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## **Title**

\*Sæheimr – just a settlement by the sea? Dating, naming motivation and function of an Iron Age maritime place name in Scandinavia

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## **Abstract**

Derivations of the maritime place name \*Sæheimr – ‘the settlement by the sea’ – are known from 54 examples from different parts of Scandinavia. Traditionally, these are thought to describe merely a feature of the terrain that defined a site’s location by the sea, a fjord or a lake. Consequently, they have not been the focus of archaeological research. By analysing the sites’ topographical, archaeological-historical and onomastic settings, the theory developed in this article is that the derivations of the place name \*Sæheimr denote outlying landing sites of central place complexes that were established in the Roman Iron Age and Migration Period. In this respect, the phenomenon fits with and supplements the traditional Scandinavian concept of the Iron Age central place complex, in which stereotypical place names denote specific central functions, in this case maritime activities such as landing, trading, seasonally practised crafts, and defence. Market functions and the long-term exchange of goods, in particular, are collaborated by many sources. Landing and trade seem to have been prominent activities at these sites, which also show a striking coincidence with far-reaching waterways of strategic and commercial significance. In contrast to place names denoting Viking Age and Medieval harbours and maritime market places, there is a dearth of corresponding names for the Early Iron Age. The place name \*Sæheimr and its assumed Eastern-Swedish counterpart Sätuna might fill this vacuum, and constitute a valuable tool for research and cultural heritage management regarding the identification of landing and trading sites established in the Early Iron Age.

## **Keywords**

maritime landscape archaeology, central place complex, Iron Age trade, landing sites, market places

## **Acknowledgements**

I thank Berit Sandnes, Eli Johanne Ellingsve, Stefan Brink and my colleagues for helpful discussions during a workshop on place names, held at NTNU University Museum in 2017. However, I take full responsibility for the ideas presented in this paper. Additionally, I thank two anonymous peer-reviewers for useful comments, Elizabeth Ellen Peacock for checking the language, Magnar Mojaren Gran for help with the mapping in GIS, Peder Gammeltoft for sharing his map of the general distribution of names with the element -heim in Norway, Morten Sjøvsø, Ejvind Hertz, Astrid Skou Hansen and Torben Birk Sarauw for information about the finds

material from the Danish sites, Sonja Marie Innselset for information from the archive at the University Museum of Bergen, and Ann-Charlott Pedersen for a refuge at Gløshaugen. Finally, I would like to thank my family for their patience in visiting scores of \*Sæheimr sites together with me.

## 1. Introduction

Between 2012 and 2015 metal detector finds dating from the first millennium AD and indicative of trade and specialized production were recovered at three sites in south-eastern Norway that share the place name Sem. The place name derives from the Old Norse \*Sæheimr, which is composed of the elements *sæ m.* (sea/fjord/lake) and *heimr m.* (home), meaning ‘the settlement by the sea’. Different derivations of the Old Norse place name \*Sæheimr constitute a subset of the large group of North Germanic names ending in *-haim* or *-hām*. The derivations are quite common throughout Scandinavia and are found in England (Hald 1942, 92). Among these is Seim in Lindås Municipality, in the county of Hordaland, Western Norway. According to the 13th century *Egil’s Saga*, Seim was one of the royal manors of the Viking king Harald Fairhair (Olsen 1926, 128–130). Another derivation, Sem, is found near present-day Tønsberg, and is mentioned in the medieval Icelandic sagas as the burial place of a merchant and member of the royal family (e.g. Heimskringla). This is referred to as crown land ‘Kongs-Sæm’ in Norwegian medieval documents (Diplomatarium Norvegicum in 1552, I 817).

In prehistoric times, the main line of communication in Northern Europe was via water. In Scandinavia the long coastline and numerous inland waters offered optimal conditions for shipping and winter transport on ice. Places that were denoted \*Sæheimr – a settlement by the sea – thus bridged the terrestrial and the maritime spheres are likely to have had special importance in a system in which communication, exchange of goods, migration, and political power were dependent on waterways.

The “maritime culture landscape”, defined as “*the whole network of sailing routes, old as well as new, with ports and harbours along the coast, and its related constructions and remains of human activity, underwater as well as terrestrial*” (Westerdahl 1992, 6), was the subject of Christer Westerdahl’s fundamental work from the late 1970s onward. This was based on the north-Swedish sailing route (Westerdahl 1987; 1989a; 1989b), but took later on an increased European focus (Westerdahl 1995; 2000; 2002). Place names, including names indicating installations under water, names of ship types, harbour names, and names with indirect relationships to sailing routes, such as the beacon warning system, were of central importance in Westerdahl’s interdisciplinary and multi-period approach. In addition to theoretical approaches (Holmberg 1991), several Scandinavian studies focused on specific maritime place names, such as names indicating prehistoric harbour sites and market places (bjarkey, torg, la-/lahelle, kaupang (Christophersen 1991). The Snekke-names, names alluding to a warship or a leiðangr-ship (Holmberg 1991, 237), in particular, have been investigated in Scandinavia (Holmberg and Skamby Madsen 1998; Stylegar and Grimm 2002; Dobat 2002b; Kalmring 2005). Other studies, focussing on specific maritime cultural landscapes, such as the Roskilde fjord (Ulriksen 1998) or the Schlei (Dobat 2002a) convincingly argued for the potential of place names in studies of maritime cultural landscapes.

To date, the maritime place name \*Sæheimr has not received special attention from either linguists or archaeologists, even though its meaning has long been known. As early as the 1920s, Magnus Olsen called attention to the fact that at least two royal manors in Norway bear the name \*Sæheimr (Olsen 1926, 128–129). Denmark is the only Scandinavian country where \*Sæheimr place names have been systematically recorded and published (Hald 1942, 91–92). For the Norwegian place names ending in *-heim*, Olsen’s 1926 book *Ættegård og helligdom*, based on the corpus of Norwegian farm names by Rygh (1914), continues to be the most comprehensive work. Olsen assumed there were a thousand place names ending in *-heim* in Norway, of which more than 30 were \*Sæheimr. Brink (1991) has discussed in detail the 300 Swedish place names ending in *-hem*, focusing on their distribution and dating.

In the Scandinavian place name chronology, names ending in *-heim* or *-hem* are considered among the oldest, dating primarily from the Early Iron Age (Brink 1991, 66–67, 71; 2008, 58; Vikstrand 2013, 42). Dam (2015, 44) suggests the Danish names in this group are of pre-Viking origin. In Norway, Sandnes (1997, 34) dates this group to the Roman Iron Age and Migration Period and presumes that such places ceased to be productive by AD 600. Based on palaeo-ecological dating, Brink (1984, 45–48) asserts that place names ending in *-hem* in

Sweden existed already in the Roman period. Although, early productivity in the Bronze Age has been suggested for one name ending in *-hem*, namely Mem (\*Mæhem) in Sweden (Ericsson 2008, 217–218).

Landscape transformations caused by geological processes (e.g. uplift), sea level changes and drainage projects in the modern era shall be borne in mind when considering the dating of place names. In some cases, dating as early as the Bronze Age is not possible due to the reconstructed sea level (Vikstrand 2013, 42). In the discussion of Scandinavian chronology, the question of whether places with the elements *-heim* and *-hem* in their name were still productive in the Viking Age has attracted more research interest than has the issue of the start of their productivity. As pointed out by Olsen (1926, 153–154), place names ending in *-heim* occur in the areas of Viking settlement in the West, on Iceland and Shetland, and were assumed to have still been productive in the Viking Age. Olsen also noted that these names seemed to follow a certain pattern in that their distribution is dominated by particular place names. Brink (1991, 71) has discussed this phenomenon suggesting an intangible ‘onomasticon’ from which place names were chosen. Brink (1991, 68–72) lists a number of place names that occur numerous times and in a certain pattern in the western part of area where Old Norse was spoken, such as Grythem, Solhem, Berghem, Askhem, Tunhem and Gudhem. Brink’s list includes Sähem and \*Sæheimr. The *-hem* element’s occurrence in place names in Iceland, and by the fact that *-hem* later seem to have functioned as a suffix, for example in the place name Suðrheimr, Brink argues that the stereotypical names with the *-hem* element, among them \*Sæheimr, could be younger and a more Western phenomenon in terms of their distribution than other names ending in *-hem* (Brink 1991, 68, 71–72).

Apart from Brink’s palaeo-ecological dating (Brink 1984), archaeological data have been crucial in the discussion of the dating of Scandinavian *-heim/-hem* names (Bakka and Møllerop 1963; Vikstrand 2013, 41). A basic assumption is that *-heim/-hem* names not only refer to a single settlement or estate, but also to the surrounding area – their domain (Brink 1991, 75–77; Olsen 1926, 149). Few studies have used archaeological and historical sources to investigate the function of particular *-heim/-hem* names to interpret former activities and significance. The exception being Grimm and Pesch’s (2011) study of the 11 occurrences of the place name Gudhem (\*Goðheimr), meaning the ‘home of the gods’, in Scandinavia. Apart from having a central position in a settled area, this comprehensive interdisciplinary study did not confirm common features or recurrent elements at the investigated sites (Jöns and Müller-Wille 2011).

Despite the fact that some of the places with the Old Norse name \*Sæheimr have long been known as royal and aristocratic manors, there has been no archaeological, historical and onomastic investigation of the entity of Scandinavian sites with this particular maritime place name. In light of the above-mentioned recent metal-detector finds pointing to trade and specialized production from the Iron Age at three of the sites in Norway, the need for such research became apparent. It is generally agreed among linguists that the place name \*Sæheimr describes the location of a settlement or inhabited district adjacent to water, but the motivation for the naming has not been questioned. Was there a pan-Scandinavian model and understanding of places with that name? What criteria were crucial for naming a place \*Sæheimr, and what activities took place at sites with that name? How old are the names and for how long were they productive? Do places named \*Sæheimr represent a younger phenomenon within the large group of *-hem* names, as suggested by Brink (1991), or do they reflect a phenomenon from the Early Iron Age?

This article presents an overview of places named \*Sæheimr in Scandinavia, and investigates their dating, the motivation for their naming, and their function. For this purpose, an analysis of the archaeological material recovered by metal detectorists from four sites is combined with a contextual approach to their topographical, archaeological, historical, and onomastic settings. Specifically, their locational principles and topographical situation are analyzed, as well as their relationship to central place complexes, fortifications and Romanesque churches.

## 2. Methods

### 2.1 Notation and distribution

A characteristic feature of the Scandinavian place names with *-heim/-hem* is that their prefix refers to a feature in the terrain, whereas their appellative *-heim* has the basic meaning of to lie or to be located, according to analyses of Indo-European place name material (Brink 1991, 72, 75). In contrast to names such as Nes (ness), Vik (bay) or Berg (hill), that merely describe physical geographical settings (Strid 2011, 284), names ending in -

*heim/-hem* contain also a cultural component. The appellative *-heim/-hem* refers to a settled place, a home; whereas, the Old Norse prefix *sær-* defines its maritime position by the sea, a fjord or a lake. Thus, a place named \*Sæheimr should be understood as a ‘settlement by the sea’.

Fifty-four place names in Scandinavia are variants of \*Sæheimr, consisting of fifty-three existing and one former place names. The existing place names include Sæheim, Særheim, Sem, Säm, Semb, Seim, Seime, Seem, Siem, Siim, Sim, and Søm (Fig. 1). Their distribution spans from Ribe in Denmark to Central Norway and Northern Sweden, with most occurrences in Norway. While the form Sem is most common in Eastern and Central Norway, the variants Seim and Seime are common in Western Norway, and the variants Søm and Særheim appear only in Southern Norway. The variants Siem and Sim are found in Central Norway. In Sweden, the name is predominantly spelt Säm and is restricted to Western Sweden and the provinces of Jämtland and Lappland in Northern Sweden. In Denmark, only five examples of this place name are in use today, all of them on Jutland and spelt Sem, Seem, Siim, Siem, and Semb. However, a 1677 map of the town Roskilde on the island of Zealand, one of the oldest towns in Denmark, lists the field name Sæms Mark (Ulriksen 2008, 167), indicating a former locality with the lost name Säm nearby. This could be the source of the name Sømme for the former hundred in the area surrounding Roskilde and Roskilde Fjord, first documented in 1085 as ‘in Semaherathi’ (Hald 1942, 91).

There are several historic and recent names of bodies of water in Norway and Sweden that contain name elements relating to the variants of \*Sæheimr: Seimsvatnet, †Siemsvand, †Sims-Vand (*vatnet* = water), Seimsjøen, Sämsjö, Sämsjön, Simsjö (*sjø, sjö* = lake), Semselva (*elv* = river), Sämån, Sämsjöån (*å* = small river), Semsbekken (*bekk* = beck), Sämsholm (*holm* = small island), Semsbukta (*bukt* = bay), and Seimsfjorden and †Seimsford (*fjord* = fjord). They may have been named after a place named \*Sæheimr situated on their banks at a time when people were no longer aware of the original semantic meaning. Thus, secondary naming processes could have created names such as ‘Sea home lake’, and bodies of water might indicate a former place \*Sæheimr, the name and location of which have since been lost.

In Norway, the distribution of the place name \*Sæheimr follows the general distribution of place names ending in *-heim*. These are concentrated in Southeast Norway, the area around the Trondheimsfjorden, and in Western Norway. In Denmark, the distribution of the few \*Sæheimr names throughout the country, apart from on Funen, mainly correspond to the general distribution of names ending in *-um* (Hald 1942, 141). In Sweden, the distribution of \*Sæheimr names differs considerably from that of place names ending in *-hem* (Brink 1991, 69). It shows a prominent concentration in Western Sweden, but the names are not documented in either Central and Eastern Sweden apart from the indirect name Simsjön.

## 2.2 Locational principles

Due to both the strong glacial isostatic adjustment resulting in land uplift in Central and Northern Scandinavia and a fall in sea level, especially in the southwestern part of the Baltic Sea, the coastal landscape of Scandinavia today is entirely different from the past (Jöns 2011). Former islands have merged with the mainland; fjords have retreated; and, former coastal settlements are now located far from the coast. Consequently, not only can a site’s location in the landscape be quite different from its location in the Iron Age, but, more importantly, the local conditions for maritime prehistoric infrastructure and its social, economic and military implications were different. Not least, shorelines changed during the first millennium AD; therefore, a site located on the coast during the Roman period did not necessarily have a maritime location in the Viking Age. For example, in the Roman period, the site named Sem [1]<sup>1</sup> in Central Norway was located at the mouth of the narrow salt-water fjord Namsfjorden. Today it is situated in a seemingly arbitrary position on the freshwater river Namsen, 40 km inland from the coast. As shown by Farbregd (1986), the centres of power in the succeeding periods in the Iron Age shifted successively farther towards the present-day coast, following the land uplift.

The fact that shore-level changes differ greatly throughout Scandinavia and that reliable reconstruction of local conditions has not been carried out for all areas has been problematic for archaeological research. One example is the location of Säm [43] in the province of Bohuslän, Western Sweden. Today, Säm is located 2 km from a body of water (Fig. 2a). According to shore-level simulations by the Geological Survey of Sweden, Säm was

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<sup>1</sup> All numbers in square brackets correspond to entries in Appendix 1

located inland even in the Early Iron Age (Fig. 2c). It is first a simulation of the area 7000 years ago that places the site at the mouth of an inlet (Fig. 2b). Future studies of the Iron Age shore levels in relevant areas may reveal a different picture.

In addition to land uplift and shore-level changes, changes by humans in the modern era have led to lowering the water table bringing about fundamental changes to the maritime landscape and affecting formerly navigable lakes and river systems. An example is the Mälars region in Sweden, where beginning in the 19<sup>th</sup> century lakes were drained and rivers were lowered to produce more arable land. Previous navigable waterways where natural features maintained the water level long after the sea retreated became impassible as these were removed (Larsson 2007, 163-166; Larsson 2011, 109; Gustafsson 2011).

Figure. 3 illustrates different locational principles of places with the name \*Sæheimr in Scandinavia in a schematic map, simplifying as much as possible the large differences in physical geography within the region. A classification of the individual sites is provided in Appendix 1.

None of the places with the name \*Sæheimr are located at an exposed position on an open coast. Rather, in the coastal areas of the Skagerrak strait, three place names occur quite close to the rugged coast at the estuaries of important waterways that reach far inland (Locational Principle 1). In Southern Scandinavia, place names can be found at three locations 15 km upstream on rivers that enter the sea. The inland locations are thus in a more protected position (Locational Principle 2). Related to Locational Principle 2, the places are situated further inside a fjord, in a sheltered bay with no links to other water routes of importance (Locational Principle 3). Six sites in Norway and Denmark meet this locational principle. In a few cases, there are places with the name \*Sæheimr at the transition between the mouth of a fjord arm and an important far-reaching freshwater waterway (Locational Principle 4).

A frequently observed (15%) locational principle is location at the dead-end and easily defensible small branch of a main waterway, which may be either a fjord or an inlet in a coastal archipelago (Locational Principle 5). In four cases, \*Sæheimr sites can be found located on smaller tributary streams that feed into a main waterway (Locational Principle 6).

Half of the \*Sæheimr names in Scandinavia are situated near lakes and lake systems. A location near a small lake that is not far from the main waterway but without navigable access is rare (6%) (Locational Principle 7). The most common location near lakes and lake systems is a location at either the inflow or outlet of a lake that forms part of a main waterway (20%) (Locational Principle 8). Other positions near lakes or lake systems are less frequent (9%). In most of these cases, a relationship to tributaries or narrow points is readily apparent (Locational Principle 9). About 17% of the \*Sæheimr names occur at sites at the outlets of lakes that do not constitute part of a larger water system in the opposite direction (Locational Principle 10).

Half of the occurrences of \*Sæheimr place names are located on waterways between 100 km and 350 km in length, in one case – Seim [38] – near a 619 km long drainage system (Glommavassdrag). Even sites with locations adhering to Locational Principles 5, 6, 7, and 10 (that is, primarily situated in a relatively remote position on waterways less than 50 km long) are indirectly connected to far-reaching waterways. None of the sites with the place name \*Sæheimr occurs in a peripheral position far away from main water corridors used by long-distance traffic.

Some \*Sæheimr sites are located at important junctions of maritime and overland transportation routes. For example, Sem [32], Sem [30] and Semb [33] are located at confluences between important waterways and the largest terminal moraine in Scandinavia, Raet, which up to the modern era served as an overland route (Fig. 4). Semb [49] in Northern Jutland, Denmark, is located near one of the narrow points suitable for crossing Limfjord in the north–south direction. In the neighbourhood of Sem [51], in Jutland, Denmark, archaeological excavations have revealed both stone-paved and wood-paved paths dating from the Iron Age, leading towards the river Kastbjerg (cf. Appendix 1). In the neighbourhood of Siim [52], marine archaeological excavations have revealed the remains of a Viking Age causeway that crossed the water system of the river Gudenå (cf. Appendix 1).

## 2.3 Topographical settings

A predominant feature of most places with the name \*Sæheimr is their position on hillocks and high-lying terraces in the landscape (Fig. 5). Assuming that the water level was higher than today, some of the places would have been on small islands in the Iron Age (e.g. Sem [32]) or mostly surrounded by water and bogs (e.g. Sæheim [4], Sem [51]) (Fig. 6). A frequent location for a \*Sæheimr is on a prominent hillock on a shore near an inflow or outflow of a lake.

## 2.4 Archaeological evidence

It is assumed that place names ending in *-hem* denote not only single settlements or estates, but also their domain, i.e. the related area around them. Today, with few exceptions, the variants of \*Sæheimr denote small settlement units, usually a single farm. This does not necessarily infer continuity of settlement at the site since the time when the name was adopted. Settlements might have relocated within an area or a newly established farm might have taken an already established local name. A study of the archaeological evidence should include the area beyond the farmstead itself, ideally within a radius of 1 km. If landscape features form natural boundaries, the analysis should be restricted to what can be considered to have constituted a natural unit.

It is necessary to discuss a number of aspects before using source material from such a large area as Scandinavia. One must consider that even if the development of the material culture as a whole shows many common features, at no time was Scandinavia a single entity, either politically or socially. Developments within the vast area did not occur synchronously.

Local conditions, political geography and access to resources and communication networks differed throughout the area. One region could have profitable conditions and a high population density, resulting in dense and continuous settlement over time, as reflected in archaeological sources; whereas, another region could be sparsely populated and possibly not even permanently settled, thus leaving little archaeological evidence.

Different traditions, practices and legislation in the management of cultural heritage in Denmark, Norway, and Sweden, combined with regional differences in archaeological excavations necessitated by development pressure, have resulted in different peculiarities of the archaeological source material. This in turn has had consequences for this research, especially with regard to finds from private metal detecting, which have a high potential for providing general information about the dating and character of former activities within a larger area. Denmark has practised a liberal model of private metal detecting for several centuries, which has yielded evidence from several hundred Iron Age sites (Dobat 2013, 707). In Norway, metal detector finds are fewer partly because metal detectorists' activities started relatively later and partly because their activities are more restricted by legislations than they are in Denmark (Maixner 2015). In Sweden, with the exception of the material from Uppåkra, metal detector finds do not constitute a finds category of importance, as metal detecting by private individuals is largely prohibited by law (Rundkvist 2008).

The exploitation of the archaeological source material, and the completeness and degree of open-access of databases differ in Denmark, Norway, and Sweden. The archaeological data used in this study derive from the following databases: the Norwegian University Museums' collection databases (Universitetsmuseenes samlingsdatabaser) and the Directorate for Cultural Heritage's register of monuments and sites (Askeladden) in Norway; the Historical Museum's collection database (Föremål) and the Swedish National Heritage Board's register of monuments and sites (Fornsök) in Sweden; and the Danish Agency for Culture and Palaces' National register of Sites and Monuments (Fund og Fortidsminder) in Denmark. The data accessed from the aforementioned databases were complemented with inquiries directly addressed to the relevant museums.

An overview of the archaeological evidence from the Iron Age recorded near present-day places named \*Sæheimr is provided in Appendix 1. Grave mounds and grave fields without known dating, were not included in the study. At 70% of the \*Sæheimr sites, archaeological records dating from the Iron Age have been found near to the places named \*Sæheimr, usually in the form of scattered grave finds or sporadic stray finds, and seldom in the context of buildings or settlement structures. In some cases (e.g. Seim [23], Sem [29], Siim [52]), activity in the Bronze Age and/or the pre-Roman Iron Age has been documented (cf. Appendix 1). At six sites, the beginning of the activities cannot be ascertained more precisely than within the Early Iron Age. Where more precise dating is possible, activities started as often in the Roman Iron Age as in the Migration Period. In cases where activity in the Early Iron Age has been confirmed by archaeological evidence, it has also followed by

evidence of human activity in the Late Iron Age. Only in eight cases were there no tangible remains of activity prior to the Viking Age.

The archaeological records for four sites – Sem [35], Sem [31], Sem [32] in Norway, and Seem [53] in Denmark – differ in character and extent. They do not consist of scattered grave finds or sporadic stray finds, but originate from private metal detecting on cultivated areas.

The first of the four sites, Sem [35] in the county of Buskerud, Norway, was discovered in 2014 by metal detectorists on the northern slope of a prominent hillock on the western bank of a tributary leading into the Drammen waterway. Due to higher sea levels in the Early Iron Age, Drammen Fjord might have extended to the location known today as Hokksund, which is 3 km from Sem. Prior to 2015, private metal detecting in an area of 30 hectares had resulted in 20 artefacts consisting of brooches, mounts, beads and other personal fittings, 16 weights, part of a medieval balance weight, three dirhams, one piece of hacksilver, two richly decorated keys, several spindle whorls, and production waste. Chronologically, the finds spanned the Late Roman period to the Middle Ages. Among the artefacts were imported, high-quality objects from both the British Isles and the Frankish Empire (Fig. 7). In 2016, further metal detecting at the site resulted in a similar group of material (Melheim et al. 2016). In total, 320 artefacts were found during different detecting sessions, 75% of them preliminarily dated to the Late Iron Age. Investigations with ground-penetrating radar in the area with the highest density of finds revealed structures and a number of pits. These have been interpreted as pit houses associated with fine metalworking (Gustavsen et al. 2018).

The second site, Sem [31], is situated in a former bay on Nøtterøy, a large island in the archipelago in the outer part of Oslofjorden, Norway. In 2013 and 2014, a German coin of Otto III and a dinar of Louis the Pious were found by metal detectorists in the area of the present-day farm named Sem. In 2015, 25 objects dating from the Iron Age and Viking Age were found within a small area on the western slope of the hillock Semsåsen, among them a gilt insular mount, a pendant of lead and rock crystal, eight brooches, four weights, four spindle whorls, a harness link, a metal bead, and three pieces of amber. Chronologically, the artefacts span from the Late Roman period and Early Migration Period to the late Viking Age. More recent metal detecting in the area around the farm Sem has recovered additional artefacts. To date, the material consists of 70 artefacts from the Iron Age, among them 17 weights, five Viking Age coins (three Arabic dirhams and two German coins), 20 brooches, up to ten spindle whorls, and five beads.

The third site, Sem [32], in the county of Vestfold, Norway, is located on a small hillock on the western bank of the Auli waterway, 4 km from one of the earliest towns in Norway, Tønsberg. Assuming a land uplift of almost 8 m since the Roman Iron Age, the hillock was a small island in the Roman period, located at the mouth of present-day Byfjorden. The island first became land-fast at the end of the Migration Period (Grindkåsa 2012, 48–50). Today, the site belongs to the farm Auli. The place name Sem appears primarily east of the Byfjorden, where Sem Church and Jarlsberg Manor, with the original name Sem, are situated. Private metal detecting at the site of Sem [32] resulted in 25 objects dating from the 1st century AD spanning the Early Roman period to the Middle Ages. The Viking Age dominates among the datable finds. The finds include: two weights, at least two brooches, a part of a Viking Age sword, a bronze bead, a lead mould for the production of Viking Age cast brooches, two spinning whorls, and an enamelled insular mount. Of three silver coins found at the site, one was Roman and two were German dating from the Viking Age.

The fourth site, Seem [53], is located on a sandy ridge on the southern bank of the river Ribe in Jutland, Denmark, 4 km south-east of the 8th century emporia at Ribe. Private metal detecting in the area uncovered 50 objects dating from the Early Roman period to the Viking Age and Middle Age, most dating to the Late Iron Age. The assemblage comprises 20 brooches dating from the Iron Age, three silver coins (one of which is German from the Viking Age, one is Roman, and one is a sceat), two moulds for the production of Merovingian and Viking cast brooches, one piece of hacksilver, two ingots, and four weights.

## **2.5 Relationship of \*Sæheimr sites to centres and central areas**

Elite milieus, central functions and evidence of centres have been dominant themes in Scandinavian Iron Age archaeology since the late 1970s. Metal detector surveys and settlement excavations, characterized by large numbers of finds of precious metal and workshop material, and exhibiting extended continuity, led to the recognition of a type of specialized settlement previously unknown. This necessitated new theoretical

approaches to understand these sites. The 1990s concept of central places dating from the 1st millennium AD in Southern Scandinavia (Fabech and Ringtved 1995; Helgesson 2002; Watt 1991) has been highly influential. It shares a number of fundamental assumptions with the German geographer W. Christaller's (1966 [1933]) "central place theory", which was influenced by discussions of towns and urbanisation by historians and sociologists such as H. Pirenne and M. Weber (Sindbæk 2009, 98). In the 1990s Scandinavian concept, political, economic and religious functions, which together represent centrality, are assumed to have been scattered over a wide area – a 'central place complex' (Brink 1996; Fabech 1999). According to this model, a central place consisted of the centre itself, meaning a magnate's residence with a hall building, workshop areas for specialized handicrafts, religious areas, satellite settlements in the surrounding area, and trading and harbour sites.

In such settings, archaeological localities are characterized by large numbers of metal objects encompassing both prestige objects and objects linked to specialized production; special architectural features; long-distance trade such as imported, non-Scandinavian objects, scales and weights, and treasure hoards; and place names reflecting ritual and organizational functions. Prominent examples of these central place complexes are Gudme/Lundborg and Sorte Muld in present-day Denmark, Uppåkra, Ravlunda and Helgö in present-day Sweden, and Sievern in present-day Germany. This list strongly reflects the current state of research, excavation and documentation. There is a multiplicity of potential central place complexes (Pesch 2011, 243-269).

Scandinavian central place research developed in Southern Scandinavia and under local conditions. Its impact was high in Southern and Western Sweden (Helgesson 2002), but less in other regions of Sweden, such as the Mälars region. In the latter region, metal-rich settlement sites of the Southern Scandinavian type were almost absent among the source material, but large burial mounds, boat graves and a rich place name material allowed for other methodological approaches to the question of centrality (Ljungkvist 2006, 166).

In Norway, there has been little focus on central place research following Myhre's pioneering work in the 1980s. Myre (1987) located Migration periods chieftains' territories in Southern Norway through mapping richly furnished graves and items of gold, jewellery and Roman imports and comparing their distribution with geographical and topographical data such as hill forts and boat houses. Building on this work, richly furnished graves with imported goods, large grave mounds, court sites, and medieval churches are considered indicators of central places in Norwegian archaeology (Grimm 2006, 211). Traditionally, approaches to identify central places and central place complexes have been interdisciplinary, using archaeological, historical and toponymical sources. An important element of the central place model is the general assumption of continuity of power, reflected by the fact that features from historic times, such as Romanesque churches and royal or aristocratic estates dating to the Middle Ages, are considered relevant (Eilersgaard Christensen 2007, 22).

Central place indicators are recorded near more than 30% of the \*Sæheimr sites. Normally, the distance between a \*Sæheimr site and its assumed centre is 1–5 km. In the region west of Oslofjorden, a number of \*Sæheimr sites are situated in contexts that are characteristic of central place complexes, of which three of those discussed in this article have been identified by metal detector finds. Two of these sites are characterized by exceptional archaeological finds, which Fabech (1991, 456) proposes is an indication of central places of regional importance. The first site is Sem [35] in Øvre Eiker Municipality. Archaeological finds from its surroundings indicate extreme wealth in the region in the Iron Age, including a Roman cameo glass vase, a gold berlock (pendant), two gold bracteates, and two Viking hoards, among them the large Hoen Viking Age gold hoard. According to documentary evidence from the Middle Ages, Sem [35] was both crown land and a manor, and the written sources mention the neighbouring location of Berg as both an assembly site for a wider area and a church site.

The second site is Sem [32] in the municipality of Tønsberg. High status objects and treasure hoards are known from the vicinity of the site, including Roman gold berlocks, currency rings from the Migration Period, and a treasure hoard from the Viking Age. The former manor of Sem, which was established no later than the Viking Age and mentioned as crown land in the Middle Ages, is situated on the eastern side of the bay where the Aulielva runs into the Byfjorden. In the 11th century, Sem Church, the Romanesque church adjacent to the manor, had the status of a county church for Vestfold. Farmannshaugen, a monumental grave mound dating from the Early Iron Age, is located just a few hundred metres south of the manor and the church.

There are three additional \*Sæheimr sites west of Oslofjorden with central place landmarks in their surroundings, albeit on a smaller scale than the above-mentioned sites: Sem [31], Sem [30] and Sem [29]. Near



Sem [31], on the island of Nøtterøy, an Early Iron Age grave with two gold berlocks and a currency ring has been found, and there is Romanesque church nearby. The area around present-day Sandefjord, where Sem [30] is situated, is well known by archaeologists. At Fevang, 5 km distant from Sem [30], several Early Iron Age graves have been recorded, among them a richly furnished woman's grave with a gold berlock. A gold bracteate with inconclusive provenance might originate from that area. At Sem [30] itself, a Roman Iron Age grave with two gold finger rings has been found. In the Viking Age, the central functions seem to have shifted towards the coast, as documented by the Gokstad ship burial and the trade and production site at Heimdalsjordet (Bill and Rødsrud 2017). Nearby Sem [29] on the Skien watershed, two Early Iron Age graves indicate central functions, namely a weapon grave with a gold finger ring similar to serpent head finger rings found at Lille Gjerpen in Skien Municipality, and a richly furnished Migration Period grave with a splendid silver brooch, a gold bracteate and an imported glass vessel at the neighbouring Falkum.

A number of \*Sæheimr sites in the coastal areas of the Skagerrak strait show a distinct affinity to centres of the Early Iron Age. Sem [27] in the county of Aust-Agder, Norway, near the Nidelva estuary (Arendalsvassdrag), is situated only 5 km from Bringsvær, which is regarded as an elite centre in the Roman Iron Age due to the find of a serpent-head finger ring (Solberg 2012, 97). On the Swedish side of the Skagerrak, in Bohuslän, Western Sweden, central place indicators in the form of gold bracteates, gold necklaces, gold finger rings, and currency rings have been recovered in the vicinity of Säm [41] and Säm [43], thus indicating centres in the areas around Gerum/Ljungby/Stora Ryk and Tossene. Farther south on the Swedish coast, in the province of Halland, indications of a wealthy Early Iron Age milieu, evidenced by several currency rings and a gold berlocks from the Roman period, have been found in the area surrounding Säm [45], on the river Himleån. Säm [46], on the river Suseån, is located just 5 km from Slöinge, where excavations documented central place indicators in the form of hall buildings, gold foil figures (*gulgubber*), specialized handicrafts, and imported glass vessels (Lundqvist 1998, 190). The two \*Sæheimr sites in the inland area of the province of Västergötland, Sweden, Säm [47] and Säm [48], are located in areas that are regarded as central areas due to the occurrence of sacral place names and place names indicating organizational functions (Lundqvist 1998, 198).

In Western Norway, the place name \*Sæheimr appears within several archaeologically well-known centres. One of the centres is the Anda and Tu mountain ridge in Jæren, where Særheim [25] is embedded in an Early Iron Age landscape consisting of numerous archaeological monuments, rich grave finds testifying wealth and long-distance contacts, gold foil figures, gold bracteates, and an Early Roman period courtyard site (Dysjane). These document the concentration of political power, cult and assembly functions (Kristoffersen et al. 2014; Reiersen 2017, 278–282). Other examples are the Early Iron Ages centres of Voss at Vangsvatnet (Seim [20]) (Reiersen 2017, 230–234) and Rosendal adjacent to Hardangerfjord (Seim [23]) (Reiersen 2017, 236–241). The latter site, Seim [23], is situated strategically at the entrance to Hardangerfjord. A serpent head finger ring, graves containing weapons indicative of status, and five large boathouses are known from this area, including a boathouse from Seim [23]. Seime [13] near the lake Breimvatnet in the county of Sogn og Fjordane is similarly situated in an area regarded as a centre, namely Eide (Reiersen 2017, 157), as is Vik, adjacent to Sognefjorden, where Seim [14] and Seim [15] are located (Ringstad 1992, 124). According to written sources, Seim [17] in Lindås in the county of Hordaland was one of the royal manors of the Viking king Harald Hairfair (Iversen 2002), but extensive archaeological evidence of central functions during the Iron Age is lacking.

In central Norway, three \*Sæheimr sites – Sæheim [4], Sem [5] and Sem [6] – are located in the border areas of the district Sparbu, which is considered to have been the domain of one of two Early Iron Age elite landscapes around Trondheimsfjorden (Fig. 8). A Roman period grave was found a few hundred metres south of Sem [6], and contained a large, most probably Roman, gold finger ring with inlaid stones, indicative of far-reaching contacts southwards. Archaeological finds from Sparbu include: a) a richly furnished female grave with a splendid silver brooch and gold bracteates at Nedre Dalem (Hedeager 2015); b) the grave field at Skei with over 100 graves and a courtyard site from the late Iron Age (Stenvik 2007); c) gold foil figures from a pagan ceremonial site beneath the medieval church at Mære (Lidén 1969); and d) Roman gold finger rings, and Migration Period gold bracteates.

A corresponding sacred landscape has been identified 200 km east of Sparbu, near lake Storsjön in Jämtland, Sweden, that was connected to Sparbu in the Iron Age by a transportation route through large valleys and east-west water systems. Among the numerous theophoric place names known from around the lake (Vikstrand 1996, 89) and a pagan ritual site beneath Frösö Church (Näsström 1996), there is a \*Sæheimr name, Sem [39], which probably related to the location 'Hov' at present-day Ås.

The above-mentioned place name, Hov/Hove, appears frequently near \*Sæheimr sites, at Sem [2], Siem [11], Seim [14], Sem [34], Sem [39], and Säm [47]. The name has both a topographic meaning (hill, elevation) and a sacral meaning (sacred building, temple), and its possible connection with a pagan cult has been debated. The name is supposed to denote large farms or estates, and thus related to the Iron Age hall. In large parts of Scandinavia, the place name's connection with central place settings is clear (Brink 1996, 260; Vikstrand 2001, 253–272; 2017, 27). The largest farm within a magnate farm system often had a visually exposed position in the landscape (Fabech 1999, 457). In Denmark, place names reflecting elevations in the landscape occur near 50% of the \*Sæheimr sites: Høm (Seem [53]), Hem (Sem [51]) and Hvidbjerg (Semb [49]). Concentrations of central place indicators comparable to those found in Sweden and Norway have not been found in the vicinity of the Danish \*Sæheimr sites. Exceptions are a Viking Age silver hoard discovered at Siem [50] (Skovmand 1942, 58–59), and a Roman period gold finger ring found at Enslev (Beckmann 1969, 49), 2 km from Sem [51].

## **2.6 Relationship of \*Sæheimr sites to fortifications**

The relationship of places with the name \*Sæheimr to prehistoric fortifications informs about the strategic significance and centrality of the areas, even if exact dating of these constructions is not known. The requirements and conditions for terrestrial and maritime fortifications varied considerably within Scandinavia as a result of differences in the political and social organization and in physical geography. Variations between the marshlands of the Wadden Sea in Western Jutland, Denmark, the fjord landscape in Western Norway, and the extensive forest and lake landscapes of inner Sweden are extensive. In Norway, the sites of hill forts and beacons have been found within a 5 km radius of one-third of the \*Sæheimr places, primarily in the county of Trøndelag (Fig. 8) and the area around Oslofjorden. In the latter case, some of the \*Sæheimr places (Sem [32], Sem [29], Sem [30], and Sem [36]) are in locations that were almost encircled by hill forts (Appendix 1). The same phenomenon existed in Western Sweden, especially near the coast (Säm [41], Säm [42], Säm [45], Säm [48]). In Sweden, the sites of hill forts and beacons can be found within a 5 km radius of 70% of the \*Sæheimr places. By contrast, in Denmark, only one hill fort site is known near a place with the name \*Sæheimr (Sem [51]).

## **2.7 Relationship of \*Sæheimr sites to Romanesque churches**

Traditionally, early medieval churches in Scandinavia have been considered as indicative of central places (Grimm 2006, 29). However, they seem to witness both central manors and landing places. The coincidence between Romanesque churches and Iron Age landing places has been stressed (Dobat 2002a; Ulriksen 1998, 130, 263). The interconnection between maritime activities and (stone) churches becomes evident by the obligation, ordained in the 10<sup>th</sup> century Gulating law, which was in force for parts of present-day Norway, to store equipment for the *leiðangr* ship, including sails, in the church (Larsson 2007, 340–341). Brandt (2002, 101) has proposed that the Romanesque church of Hollingstedt in present-day Germany, the western harbour of Hedeby/Schleswig, served merchants as temporary storage space for their trading goods.

At 80% of the 54 \*Sæheimr sites, at least one medieval church or church site is situated within a radius of 4.5 km (Appendix 1). Most are stone churches and at least 15 of them are Romanesque. In most cases, the distance between the place name \*Sæheimr and the church is not more than 2.5 km and the shortest distance is less than 1000 metres. Seven of the churches are named after the place name \*Sæheimr: Seim Church in Hordaland, Norway [17], Sem Church in Vestfold, Norway [32], Norra Säm Church and Södra Säm Church in Västergötland, Sweden [47, 48], Siem Church and Sem Church in North Jutland, Denmark [50, 51], and Seem Church in central Jutland, Denmark [53].

## **3. Results**

The 54 sites with derivations of the Old Norse name \*Sæheimr ('the settlement by the sea') in Scandinavia were studied by investigating their locational principles, topographical settings, archaeological evidence, and relationship to known central place complexes, military infrastructure and medieval churches. The maritime context of all of the sites is clear, even in the inland, as all are located on the coast or adjacent to fjords, lakes or

ivers, thus reinforcing the linguistic meaning of the name. The core areas of their distribution are the areas around Trondheimsfjorden and Oslofjorden in Norway, as well as Western Norway, Western Sweden, and Jutland in Denmark. To a large extent, they follow the general distribution of names ending in *-heim/-hem* in Scandinavia. Most of the sites are located in coastal areas, including large waterways that lead inland. None of the place names is found on the open coast. Rather, sites with the name *\*Sæheimr* are situated in sheltered positions. Furthermore, none of the *\*Sæheimr* sites is in a peripheral position distant from a main water corridor. Either directly or indirectly, all the sites are connected to far-reaching waterways. In some cases, they are located at the junction of a waterway and an overland route. The locational principles that most frequently apply to places with the name *\*Sæheimr* are a position at either an inflow or outflow of a lake. Another characteristic position is a location on high-lying hillocks and terraces in the landscape. This supports the concept of topographical setting for places with this name as common for the whole of Scandinavia in the Iron Age.

Archaeological material dating from the Iron Age has been recovered from 70% of the *\*Sæheimr* sites (Appendix 1). The most common finds are grave finds and stray finds; settlement structures are rare. The earliest archaeological records at 40% of the *\*Sæheimr* places date to the Roman Iron Age and/or the Migration Period. In approximately 70% of these cases, additionally, human activity dating to the Late Iron Age has been confirmed archaeologically. Activity in the Viking Age only has been documented in just eight cases.

At four sites, Sem [35], Sem [31], Sem [32] in Norway, and Seem [53] in Denmark, private metal detecting has recovered sufficient numbers of stray finds to provide more detailed information about the duration and character of the activities at these sites. First, the range of finds indicates a long duration of activity. Apart from Sem [31], which has hardly been investigated, the finds material from these sites witness continuous activity from the Roman Iron Age to the Viking Age or early Middle Ages. Second, the composition of the finds material from the four sites is quite homogenous, including dress ornaments, silver coins, scrap silver, weights, balances, tools, production waste, and raw materials, indicating specialized craft production and trade. Third, imported objects of high quality, such as continental and insular metalwork, and German, Islamic, Roman, and Frisian coins support the existence of long-distance contacts.

More than one-third of the *\*Sæheimr* sites are located in areas that can be classified as central place complexes according to the 1990s Southern Scandinavian concept of central places dating from the 1st millennium AD. Many of these places are in areas of high strategic importance, as indicated by the sites of hill forts and beacons, which often coincide with central areas (Myhre 1987, 182). In Scandinavia, hill forts and beacons can be found within a radius of 5 km for half of the *\*Sæheimr* places. In the areas surrounding Trondheimsfjorden and Oslofjorden and on the western coast of present-day Sweden, some of the *\*Sæheimr* places are almost encircled by hill forts. By contrast, in Western Norway and in Denmark, hill forts and beacons are either unknown or are only rarely known in the vicinity of *\*Sæheimr* names.

Medieval churches or church sites exist within a 4.5 km radius of 80% of all *\*Sæheimr* sites in Scandinavia. These statistics are skewed by the data from Trøndelag in Central Norway, where medieval churches are found within the vicinity of just one-third of the local *\*Sæheimr* sites. Otherwise, there is a significant correlation between the place name *\*Sæheimr* and the existence of a medieval church nearby; seven of the churches are named after the place name *\*Sæheimr*. Most churches are stone, and at least 15 of them are Romanesque.

## **4. Discussion**

### **4.1 Dating**

At most of the *\*Sæheimr* sites with archaeological records, activity began in the Roman Iron Age (1-400 AD) and the Migration Period (400-550 AD). This confirms the common linguistic dating of the names ending in *-heim/-hem* in Scandinavia. In a few cases, earlier activity in the Bronze Age (1700-500 BC) and/or Pre-Roman Iron Age (500-1 BC) in the area has been documented. Depending on the accuracy of the shore-level calculations by the Geological Survey of Sweden, it is necessary to consult pre-Iron Age shore-line simulations to find some of the Western Swedish *\*Sæ(h)heimr* sites located at water. Hence, in particular cases, productivity of *\*Sæheimr* names as early as in the Bronze Age might be considered, as Ericsson (2008) has proposed for the place name *\*Mæhem* in Sweden. By contrast, there is little evidence for *\*Sæheimr* names representing a younger phenomenon within the large group of *-hem* names, as suggested by Brink (1991). At eight sites only was the first activity in the Viking Age (750-1050 AD). This does not necessarily imply that productivity of the

name continued into the Viking Age, but depends on the current source situation. \*Sæheimr names do not occur in the Viking colonies in the North Atlantic, in contrast to other names ending in *-heim/-hem*. However, continuity of activities from the Early Iron Age to the Viking Age is clear at all the \*Sæheimr sites that have been thoroughly investigated archaeologically. Despite the fact, that the metal detector finds from the four \*Sæ(h)eimr sites (Sem [35], Sem [31], Sem [32] and Seem [53]) are dominated by artefacts from the Late Iron Age, this does not necessarily indicate that the main activity of these sites was in this period. Rather, the chronological distribution of the finds seems to reflect stratigraphic circumstances. Remains of younger activities are usually situated higher up, and are more likely to appear in the plough zone than artefacts from earlier periods. This phenomenon was, among other sites, observed in Uppåkra (Paulsson 1999, 55).

#### 4.2 Motivation for the choice of name

The results of this study confirmed the maritime setting of the Scandinavian \*Sæheimr sites based on the semantic meaning of their primary Old Norse name ‘the settlement by the sea’. To understand the motivation for the choice of name for these places, a stepwise methodological approach is taken. One is to employ Norberg-Schulz’s interpretation of the concept of the *genius loci* as a place that creates meaning and is given meaning by humans’ understanding and perception of the natural environment (Norberg-Schulz 1980, 50). A place name provides insight into what humans in the past regarded and experienced as significant when naming a locality. It also required a community’s acceptance for its survival (Albris 2014, 11, 59). Often, features in the landscape determine the spatial qualities that affect the perception and naming of places (Norberg-Schulz 1980, 32–37). Naming and identifying particular topographical features invests them with meaning and significance. Through this process and the development of human and mythological associations, places enter social discourse and transform from purely natural environments into places that are experienced socially and historically (Tilley 1994, 18). Following upon this phenomenological approach, the name \*Sæheimr reflects places’ location near water as their specific quality.

However, sites with the name \*Sæheimr were not the only settled places located near water when names ending in *-heim/-hem* were productive. Many of the presumed oldest settlement names ending in *-hem* are near water. In addition to the two neighbouring \*Sæheimr sites (Sæheim [4] and Sem [5]) near the lake Leksdalsvatnet in Trøndelag, are two additional place names ending in *-hem*: Musem (\*Múseimr) (‘the settlement by the river Musa’) and Hallem (\*Halleimr) (‘the settlement by the slope’) (Fig. 8). It is likely that additional criteria influenced the motivation and decision to name one settled place or area near water \*Sæheimr and not another place.

One helpful approach is the concept of practical function to show that the practical function of a locality could be the reason behind the name given to it (Dalberg 2008, 11). In the case of \*Sæheimr, a practical function decisive for naming could have been the transition from water to land and vice versa – the landing. This assumption is supported by the discovery of a Viking Age artefact (B11303) at Seime [13] at Breimsvatnet in Western Norway. When this was given to the University Museum of Bergen in 1959, it was said the object had been found in a burial cairn near water ‘where ships coming from the south had landed since time immemorial’ (University Museum of Bergen, inventory number B11303).

A key question is from which perspective the name \*Sæ(h)eimr was given. One of the most important trading centres in Northern Europe in the Viking Age was according to the *Chronicon Æthelweardi*, chapter 4 (Campbell 1962, 9), known by two names, Hedeby and Haithabu: ‘*quod sermone Saxonico Slesuic nuncupatur, secundum uero Danos, Haithaby*’. From the perspective of the Saxons and Franks residing on the continent, the place was called a village or bay at the Schlei inlet into the Baltic Sea. By contrast, the seafaring people among the Anglo-Saxons and Danes strengthened in their versions of the name the settlements’ location on heaths (Laur 1957). The Saxons and Franks had a terrestrial perspective; whereas, the Anglo-Saxons and Danes had a maritime perspective. Depending on the viewer’s perspective and experience, a settlement was either regarded as situated near water or situated on land. If similar principles can be applied, it can be assumed that the name \*Sæheimr was given from a terrestrial perspective, and identified a particular place or area within a landscape entity where the transition to water-bound and maritime activities took place.

Since both the distribution and locational principles of sites named \*Sæheimr show a distinct relationship to several of the most important waterways in Scandinavia, neither descriptions of the terrain nor the nature of

their function alone is sufficient to explain the motivation behind the use of the name. There is no known incidences of the name \*Sæheimr used for places at arbitrary bodies of water far away from main maritime communication routes. The name \*Sæheimr must have described more than simply a settled place near water with landing functions.

### 4.3 Function

The location of the \*Sæheimr sites on important routes of communication is a feature they share with the locational principles of central place complexes and central areas of the first millennium AD in Scandinavia (Fabech and Ringtved 1995, 25–26). One-third of the \*Sæheimr sites are situated in settings of elements and functions that are characteristic for the central place concept. Central place indicators such as Roman gold finger rings of serpent head type, Migration Period gold bracteates, gold foil figures, Romanesque churches, and medieval crown land in the vicinity of a number of \*Sæheimr sites place these in a context of sacral and secular centrality with long continuity. The place name Hov, assumed to denote both sacred buildings and large farms or estates, frequently appears nearby. By aligning the distribution of \*Sæheimr names in South Norway with Myhre's attempt to locate chiefdom territories (Myhre 1987, 181), the place name \*Sæheimr is found in seven of Myre's nine postulated territories and rarely occurs elsewhere.

The close relationship between \*Sæheimr sites and Iron Age central place complexes and main water transportation routes indicates that in its principle denotation, the place name might have been for an outlying landing site belonging to a central place. Vikstrand (2017, 31) has suggested a similar function for the village of Sätuna in Västergötland, Sweden, in its relation to the neighbouring site of Gudhem. An excellent example of the combination of an Iron Age central place and its outlying trading port on the Danish coast is Gudme and Lundeborg on Funen (Thomsen 1991). That \*Sæheimr sites are dependent on certain magnates' residences fits with the assumption that the name derives from a terrestrial perspective, not a maritime one. If this assumption is correct, from the perspective of the magnate's seat, \*Sæheimr would denote the area where its maritime activities would be conducted, such as the landing of boats, claiming of tribute and other activities related to water-bound fortification, communication and transport, and especially trading activities and seasonally practised specialized crafts. The occurrence of a large boathouse at Seim [23] may illustrate aspects of maritime fortification. The proximity of Sem [1] and Særheim [25] to the courtyard sites of Værem and Dysjane can be explained by, among other things, the need for a landing site in connection with assemblies. Seven churches and several major bodies of water, including Seimsfjorden (Seim [17]), †Sämsfjorden (Säm [41]), †Siemsvand (Sæheim, Sem [4, 5]) and †Sims-Vand (Sim [9]), were named after \*Sæheimr sites. This could be interpreted as mirroring the importance and significance that these landing sites continued to have as reference points for communication in historic times.

The presumption of trading activities and specialized craft production as activities connected to areas denoted as \*Sæheimr is supported by several facts:

*First*, the finds material from the four sites that have been extensively investigated by metal detectorists – Sem [35], Sem [31], Sem [32] and Seem [53] – reflect specialized craft production and long-distance contacts.

*Second*, the occurrence of Iron Age pit houses at Semb [49] and the structures uncovered by ground-penetrating radar and interpreted as pit houses associated with fine metalworking at Sem [35] (Gustavsen et al. 2018).

*Third*, the fact that early medieval churches or church sites, which in south Scandinavia coincide with Iron Age landing sites (Ulriksen 1998, 263), are in proximity of 80 % of all \*Sæheimr sites.

*Fourth*, three of the \*Sæheimr sites – Seem [53], Sem [32] and †Sæm [54] – are situated near three of Scandinavia's oldest towns, namely Ribe, Tønsberg and Roskilde. Especially Ribe and Tønsberg are known for their participation in long-distance trade, and the associated \*Sæheimr sites might have been their predecessors.

There are arguments supporting the theory of trading activities and specialized craft production associated with sites denoted \*Sæheimr:

*First*, the coincidence of several of the \*Sæheimr locational principles with principles established by Sindbæk (2005; 2009) for the location of coastal sites of the 1st century AD and early Middle Ages connected to exchange and communication. For example, Locational Principles 1, 2 and 4 represent the transition between

seagoing transport and water-bound inland transport. This necessitates changes in the use of vessels and trans-shipment. Whereas, Locational Principles 8, 9 and 10, describe sites at narrow passages of waterways or at inflows to or outflows from lakes. These caused breaks in traffic and formed natural points of control.

*Second*, oral traditions and written records related to the Farmannshaugen grave mound at the site of the royal manor of Sem [33] in Vestfold, Norway, even if the literary described mound not necessarily is identical with the existing monumental mound of that name. The name Farmannshaugen derives from the Old Norse word *fara* (to travel) and *maðr* (man). According to the 13th century saga *Haralds saga hins harfagra*, chapter 38 (Unger 1868, 76), a merchant name Bjørn, son of King Harald Hairfair, was buried in Farmannshaugen at Sæheim, where he was killed after having landed there with his ship and goods. Although the account might be fictitious, the story might take place at Sæheim, since there was an existing grave mound with a name referring to a traveller or a merchant. For the purposes of this article, both the name of the grave mound and the narrative in the saga are taken to indicate knowledge of a former function of Sæheim as a trading and landing site, even at a time when the nearby medieval town of Tønsberg was the region's uncontested centre of trade.

*Third*, market activities at the site of Seim [24] in modern times and, perhaps, in the Middle Ages, suggest a retrospective function. At the mouth of the lake Røldalsvatnet, in Røldal, Hordaland, Western Norway, an annual market with a long tradition was described in the 17th century as taking place around Saint John's Eve (24 June) and lasting several days. The market was held at the boundary between Western and Eastern Norway, at a crossing point of overland routes from several directions, and was thus a meeting point between merchants from Western Norway and Eastern Norway. The market area is said to have been located on a grassy plain west of the river that was flooded and filled with stones and gravel during a flood in 1763 (Veka 1979, 9–16). According to Veka's description, the location of the historic market in the area of the present-day farm Seim [24] is probable, as it is situated on a hillock near the inflow of the lake in a 'classical' position for a \*Sæheimr site. In addition to graves dating from the Migration Period and Viking Age, the remains of a boathouse of unknown date have been registered at the site (Fett 1955). Although the market was not documented until modern times, the description of its activities against the background of its topography and transport geography can be useful for an understanding of the function of sites with the name \*Sæheimr and support their interpretation as landing and trading sites.

*Forth*, and finally, the occurrence of place names with the elements *-bjark* and *la-/lahelle/laberg* in the vicinity of some of the \*Sæheimr sites are indicative of a tradition of trading activities in those areas: Birka near Sem [39], Bjerkøy near Sem [31], Birksø near Siim [52], Ladholmen near Säm [41], †Lahelle near Søm [26], and Laland near Særheim [25]. Names with the element *-bjark* have been presumed to denote islands where markets were held. The name of the best-known of these – the Viking Age trading centre of Birka in Mälaren, Sweden – was probably eponymous for the Bjarkey laws, which were the laws and privileges of the medieval Scandinavian merchant towns (Hagland and Sandnes 1997, XII). The place names Lahelle and Laberg, which contain the elements *lada/hlada* (loading) and *helle/berg* (plain rock), are assumed to be related to harbours, loading places and ports of shipment, and to date to the Viking Age (Grieg 1972, 13, 58).

The idea that \*Sæheimr denotes an outlying landing site of a central place with maritime-related functions fits well with the 'Middle-Swedish name environment theory' (Hellberg 1975). This builds on the observation that characteristic patterns of particular place names occur repeatedly in Scandinavia, albeit with regional variations. The individual place names within these patterns reflect the structure and organization of Iron Age society and describe specific elements and functions as magnates' farms, religious and legal functions, defence, craft production, and communication (Eilersgaard Christensen 2007, 24). Hellberg's theory was later elaborated upon by other researchers, especially Brink. Brink (1996, 238–242) refined the central place concept mainly developed by Fabech and Ringtved (1995) by implying that political, economic and religious functions, which as a whole represent centrality, were scattered over a wider area – a 'central place complex'. According to Brink's model, standardized place names can indicate different functions within an area.

The distance between a \*Sæheimr site and its assumed centre is normally 1–5 km, with the centre usually lying in a protected position in the hinterland. In some cases, the \*Sæheimr sites are located, in relation to the assumed centre, on the opposite side of the bay or stream, indicating the need for protection. Roman Iron Age weapon deposits from Southern Scandinavia, such as Illerup Ådal located just 6 km from Siim [52], testify to martial times and the extent of hostile attacks (Fabech 1991, 288). Hill forts encircled central areas in South Norway (Myhre 1987, 182) as part of a defence system; therefore, many \*Sæheimr sites may exhibit the need for protection. Landing sites are by nature exposed to attacks launched from the sea, and ships and gatherings at

such landing sites in connection with, for example, market and production activities must have constituted a potential threat for the political leader of the area. Localizing the centre at a distance from the landing site would have increased security, which would explain the spatial separation between the \*Sæheimr sites and their assumed centres.

Many of the Scandinavian central places seem to have been established in the Roman Iron Age and were active for several centuries. A number were still centres of power and economic life in the High Middle Ages (Brink 1996, 238). It is postulated these were part of a growing network of central places in Northern Europe in the Early Iron Age, one that was controlled by an aristocracy that used religion and cult to legitimize its power. Goods and ideas were spread within the network (Vikstrand 2001, 269). The concept of how to organize space within a central area and how spatial functions were denoted by stereotypical place names describing ritual and organizational functions can be assumed to have been part of the transfer of ideas. This would explain the widespread occurrence of \*Sæheimr names in parts of Scandinavia. The model can be optimally illustrated by the central place complex of Sparbu (Fig. 8), with its assumed centre in the area of Dalem, Skei and Mære, encircled by hill forts, and with its presumed outlying landing sites at Sæheim [4], Sem [5] and Sem [6]).

There remains the question of how to interpret \*Sæheimr sites that do *not* fit the above-mentioned model. Sites such as Siem [7], Sim [8], Siem [12], Seim [16], Seim [18], or Säm [40] do not appear to have been related to known or assumed centres in the Early Iron Age. There are at least three possible explanations. One, takes it starting point in the hierarchy that apparently existed between different central areas with respect to size and function (Eilersgaard Christensen 2010, 33; Fabech 1999, 471). Thus, even landing sites belonging to minor centres can be assumed to have been denoted as \*Sæheimr. One such example may be Seim [16], at the entrance of a small tributary valley leading to Sognefjord, in Western Norway. A second explanation might be that some \*Sæheimr sites might have predominantly fulfilled a function as sheltered natural harbours that were intentionally chosen in sheltered locations, where ships would have been protected against sudden attacks from the sea. This could have been the case for Seim [18]. A third explanation is that the naming also included peripherally situated maritime sites within the area of influence of a centre where the accumulation and redistribution of particular outfield resources took place, such as iron, soapstone, furs and antlers. This is most likely for some of the Norwegian and Swedish \*Sæheimr sites such as Siem [7], Sim [8], Siem [12], and Säm [40]. A similar background might also be supposed for a lake system in Västerbotten, consisting of the lake Sämsjön, the river Sämsjöån and another lake called Sämsjön (Fig. 1), which extended over a distance of 40 km and was surrounded by forests, bogs and lakes. A function of these sites related especially to winter markets is likely, when transport over ice and land is likely to have been done with sledges.

As there seems to be a clear connection between the place name \*Sæheimr and a function related to the landing and maritime-based exchange of goods, any discussion of \*Sæheimr sites should consider the reasons why such sites have not been recorded in locations where they could be expected. In individual cases, there can be many reasons for alternative naming, such as more dominant features in the landscape than the sea or the loss of an original name. One example may be the place name Selk where the stream Selker Mühlenbach flows into the Selker Noor, a former small arm of the Schlei inlet in the Baltic Sea at Schleswig-Holstein, Germany. Based upon its location (Locational Principle 5), stray finds comprising production waste (Dobat 2006, 87–91), its closeness to a probable Early Iron Age centre in its hinterland (Dobat 2003), and the immediate proximity to the Viking emporium Hedeby/Haithabu, the place name \*Sæheimr could be expected at the site and for the site to be a predecessor of Hedeby/Haithabu with regard to the functions of landing and trade. Instead, Selk is probably named after the tree or shrub known as willow, from Old Norse word *selja* (Laur 1992, 598).

Alternative explanations are required for Western and Central Sweden, where \*Sæheimr names do not occur but place names with the element *-hem* are commonly found (Brink 1991, 69). Vikstrand (2017, 31) considers the site Sätuna in Västergötland, Sweden as the outlying harbour of Gudhem. The place name Sätuna occurs three times in Sweden, concentrated in the present-day counties of Stockholm and Uppsala län in Central Sweden. The positioning of Sätuna names in the landscape follows the same locational principles as established for the \*Sæheimr sites, and the maritime context of all of the sites is clear. As names with the element *-tuna* are supposed to have been productive in the Early Iron Age (Hellberg 1975, 23), Sätuna names may be the eastern Swedish counterpart to \*Sæheimr names with regard to dating, motivation behind their naming, and function. Another place name of interest is Simtuna in the county Simtuna, Uppland. It combines an alleged derivation of \*Sæheimr with the central place indicating suffix *-tuna* (cf. Brink 1996, 241–242, 263–264). This place name is mentioned as *Ecclesie Symbætunum* in 1296 (Wahlberg 2016, 281), and is situated near a tributary of the river

Örsundån, within a cluster of central place-indicating names such as Tuna, Karleby, Tisby, Ulleråker and Eklunda. According to Wahlberg (2016, 281-282), the name Simtuna could derive from a court site with the name \*Simb(-).

A somewhat different situation existed for the places names Säby/Sæby and Sæbø, which also contain the maritime-related prefix *sær-*. The place name Säby/Sæby occurs c.60 times in Sweden, four times in Denmark and once in Norway. The distribution of the place name Sæbø is restricted to Western Norway, where it appears ten times. Apart from Sæby in Northern Jutland, Denmark, and Sæbø on Karmøy, Norway, which are situated on the open coast, the positioning of Säby/Sæby and Sæbø follow the locational principles established for the \*Sæheimr sites. A more in-depth analysis of the context of the place names Säby/Sæby and Sæbø is not possible within the framework of this study. The following overview lists the occurrence of some of these place names near sites that had a special status during the Iron Age or Middle Ages: Tissø (Sæby) in Zealand, Denmark (Jørgensen 2003); Bjoafjord (Sæbø) in Hordaland and Rogaland, Norway (Reiersen 2017, 256–260); Tuna in Alsike (Säby), Uppland, Sweden (Arne 1934); Vadstena (Säby) in Östergötland, and Laholm (Säbyholm) in Halland, Sweden (Brink 1998). In the Mälär region in Sweden, the high density of the Säby sites, which in many cases are situated not more than 6–10 km apart, is an argument for a connection to ordinary settlements and not just central places of regional or superregional importance. Place names ending in *-by/-bø* are considered to have been productive later than place names ending in *-heim*, namely in the Late Iron Age and the Middle Ages (Hellberg 1975, 23). Like *-heim*, *-by/-bø* denotes a settlement, often in relation to a location. Thus, linguistically, the maritime place names Säby/Sæby and Sæbø might be the successors of \*Sæheimr and Sätuna names. It remains for future studies to examine in more detail whether the concept of a landing site with functions related to maritime activities and dependent on a higher-ranking centre, such as that proposed for \*Sæheimr names, outlasted the shift in denotation, or whether it was accompanied by a semantic change, henceforth merely denoting settlements situated by the sea.

Place names with elements such as *kaupang*, *bjark*, *la-/lahelle* and *snekke* (Stylegar and Grimm 2002) have been associated with prehistoric harbour sites in Northern Europe. However, they are assumed to indicate Late Iron Age and medieval landing sites and harbours. In Norway and Sweden, few maritime trading places are known from the Early Iron Age, with no evidence in some regions. Having identified the place name \*Sæheimr as an indicator of landing and trading sites that were established in the Early Iron Age, it may be possible to re-evaluate this assumption. The place names \*Sæheimr and Sätuna, and their presumed successors Säby/Sæby and Sæbø, constitute a valuable tool for both cultural heritage management and research to localize and manage Iron Age landing and trading sites in Scandinavia.

## 5. Conclusions

Fifty-four examples of the prehistoric maritime place name \*Sæheimr (‘settlement by the sea’) appear over large parts of Scandinavia. In this article, their dating, the motivation behind the choice of names, and the function of places with this name have been investigated.

Based upon the dating of the available archaeological source material, activities at sites with the name \*Sæheimr began primarily in the Roman Iron Age and Migration Period. This agrees with the common linguistic dating of place names ending in *-heim/-hem* in Scandinavia. There is little evidence that the name \*Sæheimr was still productive in the Viking Age. However, all the sites that have been thoroughly investigated show evidence of a long continuity of use throughout the Iron Age.

The place name \*Sæheimr has been regarded by linguists merely as reflecting human perceptions of the natural environment and describing a settled place by the sea. However, this article has shown that this particular maritime place name does not occur arbitrarily in proximity to bodies of water. Instead, it is distinctively linked to far-reaching waterways of strategic and commercial significance. It occurs where archaeological, historical and onomastic sources all point to the presence of central phenomena such as political and military power, religious activity, specialized craft production, and far-reaching communication in the Iron Age and Early Middle Ages. Within these contexts, sites named \*Sæheimr stand out as the outlying landing sites of Iron Age central place complexes. These served multiple functions related to maritime affairs such as landing, exchange of goods, seasonally practised crafts, and maritime defence. Some of the sites in more peripheral locations might have served primarily as gathering and redistribution points for particular outfield resources. The naming of a



place \*Sæheimr seems to have been part of the pan-Scandinavian concept of how to organize different central functions in a spatial manner, such as the magnate's residence, religious areas, and trading and harbour sites, and how to identify them by giving them stereotypical place names. Moreover, the idea of naming landing sites \*Sæheimr seems to have been accompanied by specific preconceptions of where such places are located, both with regard to transport geography and local topography. As a result, sites with the place name \*Sæheimr appear uniformly throughout large areas of Scandinavia.

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## Appendix 1. Place names with derivations of \*Sæheimr in the Scandinavian Peninsula

Structure:

**ID Place-name, country – province, municipality; 1 LP = Locational Principle number; 2 Name of waterbody; 3 Name of water system (length or volume); 4 Related name of water body; 5 Name of medieval church in the vicinity (distance); 6 Terrestrial fortification in the vicinity (distance); 7 Archaeological evidence within 1 km radius**

Abbreviations:

AskeladdenID – The Norwegian Directorate for Cultural Heritage's register of monuments and sites (Askeladden)

B – University Museum of Bergen

C – Museum of Cultural History, University of Oslo

DKM – De Kulturhistoriske Museer i Holstebro Kommune

F&F ID – The Danish Agency for Culture and Palaces' national register of sites and monuments (Fund og Fortidsminder)

ROM – Roskilde Museum

SHM – National Historical Museums, Stockholm

SKM – Skanderborg Museum

T – NTNU University Museum (Vitenskapsmuseet)

[1] **Sem, N – Trøndelag, Grong.** 1 LP 4. 2 Namsen. 3 Namsen (230 km). 7 Migration Period grave at Sem Vestre (T 19628). Courtyard site Værem (750 m)

[2] **Sem, N – Trøndelag, Snåsa.** 1 LP 8. 2 Snåsavatnet. 3 Snåsavassdraget (113 km), Snåsavatnet (42 km). 5 Vinje Romanesque stone church (0.9 km). 6 Hill fort Roaldsteinen (3 km). Beacon Bergsåsen (2 km)

[3] **Sem, N – Trøndelag, Steinkjer.** 1 LP 8. 2 Snåsavatnet, Semselva, Lomsen. 3 Snåsavassdraget (113 km), Snåsavatnet (42 km). 4 Semselva. 6 Beacon Ulven (1.5 km). 7 Viking Age grave at Følling (T16078)

[4] **Sæheim, N – Trøndelag, Steinkjer.** 1 LP 10. 2 Leksdalsvatnet, Figgja. 3 Figgja (51 km), Leksdalsvatnet (13 km), Trondheimsfjorden (126 km). 4 †Siemsvand. 6 Hill forts Korpsdalsberget (3 km), Johalla (4 km), Klingerhaugen (6 km)

[5] **Sem, N – Trøndelag, Steinkjer.** 1 LP 10. 2 Leksdalsvatnet. 3 Figgja (51 km), Leksdalsvatnet (13 km), Trondheimsfjorden (126 km), 4 †Siemsvand. 6 Hill forts Korpsdalsberget (3 km), Johalla (4 km), Klingerhaugen (6 km)

[6] **Sem, N – Trøndelag, Verdal.** 1 LP 3. 2 Trondheimsfjorden, Semsbekken. 3 Trondheimsfjorden (126 km). 5 Leklem medieval church site, first documented in 1533 (0.7 km). 6 Hill forts Åsakammen (4 km), Kverkilhaugen (5 km), Klinkerhaugen (6 km). 7 Roman Iron Age grave at Myr (T 330-346). Viking Age stray find at Sem (T4159)

- [7] **Siem, N – Trøndelag, Levanger.** 1 LP 10. 2 Byavatnet, Byaelva. 3 Byaelva (12.5 km), Byavatnet (5.5 km), Trondheimsfjorden (126 km). 6 Beacon Våttåberget (2.3 km)
- [8] **Sim, N – Trøndelag, Trondheim.** 1 LP 10. 2 Jonsvatnet, Litlvatnet, Vikelva. 3 Vikelva (22 km), Jonsvatnet (11 km), Trondheimsfjorden (126 km). 6 Beacon Solemvåtten (3 km). 7 Viking Age grave and stray finds at Valset (T1386, T1667-1669, T15215)
- [9] **Sim, N – Trøndelag, Skaun.** 1 LP 10. 2 Laugen, Børselva. 3 Børselva (29 km), Laugen (3 km), Trondheimsfjorden (126 km). 4 †Sims-Vand. 5 Husby medieval church site, originally Romanesque stone church (2.3 km). 6 Hill fort Stensåsen (1.5 km). 7 Roman Iron Age stray find at Eidsmo (T27341). Viking Age grave (T18525) and stray finds (T27923, T27307) at Eidsmo
- [10] **Siem, N - Møre og Romsdal, Rauma.** 1 LP 5. 2 Gjerdsetvatnet, Hamrevågen, Rødvenfjorden. 3 Romsdalsfjorden (94 km). 5 Eid medieval church site (3.2 km). 7 Late Iron Age stray find at Siem (B4439). Viking Age grave at Gjerset (B4395)
- [11] **V Siem, N – Oppland, Lesja.** 1 LP 9. 2 Lågen. 3 Vormalågen (348 km). 5 Hov (Lesja) medieval church site (2.6 km)
- [12] **Siem, N – Oppland, Vågå.** 1 LP 6. 2 Finna. 3 Finna (43 km)
- [13] **Seime, N - Sogn og Fjordane, Gloppen.** 1 LP 8. 1 Breimsvatnet, Storelva. 2 Breimsvassdraget (45 km). 5 Re/Breim medieval wooden church (1 km). 7 Migration Period grave at Seime (B16086). Viking Age grave at Seime (B11303)
- [14] **Seim, N - Sogn og Fjordane, Vik.** 1 LP 3. 2 Sognefjorden, Vikja. 3 Sognefjorden (205 km). 5 Tenol medieval church site (originally wooden church) (0,7 km). Hove Romanesque stone church (1 km). 7 Early Iron Age currency ring of gold (lost) at Seim. Roman Iron Age and Migration Period graves at Hove (B1494, B1563, B5551). Viking Age graves at Seim (B8102, B10412) and Vange (B6467)
- [15] **Seim, N - Sogn og Fjordane, Vik.** 1 LP 3. 2 Sognefjorden, Storelvi. 3 Sognefjorden (205 km). 5 Fresvik medieval wooden church, first documented in 1340 (0.3 km). 7 Roman Iron Age gold finger ring at Seim (C3816). Early Iron Age stray find at Skau (B11453). Early Iron Age grave at Bøtun (B6199). Migration Period graves at Bøtun (B8841) and Holum (B8045). Viking Age graves at Bøtun (B10472) and Holum (B8303). Viking Age stray find at Holum (B6847)
- [16] **Seim, N - Sogn og Fjordane, Årdal.** 1 LP 3. 2 Årdalsfjorden, Seimdalselvi. 3 Sognefjorden (205 km). 4 Seimdalselvi. 7 Viking Age grave at Seim (C1779-1783)
- [17] **Seim, N – Hordaland, Lindås.** 1 LP 5. 2 Seimsfjorden, Seimsvatnet. 3 Lurefjorden (16 km). 4 Seimsfjorden, Seimsvatnet. 5 Seim medieval church site, originally a wooden church (0.1 km). 7 Migration Period grave at Seim (B7175). Viking Age graves at Ryland (B14218, B17404) and Votno (B3308)
- [18] **Seim, N – Hordaland, Bergen.** 1 LP 5. 2 Arnavågen. 3 Sørffjorden (38 km), Hardangerfjorden (183 km). 7 Migration Period grave at Ytre Arna (B8649). Early Iron Age graves at Arna (B569) and Mjeldheim (B11482). Viking Age graves at Ytre Arna (B5924, B5800)
- [19] **Seim, N – Hordaland, Voss.** 1 LP 8. 2 Seimsvatnet. 3 Vossovassdraget (82 km). 4 Seimsvatnet. 7 Iron Age grave at Seim (B1802)
- [20] **Seim, N – Hordaland, Voss.** 1 LP 8. 2 Vangsvatnet. 3 Vossovassdraget (82 km). 5 Voss medieval stone church, 13th century (2 km). 7 Migration Period graves at Seim (B732-734, B1899), Lydvo (14491) and Kvåle (B9995). Viking Age grave at Raustad (B6225)
- [21] **Seim, N – Hordaland, Granvin.** 1 LP 8. 2 Granvinsvatnet, Storelvi. 3 Granvinsvassdraget (22 km), Hardangerfjorden (183 km). 5 Granvin medieval wooden church (2.6 km). 7 Migration Period grave at Seim nedre (B5768, B5873, B6763). Early Iron Age settlement structures at Vassendafloten (Askeladden ID 108555). Viking Age graves at Seim øvre (B3460, B8635)
- [22] **Seim, N – Buskerud, Hol.** 1 LP 9. 2 Holsfjorden. 3 Åni (67 km). 5 Kyrudalen medieval church site, originally presumably wooden church (0.7 km). 7 Viking Age stray finds at Søndrol (C13326, C3353, C5354)

- [23] **Seim, N – Hordaland, Kvinnherad.** 1 LP 3. 2 Kvinnheradsfjorden, Guddalselva. 3 Hardangerfjord (183 km). 5 Guddal medieval church site, originally wooden church (1.5 km). 7 Pre-Roman, Roman Iron Age and Migration Period graves at Seim (B4639), Segleim (B308-310), Holmedal (B6368), Skeie (B7427, B6136). Migration Period headland and settlement structures at Seim (Askeladden ID 136635). Early Iron Age boat house at Seim (Askeladden ID 107301). Viking Age graves at Seim (B6883, B7170), Seglheim (B5205) and Skeie (B17980, B863)
- [24] **Seim, N – Hordaland, Odda.** 1 LP 8. 2 Røldalsvatnet, Storelva. 3 Suldalsvassdraget (109.5 km). 5 Røldal medieval wooden church, 13th century (0.7 km). 7 Migration Period graves at Seim (B13141, B4982, B4984, B4985, B4987). Viking Age graves at Seim (B6705, B6718, B7019, C14009-14019, C14040, C23587, C54509)
- [25] **Særheim, N – Rogaland, Klepp.** 1 LP 10. 2 Frøylandsvatnet. 3 Orreåna (26 km). 5 Klepp medieval wooden church (2 km). 7 Roman Iron Age and Early Iron Age graves at Særheim (S1518; C4920-4921; S3197). Migration Period stray find at Særheim (S7733). Viking Age grave at Særheim (S3962). Early Roman period courtyard site Dysjane (1 km)
- [26] **Søm, N - Vest-Agder, Kristiansand.** 1 LP 1. 2 Kristiansandsfjorden. 3 Otra (245 km), Tovdalsvassdrag (143 km). 5 Oddernes Romanesque stone church, 12th century (2.5 km). 6 Hill fort Auglandsknuten (2 km)
- [27] **Søm, N - Aust-Agder, Grimstad.** 1 LP 1. 2 Skagerrak, Nidelva. 3 Arendalsvassdraget (209 km). 7 Migration Period grave at Møssevold (Askeladden ID 33172). Viking Age grave at Møssevold (Askeladden ID 33172)
- [28] **Sem, N – Telemark, Notodden.** 1 LP 8. 2 Heddalsvatnet, Heddøla. 3 Skiensvassdraget (270 km). 5 Ryen Sta. Maria (Heddal) medieval wooden church (2.3 km). 7 Early Iron Age stray find at Sem søndre (C53515). Merovingian period and Viking Age graves at Sem nordre (C19214-19215, C19217, C54504)
- [29] **Sem, N – Telemark, Skien.** 1 LP 7. 2 Børsesjø. 3 Skiensvassdraget (270 km). 5 Gjerpen Romanesque stone church, 12th century (1.4 km). 6 Hill forts Knip (3.2 km), Rustadkollen (3.4 km), Kjempa (4.3 km). 7 Late Bronze Age/Early Iron Age settlement at Grini (C56749). Viking Age graves at Grini (C23027, C23942, C25396). Merovingian period and Viking Age stray finds at Grini (C Aks.nr. 2016/125, 2016/100)
- [30] **Sem, N – Vestfold, Sandefjord.** 1 LP 10. 2 Goksjø. 3 Goksjø (5 km), Storelva (42 km), Numedalslågen (352 km). 5 Sandar Romanesque stone church (4.5 km). 6 Hill forts Klavenes (1.8 km), Røvern (3.2 km), Hjertås (2.5 km). 7 Roman Iron Age grave at Sem (C13336-13342). Merovingian period stray find at Sem (C24348)
- [31] **Sem, N – Vestfold, Færder.** 1 LP 5. 2 Oslofjorden. 3 Oslofjorden (107 km). 5 Nøtterøy Sta. Maria Romanesque stone church (1.5 km). 6 Hill forts Vardås (1.5 km), Høgås (3.3 km), Tjuvåsen (3.1 km). 7 More than 70 stray finds from Late Roman Iron Age, Migration Period, Merovingian period and Viking Age at Sem
- [32] **Sem, N – Vestfold, Tønsberg.** 1 LP 4. 2 Byfjorden, Aulielva. 3 Oslofjorden (107 km), Aulielva (42 km). 5 Sem St. Olav Romanesque stone church (2.5 km). 6 Hill forts Aker (2.6 km), Børjan (3 km), Smørbergåsen (3.2 km), Freståsen (3.3 km), Klepperås (3.9 km), Storås (4 km), Steingårdåsen (4.4 km), Lundskollen (5.4 km), Rånerødkollen (6.2 km). 7 About 25 stray finds from Late Roman Iron Age, Migration Period and Viking Age at Jarlsberg Hovedgård
- [33] **Semb, N – Vestfold, Horten.** 1 LP 5. 2 Borrevannet. 3 Borreelva (12 km), Oslofjorden (107 km). 5 Borre Romanesque stone church (2 km). 6 Hill forts Skånevetan (4.3 km), Borgåsen (3.9 km). 7 Early Iron Age cooking pits at Semb (C52483). Viking Age graves (C52481), stray finds and cooking pit (Askeladden ID228632) at Semb
- [34] **Sem, N – Buskerud, Hurum.** 1 LP 7. 2 Sandungen. 3 Sagenelva (19 km). 5 Hov (Hurum) Sta. Maria Romanesque stone church (2.5 km). 7 Early Iron Age grave at Rokkestad (C23276). Viking Age graves at Rokkestad (C23277, C23278, C23279, C23280)
- [35] **Sem, N – Buskerud, Øvre Eiker.** 1 LP 6. 2 Vestfosselva. 3 Vestfosselva (50 km), Drammensvassdraget (309 km). 5 Berg medieval church site, presumed originally a stone church (0.1 km). Haug Romanesque stone church (1.9 km). 6 Hill fort Brekkeborgen (5.6 km). 7 About 240 stray finds from Late Roman Iron Age, Migration Period, Merovingian period and Viking Age at Sem



[36] **Sem, N – Akershus, Asker.** 1 LP 10. 2 Semsvannet, Askerelva. 3 Askervassdraget (17 km). 4 Semsvannet. 5 Asker Sta. Maria, St. Fabian and St. Sebastian Romanesque stone church (1.2 km). 6 Hill forts Skaugumåsen (380 m), Askeladden ID 68412 (1 km). 7 Viking Age grave (C1195) and stray find (C24226) at Sem. Viking Age graves at Vøien (C12582; C2422-C2431)

[37] **Sem, N – Oppland, Gjøvik.** 1 LP 9. 2 Mjøsa, Vismunda. 3 Vismunda (46 km). 5 Biri medieval wooden church, 12th century (1.3 km). 7 Early Iron Age stray find at Berg (C 35089). Viking Age stray find (C25285) at Sem and Viking Age graves at Berg (C4519-4520, C37245)

[38] **Seim, N – Hedmark, Sør-Odal.** 1 LP 8. 2 Seimsjøen, Oppstadåa. 3 Oppstadåa (57 km), Storsjøen (43 km<sup>2</sup>), Glommavassdraget (620 km). 4 Seimsjøen. 5 Oppstad medieval church site (2.5 km). 6 Hill fort Varden (3 km). 7 Viking Age stray find at Seim (C12773)

[39] **Sem, S – Jämtland, Ås.** 1 LP 8. 2 Storsjön, Åssjön. 3 Storsjön, (464 km<sup>2</sup>). 4 Semsån. 5 Ås medieval stone church (2.7 km). 6 Hill fort Öneberget (6.7 km). 7 Migration Period stray finds at Västersem (SHM 15265). Viking Age grave at Sem (SHM 12010)

[40] **Lilla Säm, Stora Säm, S – Dalsland, Dals-Ed.** 1 LP 7. 2 Sämsjön. 3 Stora Le/Lesjön (70 km). 4 Sämsjön. 5 Nolby medieval church site (2.2 km). 6 Hill forts Borgekullen (3.7 km), Dødhaug (5 km)

[41] **Säm, S – Bohuslän, Tanum.** 1 LP 5. 2 Sannäsfjorden, Skärboälven. 3 Sannäsfjorden (7 km), Skagerrak. 4 †Sämsfjorden. 5 Tanum medieval church (2.8 km). 6 Hill fort Edsvik (2.6 km)

[42] **Säm, S – Bohuslän, Tanum.** 1 LP 9. 2 Södra Bullaresjön. 3 Södra Bullaresjön (20 km). 5 Naverstad medieval stone church (4.4 km). 6 Hill forts Olsborg (2.9 km), Borgås (3 km), Stengårdsberget (4.6 km), Slotsberget (6.4 km). 7 Migration Period graves at Säm (SHM 15718:1-2). Viking Age grave at Säm (SHM 15718:3)

[43] **Säm, S – Bohuslän, Tossene.** 1 LP 1. 2 Kleveån. 3 Vikefjord (4 km), Skagerrak. 5 Tossene medieval church site (3.1 km). 6 Hill fort Keberget (2.6 km)

[44] **Säm, S – Bohuslän, Brastad.** 1 LP 5. 3 Gullmarn (35 km). 5 Brastad medieval church site (3.2 km). 6 Hill fort Bergås (1 km)

[45] **Säm, S – Halland, Valinge.** 1 LP 2. 2 Himleån. 3 Himleån (38 km). 4 Sämbosjön. 5 Vålinge medieval church site (2.5 km). Gödestad medieval church site, 14th century (2.8 km). 6 Hill forts Kleven (2.6 km), Galgaberget (3.8 km), Grimåsaberget (5.3 km). Beacon Vården (4.4 km)

[46] **Säm, S – Halland, Asige.** 1 LP 2. 2 Suseån. 3 Suseån (31 km). 5 Asige medieval stone church, 12th century (1.3 km). 6 Hill fort Kungsbjär (2.3 km)

[47] **Säm, S – Västergötland, Norra Säm.** 1 LP 10. 2 Sämsjön. 3 Vimleån (14 km), Nossan (100 km). 4 Sämsjön. 5 Norra Säm medieval stone church, 13th century (0.3 km). Hov Romanesque stone church (2.7 km)

[48] **Säm, S – Västergötland, Södra Säm.** 1 LP 8. 2 Sämsjön. 3 Sämån (19 km). 4 Sämsjön, Sämån. 5 Södra Säm medieval stone church (0.6 km). 6 Hill fort Hulared (7.8 km)

[49] **Semb, DK – Mid-Jutland (Midtjylland), Struer.** 1 LP 5. 2 Limfjorden. 3 Limfjorden (180 km). 5 Hvidbjerg medieval stone church, 12th century (0.9 km). 7 Viking Age stray find at Semb Vestergård (DKM 20.796 x1). Iron Age pit houses at Semb (F&F ID 110607-169)

[50] **Siem, DK – North Jutland, Rebild.** 1 LP 6. 2 Skibsted-Lyngby Å. 3 Skibsted-Lyngby Å (30 km). 5 Siem Romanesque stone church, 12th century (0.2 km). 7 Probable Early Iron Age votive deposit at Siem (F&F ID 120308-3). Viking Age hoard at Siem (F&F ID 120308-4)

[51] **Sem, DK – North Jutland, Mariagerfjord.** 1 LP 6. 2 Kastbjerg Å. 3 Kastbjerg Å and Skals Å (65 km). 4 Sem Sø. 5 Sem medieval stone church (0.2 km). 6 Hill fort Ousgård Vold (F&F ID 140708-20) (1 km). 7 Early Iron Age grave at Sem (F&F ID 140708-2). Early Iron Age votive deposit at Sem mose (F&F ID 140708-42). Late Roman Iron Age votive deposit at Kastbjerg Å (F&F ID 140403-22). Stone Age, Iron Age and Viking Age stone- and wood-built pathes at Enslev (F&F ID140403-26).

[52] **Siim, DK – Central Jutland, Skanderborg.** 1 LP 9. 2 Ry Møllesø. 3 Gudenå (158 km). 5 Dover Romanesque stone church (3 km). 6 Assumed beacon Bavnehøj (1.8 km). 7 Pre-roman Iron Age and Early Roman Iron Age settlement structures (F&F ID 160203-213) and Roman Iron Age buildings at Siim (F&F ID 160203-216, 160203-220). Early Iron Age graves at Siim (F&F ID 160203-214, 160203-215). Merovingian period stray find at Brunhøjvej, Ry (F&F ID 160203-213, SKM 80/72). Viking Age causeway at Holmen (F&F ID 160405-144)

[53] **Seem, DK – Central Jutland, Esbjerg.** 1 LP 2. 2 Ribe Å. 3 Ribe Å (71 km). 5 Seem medieval stone church, 12th/13th century (0.7 km). 7 Roman Iron Age and Migration Period stray finds at Seem (F&F ID 190410-98). Roman Iron Age grave finds and settlement at Seem (F&F ID 190410-61, ID 190410-64). Merovingian period and Viking Age stray finds at Seem (F&F ID 190410-98)

[54] †**Sæm, DK – Zealand, Roskilde.** 1 LP 3. 2 Roskilde Fjord. 3 Roskilde Fjord (41 km). 5 Roskilde Cathedral, 11th century (0.6 km). 7 Late Viking Age stray find (ROM 1678). Viking Age stray find, probable grave, at Roskilde Cathedral (F&F ID 20410-1)

### Figure captions

**Fig. 1** Distribution of the place names \*Sæheimr, Sätuna and Simtuna in Scandinavia (Basic data: Birgit Maixner, illustration: Magnar Mojaren Gran)

**Fig. 2** Simulations of the shore levels in the vicinity of Säm [43], Bohuslän, Sweden: (a) 7000 years ago, (b) 2000 years ago, and (c) today (reproduced and modified with permission of the Geological Survey of Sweden)

**Fig. 3** Schematic map of the locational principles of places with the name \*Sæheimr in Scandinavia (Draft: Birgit Maixner, illustration: Magnar Mojaren Gran). **Locational Principle 1** Situated close to the rugged coast at the estuary of an important waterway that reach far inland. **Locational Principle 2** Located upstream on a river that enter the sea. **Locational Principle 3** Situated further inside a fjord, in a sheltered bay with no links to other water routes of importance. **Locational Principle 4** Situated at the transition between the mouth of a fjord arm and an important far-reaching freshwater waterway. **Locational Principle 5** Located at the dead-end and easily defendable small branch of a main waterway, which may be either a fjord or an inlet in a coastal archipelago. **Locational Principle 6** Located on a smaller tributary stream that feeds into a main waterway. **Locational Principle 7** Located near a small lake that is not far from the main waterway but without navigable access. **Locational Principle 8** Situated at either the inflow or outlet of a lake that forms part of a main waterway. **Locational Principle 9** Located at a lake in another position than at the inflow or outlet. Frequently located at a tributary or narrow point. **Locational Principle 10** Located at the outlet of a lake that do not constitute part of a larger water system in the opposite direction

**Fig. 4** The location of (a) Semb [33], (b) Sem [32] and (c) Sem [30], in Vestfold, Norway, in relation to both the Raet terminal moraine and waterways (sediment data map reproduced from [http://geo.ngu.no/kart/losmasse\\_mobil/](http://geo.ngu.no/kart/losmasse_mobil/) and modified with permission of the Geological Survey of Norway)

**Fig. 5** The site of Sim [8] on a hillock on the shore of the lake Jonsvatnet, Trøndelag, Norway, near the outlet to the river Vikelva (Photo: Birgit Maixner, 2017)

**Fig. 6** Topography at the site of Sem [51] at the river Kastbjerg Å, North Jutland, Denmark (Højkantkort 1840-1899, map reproduced with permission of Styrelsen for Dataforsyning og Effektivisering (SDFE), Historiske kort på nettet)

**Fig. 7** Stray artefacts dating from the 1st century AD, found by private metal detectorists at the site of Sem, Buskerud, Norway [35] with Museum of Cultural History, Oslo, inventory numbers: 1 Insular mount C59549 (Viking Age), 2 Insular mount C59547 (Viking Age), 3 Insular mount C59563 (Viking Age), 4 Mount with imitation of Carolingian plant ornament C59478 (Viking Age), 5 Brooch C59557 (Migration Period), 6 Cruciform brooch C59556 (Migration Period), 7 Equal-armed brooch C60069 (Merovingian period), 8 Equal-armed brooch C59553 (Viking Age), 9 Millefiori bead C60070 (Viking Age), 10 Piece of hack silver C59564 (Viking Age), 11 Islamic coin, Harun al Rashid (786–809) Accession No. 2015/256 (Viking Age), 12 Lead disc weight C59546 (Iron Age), 13 Weight C59552 (Viking Age), 14 Truncated spherical weight C60095 (Viking

Age), **15** Copper alloy production waste C59543 (Photo: Birgit Maixner, © Museum of Cultural History, University of Oslo.). Without scale

**Fig. 8** Find sites of artefacts from the area around Sæheim [4], Sem [5] and Sem [6] in Sparbu, Trøndelag, Norway: **1** Migration Period gold bracteate T1660, imprecise provenance in Inderøy; **2** Migration Period grave find T9822-9842, Hol, Inderøy; **3** Merovingian period/Viking Age gold foil figures T18842, Mære, Steinkjer; **4** Migration Period grave find C4565-4828, Dalem, Steinkjer; **5** Late Roman Iron Age/Migration Period gold medallion T17460, Vika, Inderøy; **6** Roman Iron Age grave find T330-T346, Myr, Verdal (NTNU University Museum (T) and Museum of Cultural History (C) inventory numbers) (Base map: © Kartverket. Illustration: Birgit Maixner)

### **Compliance with Ethical Standards**

#### **Conflict of interest**

The author declares that she has no conflict of interest directly or indirectly connected to this research.

#### **Human and Animal Rights**

The research complies with ethical standards and does not involve human participants or animals.

### **Illustrations**

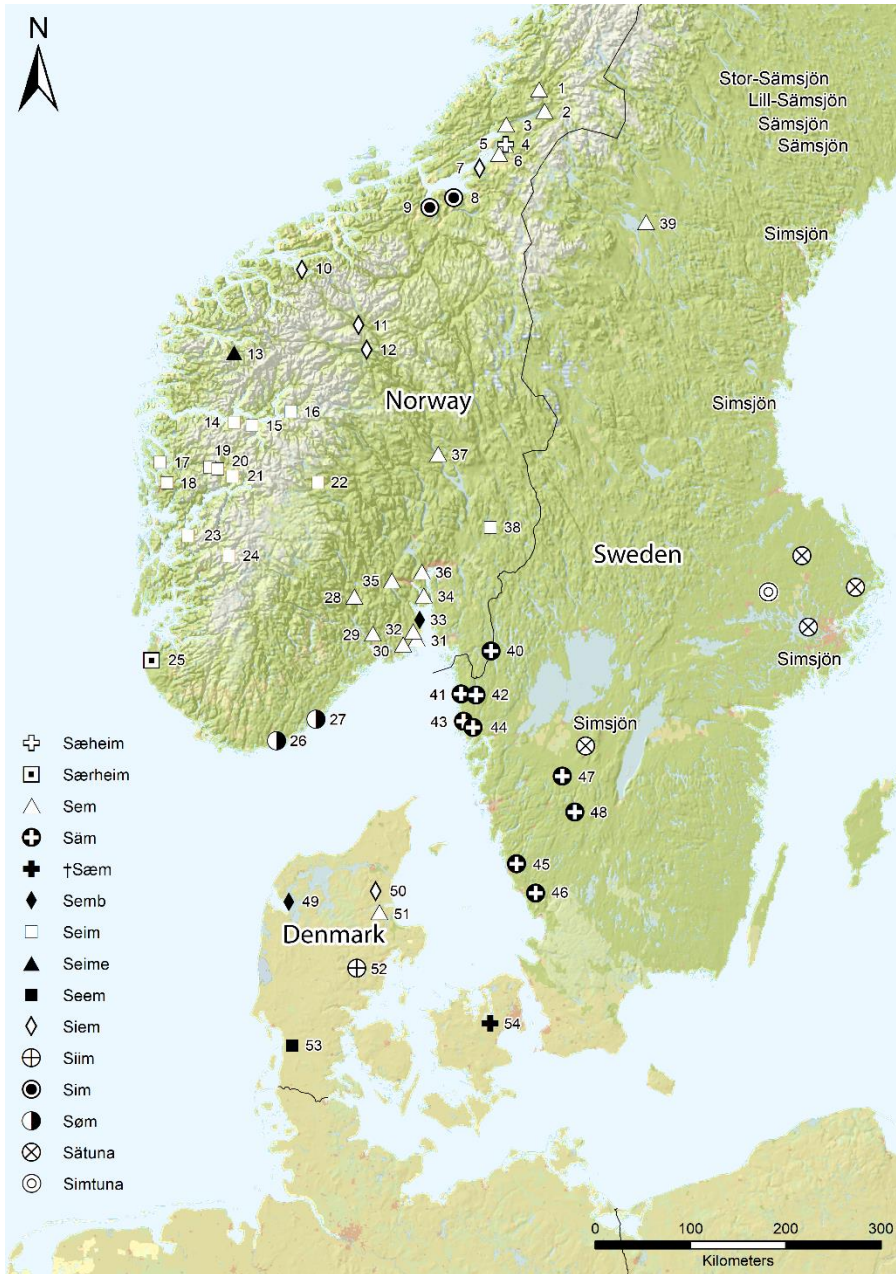


Fig. 1



Fig. 2



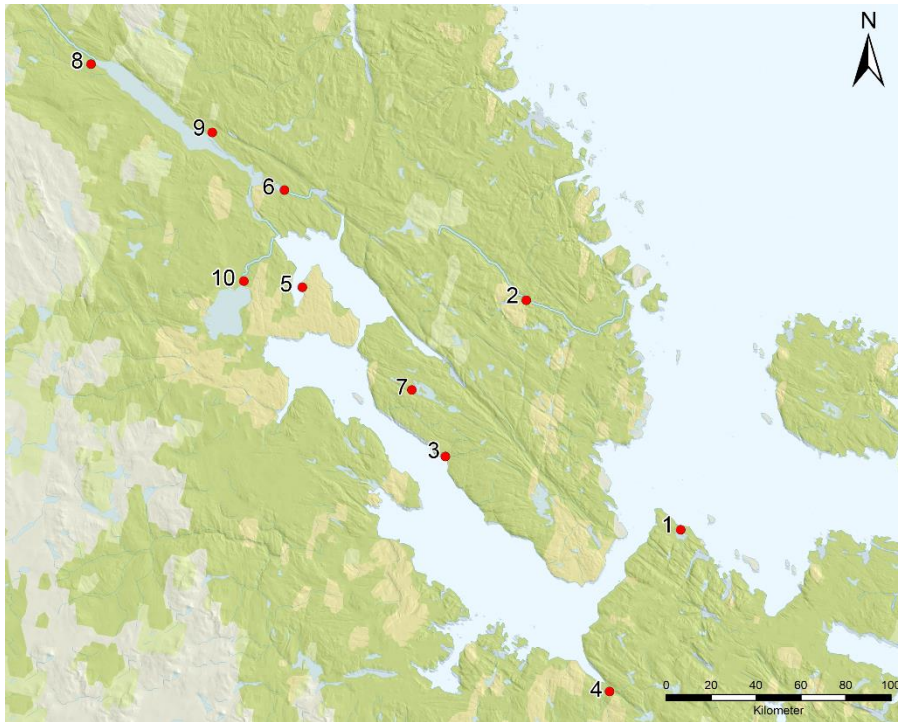


Fig. 3

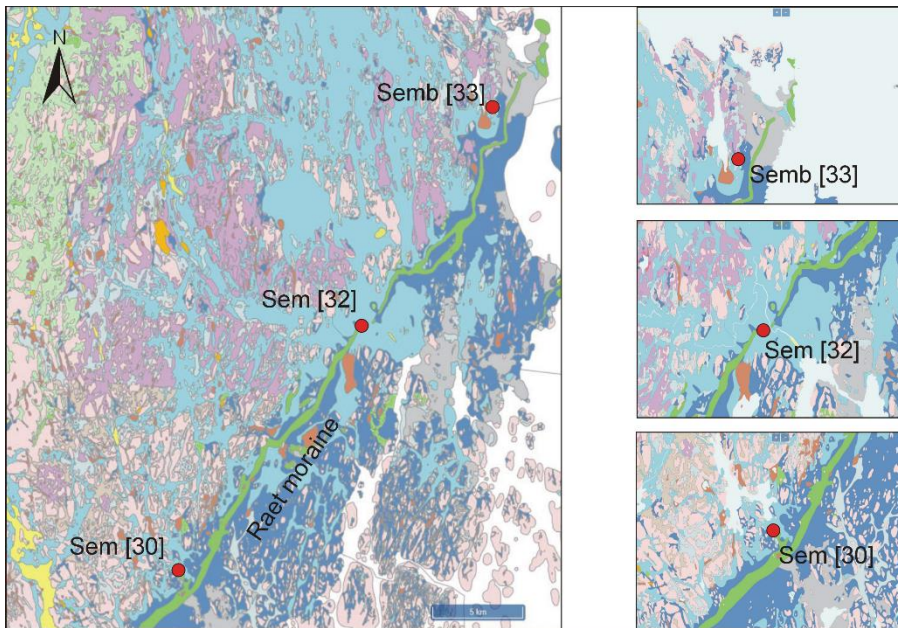


Fig. 4



Fig. 5

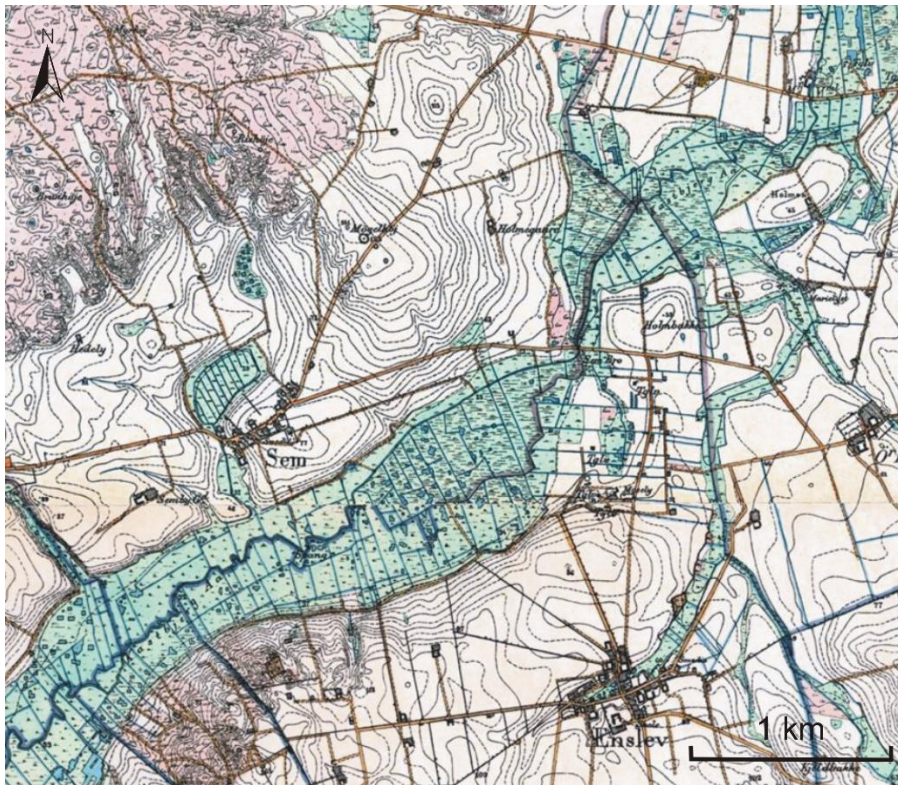


Fig. 6



Fig. 7



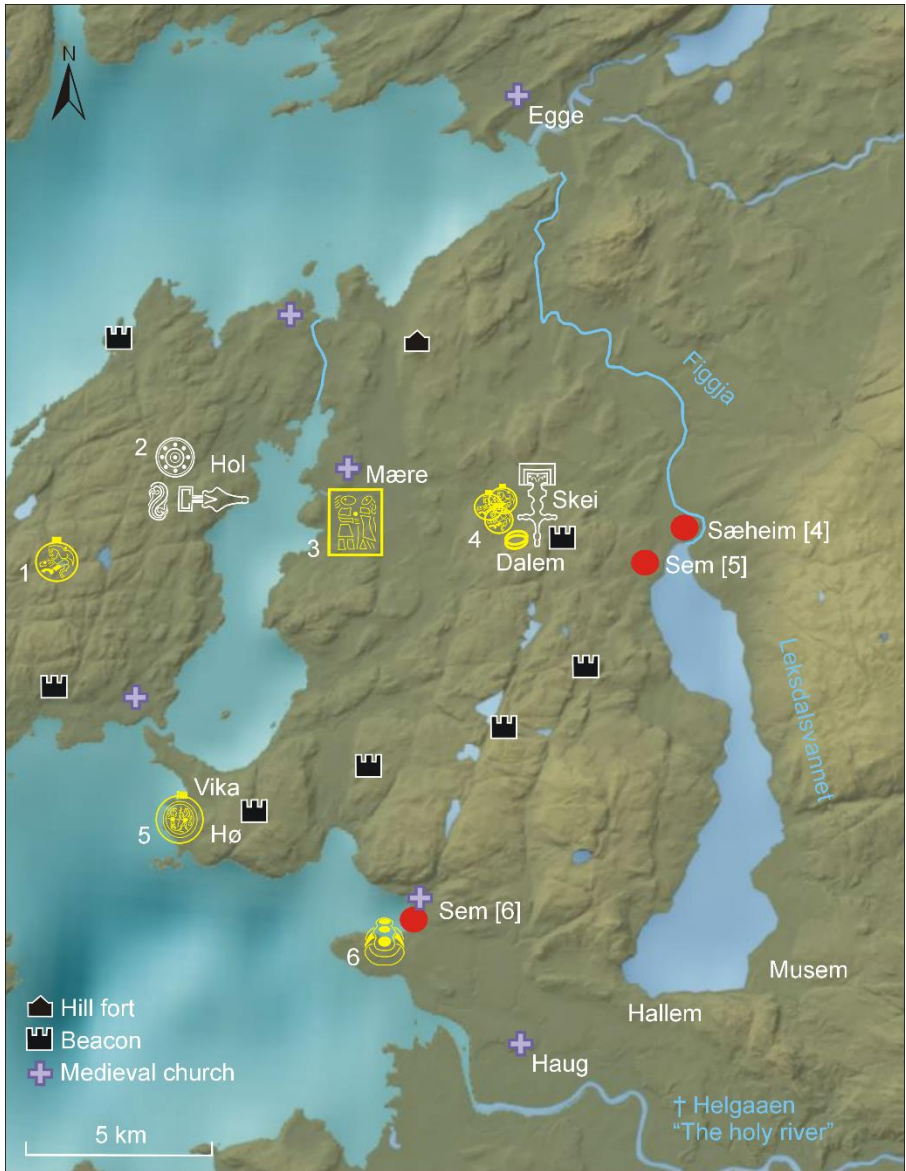


Fig. 8