

Early Metal Age Dwellings in Eastern Lapland: Investigations of the Kola Archaeological Expedition (IHMC) in 2004–2014

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Abstract

After 10 years of field investigation by the Kola Archaeological Expedition (Institute for the History of Material Culture, Russian Academy of Sciences; IHMC RAS) it is now evident that a single archaeological culture (phase) prevailed on the Arctic coast from Tromsø (Norway) to Yokanga (Russia) during the Younger Stone Age and Early Metal Period. A close similarity between the assemblages of this culture is recognised in stone and bone artefacts, as well in dwelling constructions. This paper presents the results of the fieldwork in 2004–2014 and discusses the dwellings excavated at the Zavalishina 5 site.

1 Introduction – a paradox of arctic archaeology

Due to a strange coincidence, neither excavations nor search for settlements with dwelling depressions in the territory of the modern Murmansk district (oblast) was ever carried out by Soviet archaeologists. Thus, the second half of the 20th century witnessed a rather contradictory situation. The results of archaeological explorations both in Finnmark and in the Murmansk district were quite comparable, but while the Norwegian researchers had discovered hundreds of Stone Age and Early Metal Period settlements with numerous pit-houses of different types, their Russian colleagues had studied similar settlements without

semi-subterranean dwellings, as only remains of tent-like constructions were found at the Kola settlements (Gurina 1951; 1953; 1997; Shumkin 1986; 1993; 1996). Nevertheless, stone and ceramic artefacts from the Kola sites and northern Norway were very similar.

This paper presents a brief research history of ancient dwellings in the far north of Russia, as well as the results of the fieldwork in 2004–2014. Also the dwellings excavated at the Zavalishina 5 site are discussed – this site is, at the moment, the most thoroughly investigated dwelling site in the Russian part of the Barents region.

2 History of the paradox

As far back as in 1900, Konstantin Reva, a member of the Statistic Committee of the Arkhangelsk province, excavated three pit-houses near the village of Ponoj in the mouth of the Ponoj River. In these houses, rectangular pits were surrounded by stone settings. The largest pit-house was 2.85 x 2.13 m in area and 0.35 m deep. A rectangular hearth of stones was located in the centre of the house pit (S.n. 1902: 86). The hearth contained pieces of charcoal, ceramics, glass, and bones. These pit-houses can most probably be dated to the 18th–19th centuries AD. The excavations by Reva were the first archaeological excavations on the Kola Peninsula.

In 1914, Toivo Itkonen, a student of Helsinki University, excavated a dwelling of the 17th–18th centuries AD near the village of Yokanga (Hackman 1916: 71).

In 1928, geologist Väinö Tanner (1929) found a settlement with dwelling depressions at Gröttug (Maattivuono Rotojoki in Finnish archaeology), in the western part of the Sredniy Peninsula, which was at that time Finnish territory. In the following year, Sakari Pälsi (1929)

excavated two houses at this site (Seitsonen 2006) (Fig. 1; see also Fig. 10). Russian geologist Boris Zemlyakov, acting according to the instructions of the Commission for the Study of the Quaternary Period, was able to conduct archaeological explorations on the Fisher Peninsula in 1935 and 1937 (Zemlyakov 1937a; 1937b; 1940). Also archaeologist Peter Tret'yakov (1937) took part in this field research. They identified and described several similar dwelling sites in the Soviet part of the Fisher Peninsula (Fig. 2) – it is clear that the 'Lappi pits' described by Zemlyakov are very similar to the Gröttug dwellings. In modern archaeological parlance, all these dwellings are of the Gressbakken type.

After World War II, the Institute for the History of Material Culture, Russian Academy of Sciences (IHMC RAS) renewed archaeological investigation in the Murmansk district with Nina Gurina heading the work. She was aware of the investigations by Pälsi and Zemlyakov, and also knew about the investigations of dwellings by Povl Simonsen in the Varanger area in the 1950s and 1960s (Simonsen visited Gurina's excavations on the Volga in the mid-1960s). Moreover, Gurina excavated three

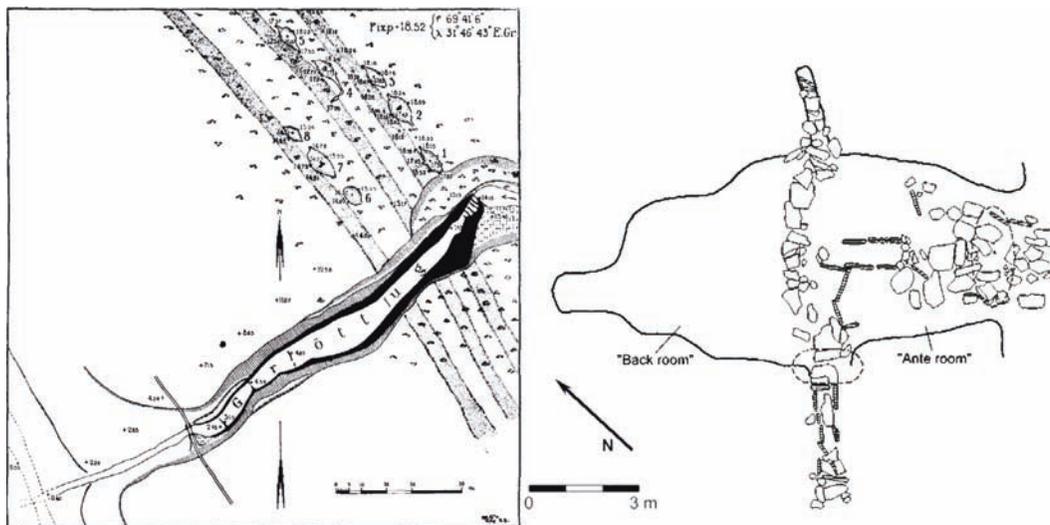


Figure 1. Settlement of Gröttug and dwelling 1, Sredniy Peninsula. After Tanner 1929: 14 Fig. 4; Seitsonen 2006: 229 Fig. 3.

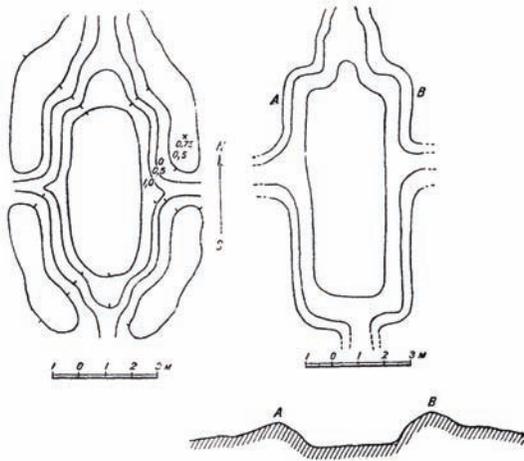


Figure 2. Plans of dwellings of the Gressbakken type (so-called 'Lappi pits'), Fisher Peninsula. After Zemlyakov 1937a: 98 Fig. 5, 100 Fig. 6.

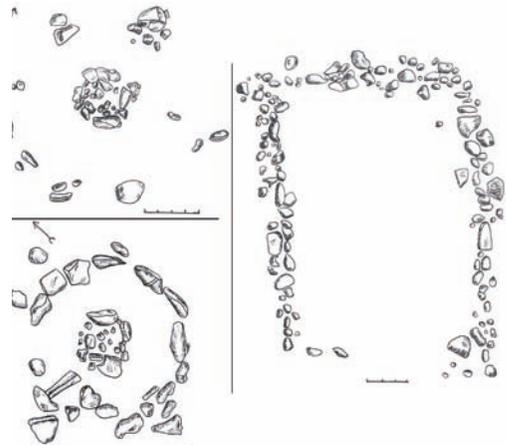


Figure 3. Plans of dwellings in Vyashchina Bay, excavated by N. Gurina in 1973. After Gurina 1973.

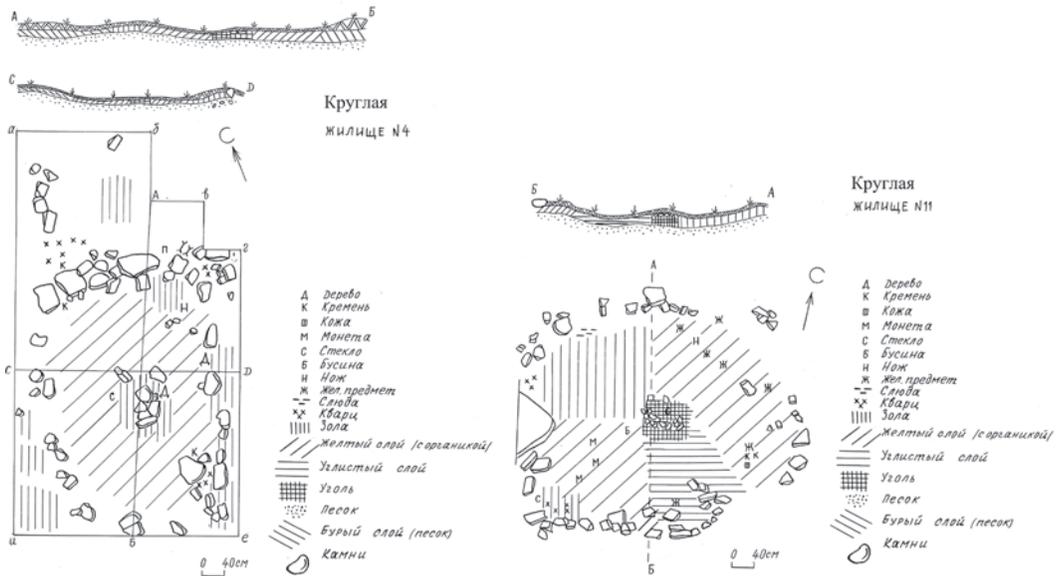


Figure 4. Dwellings 4 and 11, excavated by V. Shumkin in the Kruglaya Inlet in 1983. Drawing: personal archives of V. Shumkin.

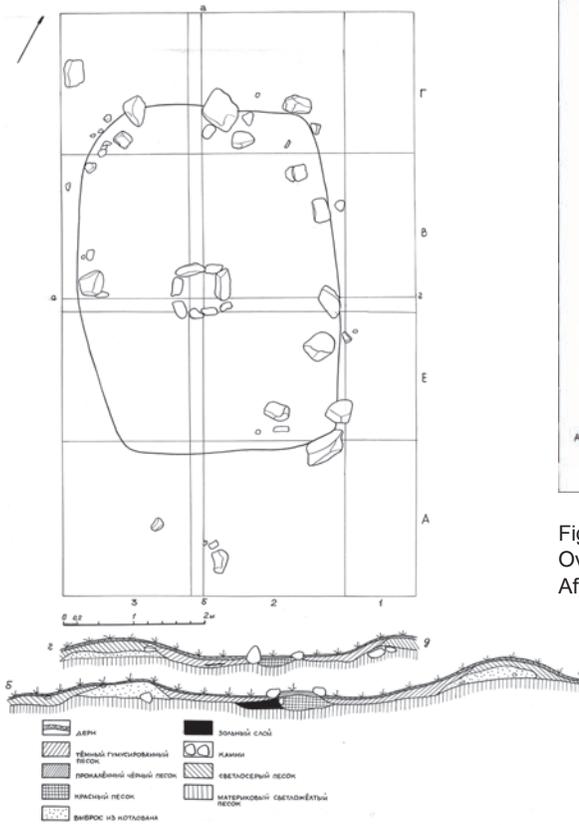


Figure 5. Dwelling 8, excavated by V. Shumkin in the Dvorovaya Inlet in 1985. Drawing: personal archives of V. Shumkin.

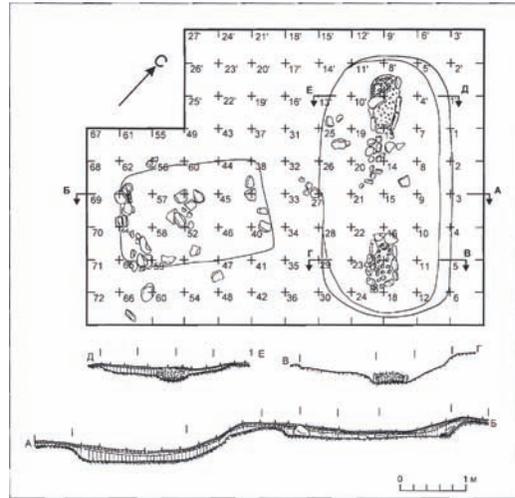


Figure 6. Dwellings 9 and 10, excavated by O. Ovsyannikov in the Dvorovaya Inlet in 1991–1992. After Carpelan & Ovsyannikov 2013: 279 Fig. 14.



Figure 7. General map of the Zavalishina 5 settlement, Teriberka Bay, Zavalishina Inlet. Drawing: KAE IHMC.

dwellings (stone constructions) with no specific artefact finds on the coast of Vyashchina Bay in 1973 (unpublished) (Fig. 3). However, she never excavated house pits and also suppressed the testing of probable pit-houses by other members of her team. One of the present authors, Vladimir Shumkin, worked together with Gurina from 1969 onwards, but he is not aware of the reasons for Gurina's reluctance to excavate dwellings.

It was only in 1983 that Vladimir Shumkin recorded a group of shallow dwelling depressions in the Kruglaya Inlet and excavated two of them (unpublished) (Fig. 4). In 1985, he discovered similar dwellings in the adjacent Dvorovaya Inlet and excavated one of them (No 8; Fig. 5). In 1991–1992 Oleg Ovsyannikov continued research of the dwellings in the Dvorovaya Inlet and excavated another 13 dwellings, which were published recently (Carpelan & Ovsyannikov 2013). Except for number 10, all dwellings are dated back to the 18th century AD on the basis of find material and were thus inhabited by Russians and/or Sámi (Fig. 6).

Dwelling 10 'appeared to be an extended oval depression measuring 15.5 by 8.0 m and with a depth of 0.5–0.9 m. It had two larger rectangular hearths laid of stones, measuring 3.5 by 1.6 m, and directed along the longitudinal axis, one in each end of the floor. Dwelling 10 of Dvorovaya Bay corresponds to the definition of the *Gressbakken* type' (Carpelan & Ovsyannikov 2013: 319). A few quartz artefacts were found in this dwelling, as well as some potsherds representing three different pots. According to Christian Carpelan, the ceramics from dwelling 10 show the characteristics of asbestos-tempered Lovozero Ware (ca. 1900–1200 BC) of the Early Metal Age (Carpelan & Ovsyannikov 2013: 320).

In the 1990s, the excavation of a dwelling at the locality of Ust-Drozdovka 3 on Nokuyev Bay was undertaken by a joint Norwegian-Finnish-Russian team led by Knut Helskog and Vladimir Shumkin. This house and its finds are highly reminiscent of the contemporary material of the *Gressbakken* phase in Norway (unpublished).

During the surveys conducted in connection with the construction of ground infrastructure on the coast of the Barents Sea, on Teriberka Bay, in 2008–2009, we discovered 40 archaeological sites including 200 house pits dating from the Mesolithic to the Iron Age (Shumkin et al. 2009). In 2010, large-scale excavations were carried out by the Kola Archaeological Expedition (IHMC RAS) on the settlement of Zavalishina 5 (Fig. 7). In the course of fieldwork, 26 features were excavated, 14 of which were remnants of large semi-subterranean dwellings of varied construction. Altogether 156,000 stone artefacts, 6000 fragments of animal bones, and 33 fragments of pottery were found. The features of the dwellings and the typology of the finds place the settlement in the context of the Late Neolithic–Early Metal Period of northern Fennoscandia (Shumkin et al. 2012a; 2012b; Kolpakov et al. 2012).

3 Construction of dwellings at Zavalishina 5

All excavated dwellings differed from each other (Fig. 8). Based on structural elements observed in the excavations, they can be divided into three main types: 1) *classic Gressbakken*, 2) *deep square*, 3) *shallow rectangular*.

1. Dwellings of the *classic Gressbakken* type (dwellings 6, 7, 9) have an oval or subrectangular depression, which is surrounded by a pronounced embankment on all sides. Usually there are dug-in hollows through the oval embankment in the direction of the main axes of the house (passages or entrances). The outer dimensions of the houses range from 12 x 8 m to 20 x 15 m, and the dimensions of the inner part from 6 x 4 m to 14 x 9 m. The depths, measured from the top of the oval embankment, range from 1 to 2.2 m. Based on observations made during the excavations, the structure of such dwellings can be described as follows: In the centre of the construction, there is a subrectangular *chamber*. At the short ends of the chamber, there are *platforms* rising ca. 0.5 m above the floor level and with a minimum length of 2 m. The width of the platforms cor-

responds to the width of the chamber, and they can be separated from the chamber by narrow stone walls. The housing chamber is surrounded by an embankment. An *entrance*, up to 1.3 m wide, has been carved on the floor level and through the front wall facing water. On the opposite side of the entrance, also on the floor level, there is a narrow channel leading outside the embankment – a *chimney*. Along the long axis of the house, from the middle of the platforms, start two *gates* that are bent in the direction parallel to the entrance from the water's side. The width of the gates varies from 0.3 to 0.7 m and their depth is 0.1–0.2 m in the present ground soil. It is probable that these gates are the remains of 'channels' or 'ducts' that served to control heating and air circulation in the house – at the same time, a gate of dwelling 6 connects with a gate of dwelling 7. On the chamber floor, along its long axis, there are two rectangular *hearths* up to 2 x 0.7 m, built of flat slabs and boulders set on their edges. The hearths are open towards the centre of the chamber, as the wall facing towards the centre is composed of small stones or is totally absent. The space between the hearths in the centre of the home is otherwise vacant. The padding of the hearths doesn't differ from the total flooring of the chamber.

2. Dwellings of the *deep square* type (dwellings 4, 5, 8, 30) contain a subrectangular (or almost square) depression. Neither an embankment around the chamber nor an entrance towards the water can be seen on the modern-day surface. The dimensions of the depression vary from 5 x 5 to 7 x 7 m, and the depth is 1–1.3 m. In the excavations, a low embankment around the housing *chamber* was revealed, as well as an *entrance* from the side facing the water. On the centre of the floor, or close to it, is a rectangular or oval *hearth* made of boulders. The dimensions of the hearth range from 0.4 x 1 m to 0.7 x 1.3 m. The hearth can be open at one or both ends. Apparently, there were *platforms* of a height of 0.1–0.3 m along one or two walls.

3. Dwellings of the *small rectangular* type (dwellings 2, 3, 10, 11, 18, 33) have subrectangular depressions around which practically no

embankment can be observed on the modern-day surface. The dimensions of the depression vary from 5 x 5 to 10 x 7 m. The depth does not exceed 0.5 m. There are no hearths – only fireplaces without stone slabs are usually located in the centre of the chamber. No clear passage or entrances can be detected.

In dwellings of the first and second types, post holes of different sizes were discovered – nevertheless, in all cases they were too scattered and did not form any conclusive ordered structures. In our opinion, this is due to the extremely unfavourable conditions for the preservation of wooden items in the gravel with cobbles and pebbles. Nevertheless, the presence of post holes suggests that wooden poles were used in the construction of dwellings.

Various settings of boulders and blocks were found in houses of all types. Also large boulders (up to 1 m in size) occupied such positions that they can be interpreted as structural elements of the walls, the entrance, and the gates.

A total of 162,071 artefacts were found during the excavations of the settlement of Zavalishina 5 in 2010 (Fig. 9). The vast majority of them are of stone (96%). Quartz dominates the stone finds overwhelmingly (99%), and there are only 53 items of flint. There are a total of 33 fragments of pottery, all with asbestos temper. Pottery was found in only three dwellings.

4 Faunal remains

One third of the 6000 bones was suitable for species identification (Table 1) (the faunal remains were analysed by E. A. Petrova and M. V. Sablin of the Zoological Institute, Russian Academy of Sciences). The majority of the identified bones belongs to mammals (2001 pcs.), the remains of fish (54 pcs.) and birds (112 pcs.) are much scarcer. Altogether seven mammal species were identified: arctic fox (*Alopex lagopus*), wolf (*Canis lupus*), harp seal (*Phoca groenlandica*), bearded seal (*Erignathus barbatus*), walrus (*Odobenus rosmarus*), white whale (*Delphinapterus leucas*), and reindeer (*Rangifer tarandus*). The harp

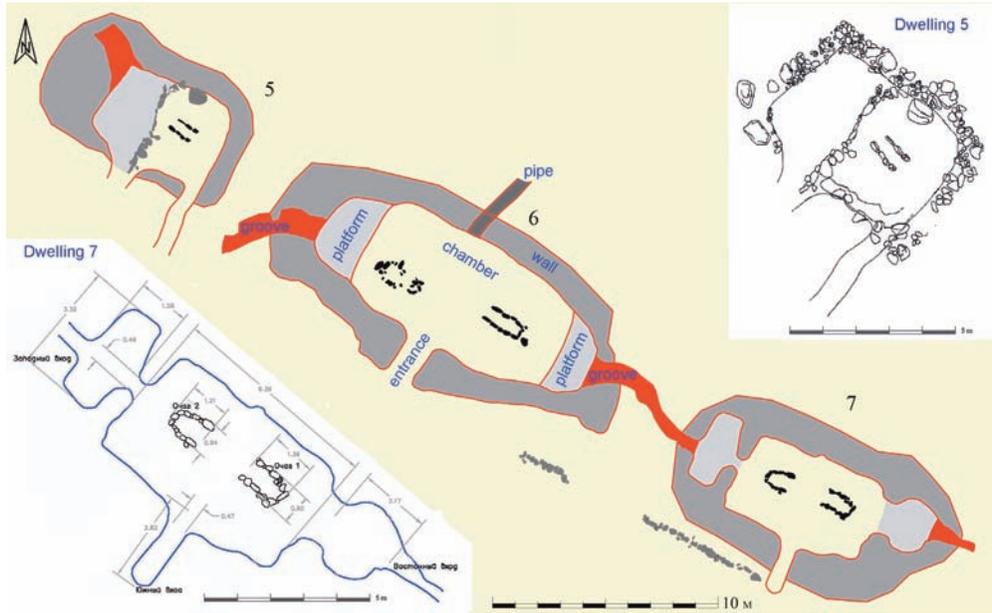


Figure 8. The Zavalishina 5 settlement, dwellings 5, 6, 7. Drawing: KAE IHMC.

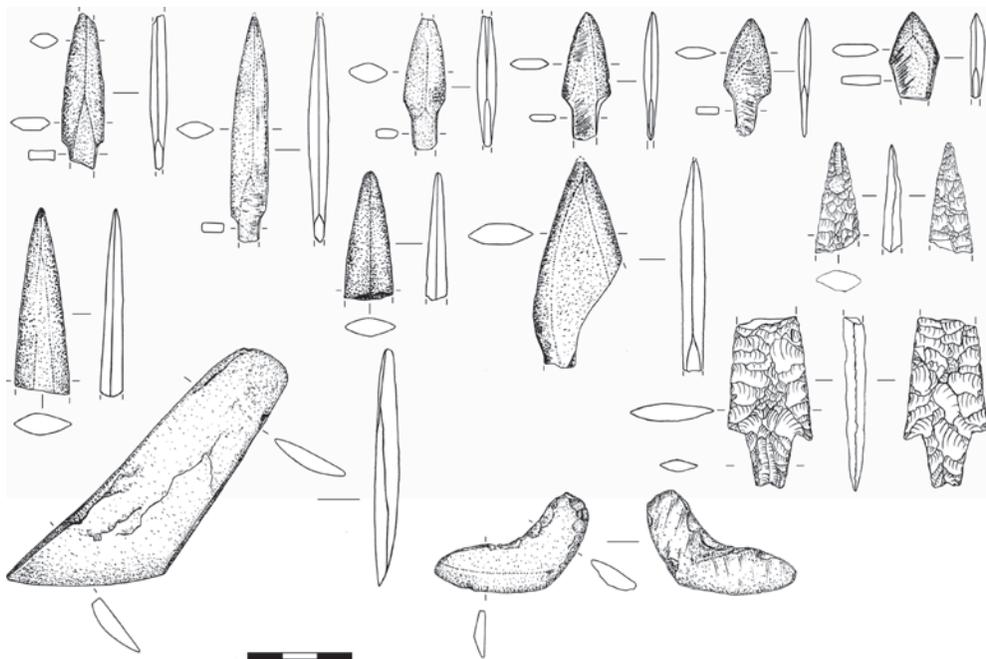


Figure 9. The Zavalishina 5 settlement, arrowheads and knives from dwelling 6. Drawing: KAE IHMC.

Species	NISP	MNI
Arctic fox (<i>Alopex lagopus</i>)	10	3
Bearded seal (<i>Erignathus barbatus</i>)	3	2
White whale (<i>Delphinapterus leucas</i>)	24	2
Reindeer (<i>Rangifer tarandus</i>)	7	2
Harp seal (<i>Phoca groenlandica</i>)	1933	41
Wolf (<i>Canis lupus</i>)	2	1
Walrus (<i>Odobenus rosmarus</i>)	16	1
Unidentified bones of large animals	8	
Total	2001	52

Table 1. The Zavalishina 5 settlement, identified 4 species of mammals (osteological analysis by E. A. Petrova and M. V. Sablin).

seal dominates the assemblage (1933 pcs. – 89.2% of all and 99.6% of mammal bones), and is represented by all parts of the skeleton (skull, mandible, spine, front and hind limbs). In total, 41 individual harp seals were counted (based on femurs). Adult, subadult, and young animals were identified according to the degree of epiphyseal growth – subadult individuals were the main prey. The faunal assemblage shows a close similarity to the sites of the Gressbakken phase in northern Norway (Hodgetts 2010).

5 Dating

Several charcoal samples were processed in the laboratories of St Petersburg. The obtained dates range from the second half of the 4th century BC until the first half of the 1st century

AD (Table 2). However, not all of them can be connected with the occupation period of the excavated dwellings. Relevant radiocarbon dates, along with the current understanding of the time of use of particular house types, as well as the types of stone tools and ceramics discovered in Zavalishina 5, allowed us to date the excavated part of the site from the 3rd millennium BC to the beginning of the 1st millennium BC.

6 Conclusions

After 10 years of investigation by the Kola Archaeological Expedition (IHMC RAS), the strange gap between Russian and Norwegian field archaeology has been closed. It is now clear that a single archaeological culture (phase) prevailed on the Arctic coast from Tromsø (Norway) to Yokanga (Russia) in the Younger

Dwelling	Horizon	Feature	Calibrated date	¹⁴ C date (BP)	Lab-index
3	2	Fireplace 1	550 BC–100 AD	2210±120	Le-9378
3	2	Fireplace 1	360–270 BC	2190±15	Le-9381
3	4	Fireplace 1	1039–780 BC	2715±70	SPb-305b
5	3	Square 12/34 profile	2778–2271 BC	3990±100	SPb-295
6	8	Hearth on the surface of the dwelling	211–544 AD	1680±70	SPb-293
6	3	Fireplace near the south-eastern wall of the dwelling	2930–2610 BC	4220±60	Le-9380
33	3	Square 18–19/16	3536–2828 BC	4436±186	SPb-304

Table 2. The Zavalishina 5 settlement, radiocarbon dates; all datings are taken from charcoal. Radiocarbon dates are calibrated using the OxCal 3.10 program and the IntCal09 curve (Bronk Ramsey 2009; Reimer et al. 2009).

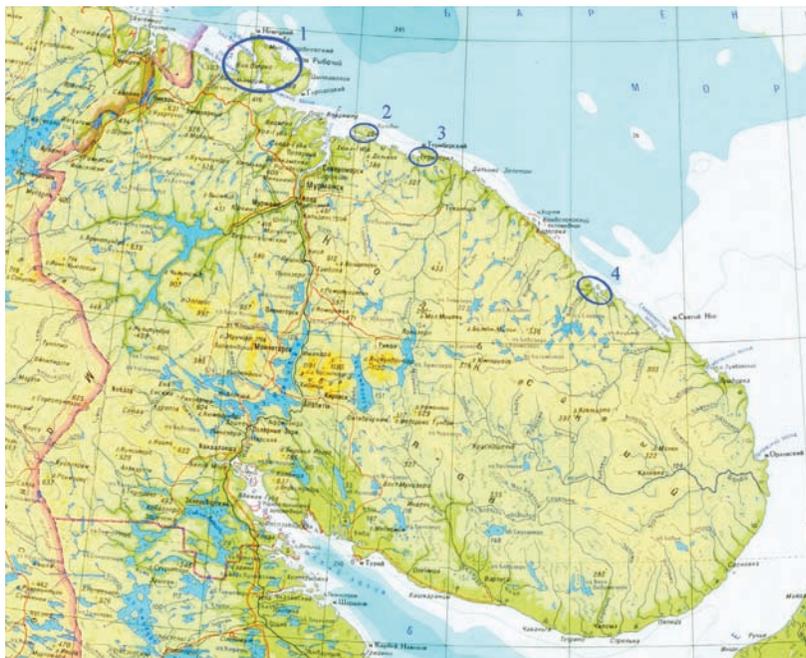


Figure 10. Clusters of Late Neolithic and Early Metal Period dwellings in the Murmansk district, north-western Russia. 1 – Fisher & Sredniy Peninsulas; 2 – Kildin Strait; 3 – Teriberka Bay; 4 – Nokuyev Bay. Drawing: KAE IHMC.

Stone Age and Early Metal Period. A close similarity between the assemblages of this culture is recognised in stone and bone artefacts, as well as in dwelling constructions. In our database (up to 2014), there are 608 archaeological sites in the Murmansk district, including some clusters of sites and dwellings (Fig. 10): on the coast of Nokuyev Bay, 127 sites (161 dwellings); on the coast of Teriberka Bay, 72 sites (206 dwellings); on the Fisher and Sredniy Peninsulas, 64 sites (175 dwellings); and on Kildin Island and Kildin Strait, 43 sites (299 dwellings). Thus, the total number of dwellings from the Mesolithic to the 19th century AD is more than 1000.

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