The Inland Sámi Societies of Northern Fennoscandia during the Late Iron Age and Early Medieval Period: An Archaeological Approach

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Abstract

This article explores the archaeological features of the inland Sámi societies of northern Fennoscandia in the Late Iron Age and early medieval period (ca. 700–1300 CE). The traces of Late Iron Age and the early medieval dwelling sites of inland northern Fennoscandia are primarily rectangular hearths. The distribution area of the rectangular hearths is wide, from southern Norway and central Sweden to north-eastern Finland and Norway. A dwelling site most often comprises a row of hearths. The change in location of the dwelling sites occurred in approximately 700 CE, when sites began to be located near bogs, small lakes, and small rivers, in a completely different environment than earlier. The rectangular hearths are generally located in pine forests or birch forests. The bone material connected to the rectangular hearths primarily indicates wild reindeer hunting or reindeer herding. Good contact networks and long-distance travel could maintain the similarities of the societies in different sections of the area.

1 Introduction

The purpose of this article is to explore the archaeological features of the inland Sámi societies of northern Fennoscandia in the Late Iron Age and early medieval period (ca. 700–1300 CE). The Sámi live today in *Sápmi*, in the northern portion of Fennoscandia and on the Kola Peninsula. This large area comprises several different geographical areas with their characteristic environmental factors. In different areas of *Sápmi*, the Late Iron Age and early medieval archaeological record reads differently; however, there are some common features. The prehistoric and early historical inland Sámi societies are archaeologically interesting because the area is wide and several features are similar from the south to the north-eastern corner 1000 km away. How is it possible to identify the similarities and differences in such a large area?

Research into the Late Iron Age and medieval societies of the northern areas has been on the fringes of archaeological research in Finland: the historical and archaeological research primarily addresses the themes of the southern Finnish environment. The interiors of Finland and Lapland are seldom discussed equally with southern Finland. This is partially understandable because historical sources regarding Lapland are quite scarce. Thus, archaeology provides a fertile approach to questions regarding the development of Late Iron Age and early medieval Sámi societies. During the last several decades, archaeological surveys and excavations have resulted in extensive new source material dated to these periods – many times the amount of materi-

Figure 1. Hearth 4, Inari Kiellajoenkangas. Photo: P. Halinen.

als from older periods and previous decades. According to this new archaeological material, it can be assumed that extensive changes occurred during the Late Iron Age in northern Fennoscandia. These new archaeological finds can be connected to numerous aspects of the societies: increasing numbers of dwelling sites and changes in the structure of the dwelling sites, the *sieidis* (sacred sites of the Sámi), and the silver hoards.

The results of the new research on the Late Iron Age and early medieval period of northern Fennoscandia have been published widely (e.g. Äikäs 2011; Äikäs et al. 2009; Carpelan 2003; Halinen 2009; Halinen et al. 2013; Hamari 1996a; 1996b; 1998; Hedman 2003; Hedman & Olsen 2009; Karlsson 2006; Mulk 1994; Sommerseth 2009; Storli 1991; 1993). These studies have considered various available source materials. Some other recent publications address only stray finds and do not consider dwelling sites or other types of sites at all (e.g. Hakamäki & Kuusela 2013; Kuusela 2014a; 2014b). The archaeological picture that has been formulated using only the stray finds differs significantly from the previously mentioned research, which considers other sides of the culture as well. Several problems are related to the use of stray finds alone: the researcher should be aware of all of the finds, not only a random selection (in these publications, several generally known and even published finds, such as iron arrowheads, are missing). One should consider also the research published in Sweden and Norway, because the inland area of northern Fennoscandia comprises Sweden, Norway, Finland, and Russia. The overall picture of the inland zones would be more comprehensive and valid if analyses of international features were not limited by current national borders (Finland).

The archaeological traces of a society reflect numerous aspects of life: dwellings, subsistence (hunting methods, animal husbandry), religious expression, social relations, material culture, and so on. These aspects can all be observed, regis-

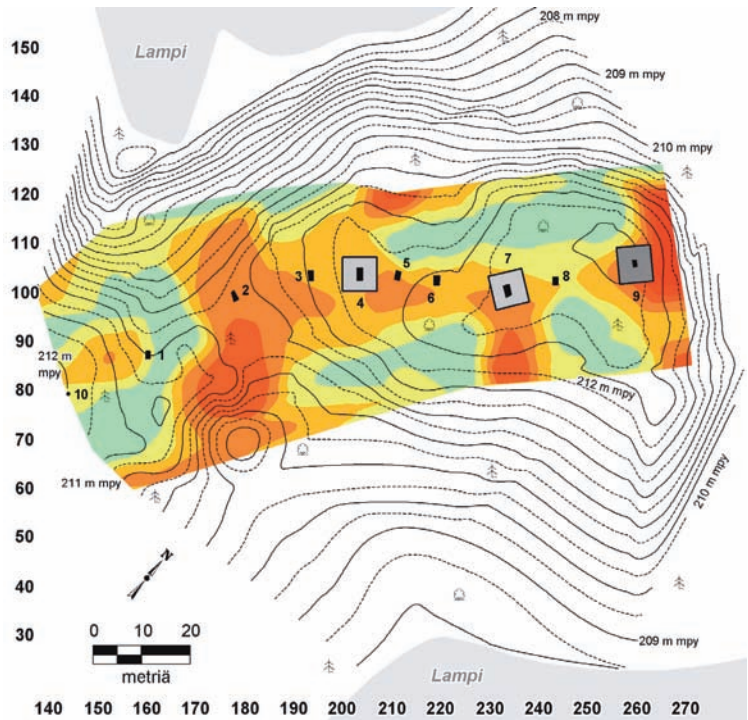

Figure 2. The hearth row site at Kiellajoenkangas, Finland. The scale shows the amount of phosphate observed in samples: green 20–40, yellow 41–60, brown 61–80, orange 81–100, light red 101–120, red 121–140, dark red 141–159 P mg/l. Map: K. Nordqvist.

tered, and classified from their own perspectives; however, it is difficult to classify them in such a way that they are comparable to one another, although it is possible to draw various aspects into discussion separately or together and to consider their effects on the overall picture. The purpose of this article is to bring the Late Iron Age and early medieval archaeological material of northern Fennoscandia into the discussion and create a comprehensive picture of the Sámi society. The material included consists of dwelling sites, their structure, chronology, and variability, and the archaeological features that can be connected to these dwelling sites and to the means of livelihood of the people who lived in and used them.

2 The dwelling sites

The Late Iron Age and early medieval dwelling sites of inland northern Fennoscandia are primarily rectangular stone settings (Fig. 1) and so-called Stallo sites. The rectangular stone settings are located in the forest zone, visible on the ground, and up to 0.5 m high. The Stallo sites are located in the high mountainous zone. In this study, the primary focus is on the rectangular or, in some cases, oval stone settings.

Over the course of research history, the rectangular stone settings were not always identified as the remains of dwellings. In the 1960s, Povl Simonsen excavated stone settings in Juntavadda in Kautokeino and Assebakte in Karasjok in Finnmark and interpreted them as graves that were strongly influenced by eastern societies and religions (Simonsen 1979). Since the 1980s and 1990s, the settings have been interpreted nearly unanimously as hearths or fireplaces (Storli 1991; 1993). However, Simonsen (1997) maintained his grave interpretation at least in some cases in Juntavadda and Assebakte. In this study, the hearth interpretation is generally accepted, although human remains have been discovered in some hearths (Hedman 2003). This type of hearth most likely belonged to a dwelling with a light

construction (*goahti*), because no visible construction or embankments can be identified around them, and in some cases the systematic distribution of bone refuse and the high phosphate values suggest the same kind of *goahti* (Halinen 2009; Halinen et al. 2013; Hedman 2003; Mulk 1994).

The hearths are often located side by side (Fig. 2). They form smaller (1–4) or larger (5–10) groups. Close to the hearths is a thin cultural layer with a varying number of finds. Generally the size of a hearth varies from 100 to 250 cm in length, 50 to 150 cm in width, and 1 to 50 cm in thickness. Pirjo Hamari measured the average size of the hearths in Finland as 1.65 x 1.05 m (Hamari 1996a: 25–26, Appendix III). One of the largest hearths, sized 264 x 145 x 24 cm (Halinen 2009), was excavated in Inari Kiellajoenkangas (148010798). Generally there is no soil on the stone settings; however, between the stones there is often fine-grained soil that includes traces of fire: fire-cracked stones, red sand, charcoal, ash, or burned bone. The size of the stones in a setting varies; the largest stones are at the narrow end, which faces north or farther away from the lake. One or two large stones are assumed to be the Sámi *boassjo* stone. The *boassjo* lies on the back side of the *goahti* and was considered sacred – the *boassjo* divides the *goahti* into sacred and secular sections. According to ethnographical sources, men stored sacred objects and hunting weapons in the *boassjo*, which also served as the area in which wild animals were slaughtered and prepared for cooking. The space between the hearth and the main door, *uksa*, was an area reserved for female activities, such as preparing dairy products and domesticated animals for food. The sleeping areas, *luoitos*, were situated on both sides of the *goahti*. The back door was situated in the *boassjo* and was for males only; men used that door to leave for and return from hunting trips. The back door was also used for bringing in the caught and killed wild animals (Halinen 2009; Halinen et al 2013; Ränk 1949; Yates 1989). The hearths of the Inari Ampumaradan tausta (148010103) and Tupavaara 2 (148010496) sites comprised only – without the *boassjo* stone – small stones, the size of which varied between 5 and 15 cm, which is an exception in the case of a rectangular hearth (Halinen 2008a; 2008b; 2008c).

The *boassjo* is noted for its larger number of finds and high phosphate values (Halinen 2009; Halinen et al. 2013; Hedman & Olsen 2009). The majority of the preserved bones and other find categories have been unearthed in connection with the *boassjo*. Sometimes the phosphate values near the *uksa* are also high. When compared to the phosphate values of younger fireplaces with arms (from 1450–1900 CE), the phosphate values form the same type of distribution as in rectangular hearths and as expected on the basis of ethnographic sources (Halinen 2009) (Fig. 3).

The rectangular or in some cases oval hearths may be low, only 10–15 cm high, or higher, up to nearly 50 cm. Often the hearths were built in one go and did not accumulate gradually over time. This conclusion is based on the rate of fire-induced cracking of the stones: on the top layer, the stones are extremely cracked; however, the bottom layer is not cracked. There is a clear difference between the highest and lowest hearths: some of the highest hearths were used for a longer time than the lowest hearths. Most likely the highest hearths were used during the winter season and the lowest hearths were used during other, shorter seasons. This theory can be deduced from the number of finds and the find categories. The clearest observation is that more finds indicate that the hearth was used for a longer time; if there was more material to begin with, scientists are more likely to discover traces. This conclusion is a result of the altering of soil acidity caused by the high amount of calcium in refuse bones – the presence of a large amount of bones in one place helps to preserve the bones better. The soil between the stones is often discoloured because fire was maintained on top of the hearth and because refuse and grease dropped into the hearth during the preparation of the food and during eating. Bones and fish scales can be discovered in association with a hearth. Bones and scales can

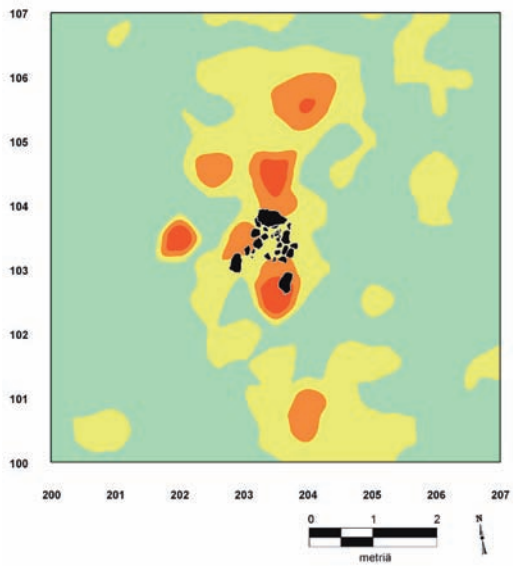

Figure 3. Phosphate distribution at the site of Utsjoki Palggapakti. Scale: green 0–200, yellow 201–400, orange 401–600, red 601–800 P mg/l. Map: K. Nordqvist.

be identified inside the hearth or close to the hearth – the majority of the bone refuse has been identified in the *boassjo* section of the dwelling. That is a natural consequence of its use as a butchering and food preparation area. Maintaining fire causes the soil to become red. Most often, the red area is situated under the middle of the hearth: the heat was so high that the mineral soil was discoloured (Halinen 2007; 2008a; 2008b; 2008c; 2009; Halinen et al. 2013; Hedman & Olsen 2009).

A dwelling site most often comprises a row of hearths. In a row, there can be more than 20 hearths, such as in Inari Siuttavaara (148010370). A small group comprises 1–4 hearths, and a large group is 5–10 hearths. More than ten hearths is uncommon. The larger groups are generally situated in areas that are sheltered from winds and cold and therefore appropriate for the winter season, and the smaller groups are often situated in areas appropriate for wild reindeer hunting or reindeer herding. Some of the smaller groups are situated in sheltered areas as well (Halinen 2009; Halinen et al. 2013; Hamari 1996a; 1996b; 1998).

The question regarding the contemporaneity of the hearths is not easy to resolve. The spatial analysis of the location of the hearths indicates that in a hearth row, there may be 1–4 smaller groups that are not contemporaneous, such as at the Inari Kiellajoenkangas site (Fig. 2). At Kiellajoenkangas, there are two larger groups (numbers 7–9 and 3–6) and two single hearths (1 and 2). According to Sámi tradition, a Sámi cannot use the hearth of an ancestor – a new hearth must be built next to the previous hearth (Hedman 2003: 160). The life span of a dwelling site is therefore greater than should be expected: people return to a dwelling site later and live there another season, which renders it more difficult to consider the spatial relation between the hearths and the artefact finds (Halinen 2009).

The rectangular hearths are primarily dated between 700 and 1600 CE (Hedman 2003: 133); however, the most common period of use was between 800 and 1300 CE (Halinen 2009; Halinen et al. 2013). The rectangular hearths in Finland have been dated to 633–1669 CE. The majority of the hearths are dated between 950 and 1270 CE. In Norway, the hearths are dated between 684 and 1285 CE (Hamari 1996a: Table 3).

During the *Home, Hearth and Household* project (2007–2009), nine hearths were excavated in Finland and seven in Norway. Two hearths (1 and 2) in Siuttavaara W (148010499) were dated to 890–920 and 940–1030 CE; three hearths (4, 7, and 9) in Kiellajoenkangas were dated to 1040–1230 CE (4), 1030–1210 CE (7), and 1040–1260 CE (9); and one hearth in Ampumaradan tausta was dated to 890–920 and 940–1040 CE (Halinen 2007; 2008a; 2008b; 2008c). The hearths in Brodtkorbsneset in Norway were dated to 960–1390 CE (hearth 1), 1010–1290 (–1640) CE (2), 1030–1400 CE (3), 1010–1285 CE (4), 1010–1280 CE (5), 1020–1280 CE (6), and (530–) 1050–1310 CE (7) (Hedman & Olsen 2009: 10). According to these dates, it is not possible to state unambiguously whether the hearths belong to one or several use phases. Several indicators suggest that the Brodtkorbsneset site comprised seven

contemporary dwellings (Halinen et al. 2013). At the Kiellajoenkangas site, the interpretation is not as clear: it remains possible that there was more than one use phase, although if that is what occurred, the phases were close to one another (Halinen 2009).

The distribution area of the rectangular and oval hearths is wide, from southern Norway and central Sweden to north-eastern Finland and Norway (Halinen et al. 2013) (Fig. 4). On the Russian side of the Cap of the North, no rectangular hearths have yet been identified, although this is likely to change in the future as more research is carried out. Within this huge area of distribution, an emerging area can be observed in which the diffusion of the use of rectangular hearths has occurred. The oldest hearths have been discovered in northern Sweden, dated before 800 CE. Thereafter the diffusion proceeded south and north or north-east. The hearths dated between 800 and 1000 CE were excavated in the Dovrefjell area of southern Norway and in the Finnmark area of northern Norway. The majority of the hearths dated between 800 and 1000 CE were excavated in northern Sweden and northern Norway and Finland. This distribution area remains nearly the same from 1000 to 1200 CE and from 1200 onwards (Bergstøl 2008; Halinen 2009; Halinen et al. 2013; Hamari 1996a; Hedman 2003; Hedman & Olsen 2009). In analysing the area of origin and the diffusion, one must consider that the dates are based on different types of dated material: charcoal (pine, birch, willow) and bones, which have their own sources of error. These dates suggest only a general character of diffusion that is not definitive.

For thousands of years before 700 CE, prehistoric dwelling sites had been located near water (lakes, seas, rivers). The change in location of the dwelling sites occurred in approximately 700 CE, when sites began to be located near bogs, small lakes, and small rivers, in a completely different environment. The doors of the dwellings opened towards the waters or bogs, and the row of dwellings followed the shoreline (Halinen 2009; Halinen et al. 2013; Hedman 2003). Whereas the orientation of the slope of the prehistoric dwelling sites before 700 CE most often faced southern (south-west–south–south-east) directions (Vikkula 1994), the dwellings after 700 CE opened towards the south. This southern orientation was not absolute; the doorway may have opened towards the north-west, as in Kiellajoenkangas (Fig. 2), if the topography of the area demanded it. The doorway orientations of smaller and larger groups of hearths had some differences. The dwellings of the smaller groups did not necessarily open towards the waters or bogs because the dwellings were not always located in the vicinity of water – they were located in several different topographic areas, such as on ridges or on plains where wild reindeer hunting was successful (Halinen 2009; Hamari 1996a).

The rectangular and oval hearths are generally located in pine forests or birch forests. Only a few hearths lie in an open tundra environment. Instead, the so-called Stallo sites lie today in mountainous areas in an open tundra environment; originally, however, they were located in birch forests (Bergman et al. 2013; Liedgren & Bergman 2009). The change of climate changed the vegetation conditions as well: areas that were covered by birch a thousand years ago are now open tundra environments, and areas that were covered by pine are now birch or remain pine forests. Approximately a thousand years ago, the temperature was generally higher, in what was called the Medieval Warm Period (Eronen et al. 2002; Helama 2004; Helama et al. 2002; Korhola et al. 2000; Kultti 2004; Kultti et al 2006; Seppä & Birks 2002; Zetterberg et al. 1994). The tree line was approximately 100 m higher than the current tree line. These conditions indicate that the rectangular hearths most likely originated in pine forests. An exception to this rule is the site of Aursjøen in Lesja, southern Norway, which is in an open tundra environment (Bergstøl 2008).

The rectangular and oval hearths were not the only type of fireplaces used approximately a thousand years ago in northern Fennoscandia. Kalddasjohka 4 (1000001231)

Figure 4. The distribution of rectangular hearths (based on Bergstøl 2008; Halinen et al. 2013: 155). Illustration: P. Halinen.

in Pulmanki Utsjoki, Finland, was excavated in 2008; however, before excavation, a circle of stones was visible on the surface on the surface was visible. Scientists expected that the stone circle was a product of tourists that could be dated to the modern era. However, the radiocarbon dating was 1020–1160 CE (2σ; Hela-2142; 959±30 BP), and the firewood was pine, which no longer grows in the area. There were no finds connected to the fireplace. Inside the fireplace was stone packing, and around the stone circle was a store of stones waiting to be placed in the fireplace (Halinen 2008d). Another example of different types of fireplaces was excavated in northern Norway, Devddesvuopmi, árran R25 K4: this fireplace was oval in shape and dated to 720–1030 CE (Sommerseth 2009). These are exceptions to the range of fireplaces or hearths used approximately a thousand years ago.

Occurring in approximately the same period (850–1050 CE) as the rectangular hearths are the so-called Stallo sites, which are distributed in the mountainous region between northern Sweden and Norway. Their distribution area differs slightly from the distribution of the rectangular hearths, which are situated primarily in the lower forest region. Stallo foundations differ from rectangular hearths in their visible wall embankments and sunken floor area with central hearths. The type of construction used remains debatable. These hearths can be observed in groups of 1–5 stallo foundations and occur in the same types of rows as rectangular hearths (Bergman et al. 2013; Liedgren & Bergman 2009; Mulk 1994; Sommerseth 2009; Storli 1991). Stallo foundations have not been observed in Finland; however, they are an essential component of the Late Iron Age and early medieval interior of Lapland, even of the coastal area of Westrobothnia and Ostrobothnia, because the rivers of Sweden run from the mountains to the coast.

3 Finds

Finds from sites with rectangular and oval hearths consist of metal objects, bone, and tinder flint. The metal object categories are numerous: objects used for hunting (arrowheads), for preparing prey and for working (axes, knives), jewellery (pendants, beads, buckles), items to determine value (scales, weights, hack silver, coins), and fragments of cut bronze or copper alloy.

The iron arrowheads are generally large and tanged. The shape of the edge varies from rhombic and transverse to two-branched (Hedman 2003; Hedman & Olsen 2009). Most arrowheads of this type have been discovered in the mountainous area. These arrowheads are widely distributed geographically and chronologically. The arrowheads date to the Viking and Crusade Ages (Hiekkanen 1979; Huurre 1985; Wegraeus 1973), and their geographical distribution is nearly identical to the distribution of the rectangular and oval hearths (Hedman 2003; Huurre 1985; Wegraeus 1973). The knives have no specific form that could help to date them. The axes are slightly easier to determine and generally can be dated to the Late Iron Age and early medieval period (Hedman & Olsen 2009).

The metal jewellery comprises bronze and silver pendants, necklaces, and buckles

or fragments. Many of the pieces date to the Viking and Crusade Ages – the majority of the finds are dated to the 12th–13th centuries. Parallel finds have been discovered in the *sieidi* sites, and these objects were most likely imported from the east or south-east (Halinen 2005; Hamari 1996a; Hedman 1989; 2003; Huurre 1983; 1985; Makarov 1991; Serning 1956; Zachrisson 1984).

It must be remembered that the finds associated with the dwelling sites are not the only finds; these objects belong to the same larger context. Several of the finds can be partially connected to the dwelling sites or other types of sites (Hakamäki & Kuusela 2013; Kuusela 2014a; 2014b; Ojanlatva 2003; Okkonen 2002). Some of the finds are hoards, containing silver coins and silver jewellery. It is not known whether the hoards belonged to local people or to traders from outside. In any case, these finds indicate economic activities and contact networks that suggest contact with Scandinavia and Finland and perhaps eastern regions, to the White Sea region and beyond (Halinen et al. 2013). The different distribution of stray finds and dwelling sites (Hakamäki & Kuusela 2013; Halinen et al. 2013; Huurre 1983; 1985; Kuusela 2014a; 2014b) suggests a wide activity area of the inhabitants, indicating people who moved in a wide territory for hunting, fishing, maintaining social relationships, and trading. Weights and silver coins discovered at the dwelling sites (Hedman 2003) suggest economic activities, most likely long-distance trading practiced at the sites.

The jewellery was not equally distributed socially. The spatial distribution of the sites indicates minor inequalities amongst the dwellings; the number of artefacts and the composition of the finds connected to the hearths and dwellings differ slightly from one another. The same is true of stray finds, which can comprise single finds or silver hoards of several artefacts, such as the Nanguniemi hoard of four silver necklaces (Ojanlatva 2003). It has been assumed that a linear organisation of the dwellings indicates an egalitarian society; however, such an organisation may indicate the opposite, showing resistance to a growing inequality as well (Friesen 2007). In the Late Iron Age and the early medieval period, the Sámi societies became more differentiated, likely as a result of emerging reindeer pastoralism, intensification of the fur trade, and increasing trade activities (Halinen et al. 2013; Hansen & Olsen 2004; Makarov 1991).

4 The *sieidi* sites

The *sieidi* sites belong to the cultural environment of the Sámi, and the *sieidis* were a component of their everyday lives. Hundreds of the sacred sites have been registered in northern Fennoscandia. These sites appear in natural formations or human-made constructions such as anthropomorphic-zoomorphic stones, other naturally occurring boulders, portable stones, stone structures, trees, wooden poles, and shrines at which rituals were performed. Inside the *goahti* was a sacred area, *boassjo*, which belonged to the indigenous animistic and shamanistic Sámi religion with three or five vertical realms: the upper realm, the normal realm, and the lower realm. The religion was not consistent in the vast area from southern Norway to the Kola Peninsula; regional variations occurred in terminology and forms of manifestation (Äikäs 2011; Halinen 2010; Hedman 2003; Manker 1957; Rydving 1993; Zachrisson 1984). The archaeological manifestation also appears differently in each region, although some of the traces reflect the same background for the religious manifestations, such as Guiv, Kuivi, and Kuiv, the holy mountains in three different regions in northern Fennoscandia (Itkonen 1962).

Regional differences can be observed in the names of *sieidis*, their appearance, and the ways in which people made offerings. The majority of the datable observations of the *sieidis* are from the Viking Age onwards (Äikäs 2011; Hedman 2003; Manker 1957; Salmi et al. 2015; Zachrisson 1984). Offerings did not end with Christianity, but continued until the 20th century. The period of the Late Iron Age and early medieval period, the period during which rectangular

hearths were in use, was an active time for offering to *sieidis* in Finland (Äikäs 2011). The most common finds were animal bones, of which reindeer are the most common. Other species, such as bear, capercaillie, and pike have been discovered primarily at one site (Äikäs 2011; Salmi et al. 2015). Silver jewellery has been discovered at some sites in northern Finland as well (Carpelan 2003; Okkonen 2002). In Sweden, the most common finds at *sieidi* sites are silver and bronze jewellery, coins, and animal bones (Hedman 2003; Manker 1957; Salmi et al. 2015; Serning 1956; Zachrisson 1984). Religious activity increased during the Late Iron Age, and an increasing number of *sieidi* sites and finds at these sites can be observed.

The *sieidis* are located near water – lakes, seas, and rivers. Thus, many of the sites have been connected to a means of livelihood: hunting, reindeer herding, and fishing (Äikäs 2011). Some of the sites can be connected to crossing borders – administrative borders, topographic borders, vegetation borders, and symbolic borders (Halinen 2010; Viinanen 2002; 2006; 2007). The *sieidis* have all been the site of some type of ritual activity that left archaeological traces.

As mentioned earlier, the *sieidis* belonged to the cultural environment of the Sámi. Typically, the presence of *sieidis* implies activity areas of people, most likely hunting grounds or dwelling sites.

5 Means of livelihood

The bone material connected to the rectangular hearths primarily indicates wild reindeer hunting or reindeer herding (Halinen 2009; Halinen et al. 2013; Hedman 2003; Hedman & Olsen 2009). The sites, which were clearly used in the cold season, contain large amounts of reindeer bones. These bones imply hunting on demand, not large-scale hunting in autumn and not the consumption of stored meat. Meat-rich and less meat-rich body parts identified at the sites indicate hunting near the site (Halinen et al. 2013; Hedman & Olsen 2009).

It was not possible to identify the exact species of reindeer bones discovered at the sites: the reindeer may have been wild or domesticated, forest reindeer (*Rangifer tarandus fennicus*) or mountain reindeer (*Rangifer tarandus tarandus*). Although the preserved fragmented bones did not indicate the exact species, it is possible to identify the species by postcranial skeletal measurements (Puputti & Niskanen 2009). In the Finnmark area in the Late Iron Age and the medieval period and in the Varanger area as early as 2000 BCE, reindeer finds are from forest reindeer (Bjørnstad et al. 2012). Earlier, it was assumed that the post-glacial reindeer were wild mountain reindeer (Hakala 1997; Halinen 2005), although the reindeer in the Varanger area in 2000 BCE were observed to be larger than the mountain reindeer of today (Schanche 1994). This evidence implies that the forest reindeer was one of the primary reindeer species in the eastern portion of northern Fennoscandia. In western Fennoscandia, mountain reindeer may have been the primary reindeer species, as it was in southern and central Scandinavia. Because of the higher peaks and the steeper profile of the mountain and river areas in Sweden and Norway, the change in vegetation was horizontally smaller over the course of history than in northern Norway and northern Finland, which have lower mountains and a gentler landscape profile. This is one reason why forest reindeer replaced mountain reindeer in northern Norway and northern Finland.

A relevant point in the utilisation of reindeer is whether the animal was wild or domesticated. It has been shown that the herding of large reindeer herds began during the medieval period in Middle Sweden and Norway and spread to north-eastern Norway and Finland during the 15th to 17th centuries (Bjørnstad et al. 2012; Hultblad 1968). This type of herding was intensive in nature; people lived and moved with the reindeer herds. This type of large-scale domestication of reindeer was adopted *en bloc*. The domesticated reindeer replaced small numbers of wild forest reindeer and domesticated forest reindeer herds as well; no small-scale reindeer herding survived, and wild reindeer died out because of hunting. This engendered a complete change in the reindeer

species that lived in north-eastern Norway and Finland. If people domesticated wild forest reindeer, the reindeer were used intensively, as draught animals, burden animals, decoy animals, and on a small scale for food. In the mountainous areas of Sweden and Norway, the development was different because forest reindeer did not live in the mountain areas. Because of similarities amongst species, the bone refuse of small-scale reindeer herding cannot be separated from hunting; herding and hunting do not leave different observable traces. The elevated nitrogen values in the reindeer bones and stable isotope analysis from the Unna Saiva *sieidi* site in northern Sweden indicate domesticated reindeer, which have been dated to the end of the medieval period (Salmi et al. 2015). The exact date of large-scale reindeer herding cannot be estimated at this time. However, if we consider the dates of round or oval fireplaces with stone lining enclosures and the fireplaces with arms discovered in the mountain and forest areas, which are not organised linearly and which are supposed to indicate reindeer herding, the date would be during the medieval period. Several fireplaces have been dated from the 14th century and fireplaces become more common in the 16th to 18th centuries (Bergman et al. 2013; Halinen 2009; Hedman 2003; Mulk 1994; Sommerseth 2009). Also the cooling of the temperature after the medieval warm period, ca. 1200 CE, supports the date of expanding reindeer herding. Oddmund Andersen proposed that the change from intensive herding to extensive herding occurred in the 19th century, when the herd size grew even more (Andersen 2014: 24). However, the growth in reindeer herd size had occurred previously during the medieval period, when the manner of herding remained intensive.

It is not certain whether the inland Sámi kept domesticated reindeer during the Late Iron Age and early medieval period; however, the new location of the dwelling sites, compared with previous times, may indicate the use of draught and burden animals. In previous times, the water connection indicated the active use of boats; the dwelling sites were generally approached from the water. In the new location, approaching the sites from the water was no longer possible; perhaps the primary method of transportation had been changed from boat to pulk or sledge, which would have been pulled by reindeer. In summer, pulks or sledges were not used, apparently, although the reindeer as burden animal was appropriate for transportation.

The tanged iron arrowheads indicate big game hunting in the mountain areas: in Finland, the majority of these arrowheads have been discovered in mountainous areas or at least in the northern portion of Lapland (Wegraeus 1973; Huurre 1985). The distribution area in other portions of Fennoscandia is in the mountainous areas as well. In Lake Áilegas in Utsjoki, Finland, several sunken trunks have been discovered with axe marks on the surface or marks indicating the trunks were cut with an axe (Eronen et al. 1994; Zetterberg et al. 1994). The trunks date from ca. 700 to 1100 CE, concentrating between ca. 1040–1105 CE. Some uncertain axe marks are dated to ca. 0, 250, 600, 800, 850, and 1420 CE. These cut marks have been connected to reindeer hunting because Lake Áilegas is on a plateau between the steep hill of the Áilegas fell and the Tenojoki River (Eronen et al. 1994). This plateau was a good place for reindeer hunting; several hunting pit systems have been discovered along the Tenojoki River, indicating that the river was a wandering route for wild reindeer for thousands of years. The bone material of winter sites in the Pasvik area indicates hunting on demand (Halinen et al. 2013; Hedman & Olsen 2009), which does not support the idea of mass hunting of reindeer using fences. Perhaps the axe marks simply indicate the activity period of land use in the area – the era of rectangular hearths.

Small-scale domestication of sheep was practised by the Sámi at least 800 years ago in the Pasvik area (Hedman & Olsen 2009). Domestication had most likely been adopted in the coastal area, in Varanger fjord, which, at least during the medieval period, belonged to the area where domesticated animals were

kept (Odner 1992). Inland sheep-keeping suggests close contact with the coastal area.

The Sámi fished pike (*Esox Lucius*), the salmoniforms (*Salmonid*), and black clams (*Cyprinidae*). Pike was fished in large amounts in early summer and was dried for future consumption, although pike is known to have been fished during the winter as well (Itkonen 1921; Nickul 1948; Tanner 1929). The Kiellajoenkangas site is situated between two small lakes, which are so shallow that they have frozen completely to the bottom. Such freezing does not support the winter use of the site. At Brodtkorbneset, the cut marks on pike jaw bones and pike vertebrae from near the tail portion of the spine indicate procurement of freshly caught fish for drying (Halinen et al. 2013: 171). The fish species at Brodtkorbneset and at sites in Sweden were diverse: cod, whitefish, perch, and grayling were fished along with pike (Hedman 2003; Hedman & Olsen 2009). Fishing was practised during every season of the year.

Bird bones are quite rare in the bone assemblage of rectangular hearths. Only grouse and wild duck have been identified. Bones of fur animals are rare as well. Squirrel, dog, Arctic fox, and wolf bones have been identified in refuse fauna. These species were important for the raw materials of fur products and are at their best in the winter (Hedman 2003; Hedman & Olsen 2009).

6 Societies

The archaeological record reflects various aspects of the society. An inland Sámi society ca. 1000 years ago has left traces of dwelling sites, dwellings, burial grounds, sacred sites, cultural landscape, means of livelihood, contact network, etc. A good example of a coherent collection of archaeological remains exists at Näkkälä in Enontekiö, which is today situated between two ecological zones, in the intermediate zone between birch and pine forests. A thousand years ago, Näkkälä was situated in the pine forest zone (Kultti et al. 2006). At this site are several rectangular hearth groups, a *sieidi* site, a cemetery island, and several hunting pit systems (Äikäs 2011; Halinen 2005). The cemetery is most likely younger and the hunting pits older than the *sieidi* and the rectangular hearths. The hunting pits belong to ca. 2000 BCE, when the northern limit of pine forest was situated 5–10 km to the north and the area was good for hunting wild reindeer (Halinen 2005; 2006). Apparently the area remained a good hunting ground, although the reindeer species were no longer the same (see previous section) and the environment and vegetation had changed significantly. In Lapland, the same type of collection of archaeological remains can be found in several areas, which facilitates the study of Sámi societies in Lapland. The Näkkälä *sieidi* site belonged to a society that used different types of hearths: high rectangular hearths (Sammaljärvi S 4010179 [9+1], Paalojärvi SW 47010118 [7], Paskamajärvi NW2 1000009527 [8]), which apparently belonged to cold-season settlements; and 1–3 rectangular hearths (Paskamajärvi 3 1000009536 [3–4], Näkkäläjoki Luusua 1 1000009493 [2], Näkkäläjärvi W 2 47010263 [3], Näkkälävaara W 47010197 [3+3], Sammaljärvi N 47010262 [1]), which are lower and were most likely used during warmer seasons. These hearths suggest the presence of the society's core area, including winter villages, dwellings for warmer seasons, the sacred site, and the hunting grounds. Their social and resource territory may have covered a larger region, although at least in Hetta, in the Ounasjärvi lake region (ca. 25 km to the south), there were several rectangular hearth villages (Halinen 2005). It can be assumed that these hearth villages represent the territory of another society, which was used during winter and other seasons.

The population fluctuation in the north has been rapid and strong (Tallavaara et al. 2010). From a peak ca. 50 CE, the decline of population lasted to ca. 500 CE and then began to grow to a peak ca. 950 CE, followed by another slow decline. This development also describes the emergence and use of the rectangular hearths. Clearly, there was a total change in the social relationships in the societies before and after 700 CE: waterbound societies became inland societies; small mobile

societies became larger and more communal. The increase in the number and size of dwellings, in the diversity of monument categories, and in the number of artefacts clearly suggests an increase in population as well.

Jari-Matti Kuusela noted that traces of human activities cover the same inland regions from the Early to the Late Iron Age. The inhabitants' livelihood was based on hunting and fishing throughout this period. The Iron Age finds are connected to water, particularly to the river mouth and island areas, where people gathered together to conduct trading activities. Social and political control was concentrated at these sites (Kuusela 2014a; 2014b).

However, if we consider the entire archaeological situation, we observe that the picture presented above is in fact quite different. The dwelling sites, which can be connected to the rectangular hearths, are situated far away from large lakes and rivers: they were constructed near bogs, small lakes, and small rivers. Before 700 CE, the environment was more interior than near the water. Although hunting and fishing were important components of subsistence strategies, these activities were supplemented by small-scale animal husbandry: sheep and reindeer were domesticated and utilised for meat consumption, and reindeer also for transportation and as decoy animals.

The trading activities were not concentrated near the water-connected sites, as Kuusela (2014a; 2014b) posited. Instead, these activities were concentrated in the dwelling sites that had no water connection. The model, based on water-connected locations such as large lakes and rivers, is based on the assumption that the inland areas were controlled by a society that was situated in a gateway position and that the mobile population could not have commercial contacts without these gateway societies. The reality is in fact different: the dwelling sites belonged to societies that had a larger winter village and smaller sites for warmer seasons. People lived inland in areas with all types of constructions (*sieidi* sites, hunting sites, seasonal sites, etc.) within certain boundaries. The societies were not socially equal; observable differences in wealth amongst the dwellings, the accumulation of wealth in hoards, and economic activities occurred at these dwelling sites. There was no controlling 'power' outside the society. Instead, people had active contact networks in Scandinavia and elsewhere. Water routes were useful transportation routes; however, with the use of reindeer for transportation in winter and summer, the contact networks could include routes between rivers and lakes as well. Good contact networks and long-distance travel could maintain the similarities of the societies in different sections of the area in addition to language unity; scientists have proposed that the divergence of the eastern and western Sámi languages occurred in approximately 1200±500 CE, namely when the rectangular-hearth culture dispersed (Honkola et al. 2013). In this context, this wide variety of the components of life renders the inland societies active agents in their own territory and between territories, not passive members who were controlled by gateway societies.

7 Concluding remarks

The inland Sámi societies of northern Fennoscandia are archaeologically visible in numerous manners. The most significant feature is the rectangular hearth sites, which can be interpreted as dwelling sites in smaller or larger villages and date from the Late Iron Age to the medieval period. The hearth sites form a uniform phenomenon in a large area from southern Norway to north-eastern Fennoscandia. Why this type of feature emerged is not an easy question to answer.

To remain uniform, an archaeological feature requires the maintenance of a good contact network that disseminates influences, expressions of material culture, social codes, etc. People have moved often and over long distances. Because the distribution area of the rectangular hearths has an oblong shape and the natural water routes are crosswise to this shape, travelling must have been based on something other than water routes. An alternative means of transportation was a pulk or

sledge pulled by reindeer, which may explain the oblong shape better than the use of boats. If we accept the date of the divergence of the eastern and western Sámi languages as approximately 1200–1400 CE, we must accept the existence of an earlier active contact network that maintained the uniformity of the language in the wide area as well. The uniformity of the find assemblage supports the same theory: the bronze artefacts and jewellery resemble one another over the entire area because the trade routes conveyed them along the network. The contact and trade networks could also maintain the social differentiation inside the societies, which can be observed in the concentration of economic activities and large numbers of artefacts in certain households in the societies.

The network has also conveyed new ideas of subsistence strategies. Small-scale domestication of reindeer and sheep occurred in different sections of the area. Reindeer were most likely domesticated from the local wild reindeer, which in the eastern portion of northern Fennoscandia were forest reindeer and in the western portion were mountain reindeer. The domestication of reindeer on a wider scale occurred at the end of the medieval period, however. Good environmental conditions presented opportunities for population growth, which can be observed in the expanding number of dwelling sites.

Every society in the north faced pressure from the outside world in the form of merchants (traders) who wanted to benefit from the northern resources by trading and most likely by collecting taxes. Although the relationship between the Sámi and Scandinavians has been assumed to have been peaceful and equal (Urbańczyk 1992), the pressure on the Sámi societies was clear. To respond to outside pressure, the Sámi societies enlarged their villages to resist trader groups that might threaten them with violence – 'make them an offer they can't refuse'. One result of this pressure was the linear organisation of the dwellings, which was supported by good environmental conditions and population growth and which was expanded and maintained by long-distance contact networks.

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