

Liva 1 – The First Medieval Sámi Site with Rectangular Hearths in Murmansk Oblast (Russia)

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Abstract

In 2017–2018, the Kola Archaeological Expedition of the Institute of the History of Material Culture (IHMC) RAS carried out excavations at the medieval site of Liva 1 (a hearth-row site) in the Kovdor District of Murmansk Oblast. Sites of this type are fairly well studied in the western part of Sapmi – the area inhabited by the Sámi – but until now they have not been known in Russia. The site was found by local residents in 2010. Some of the structures there were destroyed or damaged when searching for artefacts with a metal detector. A total of nine archaeological structures have been discovered (7 rectangular stone hearths, 1 mound, 1 large pit). Four hearths were excavated. They are of rectangular shape, varying in size from 2.0 x 1.15 to 2.5 x 1.7 metres. The fireplaces are lined with large stone blocks in one course, and the central part is filled with small stones in 2–3 layers. Animal bones, occasionally forming concentrations, were found near the hearths. Throughout the area of the settlement, numerous iron objects (tools or their fragments) and bronzes were collected including ornaments made in manufacturing centres of Old Rus', Scandinavia and the Baltic countries. The settlement is dated with radiocarbon analysis and the typology of the ornaments to the 11th – 14th centuries.

1 Introduction

The Middle Ages are at present undoubtedly the archaeologically most poorly studied period in the history of North-Eastern Fennoscandia. The main reason for this situation lies in the scientific interests of the large number of researchers who carried out archaeological studies in Murmansk Oblast. B. Zemlyakov, N. Gurina and V. Shumkin concentrated primarily on studying the Stone Age. Other reasons include the geographical remoteness of this region, and hence inadequate interest in it among specialists and the absence of archaeologists in the scientific centres of

Murmansk Oblast. In part, this situation was also due to the language barrier leading to poor knowledge of the antiquities of Western Fennoscandia and current problems of scientific research there. As a result, the territory of Murmansk Oblast and Northern Karelia appears as a huge blind spot with regard to medieval antiquities. Entire categories of archaeological sites which are well known west of the Russian border remain completely unstudied. Examples include the systems of trapping pits for hunting reindeer and European elk, Sámi settlements (including hearth-row sites), hoards and sacrificial sites. Of note is the history of the very first ar-



Figure 1. The distribution of rectangular hearths and the location of the Liva 1 site (based on Halinen 2016, fig. 4). Illustration: A. Murashkin.

archaeological finds on the Kola Peninsula, viz. the hoard found in 1888 in the region of the River Varzuga. Containing seven neck rings of the 10th – 13th centuries, this hoard was published over a century after its discovery (Goryunova & Ovsyannikov 2002). During the 20th century, some 30 archaeological sites of the medieval period have been discovered in the Kola Peninsula. A few of them were excavated and the results of only some excavations have been published (Gurina 1997: 127-128; Ovsyannikov 1985; Ovsyannikov & Ryabinin 1989; Shayakhmetova 1990: 37-38). In fact, we are now at the stage of the initial formation of the source base for studies of the Middle Ages of North-Eastern Fennoscandia.

In this article, we present the preliminary results of the investigation of the Liva 1 site situated in the south-west of Murmansk Oblast. These excavations were conducted in 2017–2018 and the fieldwork is planned to be completed in 2019. At this site, characteristic rectangular stone hearths were found ranged in a single row. Similar medieval sites are well-known in Northern Norway, Sweden and Finland being considered as the remains of the dwelling sites of Sámi reindeer

hunters and/or herders (Halinen 2016; Halinen et al. 2013; Hedman 2003; Hedman & Olsen 2009).

2 The history of discovery and description of the structures

The first medieval metal objects were found in 2010 by local resident Dmitriy Pechkin using a metal detector. Even then, photographs of the artefacts, information on the site and the conditions of their discovery were communicated to V. Shumkin and A. Murashkin. Meanwhile, the character of the site remained unclear. In spring 2016, A. Murashkin accompanied by D. Pechkin visited the locality and revealed stone hearths. In August 2017, the topographical surveying of the site was conducted, as well as the description and photography of the revealed structures and excavation of hearth 4. In 2018, the excavation was continued and hearths 5–7 were investigated. In the course of the excavations, great attention was paid to searching for signs of constructions related to possible dwelling superstructures.

The Liva 1 site is in the Kovdor District of Murmansk Oblast, approximately 16 km

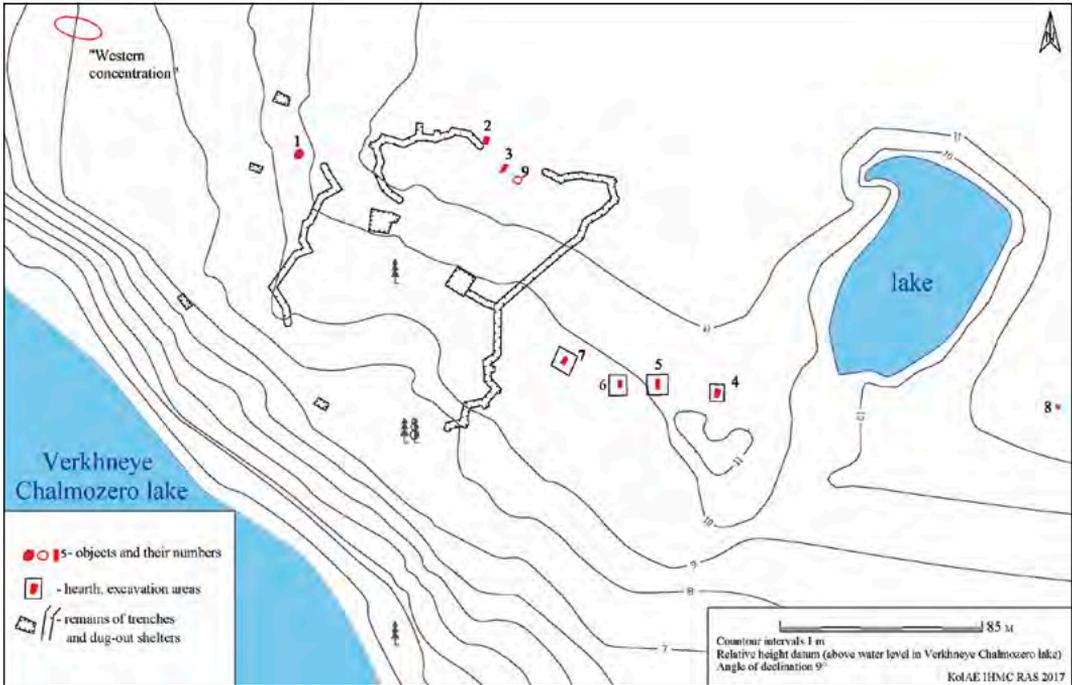


Figure 2. The Liva 1 site (Kovdor district, Murmansk oblast). Map: E. Kolpakov.

north of the village of Yona and 21 km to the west of the settlement of Avva-Guba, on the northern bank of Lake Verkhneye Chalmozero, on the left bank of the River Liva at its inflow into the lake (Fig. 1). Archaeological structures were revealed in the areas of the second and third terrace and the slope between them at an elevation of 9–11 metres above lake water level, 80–220 metres from the shoreline in the area between the left bank of the River Liva and a small lake without a name situated 300 metres from the river. A total of nine archaeological structures visible on the surface were revealed: seven fireplaces lined with stones (structures 2–8), one low mound of earth (structure 1) and a pit (structure 9). They were ranged in two lines running from west to east; structures 1, 4–8 were in the area of the second terrace and the slope of the third one, while structures 2–3, 9 were in the area of the third terrace (Fig. 2).

Also discovered in the area of the site were the remains of war-time shelters, dug-

outs, trenches and pillboxes of a border strong-point of the 1930s–1940s. During their construction some of the archaeological structures may have been destroyed; the forest in this area then was cut down, and now young mixed forest is growing there.

The westernmost structure visible on the surface here is a low oval mound of earth (structure 1) measuring 2.8 x 2.2 metres and 0.2 metres in height. It is oriented from south-southwest to north-northeast on a gentle slope 85 metres to the north-east from the shoreline of Lake Verkhneye Chalmozero and 105 metres to the east from the river (Fig. 2). Structures 2 and 3 represent stone accumulations measuring 2 x 1.4 and 2.2 x 1 metres and up to 0.4 metres high. They are located on the flat surface of the third terrace. As it appears, they are the remains of hearths. According to information from D. Pechkin, both structures were dismantled and afterwards piled into heaps of stone. The ground around them was dug over with spade when the locals rummaged



Figure 3. The Liva 1 site. D. Pechkin and hearth 4 at the time of discovery. View from the north. Photo: A. Murashkin.

Structure	Dimensions before excavation (m)	Dimensions under excavation (m)	Orientation
Mound 1	2.8 x 2.2 x 0.2		NNE – SSW
Stone setting / hearth 2	2 x 1.4 x 0.4		N – S
Stone setting / hearth 3	2.2 x 1 x 0.4		N – S
Hearth 4	2.4 x 1.4 x 0.2	2.5 x 1.7 x 0.25	NNE – SSW
Hearth 5	2.8 x 1.2 x 0.2	2.15 x 1.1 x 0.1	N – S
Hearth 6	2.0 x 1.1 x 0.2	1.9 x 1.25 x 0.1	N – S
Hearth 7	2.8 x 1.2 x 0.1	2.8 x 1.4 x 0.2	NE – SW
Hearth 8	2.2 x 1.5 x 0.2		WNW – ESE

Table 1. The Liva 1 site, the dimensions and orientation of the structures.

there. Some of the lower stones possibly remained in their original position. Five metres to the east of structure 3 there is a rounded pit (structure 9) 2.3 metres in diameter and 0.3 metres deep, without any visible bank of spoil. The surface of the pit is covered with turf. Beginning in 2010, several dozen iron and bronze artefacts were found using a metal detector at structures 1–3 and in the adjoining area (see below).

Structures 4–8 are hearths of a rectangular shape constructed of stones. Prior to excavation they were discernible on the turf surface as flat rectangular or oval features measuring from 2.0 x 1.1 to 2.8 x 1.4 metres, and 0.1–0.2 metres high (Table 1). They were covered with turf and only occasionally large stones protruded from under them (Fig. 3). Fireplaces 4–7 are arranged in a flat area of the second terrace west of the unnamed lake.



Figure 4. The Liva 1 site. The area of hearth 7 under excavation. View from the south-west. Photo: E. Kolpakov.



Figure 5. The Liva 1 site. Hearth 7 excavated to the bottom. View from the south-east. Photo: E. Kolpakov.

Fireplace 8 is to the east of the latter. Most of the structures are oriented approximately along a line running north–south (Table 1).

Excavated hearths 4–7 are of similar construction. They have a rectangular form and dimensions from 2.0 x 1.15 metres to 2.5 x 1.7 metres being constructed from stone blocks measuring from 0.07 x 0.05 x 0.05 metres to 0.5 x 0.5 x 0.4 m. Around the perimeters of the hearths, large rounded

boulders were laid; the space between the latter was filled with smaller stones laid in 2–3 courses. The largest, often flat, stone blocks were placed in the northern sections of the hearths; the southern parts of the latter were constructed mostly of smaller stones and the clear form of the outlines of the structures was sometimes disturbed here. The fireplaces were filled with compact grey-brown coarse sand mixed with gravel-sized particles from decomposed stones crushed by the effect of fire and numerous fragments of charcoal. In the centre of the fireplaces, the layer of the grey-brown sand sometimes formed baked dense lenses immediately beneath the turf and protruding above the stone setting. The same layer filled interstices between the stones and extended for 10–30 cm beyond the limits of the stone structures. Underneath the stones and a layer of whitish sand (*podzol*) in the central part of the fireplaces were found lenses of bright

crimson sand – the calcined layer (Figs. 4–5). Hearth 5 differed from the other ones by the fact that its contours were not densely filled with small cobbles. Fireplace 6 was of a rectangular form with rounded corners; beneath the stones of the hearth and a layer of grey-brown sand there was a layer of buried turf. It appears that in the process of its use this fireplace was repaired several times, and sand was possibly poured into it.



Figure 6. The Liva 1 site. The bone concentration to the north of hearth 5. View from the north-west. Photo: E. Kolpakov.

3 Finds

Most of the artefacts found in the course of the excavations were inside the contours of the stone settings. They were deposited in the layer of grey-brown sand on the stones and between them. Beyond the limits of the hearths, the artefacts were found mostly at the contact layers between the turf and whitish sand (*podzol*) or in the upper section of the latter. Finds were completely lacking in the layer of the yellow-red sand. The area of the site was explored using a metal detector during the investigations. Several bronze and iron items were uncovered beyond the limits of the started excavations in a similar stratigraphical situation, i.e. immediately beneath the turf in the contact layer between the turf and whitish sand. Some artefacts were found near the revealed structures at a distance from 2 to 10 metres from them. An isolated

concentration of finds ('Western concentration') was discovered at a considerable distance from the fireplaces, in the western section of the site, 30–35 metres to the east of the River Liva and 70 metres to the north from the lakeshore, in the area of the second terrace.

In the hearths and their immediate vicinity numerous bones of animals and fish were found; in some cases, the bones were deposited in compact concentrations. One of the latter, measuring 0.35 x 0.3 metres, was located 2.3 metres to the west of the north-western corner of fireplace 6 with the bones deposited in several layers. Another accumulation, measuring 1.3 x 0.5 metres, was 1.4 m north of hearth 5 (Fig. 6). Preliminarily, it may be noted that these accumulations included large numbers of splintered reindeer bones. Mostly calcined bones were found within the contours of the fireplaces.

Material	Excavation areas				Beyond the limits of the excavation areas	TOTAL
	Hearth 4	Hearth 5	Hearth 6	Hearth 7		
Bronze	22		44	3	5	74
Iron	36	3	18	3	11	71
Bone			2			2
Sandstone			1			1
Quartz		3	2			5
TOTAL	58	6	67	6	16	153

Table 2. The Liva 1 site, distribution of finds among the structures.

Among the 153 artefacts revealed in the excavations there were mostly bronze and iron objects; single examples are represented by artefacts of bone, quartz and sandstone (Table 2). It is of note that most of the finds were deposited in the northern section of the excavation areas. Most of the bronze objects are represented by small pieces of thin plate, often less than 1 mm thick with traces of cutting. Some of them have an edge coiled into a spiral of 2–3 turns and flattened; we are possibly dealing with fragments of a cut kettle. A number of tubular spacer-beads were made from sheets of this kind. The bronze flange of a knife handle (an oval plate with an elongated triangular slit) was found in hearth 4. The ‘Western concentration’ contained a round convex bronze brooch with an umbo-like protrusion and an accentuated edge along the perimeter decorated with four animal heads on long necks turned into a spiral (Fig. 10: 4) – Jansson’s type IIC (Jansson 1984: 77).

The majority of the iron artefacts are small unidentifiable fragments, mostly poorly corroded. Of note is a group of elongated rods, most frequently square or rectangular (occasionally flattened) in cross-section, sometimes tapering towards one or two ends. Fragments of metal plates fastened together by such rods turned into rings presented in the assemblage. As it seems, they were used as fittings for fastening metal bindings and repair of bronze and wooden (?) objects. Individual iron artefacts are rare. Near hearth

4 were found a tanged arrowhead, a knife blade with a tang, a swivel and a binding (convex plate with a hole); near hearth 5 were found two fragments of knives; near hearth 6 a massive rod of quadrangular section (a punch ?) and a fragment of a knife; near hearth 7 were found an arrowhead fragment and a knife tang. The ‘Western concentration’ included a rivet, a binding, a mount (a convex plate with a hole and an S-shaped protrusion at one end).

The fragments of bone objects found near hearth 6 are bent small rods 5–7 mm in diameter. Near hearth 6 a tetrahedral whetstone from sandstone with strongly worn sides was found. Quartz flakes were found near hearths 5 and 6.

In 2011 and 2016, D. Pechkin handed over to us a large number of iron and bronze artefacts collected from the area of the site in 2010–2014 using a metal detector. During the visit in 2016, he showed the place where many of the artefacts were found. Judging from his information, most of the finds were collected from the western area of the locality near structures 1–3, to the south and east of them, near the trenches, dugouts and weapon emplacements (along with the medieval artefacts, objects dating from the period up to the 20th century were found here). Fireplaces 4–7 were discovered only during the visit in 2016; D. Pechkin had not noticed them earlier. These hearths were undisturbed and the finds were not collected from this part of the site.



Figure 7. The Liva 1 site. Finds from structures 2 (4-8) and 3 (1-3): 1-2, 4 – pendants; 3 – tortoise brooch; 5 – penannular brooch; 6 – ring brooch with a pin; 7-8 – arrow heads. 1-6 – bronze/copper alloy (?), 7-8 iron. Photo: D. Shakhirev, drawing: A. Malutina.

According to D. Pechkin's information, numerous fragments of a bronze kettle were uncovered in mound 1 (Fig. 8: 10-14); an iron axe with a wedge and a penannular brooch with faceted heads were found 7–8 metres south-west of the mound, near the breastwork of a semi-dugout (Fig. 8: 5-7). Several objects were found near hearth 2: two metres north of the hearth there was a twisted pendant of white metal together with a ring brooch bearing an imitation of an inscription; a flat penannular brooch with punched decoration was found 2 metres to the south; a socketed iron spearhead

and an accumulation of rhomboid iron plaques were found 2–3 metres to the east; and on the breastwork of the trench two iron tanged arrowheads were found (Fig. 7: 4-8). A tortoise brooch was found between the stones of fireplace 3 and near the hearth there was the fragment of a bronze lattice pendant as well as a triangular pendant made from white metal with a rounded lug (Fig. 7: 1-3). To the south-west of fireplace 2 and the trench, within an area of about 20 x 10 metres extending along the trenches in the north-west – south-east direction there were finds consisting two fish hooks,

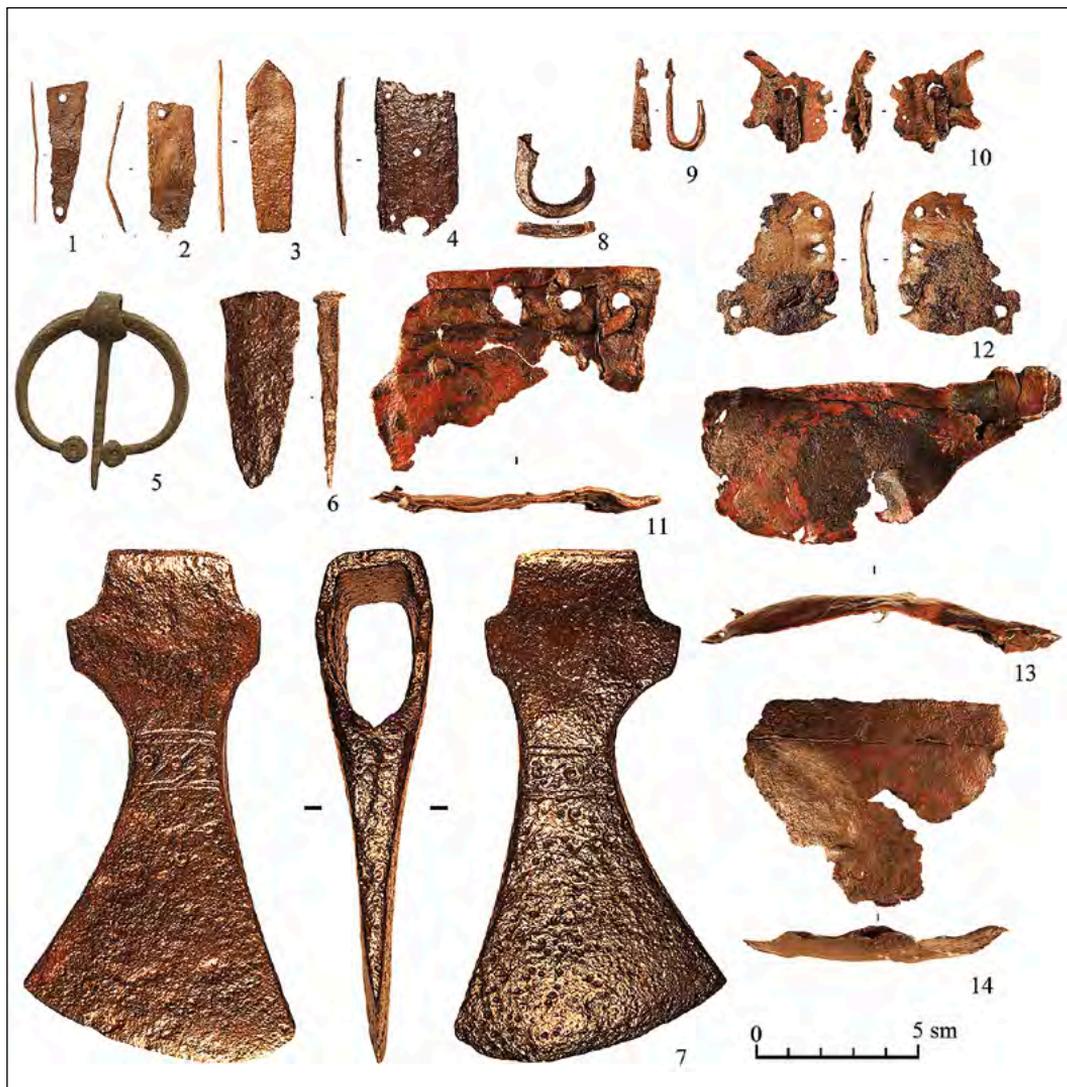


Figure 8. The Liva 1 site. Finds from the east and south parts of the site (1-4, 8-9) and from structure 1 (5, 6, 7, 10-14); 1-4 – blades (ornaments?); 5 – penannular brooch; 6 – wedge; 7 – axe; 8-9 – bent rods; 10-14 – fragments of cut kettle (?). 1-5, 10-14 – bronze/ copper alloy, 6-7, 8-9 – iron. Photo: D. Shakhirev.

a swivel, three knives, fragments of tools, rods, nails (Fig. 9: 1-9). On the slope of the terrace facing the lake one complete and two partly melted lead (?) weights (Fig. 10: 2-3) and two iron rods were found. In the eastern part of the site four bronze bindings, a plate with holes, rhomboid plates and an iron knife were discovered (Fig. 8: 1-4, 8-9; 10: 1, 5).

4 Dating

At the isotope centre of the Department of Geology and Geoecology of the Herzen State Pedagogical University (Russia) two radiocarbon dates were obtained from two samples of charcoal from hearth 4: 1498 ± 25 BP (SPb-2407) and 934 ± 25 BP (SPb-2408). The calibrated values (3σ) for the first sam-



Figure 9. The Liva 1 site. Finds from the concentration to the south-west of hearth 2: 1-2 – fragments of tools; 3 – rod, 4 – nail; 5-7 – knives; 8-9 – fish hooks. 1-9 – iron. Photo: D. Shakhirev.

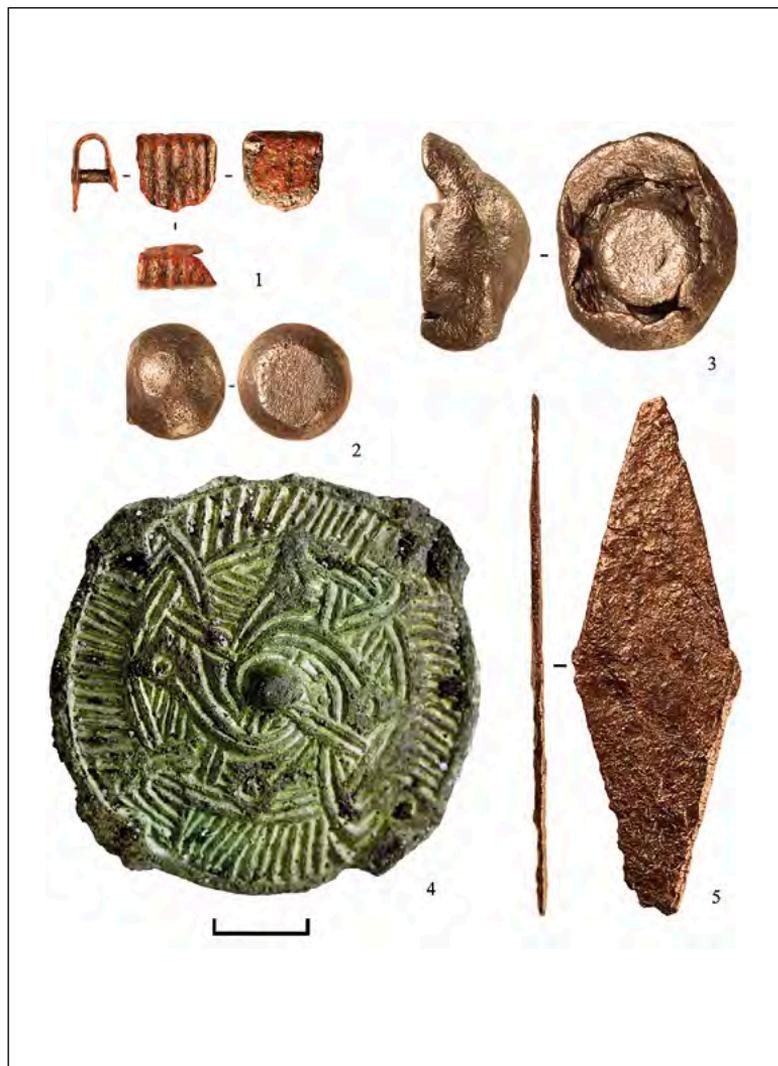
ple are: 437–445 AD (0.9%), 473–486 AD (2.0%), 535–636 AD (92.4%) and for the second sample the dates are (3 σ) 1031–1158 AD (95.4%).

A detailed analysis of the chronology of the collected metal ornaments has not so far been conducted, therefore only general suggestions may be proposed concerning their dates. In the territories of Finland, the Baltic region and Karelia, the ring brooches of flattened cross-section, penannular brooches with faceted heads, tortoise brooches and lattice pendants are dated to the period from the 12th to the 14th century. (Bel'skiy 2012;

Saksa 2010). The convex brooch with an umbo-like knob of Jansson's type IIC is datable to the Viking Age (not later than the 11th century) (Thunmark-Nylen 1998: 77).

In Finland, Sweden and Norway, series of radiocarbon dates have been obtained during investigations of the chronology of Sámi rectangular hearths from various samples (charcoal, animal bones). In Northern Sweden, rectangular hearths were used throughout the time span from 700 to 1600 AD, although the most of the dates belong to the period between 800 and 1300 AD (Hedman 2003: 133). In Finland the dates of the use of

Figure 10. The Liva 1 site. Artefacts found without connection with structures: 1 – belt stud; 2-3 – weights (one of them melted); 4 – round convex brooch; 5 – rhomboid blade (ornament?). 1, 4-5 – bronze/ copper alloy; 2-3 – lead (?). Photo: D. Shakhirev, E. Kolpakov.



these hearths are limited to the period 633–1669 AD but the most of them are within the span from 950 to 1270 AD. In Northern Norway, dates of 684–1285 AD were obtained (Halinen 2016: 164-165; Halinen et al. 2013: 156; Hedman & Olsen 2009: 10).

The age 1031–1158 AD (SPb-2408) correspond well to the period of the use of ornaments of non-ferrous metals found at the site, as well as C^{14} dates obtained for rectangular hearths in North-Western Fennoscandia. In all probability, the hearths at the Liva 1 site were built and used during the Early Middle Ages (11th–14th centuries).

5 Concluding remarks

Research concerning the Liva 1 site has only begun, but even now some conclusions are possible. Firstly, Eastern Fennoscandia is to be included in the area of distribution of Sámi hearth-row sites. A preliminary analysis of the results of the excavations at Liva 1 suggests its similarity or even identity with hearth sites of North-Western Fennoscandia and enables us to consider them in a single context.

One of the most important questions that we tried to answer in the course of these ex-

cavations was concerned with the character of the dwellings constructed over the hearths. The very size of these fireplaces suggests the existence of some kind of superstructure. In order to search for traces of wooden structures, post holes and other architectural details, excavations over a large area were begun but no traces of huts were found. We have to agree with the conclusions of our colleagues about the use of light portable dwellings of the *chum* type (*lavvu/goahti*) leaving no observable traces (Hedman & Olsen 2009: 14). The arrangement of hearth-row sites in a forest at a distance from large water basins and considering also the winter character of the settlements suggests, in the opinion of many authors, reindeer hunting and small-scale herding as the basis of the economy of the population (Halinen 2016: 168-170; Halinen et al. 2013: 170-173; Hedman & Olsen 2009: 15). Concerning the Liva 1 site, it is only after the osteological analysis of the retrieved bones that there will be grounds to confirm this conclusion.

The assemblage of metal artefacts from Liva 1 is at present the richest collection from the medieval sites of North-Eastern Fennoscandia. Unfortunately, most of this collection has been obtained through gathering with the use of a metal detector without proper documentation. Therefore, information about their relative positions should be regarded with great caution. However, the composition of the finds clearly suggests analogies with sites in Sweden and Norway.

Arrowheads found at Liva 1 have direct parallels among arrowheads of Wegraeus's (1973) types B and C from the Östra Kikkejaure district (Hedman 2003, fig. 6: 5-6). The axe is similar to the one found at the site of Njallejaur 19 (Hedman 2003, fig. 6: 25). The iron tools, bronze and silver ornaments came to Northern Fennoscandia through trade with manufacturing centres in Old Rus', Scandinavia and the Baltic countries. The participation of the Sámi in trade with the Russians and Scandinavians is suggested by the weights discovered at the Liva 1 site. Similar lead weights were found at the Rebrauralven 1 site (Hedman 2003, fig. 6: 1).

By now, Liva 1 is the only hearth-row site known east of the Russian-Finnish border. However, the similarity of the geographic conditions, economy and culture of the medieval population of this region allows us to anticipate in future the discovery of similar sites in the territory of Murmansk Oblast and Northern Karelia.

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