten and these possible settlements would most likely not have consisted of trade centres, but rather of farms where immigrants from Gotland lived of farming much as they had previously done on Gotland; as a type of appendixes of the small world of Gotland.

According to Wyszomirska-Werbart during the Early Iron Age two zones of interaction can be distinguished more or less clearly in the Baltic Sea. The first consists of the southern part of Scandinavia and the second of the eastern Baltic area, Gotland, Öland, eastern Scania, Bornholm, central eastern Sweden and eastern Norrland (Wyszomirska-Werbart 1992: 60). These zones are more or less clearly reflected in the finds of Crossbow brooches (Bitner-Wróblewska 1992: 29pp). The same patterns of interactions seem to still to be relevant during the Viking Age (Sindbaek 2005: 126) stressing the continuity of the networks of interactions in the Baltic Sea area on the large scale. In the small scale however, differences can be seen during Viking Age. The traders of this period are still to some extent travelling by already established routes, but are no longer as limited as indicated by the material from the earlier phases of Iron Age. The same areas of interactions as can be observed in the Migration period material can still be observed during Viking Age, but not as clearly. Obviously the dependence of the old routes of interactions is not as important in Viking

Age as during the previous periods, though these lines of interactions are still travelled along by many.There are other signs of a changing pattern of travelling also in the Eastern Baltic area. It appears in the material discovered in the Daugava area as if interactions with Gotland became more intense during 11th century (Šne 2002: 166). Trade also appears to increase dramatically at the settlement of Daugmale located at the banks of Daugava during the 10th century and first half of 11th century. For example, more scale weights and weighting scales have been found at Daugmale than in Estonia and Finland together. A larger amount of dirhems than before also begins to appear at Daugava during this time. At the cemetery Salaspils Laukskola only a few kilometres from Daugmale, Scandinavian burials have been discovered, including some which appear quite Gotlandic in origin. All this points to an increased traffic from Gotland and mainland Sweden along the Daugava River in order to travel to trade in the Middle East (Zemītis 2007: 282).

The well established trading routes between Gotland and the Eastern Baltic area also seem to have continued into medieval times, despite religious differences. In December 1262 pope Urban IV reminded the Bishop of Linköping that trading weapons and other supplies to the heathens in Livonia and Prussia was forbidden, as this was obstructing the work of the Livonian Order. At this time Gotland was a part of the canonry of Linköping (SDHK nr: 815).

The model of the small worlds does not seem as convincing for the Viking Age as for the previous period. Instead, what can easiest be described as a scale free network of nodes with different amounts of interaction emerges in a similar was as described by Sindbaek for the western part of the Baltic Sea (Sindbaek 2005: 126). The trade centre of Daugmale stands in sharp contrast to Grobin, though both are similar in that they were settlements partially inhabited by individuals from Gotland. Where Grobin is a small world in itself or an appendix to another small world; Daugmale is a node of quite some importance in the network of trade on the Baltic Sea and beyond. In this new system, the long distance trade along the rivers towards the Black Sea are of greater significance for the inhabitants of Gotland, though good relations with the neighbouring regions are still important to keep.

12 Conclusion

The distribution of artifacts of Eastern Baltic origin can in general be said to be connected to the lakes on Gotland, and by the presence of the Viking Age harbours. Three areas of denser distribution of artifacts can be observed. In the north an area of distribution can be observed between the harbours of Visby and Bogeviken, particularly along the lakes in the north western part of Gotland. In the central part of Gotland a concentration can be seen along the large lakes in the area. The southern area of distribution lies between the harbours of Fröjel, Bandlunde and Barshalder, south of Lojsta Hed. As waterways during this period represent the main method of travelling, it is not surprising that artifacts brought from overseas areas are discovered in the vicinity of harbours, lakes and coastlines.

The northern and southern parts of Gotland show different patterns of distribution of Eastern Baltic material. Artifacts of Estonian origin are more common in the northern part of Gotland, while the material in the south is more densely concentrated and mostly originates in the south western part of the Eastern Baltic area. The reasons for this may be different patterns of network; with the southern part having more intense interactions with the southern parts of the Eastern Baltic area while in the northern part of Gotland interactions with Estonia was more frequent. In addition to the differences in material in north and south Gotland, burial customs and use of runes on picture stones highlights the differences in interactions with the outside world.

In the central part of Gotland, Estonian and artifacts of general Eastern Baltic origin has been discovered along the lakes in the area. This indicates that the lakes might have been used as a waterway between Gotland's eastern coast and the central parts of Gotland when travelling to and from the northern part of the Eastern Baltic Area.

The lack of material on Lojsta Hed might be explained with it being sparsely populated, while the lack of eastern Baltic finds in the very north and Fårö might be the result of limited interaction with the outside world.

Different types of artifacts of Eastern Baltic origin have been received, viewed and used in different ways on Gotland. Some elements originating from the Eastern Baltic area were introduced into the wider region as an interesting new

element in the traditional dress of Gotland. Other artifacts have however probably only been used by the individuals who carried them with them as parts of their traditional dresses. Arm bracelets and spiral decorated belts are more common as grave finds, and it is possible that these types of artifacts were introduced in the Gotlandic dress in such a way. Dress pins and neck rings however are more likely to have been connected to specific groups of people. There are also signs indicating that interactions increased between Gotland and the Eastern Baltic area during Viking Age, and that groups not previously involved with each other began to interact across the Baltic Sea. This could be interpreted as a shift from a model of interaction similar to the one described in the Small Worlds theory during earlier Iron Age to a system more typical for a scale free network during Viking Age.

13 Summary

The aim of this thesis is to explore the Viking Age interactions between Gotland and the Eastern Baltic area by comparing the distribution of certain types of Eastern Baltic bronze artifacts discovered on Gotland. This in order to better understand in what ways different groups in the Baltic Sea area interacted and how this shaped their own identities. In this way we may acquire a deeper and more detailed view of the life on- and around the Baltic Sea during Viking Age. Questions of identity and ethnicity as reflected in the Eastern Baltic artifacts were also discussed in accordance to the findings.

The material chosen for the analysis is several groups of bronze artifact dated to Viking Age and argued to be of Eastern Baltic origin. This includes certain types of arm bracelets, neck rings, dress pins, plate fibulae and spiral decorated belts. Bronze artifacts was chosen rather than silver, as the metal itself does not have a high value, as is the case with silver. Therefore the silver artifacts of Eastern Baltic origin discovered on Gotland could possibly have ended up there for entirely different reasons than their bronze counterparts.

The artifacts and their finding contexts were subjected to both statistic and geographical analysis. The distribution patterns of the artifacts were compared to the locations of Viking Age harbours, parishes and geographic features such as lakes and coastline. The finding places were the subject of investigation, in

order to analyse possible patterns, and nodes of interactions on Gotland. The distribution of Viking Age Eastern Baltic artifacts was also compared with the distribution of artifacts of Eastern Baltic types from earlier phases of Iron Age, namely bronze stud decorations from Roman Iron Age, and a certain type of crossbow brooch from Migration period. Three specific finds was also taken up as separate case studies and discussed in greater detail. These three finds were the Spillings bronze deposit in Othem Parish, a possible grave find at Huglajvs in Silte Parish and a neck ring of child size discovered in Hogrän Parish.

Several conclusions could be made from the analysis and discussion. Firstly, the artifacts were generally found close to bodies of water, both the sea coast and lakes. Three areas of denser distribution with somewhat different structure of finds could also be observed on Gotland. These areas were located in the northern part, central part and southern part. Different types of artifacts have probably also been treated in different ways on Gotland; with some possibly integrated into the local dress, while others were not. There are also signs indicating that interactions increased between Gotland and the Eastern Baltic area during Viking Age, and that groups not previously involved with each other began to interact across the Baltic Sea.

Abbreviations:

GF: Gotlands fornsal (Gotland Museum)

LV PSR: Latvijas Padomju Sociālistiskās Republikas arheoloģija (Latvia´s Soviet Socialistic Republic´s Archaeology)

PS: Berliner Museum für Vor- und Frühgeschichte, die Prussia sammlung (Berlin museum of Prehistory and early history, Prussian collection)

RAÄ: Riksantikvarieämbetes databas FMIS (The database of the national board of antiquities)

SHM: Statens historiska museum (National Museum of History)

TUHC: Database of Tallinn University Historical Collections Department of the Institute of Archaeology (Tallinna Ülikooli Ajaloo Instituudi Arheoloogiakogude osakond)

14 References

- Abrams, Lesley 2012. Diaspora and identity in the Viking Age. In *Early Medieval Europe no. 20,* 2012
- Ambrosiani, Björn 2008. Birka. In Brink, Stefan & Price, Neil (eds.), *The Viking World*. Abingdon: Routledge, 2008
- Androshchuk, Fedir 2008. The Vikings in the east. In Brink, Stefan & Price, Neil (eds.) 2008, *The Viking World*. Abingdon: Routledge,
- Apals, Jānis & Apala, Zigrida 1992. Die kontakte der Lettgallen des Gauja-raumes mit Skandinavien. In Hårdh, Birgitta & Wyszomirska-Werbart, Bozena (Eds), 1992 *Contacts across the Baltic Sea during the Late Iron Age (5th-12th centuries)*. Lund
- Arne, Ture J 1924. Ett fynd av östbaltiska fornsaker på Gotland. In Fornvännen 1924.
- Albert-László, Barabási, & Albert, Reka 1999. Emergence of scaling in random networks. In Science nr 286, 1999.
- Bitner-Wróblewska, Anna 1992. Cross-bow brooches from the Eastern Baltic Basin in the early migration period. In Hårdh, Birgitta & Wyszomirska-Werbart, Bozena (Eds), 1992 *Contacts across the Baltic Sea during the Late Iron Age (5th-12th centuries)*. Lund
- Bliujiené, Audroné 1999. The 8th-11th c. Curonian men and women ornamental fashions- world models. In *Archaeologia Lituana* 1, 1999.
- Bliujiené, Audroné 2008. Trade, warfare, looting and hoarding: Attributes of Viking Age contacts across the Baltic Sea. In Stašulāne, Ināra (ed.), *Pētījumi Kuršu senatnē*. Riga
- Blomkvist, Nils 2004. *The Discovery of the Baltic*. Visby
- Blumbergs, Zaiga 1972. En Gotländsk huvudbonad från romersk järnålder. In *Fornvännen* 1972.
- Blumbergs, Zaiga 1982. *Bronzebuchelen als trachtzier*. Stockholm
- Brughmans, Tom 2010. Connecting the dots: Towards archaeological network analysis. In *Oxford Journal of Archaeology* no 29, 2010.
- Burström, Mats 1993. Silver as bridewealth. In *Current Swedish Archaeology* 1993.

- Callmer, Johan 1992. Interaction between ethnical groups in the Baltic region in the Late Iron Age. In Hårdh, Birgitta & Wyszomirska-Werbart, Bozena (Eds), 1992 *Contacts across the Baltic Sea during the Late Iron Age (5th-12th centuries)*. Lund
- Carlsson, Anders 1983. *Djurhuvudformiga spännen och gotländsk vikingatid*. Stockholm
- Carlsson, Anders, 1988. *Vikingatida ringspännen från Gotland*. Stockholm
- Carlsson, Dan 1979. Kulturlandskapets utveckling på Gotland. Visby
- Carlsson, Dan 1999. *"Ridanäs"-vikingahamnen i Fröjel*. Visby
- Champion, Timothy C. (ed.) 1989. *Centre and Periphery*. London
- Ciglis, Jānis, Zirne, Sandra & Žeiere, Irita 2001. *Lībieši Senatnē/Livs in antiquity*. Riga
- Clarke, Helen & Ambrosiani, Björn 1991. *Towns in the Viking age*. Leicester & London
- Ducmane, Kristīne & Ozoliņa, Anda 2009. *Latvija Eiropā: Monētu depoziti*. Rīga
- Geijer, Agnes & Arbman, Holger 1940. En detalj i den Gotländska mansdräkten under vikingatiden. In *Fornvännen* 1940.
- Gimbutas, Marija 1963. *The Balts*. Bristol
- Graham-Campbell, James & Valor, Magdalena 2007.*The Archaeology of Medieval Europe*. Aaarhus
- Graudonis.Jānis 1994. *Arheoloģijas terminu Vārdnīca*. Riga
- Gustin, Ingrid 2004. *Mellan gåva och marknad*. Malmö
- *Gutasagan;* published 2000. Visby
- Hodder, Ian 1982. *Symbols in action*. Cambridge
- Hodder, Ian 2012. *Entangled*. Chichester
- Høilund Nielsen, Karen 1999. Female grave goods of southern and eastern Scandinavia. In Hines, John (ed.) 1999. *The pace of change.* Oxford

- Hohenberg, Paul M. & Lees, Lynn 1996. *The making of urban Europe 1000-1994*. Cambridge
- Jansson, Ingmar 1995. Dress pins of East Baltic type made on Gotland. In *Archaeology East and West of the Baltic* 1995. Stockholm
- Jansson, Ingmar 2006. Fornvännens förbindelser med östern under 100 år. In *Fornvännen* 2006.
- Källström, Magnus 2012. Gotländska bildstenar som källor för runologi & nordiska språk. In *Gotländska bildstenar*. 2012. Visby
- Lamm, Jan Peder 1991. Ship or ducks?. In *Fornvännen* 1991
- Lamm, Jan Peder 2007. Two large silver hoards from Ocksarve on Gotland. Evidence for Viking period trade and warfare in the Baltic region. In *Archaeologia Baltica 8,* 2007.
- Lang, Valter 2001. Interpreting archaeological cultures. In *Trames, Journal of the humanities and social sciences vol. 1*, 2001.
- Latour, Bruno 2005. *Reassembling the social: An introduction to actor-network theory.* Oxford
- *Latvijas Padomju Sociālistiskās Republikas arheoloģija* 1974. Riga.
- Lindström, Therese 2007. The environment of Gotlandic trading farmers. In *The significant detail, CCC papers: 9.* 2007. Visby
- Mägi, Marika 1997. Decorative pins of Merovingian and Viking ages in Estonia: Foreign and local. In *Estonian Journal of Archaeology* No 1 1997.
- Mägi, Marika 2002. *At the crossroads of space and time*. Tallinn
- Nerman, Birger 1930a. Fynden från Grobin i Lettland. In *Fornvännen* 1930
- Nerman, Birger 1930b. *Fynden från Grobin i Lettland*. Stockholm
- Nerman, Birger 1958. *Grobin-Seeburg*. Stockholm
- Nerman, Birger 1975. *Die Vendelzeit Gotlands*. Stockholm
- Norrby, Sören, 2003 *Sören Norrbys räkenskapsbok för Gotland 1523-24*. Visby
- Nylén, Erik & Lamm, Jan Peder 2003. *Bildstenar*. Stockholm

- Östergren, Majvor 1989. *Mellan stengrund och stenhus*. Stockholm
- Petrenko, Valerij; Urtāns, Juris 1995. *The archaeological monuments of Grobiņa*. Stockholm
- Petrenko, Valerij 1991. A picture stone from Grobin. In *Fornvännen* 1991
- Radinš, Arnis 1999. *10-13. Gadsimta senkapi Latgaļu apdzīvotajā teritorijā un austrumlatvijas etniskās, sociālās un politiskās vēstures jautājumi*. Riga
- Radinš, Arnis 2012. *Arheoloģisks ceļvedis Latviešu un Latvijas vēsturē*. Riga
- Renfrew, Colin & Bahn, Paul, 2000. *Archaeology: Theories, methods and practice*. London
- Rimbert*, Anskars levnad*, translated by Eva Odelman 1986. Stockholm
- Roslund, Mats 2007. *Guests in the house*. Boston
- Rundkvist, Martin 2003. *Barshalder 1*. Stockholm
- Schwabe, Arveds 1950 *The story of Latvia*. Stockholm
- Sindbaek, Sören Michael. 2005 Networks and nodal points: the emergence of towns in early Viking Age Scandinavia. In *Antiquity* no 81. 2007.
- Šne, Andris 2000. Agrās pilsētas, rezidences, nocietinājumi... Dienvidaustrumlatvijas dzels laikmeta pilskalni sociālpolitiskā kontekstā. In Šne, Andris & Urtāns, Juris, 2000. *Arheoloģiskie pieminekļi, arheoloģiskās vietas*. Riga
- Šne, Andris 2002. Sabiedrība un vara. Riga
- Šne, Andris 2009. *Memory, society and material culture*. Riga
- Stašulāne, Ināra (ed.) 2008. *Kurši Senatnē/Couronians in Antiquity*. Riga
- Šturms, Eduards 1949. Schwedishe kolonien in Lettland. In *Fornvännen* 1949
- Svarāne, Dagnija 2013. *Pētījumi Latvijas seno metālu tehnoloģija*. Riga
- Thunmark- Nylén, Lena 1983a. Dräkt och dräktsmycken på Gotland under vikingatiden. In Jansson, Ingmar (ed.) 1983. *Gutar och vikingar* . Stockholm

- Thunmark- Nylén, Lena 1983b. Gotland och Ostbaltikum. In Jansson, Ingmar (red.) 1983. *Gutar och vikingar*. Stockholm
- Thunmark-Nylén, Lena 1990. Gotland- Neighbour between the east and the west. In *Austrumbaltijas un Skandināvijas kontakti agrajos viduslaikos. 1999.* Riga
- Thunmark-Nylén, Lena 1995. *Die Wikingerzeit Gotlands 1*. Stockholm
- Thunmark-Nylén, Lena 1998. *Die Wikingerzeit Gotlands 2*. Stockholm
- Thunmark-Nylén, Lena 2006. *Die Wikingerzeit Gotlands 3*. Stockholm
- Thunmark-Nylén, Lena 2000. *Die Wikingerzeit Gotlands 4*. Stockholm
- Thunmark-Nylén, Lena 2007. On Cronology. Die Wikingerzeit Gotlands and some method-problems. In In *Cultural interaction between east and west* 2007. Stockholm
- Tonisson, Evald 1985. Viking age weapons and coin finds in Estonia. In *Prehistory times and middle ages in the Baltic area*, Published by the museum of Kymenlaakso
- Trotzig, Gustaf 1983. Den gamla och den nya religionen. In Jansson, Ingmar (red.): *Gutar och vikingar.* Stockholm
- Urtāns, Juris (ed.) 1998. *Latvijas Pilskalni*. Rīga
- Urtāns, Juris 2012. *Grobiņas arheoloģijas pieminekļi.* Riga
- Valk, Heiki 2008. The Vikings and the eastern Baltic. In Brink, Stefan & Price, Neil (red.) 2008. The *Viking World*. Abingdon: Routledge
- Vasks, Andrejs 1999. Latvian archaeology: research and conclusions. In Jensen, Ola W., Karlsson, Håkan & Vijups, Armands (eds.) 1999. *Inside Latvian Archaeology* . Göteborg
- Vasks, Andrejs 2010. Latvia as Part of a Sphere of Contacts in the Bronze Age. In *Archaeologia Baltica 13*, 2010.
- Vijups, Armands 1999. Archaeology and archaeological education at the University of Latvia. In Jensen, Ola W., Karlsson, Håkan & Vijups, Armands (eds.) 1999. *Inside Latvian Archaeology.* Göteborg
- Virse, Ingrīda & Ritums, Ritvars 2012. The Grobiņa Complex of Dwelling Locations and Burial Sites, and Related Questions. In *Archaeologia Baltica* 17, 2012.

- Westholm, Gun 2008. Gotland och omvärlden. In Pettersson, Ann-Marie (ed.) *Spillingsskatten* 2008. Visby
- Williams, David F. 1989. The impact of Roman amphora trade on Pre-Roman Britain. In Champion, Timothy C. (ed.) *Centre and Periphery* 1989. London
- Wyszomirska-Werbart, Bozena 1992. Scandinavia and the eastern baltic during the Migration period. In Hårdh, Birgitta & Wyszomirska-Werbart, Bozena (Eds) 1992. *Contacts across the Baltic Sea : during the Late Iron Age (5th-12th centuries).* Lund
- Zemītis, Guntis 2007. 10th-12th century Daugmale- the earliest urban settlement along the Lower Daugava and forerunner to Riga. In *Cultural interaction between east and west* 2007. Stockholm

Unpublished sources

- *Reports on the excavations in the grave field Hablingbo, Havor, Gotland*. SHM 7582, Gustafsson (1884), SHM 7785 Gabriel Gustafsson (1885), SHM 8064 Gabriel Gustafsson (1886), Gabriel Gustafsson SHM 8552 (1889), SHM 32061 Elisabet Rundqvist-Nilsson (1991). Accessed through the database of Statens Historiska Museum (SHM)
- *Report to Kungliga Vitterhets-, historie-, och antikvitetsakademien, Inventory number nr SHM 17514 (*1924). Accessed through the database of Statens Historiska Museum (SHM)
- *Reports of finds, Statens historiska museum.* Inventory numbers: SHM 2309, SHM 2593, SHM 2870, SHM 4078, SHM 4239, SHM 6184, SHM 7571, SHM 7871, SHM 9515, SHM 9831, SHM 11122, SHM 11374, SHM 11937, SHM 14443, SHM 15185, SHM 15752, SHM 17514, 17647, SHM 18304, SHM 18794, SHM 20105, SHM 21242, SHM 22005, SHM 22087, SHM 23849, SHM 26012, SHM 31409, SHM 32391, SHM 32753, SHM 33757. Accessed through the database of Statens Historiska Museum (SHM)
- *Reports of finds, Gotlands museum.* Inventory numbers: GF A 2083, GF C 286, GF C 661, GF C 662, GF C 9948, GF C 10067, GF C 10720, GF C 12115

Electronic sources

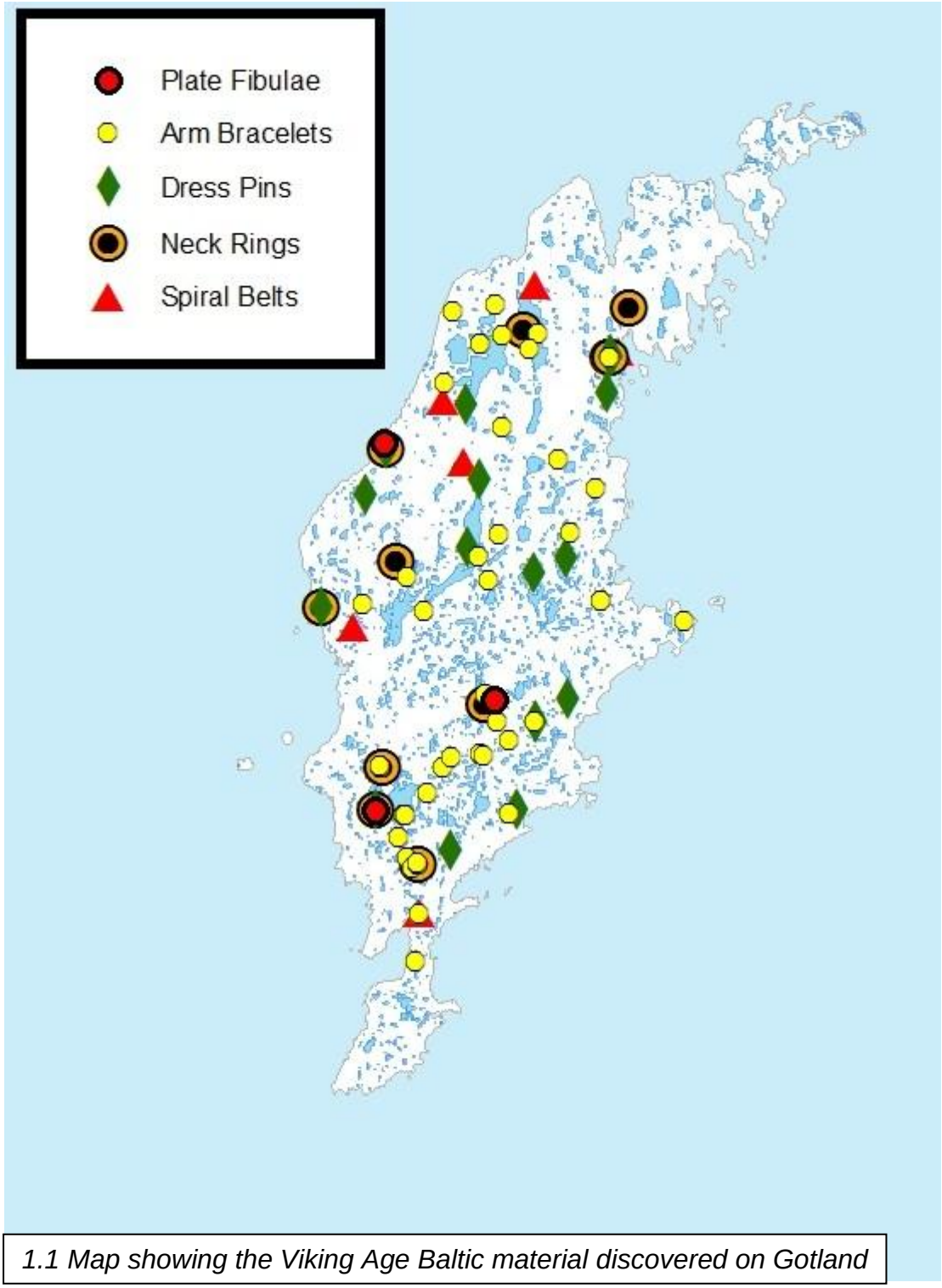
- Database of Tallinn University Historical Collections Department of the Institute of Archaeology (Tallinna Ülikooli Ajaloo Instituudi Arheoloogiakogude osakond)

  http:/www.arheoloogia.ee/ 2013-03-16
- Database of Berlin museum of Prehistory and early history, Prussian collection (Berliner Museum für Vor- und Frühgeschichte, die Prussia sammlung)
- Riksantikvarieämbetets database fornsök (RAÄ) 2013-04-23
- Sveriges Geologiska Undersökningar (SGU), newsletter Januari 2006
- Statens Historiska Museums database over the museums archive (SHM)
- Svenskt Diplomatariums huvudkartotek över medeltidsbreven (SDHK).

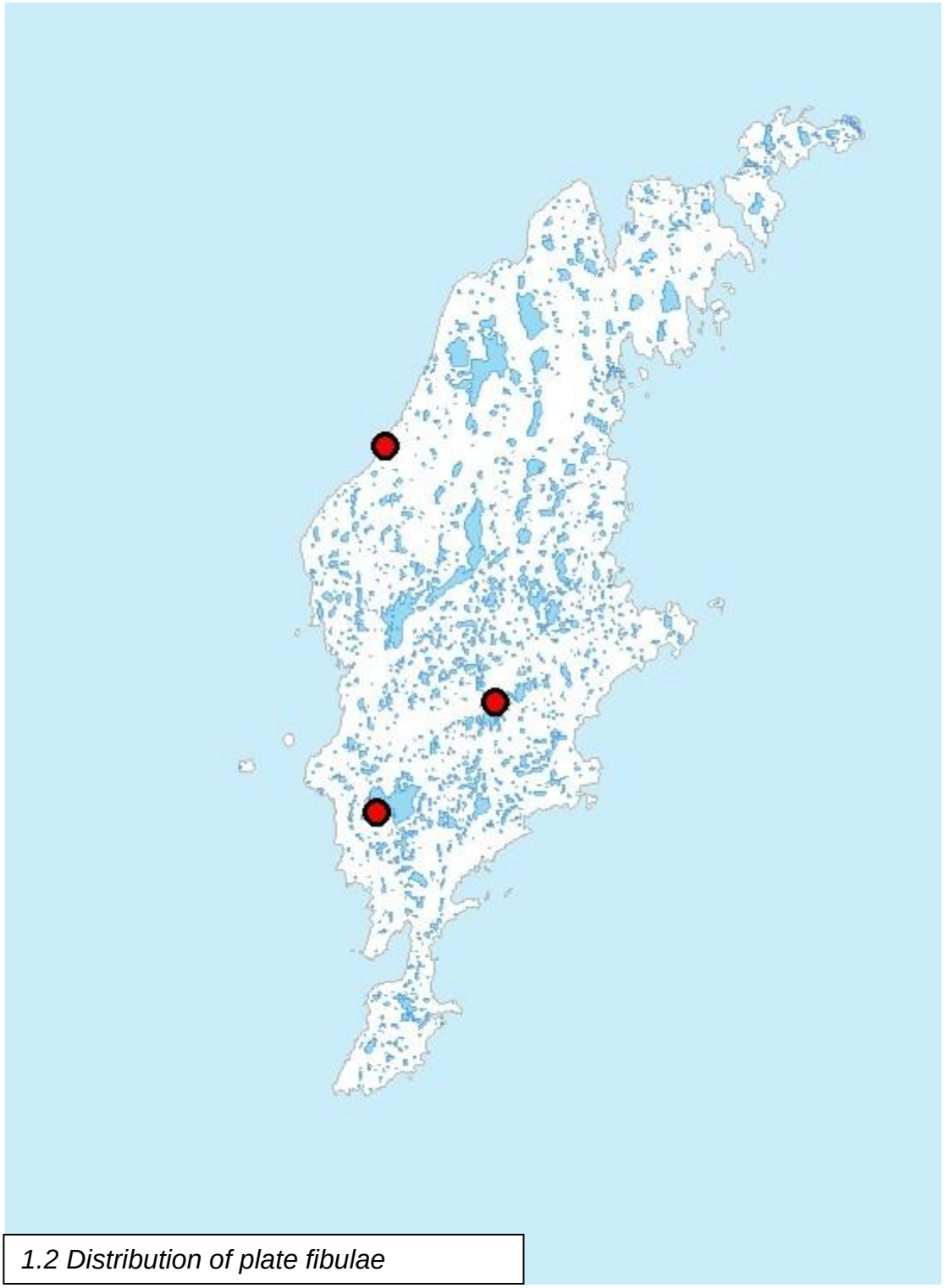
Personal correspondence

- Juris Urtans, Archaeologist at Latvias Academy of Culture & Latvias Cultural Heritage board: Personal correspondence 2012.
- Ingrida Virse, Archaeologist at Latvias National Museum of History: Personal correspondence 2012.
- Valter Lang, Professor in archaeology at Tartu University, Estonia: Personal correspondence 2013.
- Lena Thunmark-Nylén, Archaeologist, Visby. Personal correspondence 2013.

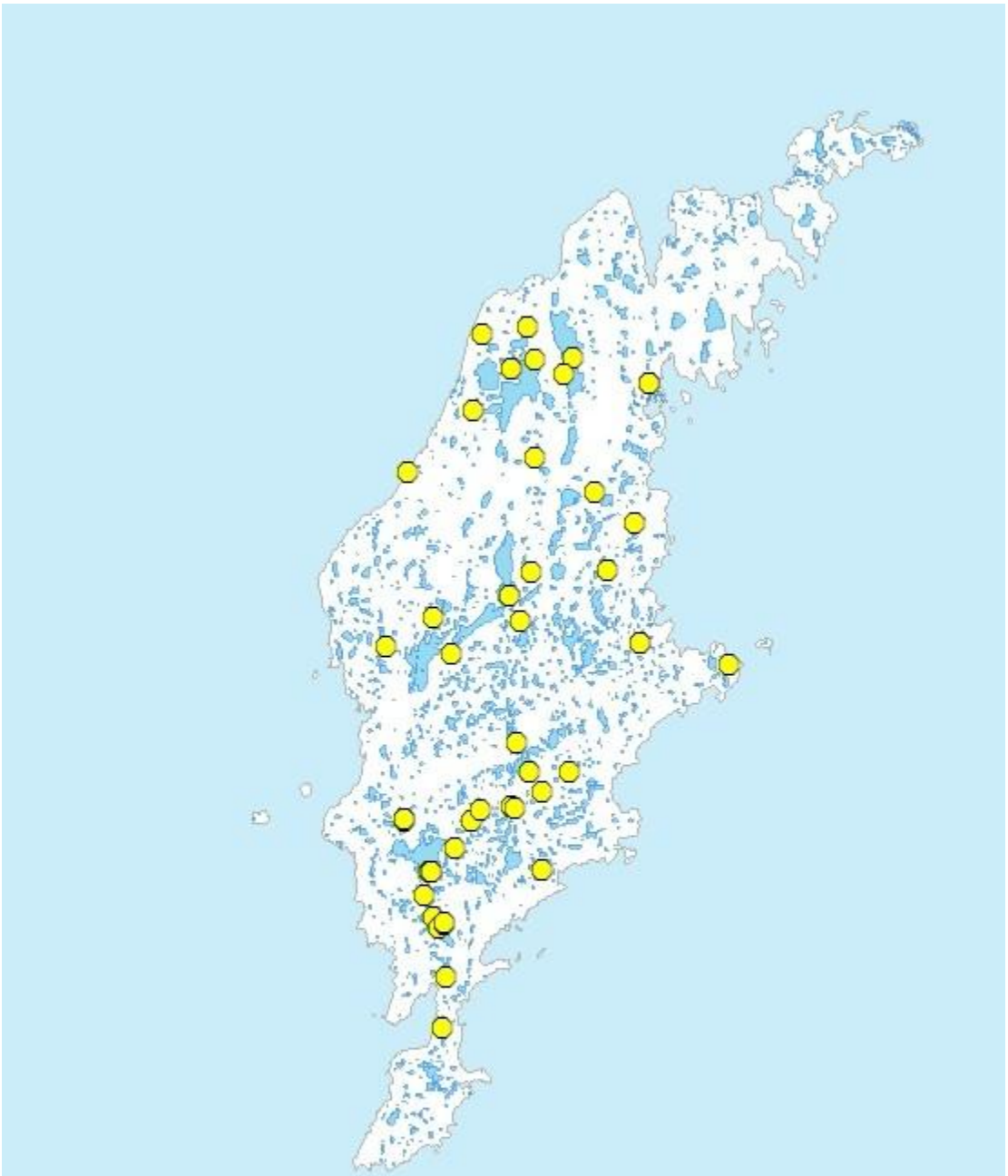
Appendix 1: maps of distribution



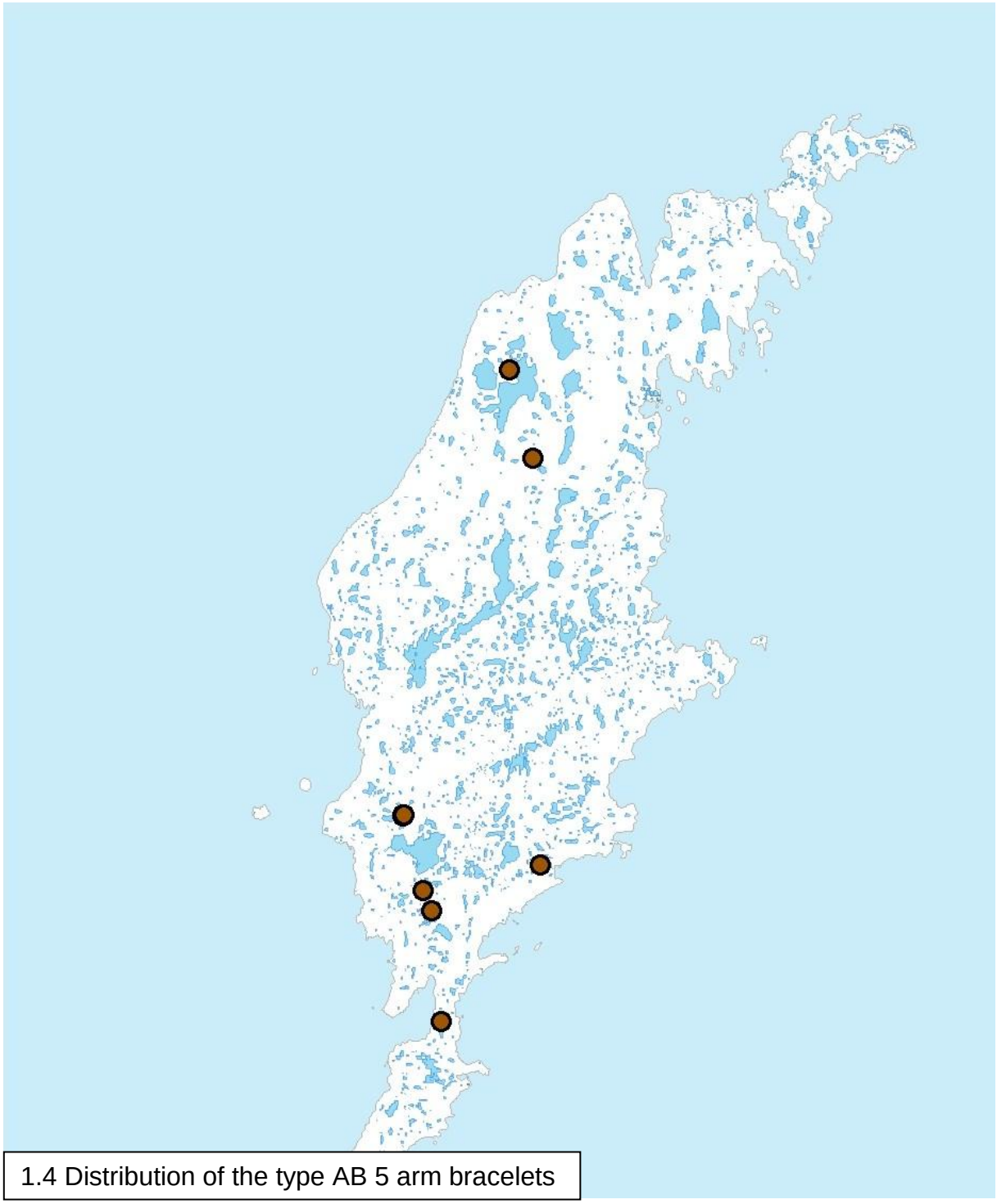
1.1 Map showing the Viking Age Baltic material discovered on Gotland



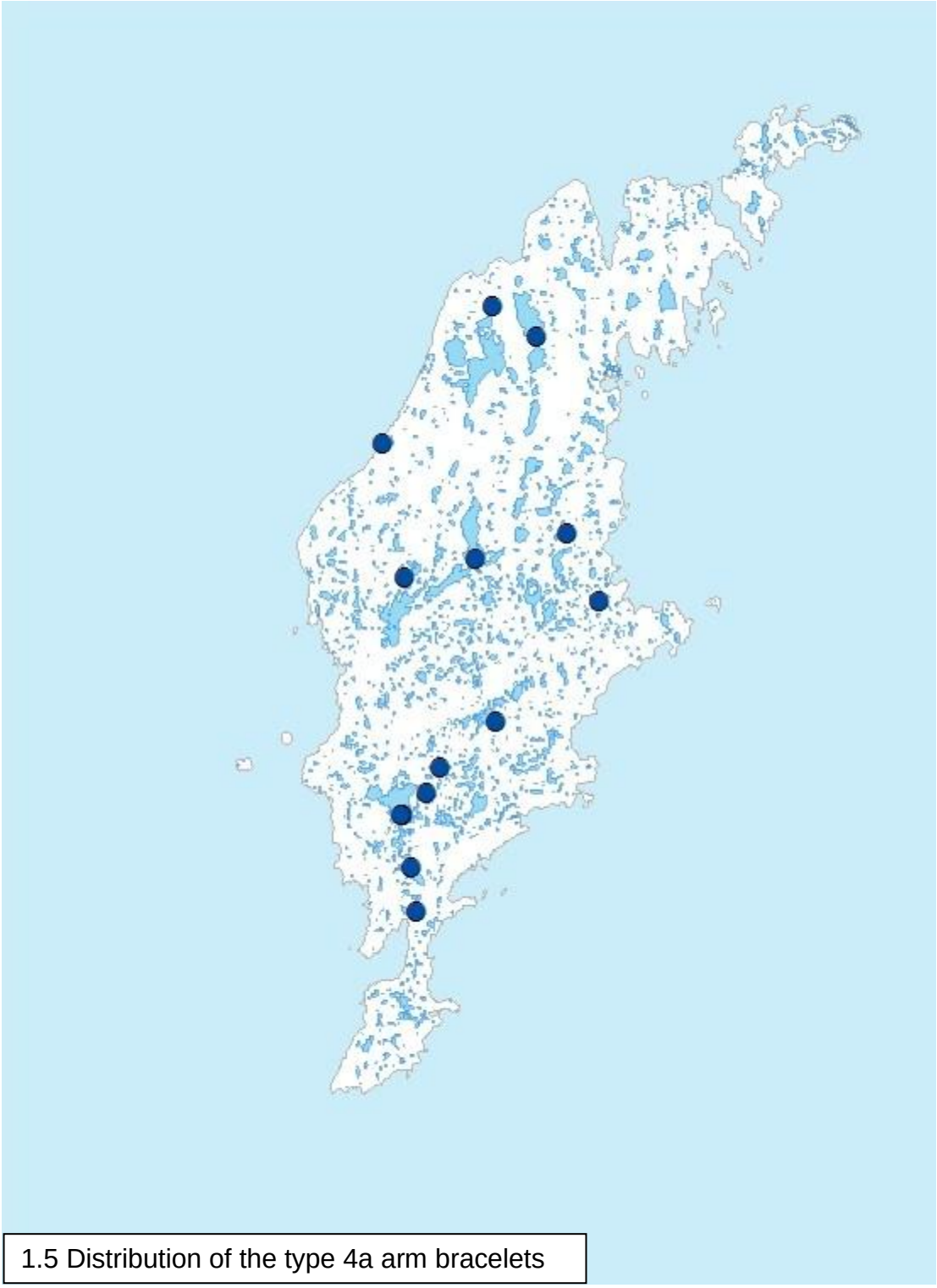
1.2 Distribution of plate fibulae



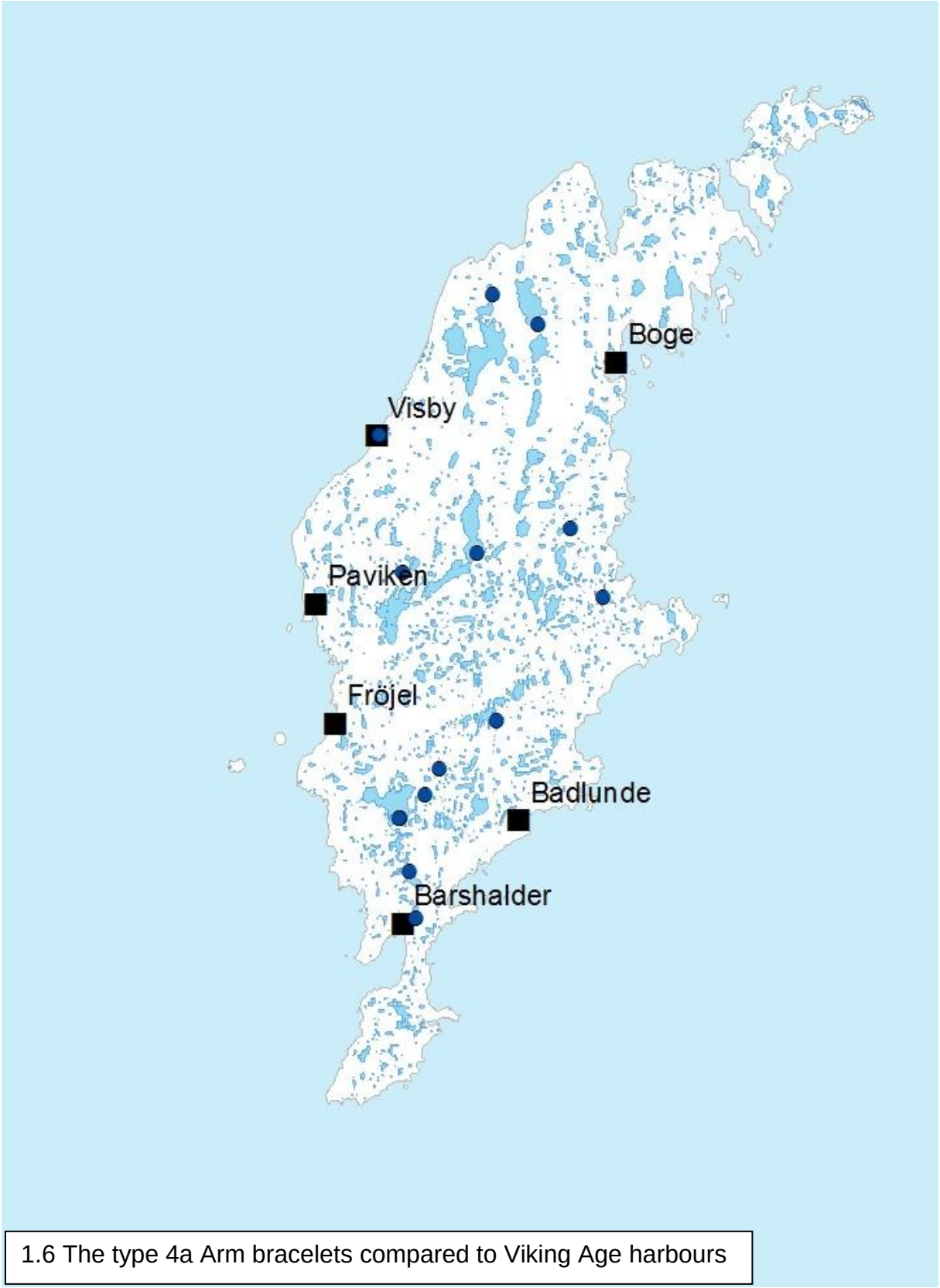
1.3 Distribution of the Baltic type arm bracelets



1.4 Distribution of the type AB 5 arm bracelets

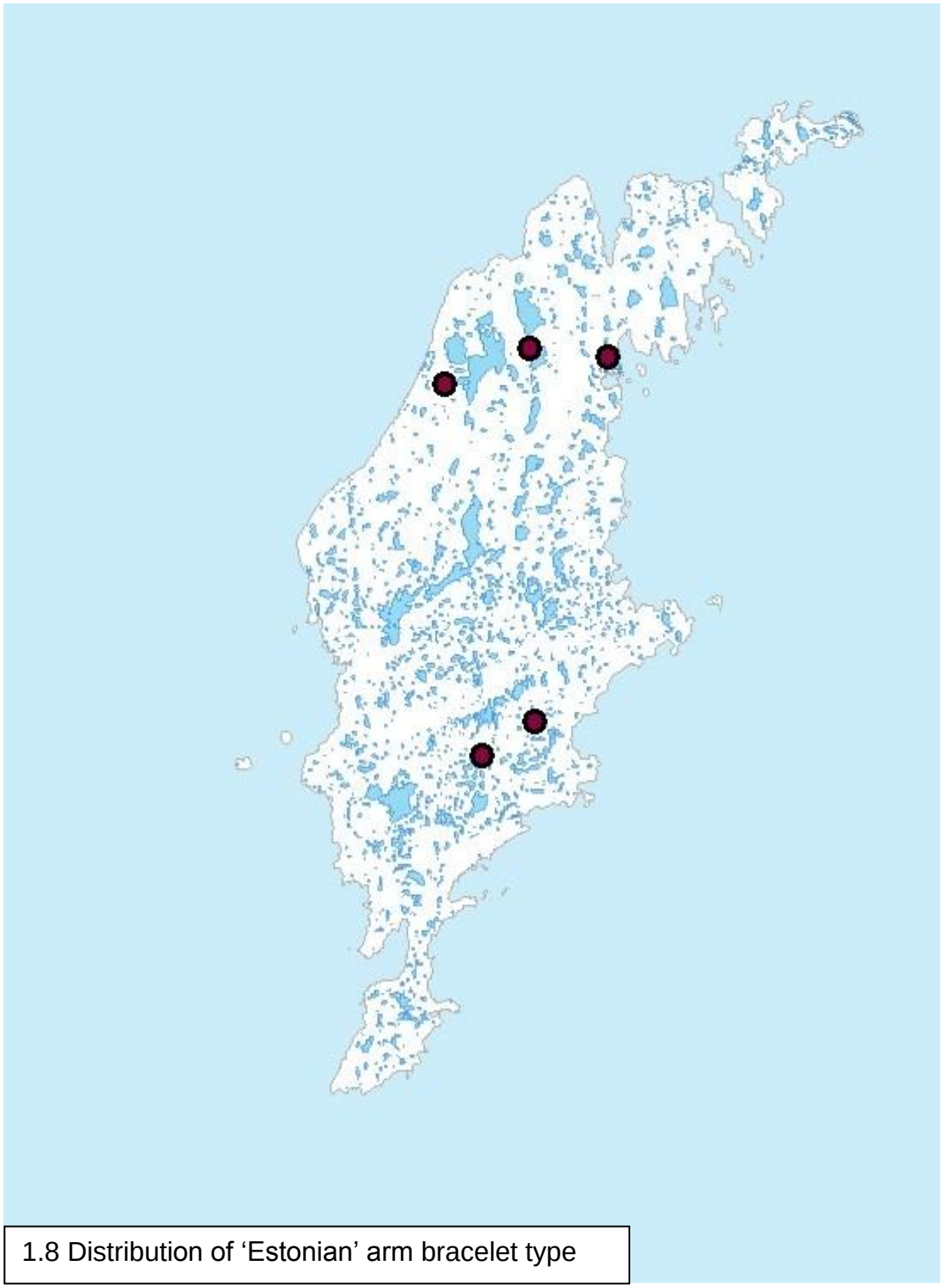


1.5 Distribution of the type 4a arm bracelets

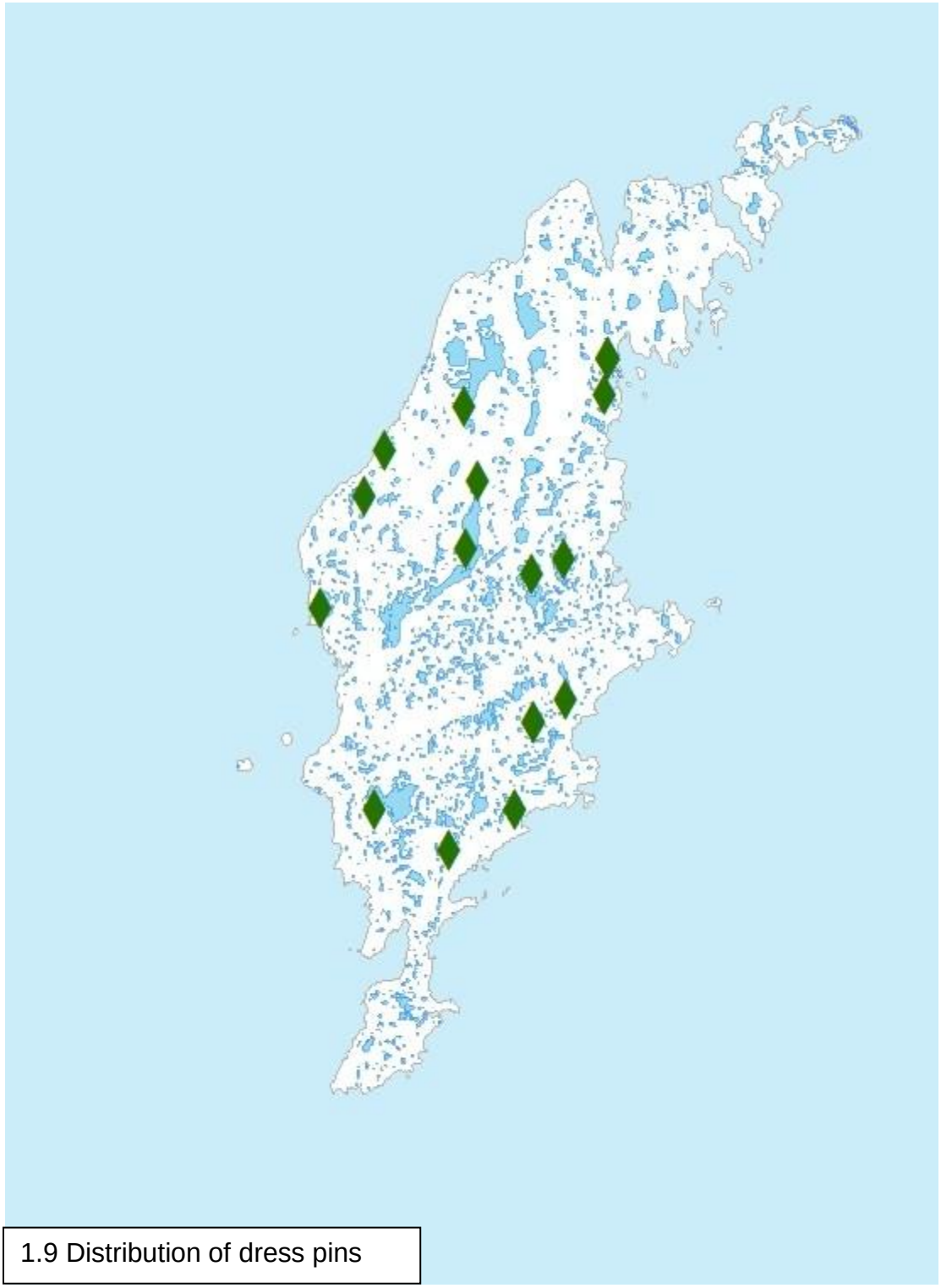


1.6 The type 4a Arm bracelets compared to Viking Age harbours

1.7 Distribution of the ‘Couronian’ type arm bracelets

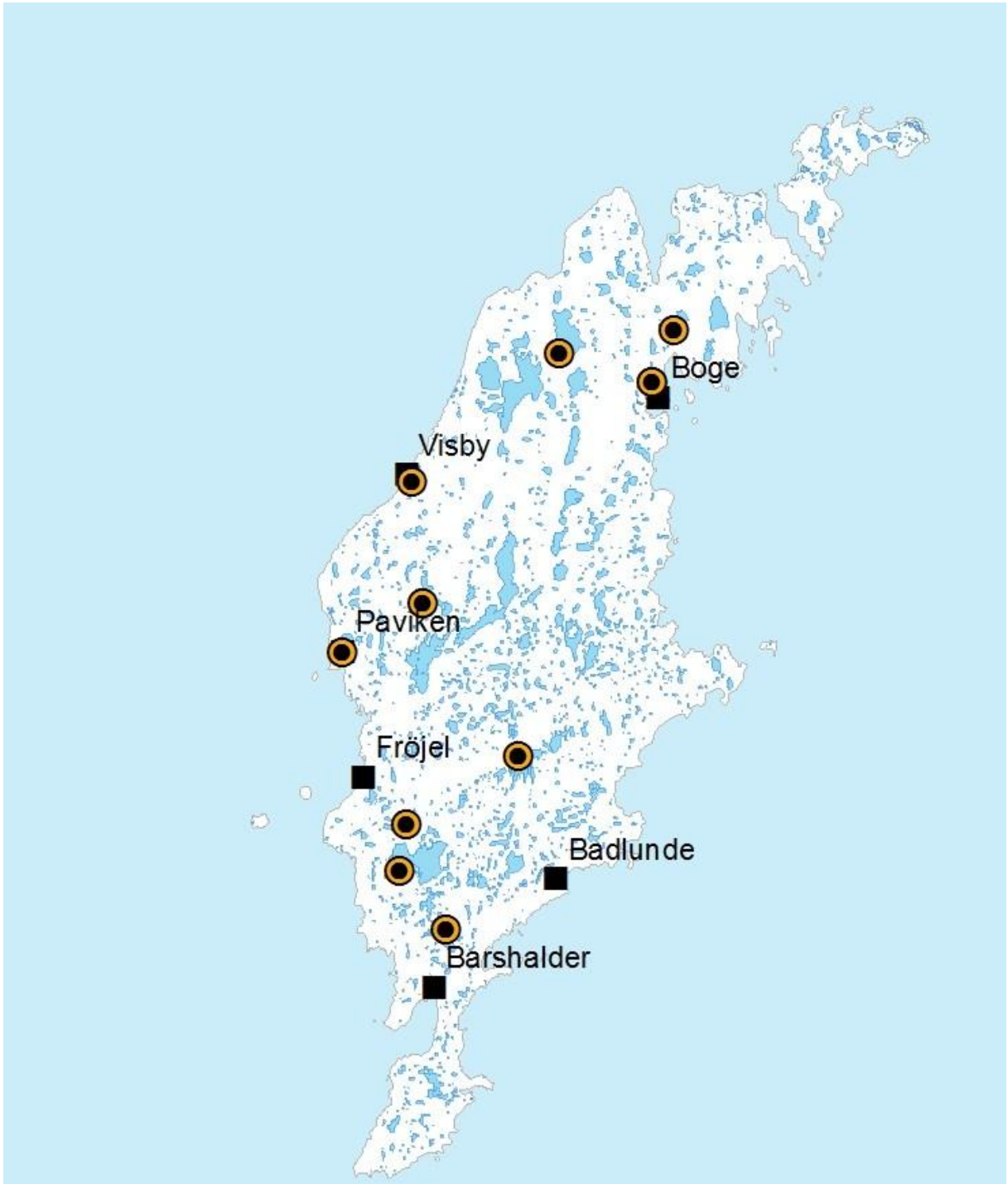


1.8 Distribution of ‘Estonian’ arm bracelet type

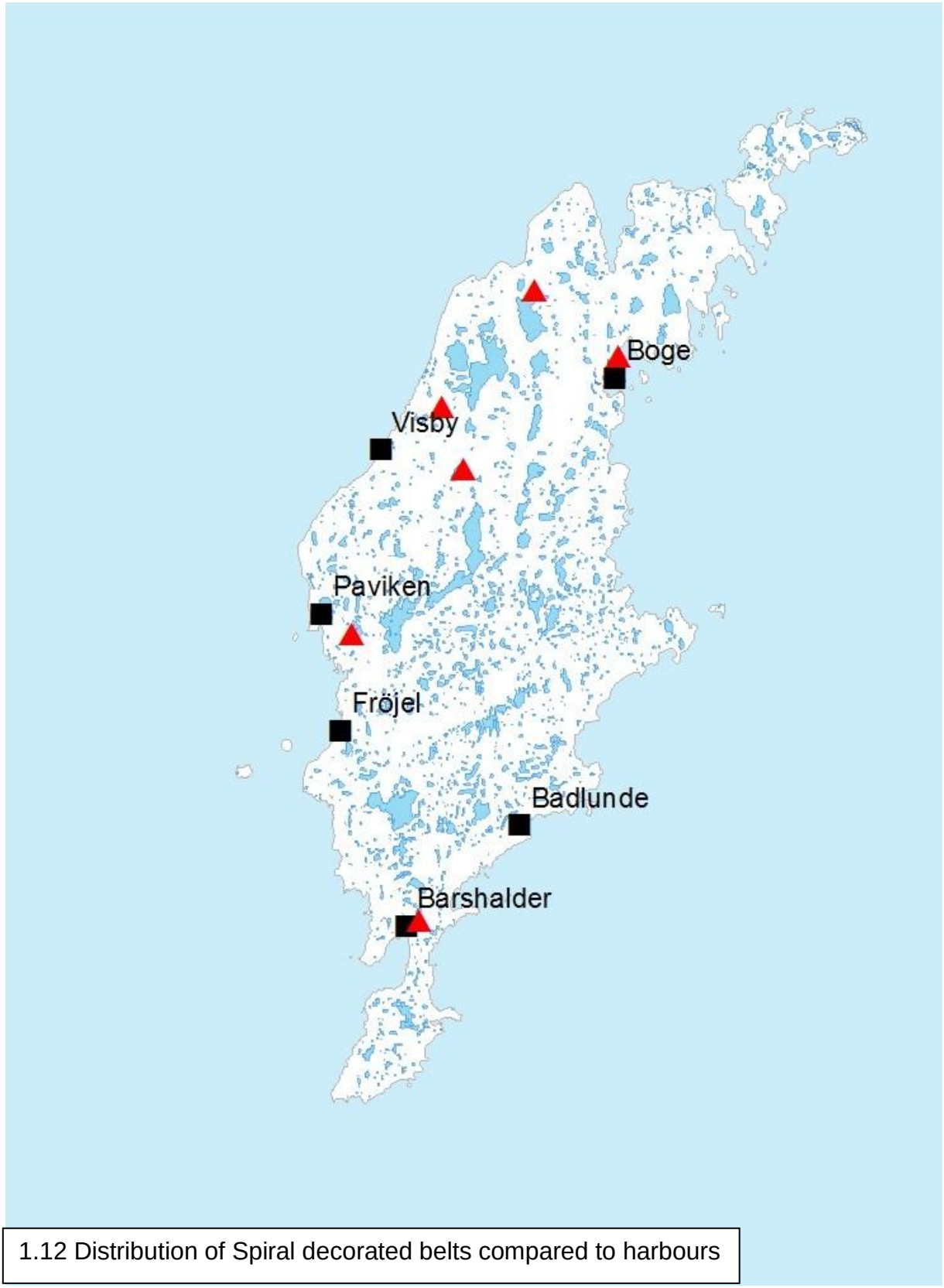


1.9 Distribution of dress pins

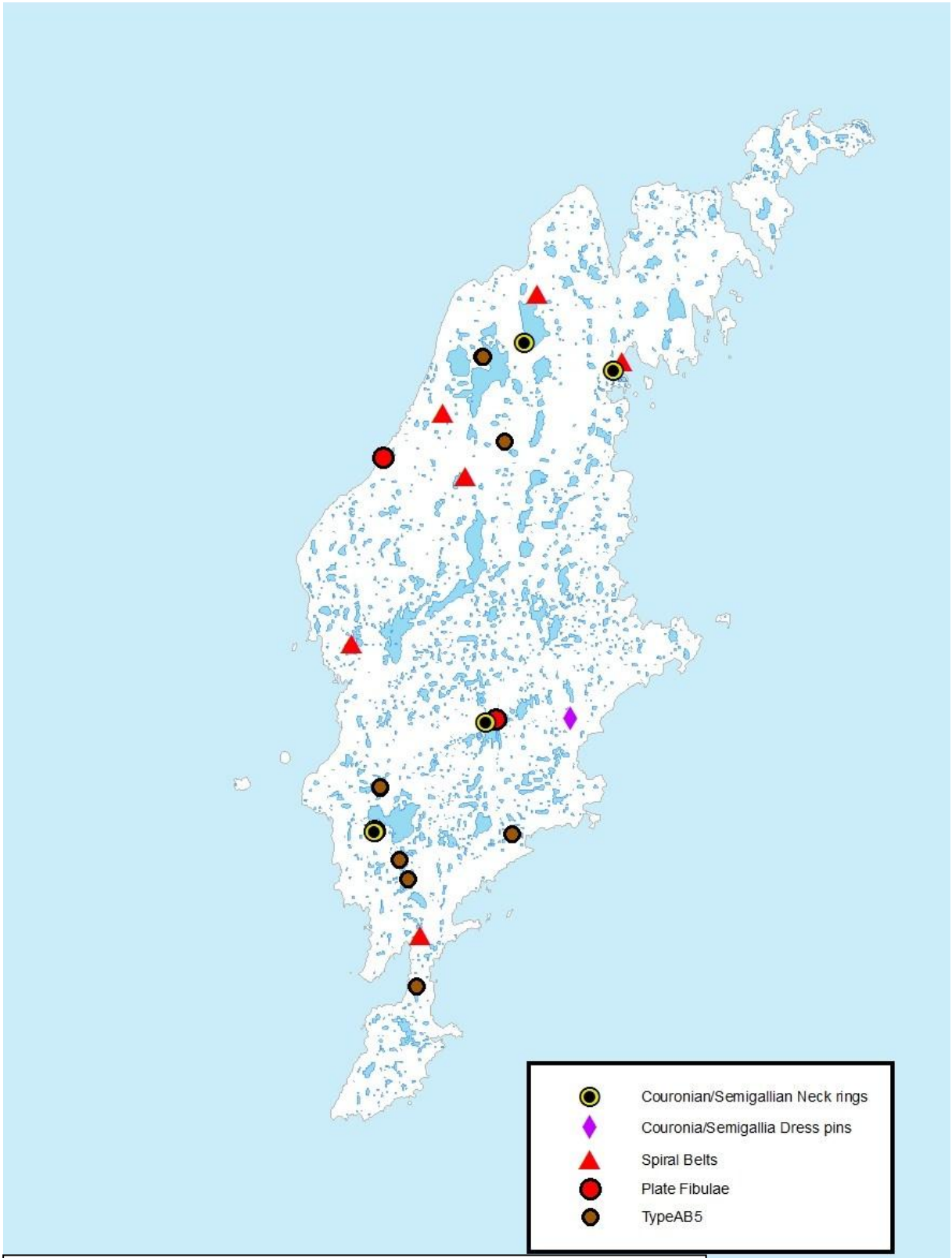
1.10 Distribution of neck rings



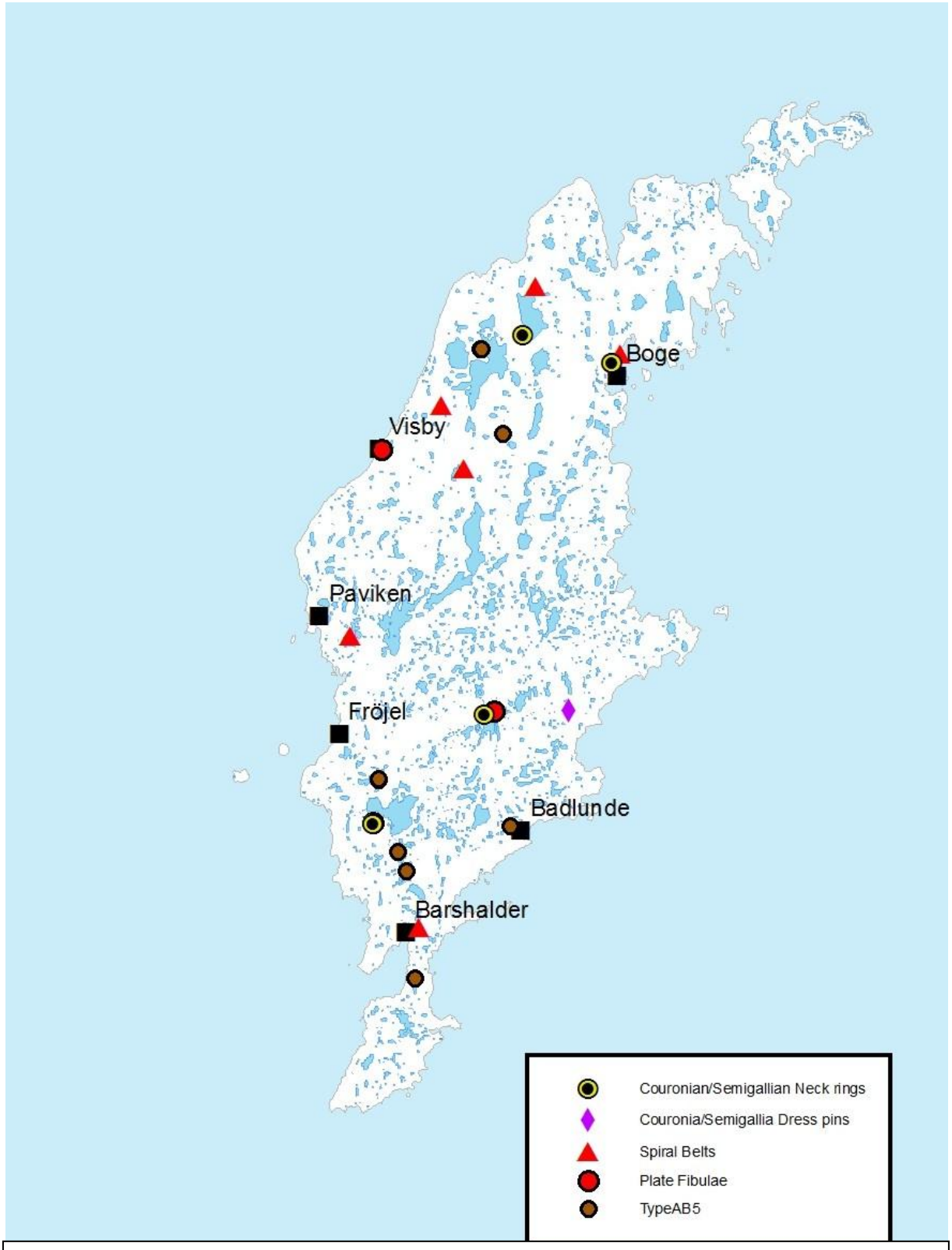
1.11 The neck rings compared to Viking Age harbours



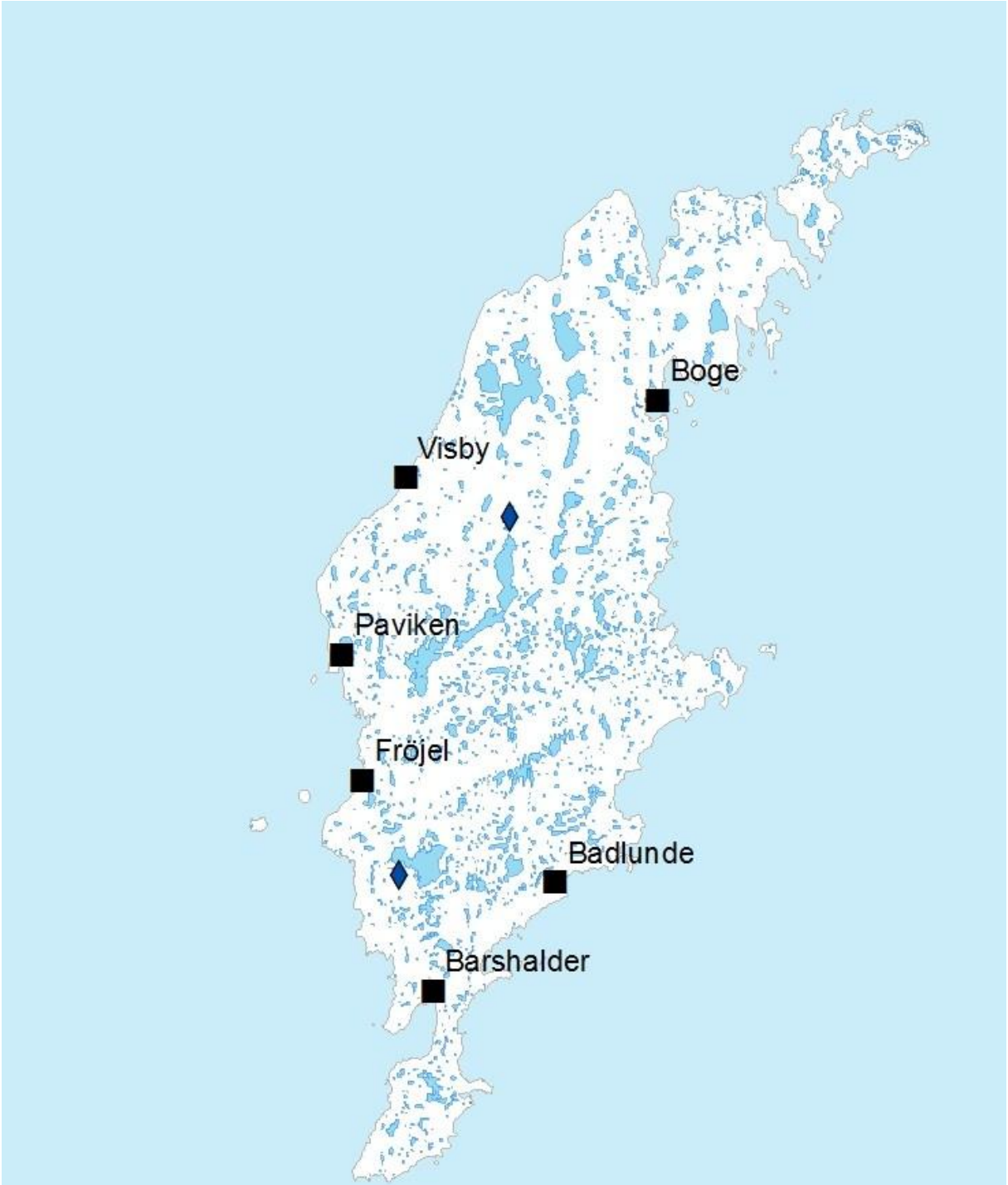
1.12 Distribution of Spiral decorated belts compared to harbours



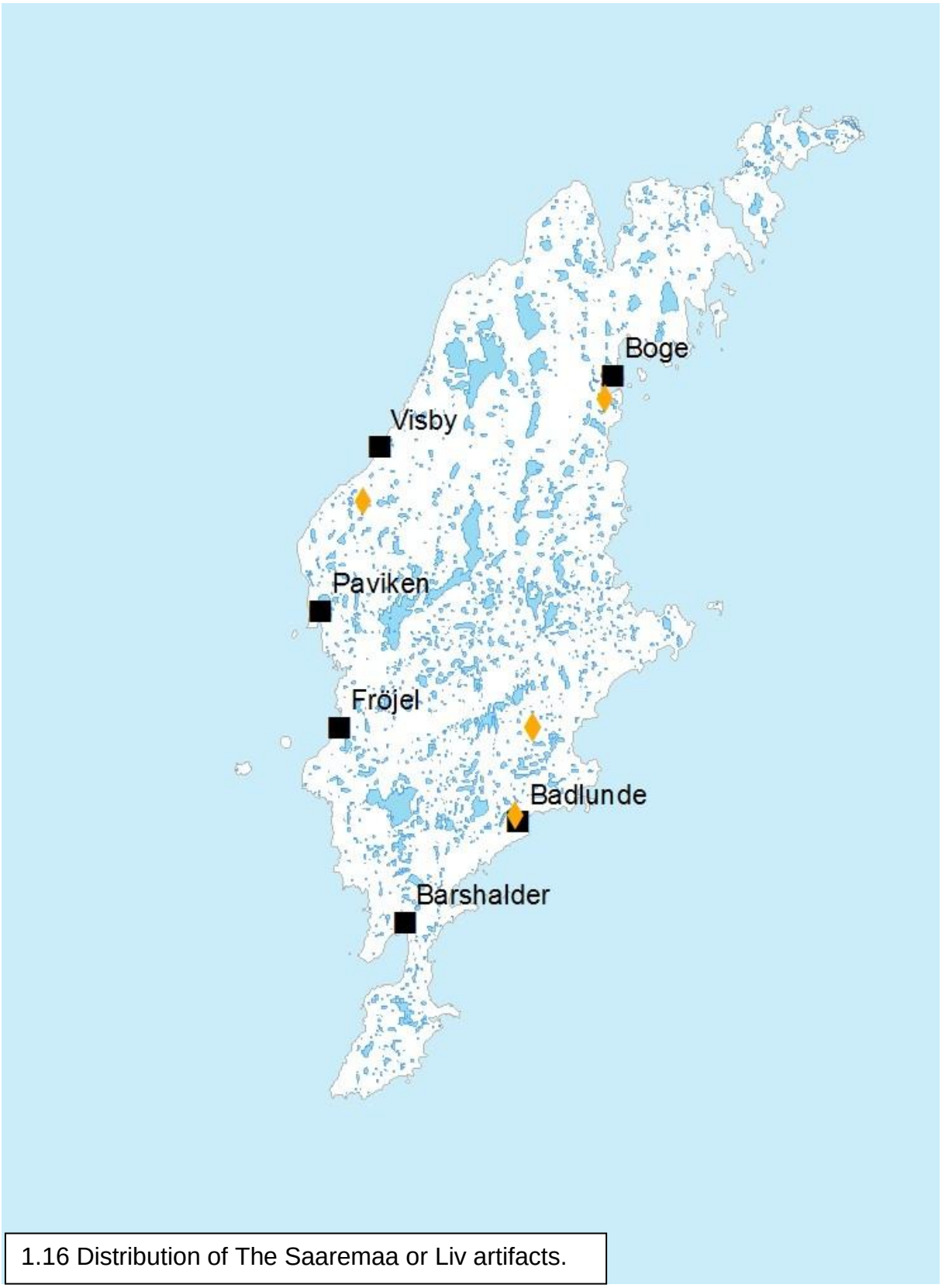
1.13 Distribution of The Couronian and Semigallian artifacts



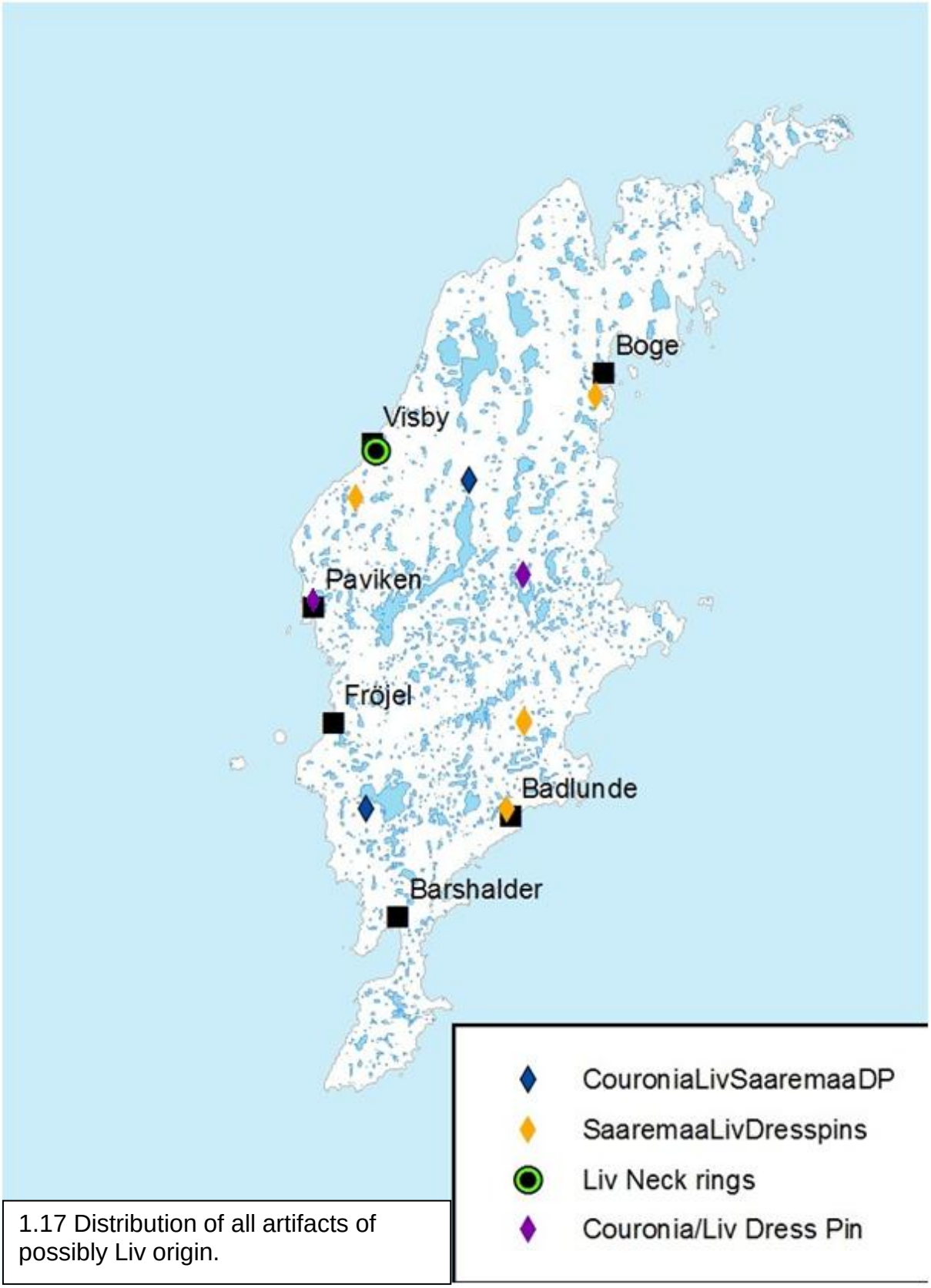
1.14 The Couronian and Semigallian artifacts compared to Viking Age harbours



1.15 Distribution of The Couronian, Saaremaa or Liv artifacts.

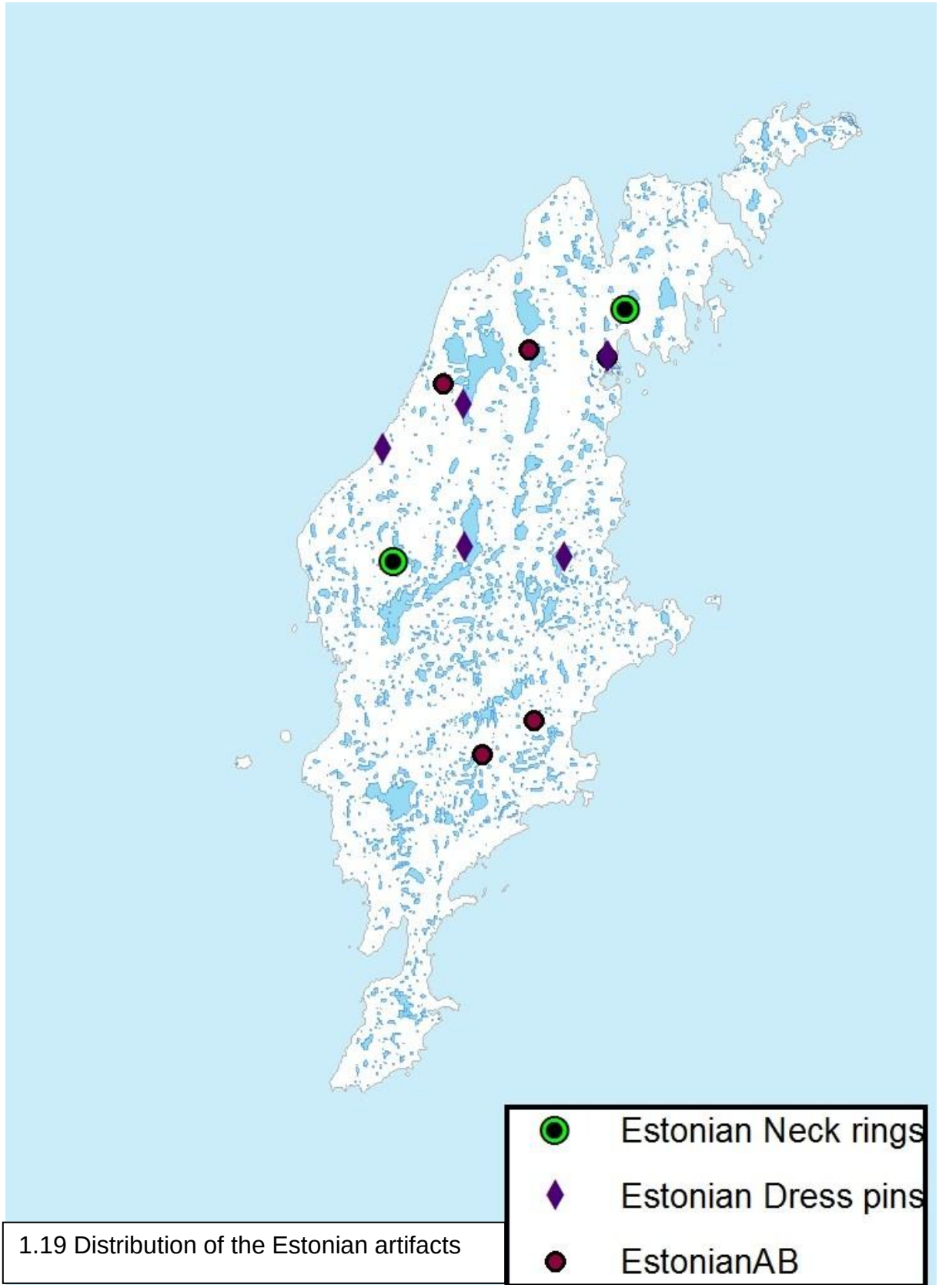


1.16 Distribution of The Saaremaa or Liv artifacts.

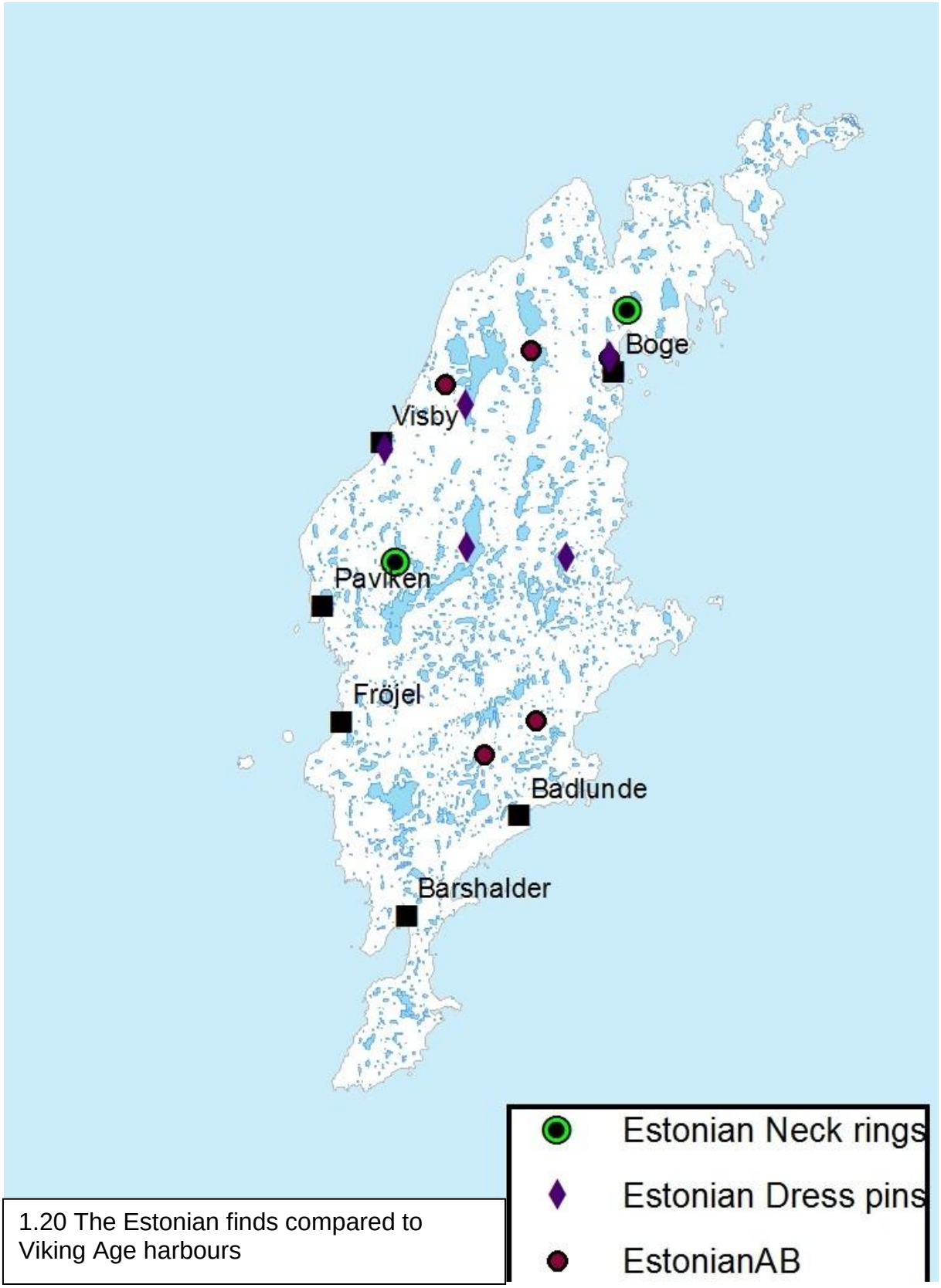


1.17 Distribution of all artifacts of possibly Liv origin.

1.18 The distribution of Latgallian artifacts.



1.19 Distribution of the Estonian artifacts



1.20 The Estonian finds compared to Viking Age harbours

1.22 The Eastern Baltic Sea area, with the regions mentioned in the thesis

Appendix 2: The artifacts

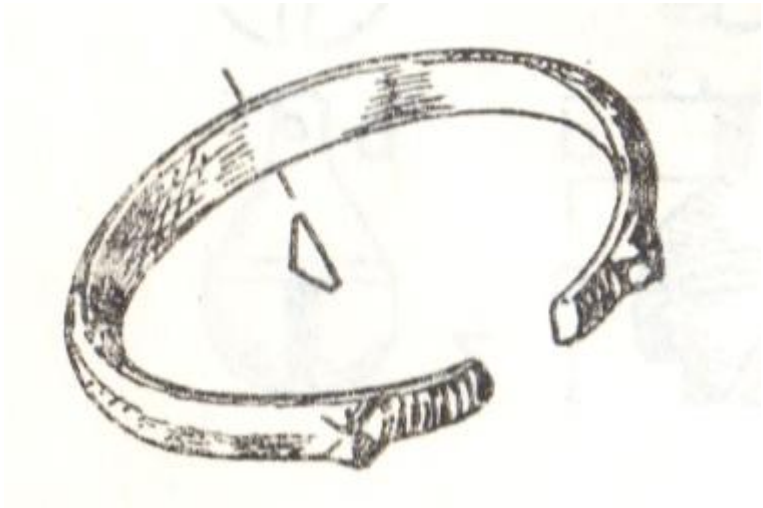
Artifact type	ID Nr	Type	Origin	Parish	Location	Context
Arm bracelet	GF A 2082	AB4a	Baltic	Etelhem	Sandarna	Grave find
Arm bracelet	SHM 11982	AB4a	Baltic	Grötlingbo	Salmunds	Grave find
Arm bracelet	SHM 7582:44	AB4a	Baltic	Hablingbo	Havor	Grave find
Arm bracelet	SHM 8064:132	AB4a	Baltic	Hablingbo	Havor	Grave find
Arm bracelet	SHM 11687	AB4a	Baltic	Halla	Broe	Stray find
Arm bracelet	SHM 31663	AB4a	Baltic	Havdhem	Sigers	Deposit?
Arm bracelet	SHM 7810	AB4a	Baltic	Kräklingbo	Smiss	Grave find
Arm bracelet	GF C 8708	AB4a	Baltic	Hogrän	Gervalds	Stray find
Arm bracelet	SHM 4683	AB4a	Baltic	Hemse	Hemse Annex	Grave find?
Arm bracelet	SHM 14527	AB4a	Baltic	Linde	Smiss	Grave find
Arm bracelet	SHM 8554	AB4a	Baltic	Norrlanda	Butrajvs	Grave find
Arm bracelet	SHM 14851	AB4a	Baltic	Tingstäde	Rosarve	Grave find?
Arm bracelet	SHM 8020	AB4a	Baltic	Stenkyrka	Kvie	Stray find
Arm bracelet	Blekinge 4309	AB4a	Baltic	Visby	Visby	Settlement site
Arm bracelet	GF A 3295	AB5	Semigallian/ Couronian	Burs	Hummelbos	Deposit
Arm bracelet	SHM 3741	AB5	Semigallian/ Couronian	Fole	Änge	Stray find
Arm bracelet	SHM 8064:117-18	AB5	Semigallian/ Couronian	Hablingbo	Havor	Grave find
Arm bracelet	SHM 30968	AB5	Semigallian/ Couronian	Hablingbo	Vasstäde	Stray find
Arm bracelet	SHM 1044	AB5	Semigallian/ Couronian	Havdhem	Nickarve	Deposit
Arm bracelet	SHM 17647	AB5	Semigallian/ Couronian	Levide	Pejnarve	Deposit
Arm bracelet	SHM 17647	AB5	Semigallian/ Couronian	Levide	Pejnarve	Deposit
Arm bracelet	SHM 17647	AB5	Semigallian/ Couronian	Levide	Pejnarve	Deposit
Arm bracelet	SHM 10938	AB5	Semigallian/ Couronian	Öja	Unghanses	Stray find
Arm bracelet	GAM 2773	AB5	Semigallian/ Couronian	NA	NA	Stray find
Arm bracelet	BM 1921,11-1,315	AB5	Semigallian/ Couronian	NA	NA	Stray find
Arm bracelet	GF C 6287	AB5	Semigallian/ Couronian	Martebo	Björkeskogs	Grave find
Arm bracelet	GF C 6287	AB5	Semigallian/ Couronian	Martebo	Björkeskogs	Grave find
Arm bracelet	SHM 25177:C:45	Baltic	Baltic	NA	NA	Stray find
Arm bracelet	SHM 8719	Baltic	Baltic	Eskelhem	Tjuls	Stray find
Arm bracelet	NA	Baltic	Baltic	Havdhem	Churchyard	Grave find
Arm bracelet	SHM 11139	Baltic	Baltic	Kräklingbo	Smiss	Grave find
Arm bracelet	GF dep C 628	Baltic	Baltic	NA	NA	Stray find
Arm bracelet	GF dep C 633	Baltic	Baltic	NA	NA	Stray find
Arm bracelet	GF C 8594	Baltic	Baltic	Linde	Myrungs	Grave find?
Arm bracelet	SHM 25455:6	Baltic	Baltic	Stenkyrka	Mos	Grave find
Arm bracelet	SHM 8064:148	Baltic	Baltic	Hablingbo	Havor	Grave find

Arm bracelet	SHM 32397:4	Baltic	Baltic	Vallstena	Uppgarde	Grave find
Arm bracelet	SHM 11420	Baltic	Baltic	Havdhem	Churchyard	Grave find
Arm bracelet	SHM GF C 12078	Baltic	Baltic	Väte	Churchyard	Grave find
Arm bracelet	SHM 15525	Baltic	Baltic	Etelhem	Levide	Stray find
Arm bracelet	GF C 9581	Baltic	Baltic	Gothem	Churchyard	Grave find
Arm bracelet	SHM 7595	Baltic	Baltic	Sjonhem	Sojvide	Stray find
Arm bracelet	SHM 14443:1	Baltic	Baltic	"South Gotland"	NA	Stray find
Arm bracelet	SHM 6397	Couronian	Couronian	Östergarn	Rodarve	Stray find
Arm bracelet	GF C 8882	Couronian	Couronian	Lummelunda	Kinner	Grave find
Arm bracelet	SHM 7571:448	Couronian	Couronian	NA	NA	Stray find
Arm bracelet	SHM 23849:I:79	Couronian	Couronian	NA	NA	Stray find
Arm bracelet	SHM 8191:13	Couronian	Couronian	Stånga	NA	Stray find
Arm bracelet	SHM 9461:3	Couronian	Couronian	Lye	NA	Stray find
Arm bracelet	SHM 13293	Estonian	Estonian	Väskinde	Vestkinds	Stray find
Arm bracelet	SHM 23376	Estonian	Estonian	Garda	Churchyard	Grave find
Arm bracelet	SHM 13436B:4	Estonian	Estonian	Stånga	Churchyard	Grave find
Arm bracelet	SHM 12350	Estonian	Estonian	Tingstäde	Furbjärs	Stray find
Arm bracelet	SHM 25177:C:42	Estonian	Estonian	NA	NA	Stray find
Arm bracelet	SHM 33757:B196	Estonian	Estonian	Othem	Spillings	Deposit
Arm bracelet	SHM 33757:B19	Estonian	Estonian	Othem	Spillings	Deposit
Arm bracelet	SHM 4272	Estonian	Estonian?	Halla	Tomte	Grave find?
Arm bracelet	GF dep C631	Estonian	Estonian?	NA	NA	Stray find
Dress pin	SHM 4078	Animal style	Latgallian?	Eke	Smiss	Deposit
Dress pin	SHM 14443	Closed cross shaped	Estonian	Visby	Korsbetningen	Grave find
Dress pin	SHM 15185	Cross shaped	Couronia/ Semigallia	Alskog	Smiss	Stray find
Dress pin	GF C 12115	Cross shaped	Estonian	Bro	St. Åby	Grave find?
Dress pin	SHM 2870	Cross shaped	Couronia/Liv	Ganthem	Gardese	Stray find
Dress pin	SHM 9515	Cross shaped	Estonian	Norrlanda	Petsarve	Grave find?
Dress pin	SHM 33757:B28	Cross shaped	Couronian	Othem	Spillings	Deposit
Dress pin	SHM 33757:B252	Cross shaped	Couronian	Othem	Spillings	Deposit
Dress pin	SHM 11122	Nurmuiša type	Couronia/Liv	Västergarn	Mafrids	Stray find
Dress pin	SHM 7871:180d	Ring needle	Estonian	Roma	Kungsgård	Stray find
Dress pin	SHM 33757: A86	Ring needle	Estonian	Othem	Spillings	Deposit
Dress pin	SHM 33757: A127	Ring needle	Estonian	Othem	Spillings	Deposit
Dress pin	SHM 33757:B26	Ring needle	Estonian	Othem	Spillings	Deposit
Dress pin	SHM 33757:B31	Ring needle	Estonian	Othem	Spillings	Deposit
Dress pin	SHM 11374	Triangular	Saaremaa/Liv	Boge	Mojner	Stray find
Dress pin	SHM 31409	Triangular	Saaremaa/Liv	Burs	Häffinds	Settlement site

Dress pin	SHM 20105	Triangular	Couronia/ Liv/ Saaremaa	Endre	Långhulte	Stray find
Dress pin	SHM 26012	Triangular	Saaremaa/Liv	Garda	Churchyard	Grave find
Dress pin	SHM 26012	Triangular	Saaremaa/Liv	Garda	Churchyard	Grave find
Dress pin	SHM 17514	Triangular	Couronia/ Liv/ Saaremaa	Silte	Huglajvs	Grave find?
Dress pin	SHM 9831	Triangular	Saaremaa/ Liv	Västerhejde	NA	Stray find
Dress pin	GF C 10720	Triangular	Saaremaa/ Liv	NA	NA	Stray find
Dress pin	GF C dep C 661	Triangular	Couronian	NA	NA	Stray find
Dress pin	Gf dep C 662	Triangular	Couronia/ Liv/ Saaremaa	NA	NA	Stray find
Neck ring	SHM 23849:I:261	Flattened	Latgallian	NA	NA	Stray find
Neck ring	GF C 286-287	Flattened	Latgallian	NA	NA	Stray find
Neck ring	GF C 9948	Flattened, band shaped	Estonian?	Hogrän	NA	Stray find
Neck ring	SHM 6184	Flattened, band shaped	Estonian?	Lärbro	Kajlungs	Stray find
Neck ring	GF A 2083	Massive with cuts	Couronian/ Semigallian	Etelhem	Sandarna	Grave find
Neck ring	SHM 17514	Massive with cuts	Couronian/ Semigallian	Silte	Huglajfs	Grave find?
Neck ring	SHM 4239:7	Smooth with spirals	Liv	Visby	Korsbetningen	Grave find
Neck ring	SHM 17647	Toreutic	Baltic	Lejvide	Penarve	Deposit
Neck ring	SHM 11937	Touretic, Partially twisted	Couronian/ Semigallian	Tingstäde	Gartarve	Grave find
Neck ring	GF C 10067	Touretic, Partially twisted	Couronian/ Semigallian	NA	NA	Stray find
Neck ring	SHM 33757:A152	Touretic, Partially twisted	Couronian/ Semigallian	Othem	Spillings	Deposit
Neck ring	SHM 18794	Twisted	Baltic	Havdhem	Churchyard	Grave find
Neck ring	SHM 7571:492	Twisted	Baltic	NA	NA	Stray find
Neck ring	SHM 33757:B169	Twisted	Baltic	Othem	Spillings	Deposit
Neck ring	NA	Twisted?	Baltic	Västergarn	Mafrids	Settlement site
Plate fibula	SHM 17514	Couronian/ Semigallian	Couronian/ Semigallian	Silte	Huglajfs	Grave find?
Plate fibula	SHM 32753	Couronian/ Semigallian	Couronian/ Semigallian	Visby	Kv. Tunnbindaren	Settlement site
Plate fibula	SHM 18304	Couronian/ Semigallian	Couronian/ Semigallian	Etelhem	Kyrkeby	Stray find
Spiral belt	SHM 22005	Spiral belt	Couronia/ Semigallia	Sanda	Sandegårda	Grave find
Spiral belt	SHM 2309	Spiral belt	Couronia/ Semigallia	Hangvar	Austers	Grave find
Spiral belt	SHM 2593	Spiral belt	Couronia/ Semigallia	Endre	Kvie	Grave find
Spiral belt	SHM 15752 IV	Spiral belt	Couronia/ Semigallia	Othem	Närs, Slitehamn	Grave find
Spiral belt	SHM 21242	Spiral belt	Couronia/ Semigallia	Grötlingbo	Barshaldershed	Grave find
Spiral belt	SHM 32391	Spiral belt	Couronia/ Semigallia	Väskinde	Gällungs	Grave find

Appendix 3: Illustrations of artifacts

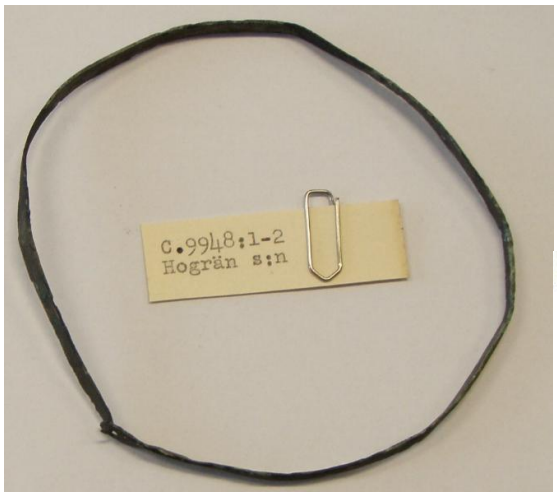
3.1 Arm bracelet type 4a(AB4a).
From: Thunmark-Nylén 1998: Taf. 157:7

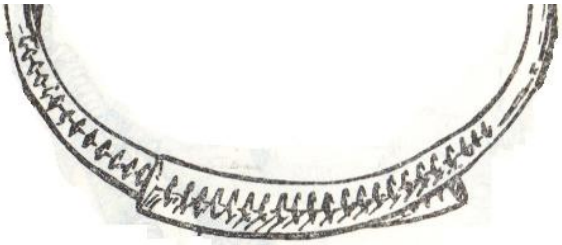


3.2 Arm bracelet type 5 (AB5)
From: Graudonis 1994: 276

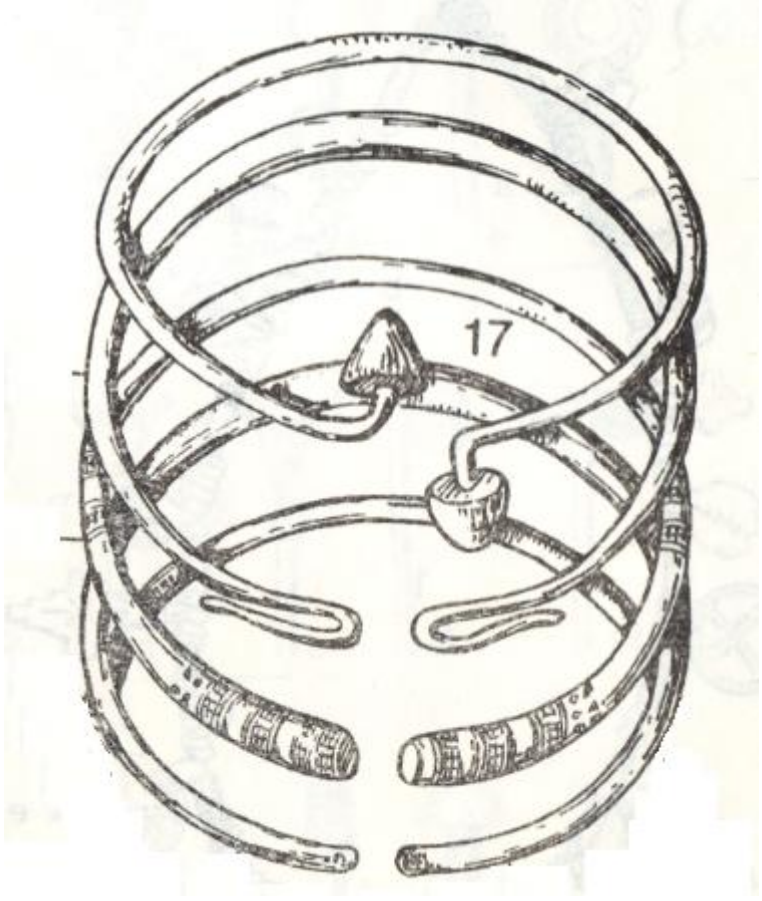
3.3 Arm bracelets of Baltic types discovered on Gotland. From: Thunmark-Nylén 1998: Taf. 159

3.4 Arm bracelets of Couronian types discovered on Gotland. From: Thunmark-Nylén 1998: Taf. 159





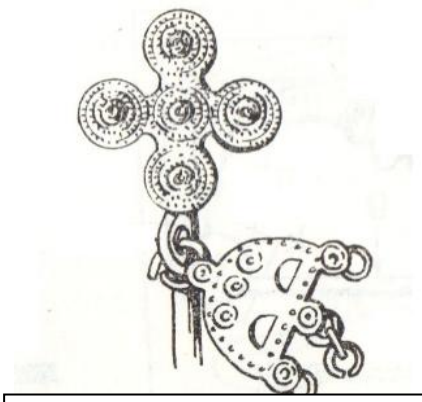
3.5 Left: Flat, band shaped neck ring. Photo: Daniel Gunnarsson.
Right: Flat, hammered neck ring. From: Graudonis 1994: 266



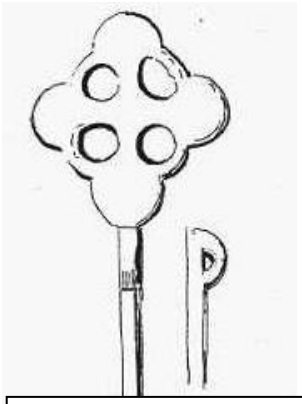
3.6 Massive neck rings.
From: Graudonis 1994: 267

3.7 Twisted neck ring. From:
Graudonis 1994: 266

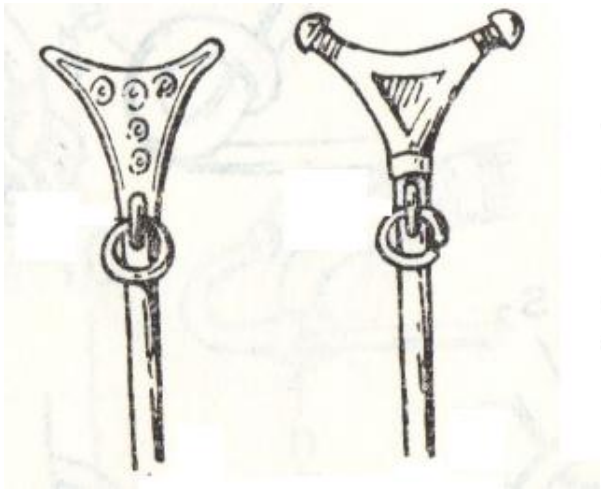
3.8 Touretic neck ring.
Photo: Daniel Gunnarsson



3.8 Cross shaped dress pin. From: Graudonis 1994:269

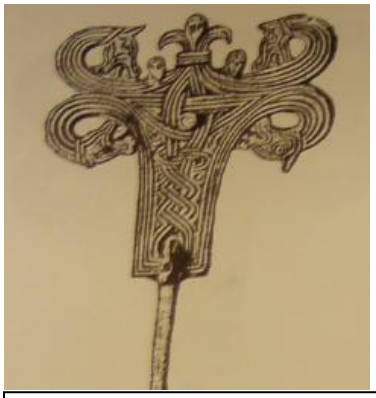


3.9 Closed cross shaped dress pin. From: Report for artifact SHM 14443



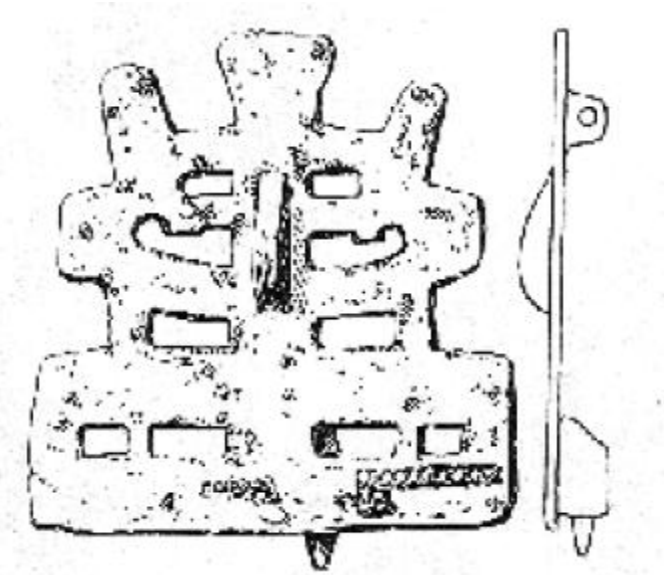
3.10 Triangular dress pins. From: Graudonis 1994:269

3.11 Nurmuiša type dress pin. From: LV-PSR 1974: Taf. 50

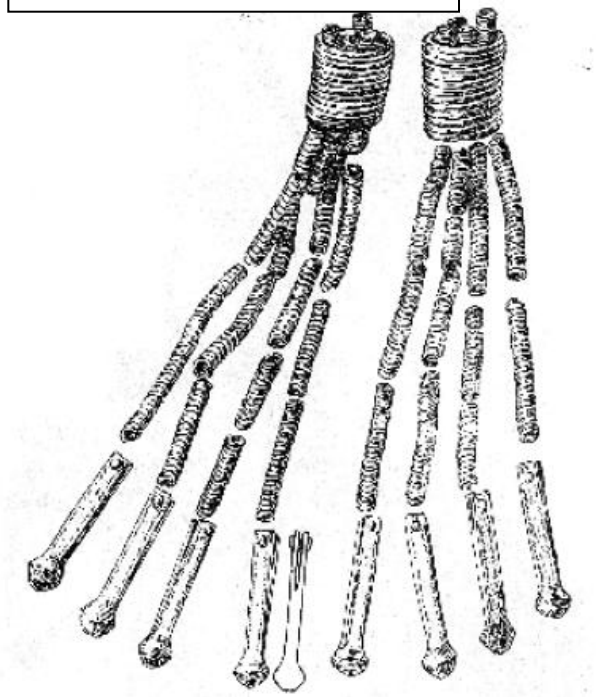


3.12 Animal style dress pin. From: Jansson 1995: 86

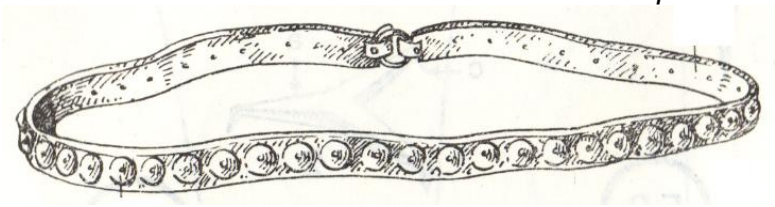
3.13 Ring needle. From: Graudonis 1994:269



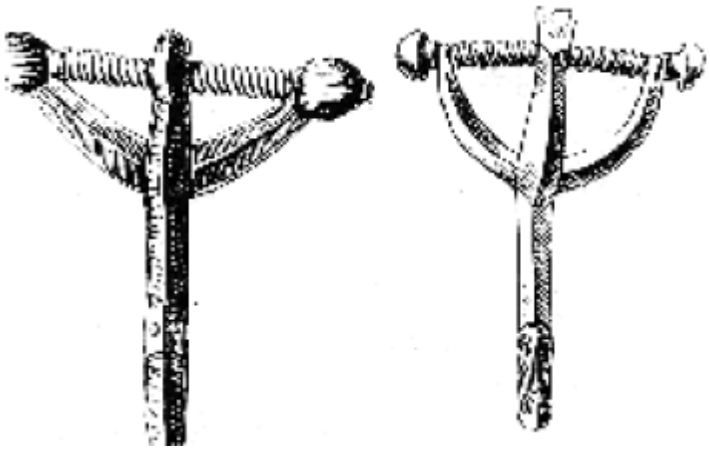
3.14 Plate fibula. From: LV-PSR 1974: Taf. 57



3.15 Spirals from a belt ornament. From: LV-PSR 1974: Taf. 59



3.16 Stud-decorated belt.
From: Graudonis 1994:264



3.17 Crossbow brooches with long, narrow foot. From: LV-PSR 1974: Taf.42