Two Burial Traditions of the Crusade Period on the Karelian Isthmus and in Ladoga Karelia

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Abstract

The Ladoga Archaeological Expedition of the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera; MAE) RAS, St Petersburg, jointly with the University of Turku (Finland), has recently excavated several funerary sites on the Karelian Isthmus and in the Ladoga Karelia region. The materials yielded by these investigations enable the reconsideration of information from previous excavations. Among the recent exceptional finds are the burials on the slopes of the Sänkinmäki and Pihlajamäki hills in the northern extremity of the island of Kilpolansaari. The material from these sites, as well as radiocarbon dating, demonstrates that in the 13th century, a part of the medieval Karelian population, at least in the Ladoga Karelia region, continued to practise archaic rites that included cremations on the ground surface.

1 Introduction

The difficulty in studies of burial sites on the Karelian Isthmus and in the Ladoga Karelia region dating from the Viking Age and the first stages of the Crusade Period, i.e. roughly the 8th to 12th centuries, lies not so much in the small number of artefacts known but rather in the fact that very few sites have been discovered. In fact, only one or two complexes dated with any reliability are known per each century of the period, and their material has to be considered as characterising the entire epoch (Saksa 2010: 50–79). The same situation prevails also regarding later times – the Crusade Period itself, i.e. the 12th–14th centuries. Only less than twenty investigated burial grounds and an even smaller number of settlement sites are known from this period (Fig. 1). The statistics at present are the following: at least 200 points of provenance of stray finds can be numbered (Saksa 2010: 63, 81 Figs. 11 & 13; Uino 1997: 114 Fig. 4: 6). Some of them are undoubtedly related to settlement sites, but the majority of these objects apparently come from disturbed burials. Meanwhile, only 18 cemeteries have been excavated by 2014, including only 83 graves with grave goods (Belskiy 2014: Fig. 2 Pl. 1; see also Belskiy 2012). This difference between the number of stray finds and the number of finds with contexts is so remarkable that some notes and explanations are clearly needed here.

2 History of research

During the period prior to World War II, information about finds was supplied mostly by local residents who sometimes found something remarkable in the course of their daily activities. The overwhelming majority of the

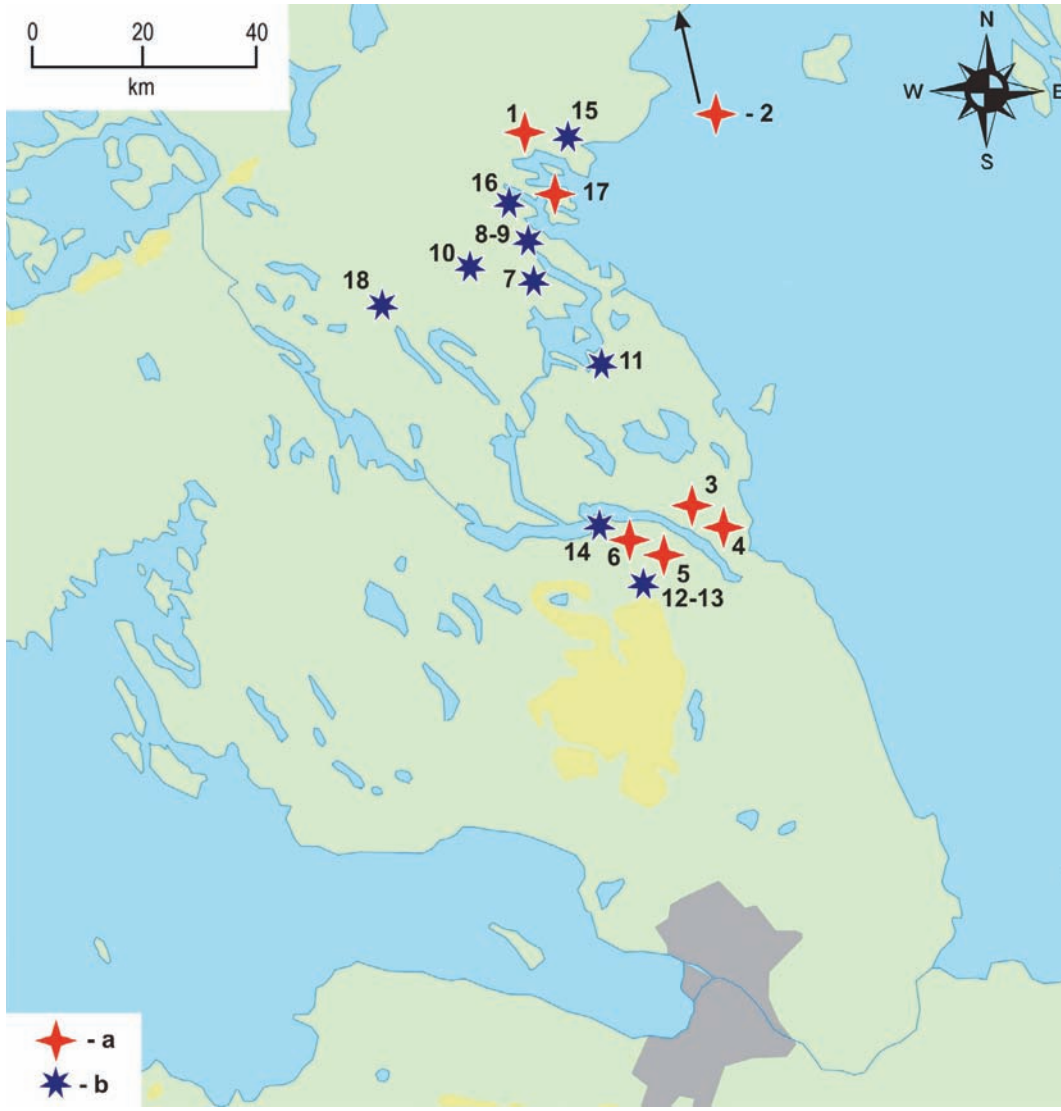

Figure 1. Distribution of cemeteries from the 11th to the 15th centuries on the Karelian Isthmus and in the northern Ladoga region: a – cemeteries with cremations; b – cemeteries with inhumations; 1 – Kurkijoki Lopotti; 2 – Helylä Hernemäki; 3 – Läenmäki Käkönen; 4 – Läenmäki Loponen; 5 – Lapinlahti Naskalinmäki; 6 – Lapinlahti Hennonmäki; 7 – Suotniemi; 8 – Kekomäki; 9 – Kulhamäki; 10 – Säppäis; 11 – Tontinmäki; 12 – Leppäsenmäki; 13 – Pajamäki; 14 – Patja; 15 – Kurkijoki Kuuppala; 16 – Kylälahti Kalmistomäki; 17 – Pihlajamäki & Sänkinmäki; 18 – Kirvu.

finds therefore represent complete large artefacts that attracted people's attention: weaponry (swords, spearheads, and axes) or weighty bronze brooches, bracelets, and other noticeable ornaments. Unfortunately we now often have to deal with finds made by 'clandestine diggers'. The character of these artefacts and their state of preservation suggest that the overwhelming majority of these finds really comes from burials. In Karelia, in contrast with neighbouring areas to the east, there are no burial mounds among the funerary structures, and it is therefore very difficult for a person lacking any professional archaeological

experience to identify the find spots of ancient objects given the absence or almost total absence of skeletal remains.

The peculiarities of the funerary rite among the region's population in the Iron Age also are conducive to this situation. Especially significant is a series of sites where, over relatively small areas, objects both of the oldest and later types were found. For instance, in 1920, A. Europaeus investigated a cremation cemetery under level ground (Fi. *polttokenttäkalmisto*) in the area of Hennonmäki in Lapinlahti (southern shore of Lake Suvanto, now the village of Ol'khovka on the Karelian Isthmus) (Saksa 2010: 165–166; Uino 1997: 314–315). The association of artefacts uncovered by Europaeus included a spearhead (Archaeological Collections of the Finnish National Museum, KM 7754:26), a silver rod bracelet with tied ends (KM 7754:28), bronze belt mounts (KM 7754:22), two fragments of a silver pendant, an Arabic coin with a hole for suspension (KM 7754:41), a West European coin (late Hessen imitation of the Cologne pennies of Otton: 936–1002), a horseshoe brooch with flat terminals (KM 7754:45), a knife (KM 7754:40), and a burned cornelian bead (KM 7754:51) (Kochkurkina 1981: 16–17, № 8; Nordman 1924: 126). Even more objects had formerly been found here: a spearhead, a sickle, a hoe, two ring-shaped horse bits, a fragment of a neck ring made of poor quality silver, pieces of a bronze cauldron, and numerous fragments of pottery (Nordman 1924: Fig. 103).

According to A. I. Saksa, this assemblage can be reliably dated to the first half of the 11th century (Saksa 2010: 72). However, it is difficult to accept this dating when the number of artefacts of undoubtedly later date and the presumable time lag for numismatic finds are taken into account. This complex could more likely be dated to the late 11th century or the first third of the 12th century, perhaps to an even later time. It is worth noting that we are dealing here with objects of evidently differing periods of use: up to the late 11th century and not earlier than the first third of the 12th century (the horseshoe brooch, Salmo's type 16).

The area of Hennonmäki has also yielded a number of other finds dating to different periods, including the time when inhumation burials appeared: two bronze ring brooches (KM 7754:60 and 2924:11), a penannular brooch (KM 7754:61) of type 24 according to H. Salmo (1956), spearheads of types G, M, and Aspelin 1651 (KM 2924:10, 4421:3, 10333:4), an axe with a massive butt (KM 4421:4), oval tortoise brooches of Lehtosalo's types (see Lehtosalo 1966) H/IIB2a and H/IA bearing traces of fire, an oval tortoise brooch of E. Linturi's type C2 (KM 4421:5, 4636:2, 2924:10; Linturi 1980), an ear spoon, horse bits (KM 7901:67), and a bispiral chain holder (KM 7901:69) (Nordman 1924: 139; Schwindt 1893: 92). In addition, a great number of objects dating from the Crusade Period have been collected in the nearby fields. Some of them presumably come from stone mounds (Saksa 1998: 69–78; Uino 1997: 313–317).

As documentation for these studies is lacking, especially with regard to the exact find locations, there is no certainty that all of the objects listed above are connected to funerary places. Nevertheless, this is quite probable considering that numerous other artefacts have been recovered from burial grounds and that many of the stray finds show the effects of fire. In the case of Hennonmäki, it seems justified to suppose that there really was a cemetery here in which interments following the cremation rite had been practised for a very long time even after the rite of inhumation was adopted by the ancient population of this region.

Moreover, there are serious doubts concerning the correctness of the interpretation of the so-called 'stone settings' in cremation cemeteries under level ground. A few sites of that type were excavated in the first half of the 20th century using the methods common at that time. The modern experience of field investigations at various sites demonstrates that where the natural moraine surface is carefully cleared and swept, it looks exactly like an artificial 'setting'. For this reason, one cannot rule out the possibility that in many cases there were, in fact, no artificial structures at all. As

Figure 2. The location of the newly discovered cremation cemeteries on the island of Kilpolansaari: a – Pihlajamäki; b – Sänkinmäki. Map fragment according to Topographical map (4114 11), Pukinniemi. National Land Survey of Finland 1938.

a result, the burial depth of the objects found may have been very shallow, so that they were likely to be very damaged. In this sense, these cemeteries resemble the cremation cemeteries under level ground in the Häme area in Finland, in some of which only natural stones are present (Kivikoski 1961: 192).

It must be kept in mind that among the burials in inhumation cemeteries investigated by Theodor Schwindt, there were a few cremations (see Hiekkanen 2010: 333–334). One of the latter was found in burial no. 3 in the cemetery of Suotniemi. The site is situated on the northern bank of Lake Vuoksa, on the south-western slope of the Leilumäki hill. Here, workmen extracting sand for the local faience factory found a brooch and a dagger (KM 1922:411–412). In 1885, on the southern slope of a low hill, Schwindt excavated four graves containing burials with grave goods (Schwindt 1893: 1–11).

Burial no. 3 contained the cremated remains of presumably two individuals, placed in a wooden jar. So far, this is a unique case on the Karelian Isthmus. The assemblage of grave goods is rather peculiar. The finds include three oval tortoise brooches of types C2/3a and F1/2, a round silver brooch used as a pendant, five blue-glass beads, fragments of an iron chain and an ear spoon, fragments of a knife and an iron sheath binding, spiral tubes made of bronze wire, two fragments of a decorated bone stylus, pieces of fabric, and other fragments of partly melted bronze and iron objects (KM 2487:45–61) (Schwindt 1893: 6–8, Figs. 232, 295, 1, 171, 172, 62, 67).

A. I. Saksa has dated this burial to the late 12th or 13th century on the basis of a round silver brooch and two oval tortoise fibulae of types C2/3a and F1/2 (Saksa 2010: 151). Yu. M. Lesman proposed a wider chronologi-

cal span of AD 1177–1313, mainly taking into consideration the analysis of the ornamentation motifs (Lesman 2012: 155, Appendix 2).

These two dates are both arguable. Based on the North European parallels (round brooch), the burial under consideration cannot be dated to earlier than the 13th century; based on the Novgorodian chronological scale, it can be dated to AD 1238–1313. Correspondingly, the final date for this complex would be AD 1230–1300 (Belskiy 2014: Pl. 2 – № 7).

3 Recent archaeological research

The Ladoga Archaeological Expedition of the Peter the Great Museum of Anthropology and Ethnography (MAE) RAS, St Petersburg, jointly with the University of Turku (Finland), with the support of the Field Commission of MAE RAS, the Karjalan Kulttuurirahasto Foundation, and the Karjalan Säätiö Foundation, have recently excavated several funerary sites. The materials yielded by these investigations now allow us to reconsider the information from the previous excavations.

The north-western Ladoga region is one of the areas from which numerous stray finds and human skeletal remains are reported, but no finds comparable with the materials excavated by Theodor Schwindt on the Karelian Isthmus are known here so far. The large island of Kilpolansaari in the former parish of Hiitola is the richest in finds (e.g. Belskiy & Laakso 2010: 196–197). However, this area unfortunately faces the same problem that plagues archaeologists also in other regions – the intensified activities of illegal 'diggers'. Their harmful work needs to be observed constantly.

Among the recent exceptional finds, an especially significant discovery is a burial on a slope of the Sänkinmäki hill in the northern extremity of the island of Kilpolansaari (Fig. 2: a). In 2009, a bronze oval tortoise brooch of Lehtosalo's (1966) type H (Fig. 3) and a bronze bispiral chain holder were found near the main dirt road running along the slope of the hill. Both artefacts show the effects of fire and, moreover, the chain holder is partly molten. Of note is the peculiar situation of the site: the finds were made on an extremely rocky and steep (up to 35°) slope strewn with large boulders protruding above the surface: no smooth areas can be found here. From above, the find spot is dominated by a rocky precipice about four metres high (Fig. 4).

Immediately beneath the topsoil, a spot of strongly pulverized reddish calcined sand with inclusions of burned bones was found in a test pit. The spot had a generally round outline, although its exact boundary was almost indiscernible because the surface was considerably disturbed. The size of the spot was 0.7 x 0.75 m and its thickness was 0.02 m, in some places less. Over its surface, a large number of burned bones were collected.

Higher on the slope, no traces of either burned sand or calcined bones were discovered. Thus, it seems that the area of the test pit contained the remains of a single burial following the cremation rite and containing artefacts. Judging by the artefacts, the deceased appears to have been female.

More significant information was yielded by another burial ground – Pihlajamäki, situated also in the northern extremity of the island of Kilpolansaari, just one kilometre east of Sänkinmäki (Fig. 2: b). The Pihlajamäki hill is located in the valley of Haapalahti Bay, 3.4 km to the east of the modern village of Tiurula, 0.1 km to the north of the shore of the bay. This hill is a rather low residual rock resting against the southern, western, and eastern sides of a pronounced terrace consisting of loose deposits. On top of the hill, three stone foundations of the former Finnish farmstead of Pihlajamäki are preserved. The hill itself is covered by a mixed forest where isolated high pine trees can easily be distinguished, marking it clearly amidst its surroundings. In 2010, several finds were made here in different places: pieces of a cauldron made from separate riveted bronze sheets with an iron handle, an axe of type M according to Jan Petersen or type VII in A. N. Kirpichnikov's classification (Kirpichnikov 1966: 39 Fig. 6; Petersen 1919: 46–47), two partly molten bronze eared tubes, and a bronze

Figure 3. The Sänkinmäki cremation site. Grave 1. The oval-convex brooch. Photo: S. Belskiy.

Figure 4. The Sänkinmäki cremation site. V. Laakso is standing by the place where the grave was discovered. View from the south-west. Photo: S. Belskiy.

Figure 5. The Pihlajamäki cremation site. The grave pit after the filling was removed. View from the west. The arrow shows the place where the spearhead was found. Photo: S. Belskiy.

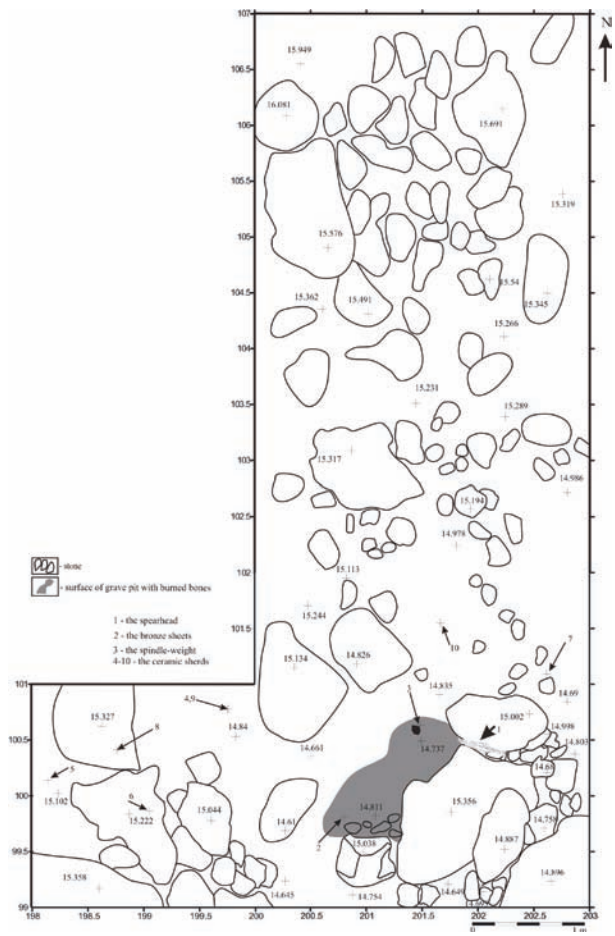

Figure 6. Plan of the Pihlajamäki cremation site. Horizon 1. Drawing: S. Belskiy.

chain holder of a type rare in Karelia.

After these finds, it was decided to carry out archaeological investigations here. The excavation was started near the eastern slope of the Pihlajamäki hill, in the area between the massive rocky outcrops where the bronze cauldron had been found. The excavation area was laid out so that the find spot was located approximately in its centre. First, a test pit with an area of 2 m² was excavated; subsequently the area was expanded to 9 m² in order to complete the archaeological research of the burial. After that, two excavations were added to the main area in the west and north with the aim of locating other possible graves.

At the western side of the rocky outcrop, a shallow pit indicating a burial was uncovered (Figs. 5 & 6). It was of amorphous outline in the form of a spot of dark humic loamy sand measuring 1.4 m from south-west to north-east and 0.6 m from north-west to south-east. On the surface of the spot, isolated calcined bones and pieces of charcoal were discernible. After the virgin soil level was uncovered, the maximum dimensions of the pit with the burial were found to be 1.6 m from south-west to north-east and 0.8 m from north-west to south-east. On the east, the pit was bordered by the rocky outcrop. The maximum depth of the pit was 0.18 m from the surface of the virgin soil; the depth from the modern surface was 0.4 m. The pit might not have been dug especially for interment, but rather a boulder was extracted from this place and calcined bones were subsequently dumped into the depression thus formed (burial 1).[1] The total weight of the bones collected in the course of the excavation was under 150 g, suggesting that only a small part of the skeletal remains brought from a cremation carried out elsewhere was interred here.

The most interesting find was that of a spearhead with an octagonal socket (Fig. 7). It was positioned in a crevice between two rocky outcrops over the grave pit at an angle relative to the conventional horizon line. This implies that the spear may have been driven to that location from the surface already after the interment had been completed. Spearheads of this type (a variant of Petersen type G) are well known in Karelia (see Uino 1997: 380–381). They are stray finds, with the exception of one item that was discovered in grave 1/1886 of the Kulhamäki cemetery (KM 2488:2; Schwindt 1893: Fig. 31). This assemblage cannot be dated to earlier than the 1220s because it includes an equal-sided axe (Fi. *karjalainen suorasivuinen kirves*). This kind of axes (type

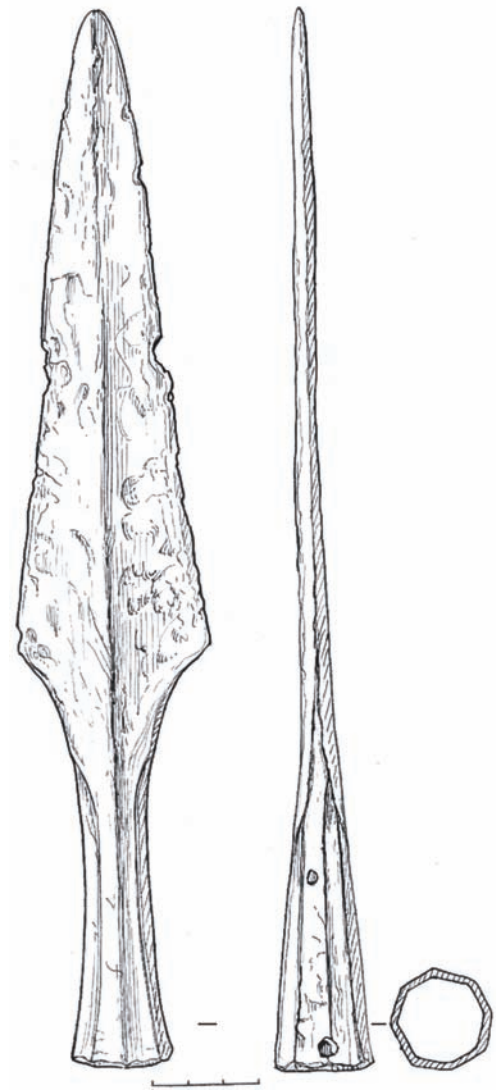

Figure 7. The Pihlajamäki cremation site. The spearhead. Drawing: A. Mashezerskaya.

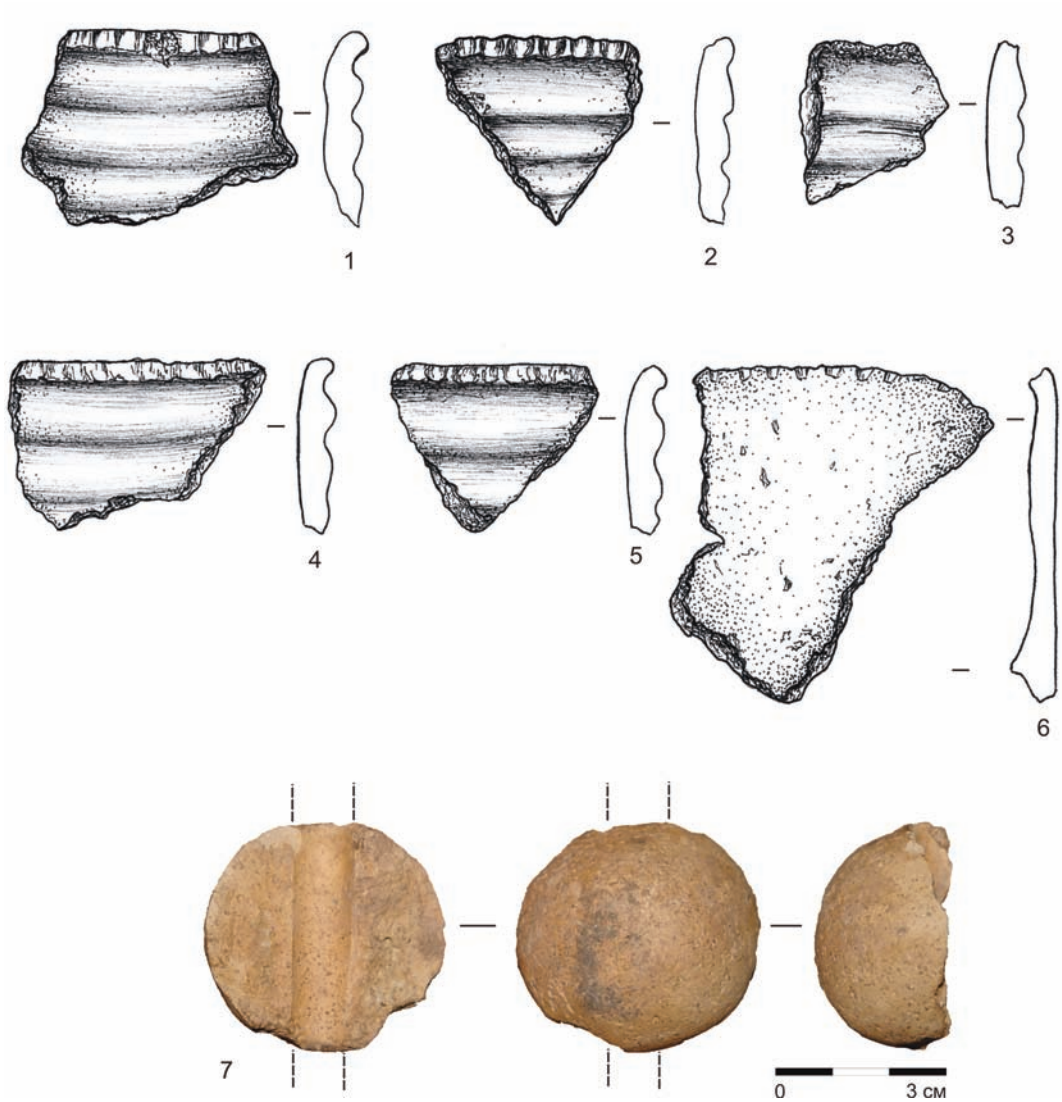

Figure 8. The Pihlajamäki cremation site. The finds: 1–6 – the ceramic sherds, 7 – the spindle. Drawing: N. Tsvetkova and S. Belskiy.

VIIIA according to A. Kirpichnikov or type 2 according to B. Kolchin) are known from the 15th stratigraphic horizon in Novgorod (after AD 1224) (Kolchin 1959: 26 Fig. 9b: 6–8; 1982: 63 Fig. 4; Lesman 1984: 138).[2]

In addition, throughout the area of the excavation at Pihlajamäki, beneath the turf, 5 rim sherds and 12 wall fragments of ceramic vessels were found, possibly originating from a single jar (Fig. 8: 1–6). The fragments represent unglazed red ware with a rare type of decoration, perhaps trimmed on the potter's wheel. The vessel has a poorly expressed profile with the apparent form of a jar with an outturned rim. The most distinctive fragments of the rim have a wall thickness of 0.6 cm and a thickness of 0.9 cm in the middle. The external and internal walls of the vessel/vessels show the characteristic dark red-brown colour on the surface and a dark grey section, homoge-

neously fired. The clay contains fine particles of crushed stone.

The ornamentation of the upper body of the jar is worth noting: beneath the rim and further down, the object is decorated with three (perhaps more) horizontal parallel indentations produced with a flat stamp. These rows of indentations girdle the upper part of the entire vessel, forming a kind of wavy surface. The distance between the rows is about 0.7 cm. The rim itself is decorated with small, nearly quadrangular indentations, also made using a flat stamp. At the level of the surface on which the bones were lying, half of a clay spindle whorl or loom weight was found (Fig. 8: 7), as well as a few bronze sheets (probably from the kettle). The ceramic finds do not provide exact information on the dating of the site – the vessel fragments can be roughly dated to the Late Iron Age or the Middle Ages.

AMS dating of the burned bones from this burial yielded a radiocarbon date of 750±31 BP (Ua-44164) (calAD 1221–1288; see Fig. 9).[3]

4 Problems of chronology

In the archaeology of the Late Iron Age and the medieval periods of Karelia, the problem of the dating of funerary complexes remains somewhat controversial despite numerous studies by several researchers. The reasons for this situation are not due so much to the imperfection of the methods, but the state of the archaeological material itself, which, with rare exceptions, contains no precisely datable finds, coins in particular (see Laakso 2014: 21–23, 129–131).

Karelia was in no way an isolated area. This region was under the cultural influence of Scandinavia, Central Europe, the Baltic region, and Novgorod as well (see e.g. Uino 1997: 165–203). Therefore, we must suppose that the local culture incorporated some kind of synthesis of diverse traditions. It seems useful to consider the chronology of Karelian complexes in relation to the different chronological systems that are the best developed. This would enable us to identify the extent of the connections with a particular culture.[4]

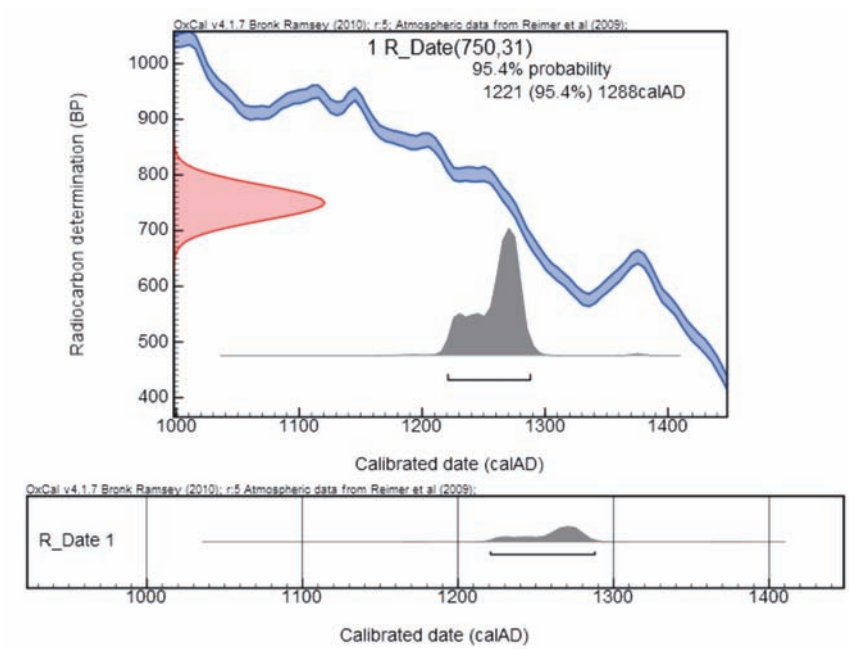

Figure 9. The Pihlajamäki cremation site. Grave 1. The results of the radiocarbon dating.

5 Conclusions

The recently accumulated data allows us to make a few preliminary conclusions on the funerary rite of the population of the Karelian Isthmus and the Ladoga Karelia region in the Iron Age and the Middle Ages. Mortuary sites of the second half of the 11th to the 12th centuries, that is, sites that are dated to the Crusade Period in the region under study, are represented by cremation complexes of *continuous formation*. For this period, repeated interments of several individuals in the cremation rite are characteristic, so that often the chronological gap between the beginning and termination of the functioning of a particular grave site was rather considerable. This form of burial is very clearly connected with the Finnish tradition of cremation cemeteries under level ground. A Karelian speciality seems to be the lack of manufactured stone structures in these cemeteries. This may connect them with the similar burial form in the Häme area, but it is hard to say whether this is a coincidence or an additional indication of the area of origin of the western colonisation of Karelia during the Viking Age (for this phenomenon, see, e.g. Uino 1997: 118–130).

Meanwhile, the numerous stray finds of the 12th–13th centuries, including those showing effects of fire, suggest that graves of this kind or entire cemeteries containing such graves were fairly numerous and widely distributed. Some of the finds probably originate from destroyed cairns, but a wide distribution of cremation cemeteries under level ground seems to be the simplest explanation for this phenomenon. At a later stage of this tradition, single burials in shallow pits appeared, and this tradition survived well into the times of the inhumation cemeteries of the 13th–14th centuries.

Meanwhile, the tradition of interring unburned bodies in grave pits was undoubtedly an innovation. The differences in the treatment of the deceased between the funerary rites of the 11th–12th centuries and those of the 13th century are so fundamental that it seems improbable that they could have been caused merely by internal evolution of the rite. Previously the generally accepted opinion was that the Karelian inhumation cemeteries of the so-called 'flourishing' stage had existed during a lengthy time span – in the 12th–13th centuries, or at least from the second half of the 12th to the early 14th century (Saksa 2010: 132–142).

However, recent chronological studies suggest that the general date range of the inhumation cemeteries does not go beyond the boundaries of the 13th century, while the majority of these cemeteries are datable to the second half or the end of the 13th century (Belskiy 2014: 330). This was a new form of funerary installation, but archaeological sources give no grounds to suggest any replacement of the population or intrusion of a new one. As attested by information from written documents, the appearance of burial grounds of this type not earlier than the 1220s was related to radical transformations in the social structure of the ancient Karelian society during the second half of the 12th century. It is a matter of the formation of a local social elite actively involved in military and political activities outside Karelia. It was a time when these people were acquainted with the new religion – Christianity – and gradually adopted it. The appearance of the inhumation rite at the initial stage of the propagation of Christianity does not indicate the conversion of the deceased as much as the influence of Christianity on the notions of the local communities (Musin 1997).

The internal structure of the graves, the north–south orientation of the buried, and the presence of miscellaneous grave goods, including weaponry, do not directly indicate the preservation of 'pagan' features in the rite. Worth noting in this connection is V. Yu. Sobolev's opinion on the basis of the analysis of finds from burial sites in the west of the Novgorod Land,

> … explanation of the presence in a burial of both objects of personal devotion and weaponry and weighing balance sets or any other similar objects should be sought not along the axis from Christians to heathens, but in the ties between these objects and the individual

circumstances of the deceased person's life and death: weapons, for example, as an indication of personal participation in military activities (Sobolev 2007).

This idea could also be considered in Karelia.

It must be stressed that in the 13th century, another part of the Karelian population, at least in the Ladoga Karelia region, continued to practice the more archaic rite including cremations done nearly on the ground surface. It seems that in many cemeteries, both cremations and inhumations took place simultaneously. It should also be noted that there are some late cremations in several Finnish inhumation cemeteries (see e.g. Hiekkanen 2010: 333–334; Taavitsainen et al. 2009; Uino 1997: 68–69).

Thus, the changes in the burial rite of the old Karelian population traced chronologically over the Crusade Period and the Middle Ages resulted from long-term nonlinear multilevel and interrelated processes that are to be studied further using archaeological methods.

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References

Published sources and literature

Belskiy 2012 = Бельский С. В. 2012. *Могильник Кюлялахти Калмистомяки в Северо-Западном Приладожье (археологические исследования 2006–2009 годов)*. Свод археологических источников Кунсткамеры 3.

Belskiy 2013 = Бельский С. В. 2013. *Погребальные памятники Карельского перешейка и Северного Приладожья XI–XV вв. (хронология вещевых комплексов)*. Автореф. дис. … канд. ист. наук. Санкт-Петербург.

Belskiy 2014 = Бельский С. В. 2014. Хронология погребальных памятников Карельского перешейка и Северного Приладожья XI–XV вв. *Люди и вещи древней Руси*: 317–332. Stratum Plus 5.

Belskiy & Laakso 2010 = Бельский С. В. & Лааксо В. 2010. Результаты археологических исследований в северном Приладожье в 2009 г. *Научные исследования и музейные проекты МАЭ РАН в 2009 г.*: *Радловский сборник*: 195–199.

Bronk Ramsey, C. 2009. Bayesian Analysis of Radiocarbon Dates. *Radiocarbon* 51 (1): 337–360.

Hiekkanen, M. 2010. Burial Practices in Finland from Bronze Age to the Early Middle Ages. In B. Nilsson (ed.) *Från hedniskt till kristet: Förändringar i begravningsbruk och gravskick i Skandinavien c:a 800–1200*: 271–379. Runica et mediævalia, Opuscula, 14.

Kirpichnikov 1966 = Кирпичников, А. Н. 1966. *Древнерусское оружие. Выпуск* 2: *Копья, сулицы, боевые топоры, булавы, кистени IX–XIII вв.* Археология СССР. Свод Археологических Источников E1-36.

Kivikoski, E. 1961. Suomen esihistoria. *Suomen historia* I. Porvoo: WSOY.

Kochkurkina 1981 = Кочкуркина С. И. 1981. *Археологические памятники Корелы V–XV веков.* Ленинград: Наука.

Kolchin 1959 = Колчин Б. А. 1959. Железообрабатывающее ремесло Новгорода Великого. In А. В. Арциховский & Б. А. Колчин (eds.) *Труды Новгородской археологической экспедиции, Т.* II: 7–119. Материалы и исследования по археологии СССР 65.

Kolchin 1982 = Колчин Б. А. 1982. Хронология Новгородских древностей. In Б. А. Колчин & В. Л. Янин (eds.) *Новгородский сборник*: *50 лет раскопок Новгорода*: 156–177. Москва: Наука.

Laakso, V. 2014. *Papinniemi in Uukuniemi and Related Archaeological Sites of the Eastern Orthodox Cultural Area in Finland*. Archaeologia Medii Aevi Finlandiae 19.

Lehtosalo, P.-L. 1966. Rapukoristeisten solkien ajoituksesta. *Suomen Museo* 73 (1966): 22–39.

Lesman 1984 = Лесман Ю. М. 1984. Погребальные памятники Новгородской земли и Новгород (проблема синхронизации). In Г. С. Лебедева (ed.) *Археологическое исследование Новгородской земли*: *межвузовский сборник*: 118–153. Ленинград.

Lesman 2012 = Лесман Ю. М. 2012. Хронология Карельских могильников: Взгляд из Новгорода. *Другая Русь*: *Чудь, Меря и инии языци*: 149–158. Stratum Plus 5.

Linturi, E. 1980. *Ristiretkiajan soikeat eläinkoristeiset kupurasoljet*. Helsingin yliopiston arkeologian laitos, moniste n:o 24.

Musin 1997 = Мусин А. Е. 1997. Становление православия в Карелии в XII–XVI веках (историко-археологический очерк). *Рябининские чтения*: *Сборник докладов.* http://www.vottovaara.ru/stanovlenie-pravoslaviya-v-karelii-xii-xvi-vek.html. Read 5 September 2011.

Nordman, C. A. 1924. *Karelska järnåldersstudier*. Suomen Muinaismuistoyhdistyksen Aikakauskirja 34 (3).

Petersen, J. 1919. *De norske vikingesverd*: *En typologisk-kronologisk studie over vikingetidens vaaben*. Kristiania: Dybwad.

Saksa, A. I. 1998. *Rautakautinen Karjala*: *Muinais-Karjalan asutuksen synty ja varhaiskehitys*. Studia Carelica Humanistica 11.

Saksa 2010 = Сакса А. И. 2010. *Древняя Карелия в конце I – начале II тыс. н. э.*: *Происхождение, история и культура населения летописной Карельской земли.* Санкт-Петербург: Нестор-история.

Salmo, H. 1956. *Finnische Hufeisenfibeln*. Suomen Muinaismuistoyhdistyksen Aikakauskirja 56.

Schwindt, T. 1893. *Tietoja Karjalan rautakaudesta ja sitä seuraavilta ajoilta Käkisalmen kihlakunnan alalta saatujen löytöjen mukaan*. Suomen Muinaismuistoyhdistyksen Aikakauskirja 13.

Sobolev 2007 = Соболев В. Ю. 2007. *Проблемы изучения раннего этапа древнерусской погребальной культуры на западе Новгородской земли.*

Текст доклада, прочитанный на IV заседании семинара ‘Проблемы археологии средневековья’ 12.05.2007 (Лаборатория археологии, исторической социологии и культурного наследия им. профессора Г. С. Лебедева НИИКСИ СПбГУ). http://nwae.spbu.ru/?0-210. Read 26 November 2014.

Taavitsainen, J-P., Hiekkanen, M. & Oinonen, M. 2009. Keminmaan Valmarinniemen polttohautaukset. In J. Ikäheimo & S. Lipponen (eds.) *Ei kiveäkään kääntämättä*: *Juhlakirja Pentti Koivuselle*: 203–212. Oulu: Pentti Koivusen juhlakirjatoimikunta.

Uino, P. 1997. *Ancient Karelia*: *Archaeological Studies – Muinais-Karjala*: *Arkeologisia tutkimuksia.* Suomen Muinaismuistoyhdistyksen Aikakauskirja 104.

Notes

1 The bones excavated at Sänkinmäki and Pihlajamäki could not be analysed osteologically, but because the artefacts found in the excavation are typical for burials, it seems plausible that at least a part of the bones are human.

2 There are further finds of spearheads with faceted hexagonal sockets from Finland (e.g. KM 5968 and KM 19339), but they do not seem to form a coherent chronological entity.

3 Calibration was conducted using the OxCal v4.1.7 software (Bronk Ramsey 2009).

4 The results of the research in the chronology of Karelian funeral complexes were presented by one of the authors in a candidate dissertation (Belskiy 2013) and in an article (Belskiy 2014: 317–322). In total, 83 assemblages from 18 cemeteries have been analysed. The key notion in this study is that of the ‘regional (autonomous) system of type-and-chronology’, which implies a certain set of types and well-grounded dates of their use defined within a particular chronological range and region. The solution to the problem put forward was sought consequently via four stages: distinguishing chronologically significant types, determining their dates, searching for controversies, and dating the complexes, graves and burial grounds on the basis of several independent chronological systems. Unfortunately, the limits of the present publication do not allow full confirmation of all of the conclusions. At present, the author is working to publish them extensively in English.

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