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This book is devoted to the publication of materials obtained during archaeological excavations of the burial ground of Kalmistomäki in Kylälahti in the north-western Ladoga region in 2006–2009. The site may be described as a cemetery attached to a Karelian pogost centre at the north-western periphery of the medieval Novgorod Land. It was used by a population that was obviously very wealthy and had lively contacts with outside areas in different directions.

During the four seasons of archaeological fieldwork carried out in Kylälahti, 93 burials were excavated. In 51 cases, diverse artefacts were found accompanying the burials: personal ornaments and costume parts. The cemetery is not only the largest in Karelia in terms of number of burials excavated, but also the richest in terms of number of burials with artefacts.

The site under study is also exceptional in other ways than quantitative measures. For the first time in the archaeology of Karelia, materials of the 14th and 15th centuries are so distinctly represented that they allow us to reach to several highly significant conclusions concerning the evolution of burial rites in the region.

A distinctive feature of the materials from the cemetery of Kylälahti is manifested in finds of Central or Northern European imports. Their presence among the Karelian complexes indicates the continuation of stable tendencies in material culture that had appeared in a more ancient period, as well as the direction of external connections.

The finds suggest that the peculiar material culture of Crusade Period Karelia was not in the least abandoned in the early 14th century. The evidence obtained at the cemetery allows us to distinguish yet another period in the existence of the distinctive material culture of the area from the 14th to the 15th century.



LAAKSO & BELSKIY

THE KALMISTOMÄKI CEMETERY OF THE KYLÄLAHTI POGOST IN HIITOLA, KARELIA

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VILLE LAAKSO & STANISLAV V. BELSKIY

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KYLÄLAHTI POGOST IN HIITOLA, KARELIA

Archaeological materials from excavations in
2006–2009

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Front cover: The parish map of Hiitola from the year 1643 & a belt pendant complex with an attached sheath and a knife from grave no. 30

Back cover: A bronze pendant find from grave no. 1

On right: A belt pendant complex from grave no. 13

VILLE LAAKSO & STANISLAV V. BELSKIY

**THE KALMISTOMÄKI CEMETERY OF THE
KYLÄLAHTI *POGOST* IN HIITOLA, KARELIA**

Archaeological materials from excavations in 2006–2009



PETER THE GREAT MUSEUM OF ANTHROPOLOGY AND ETHNOGRAPHY
(THE KUNSTKAMERA)

RUSSIAN ACADEMY OF SCIENCES

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**THE
KALMISTOMÄKI
CEMETERY OF
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POGOST IN
HIITOLA, KARELIA**

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The present monograph is devoted to the publication of materials obtained in the course of excavations of the burial ground of Kalmistomäki in Kylälahti in the north-western Ladoga region in 2006–2009. Our goal is to introduce new archaeological sources into the domain of scientific studies. We focus particularly on the history of archaeological investigations in the western Ladoga region, the features of the burial rite at the site under study, the detailed description of the funerary complexes excavated, the typology of the artefacts found, the determination of their parallels from archaeological sites in neighbouring regions, and the development of burial chronology at the cemetery. Special attention is paid to analysing the assemblage of written sources from the 14th–16th centuries concerned with the history of the Kylälahti pogost (parish) of the Novgorod Land.

Archaeological studies of burial monuments in Karelia have been carried out for more than 150 years.¹ Beginning in the 1840s, in the Grand Duchy of Finland, social and political ideas concerned with the humanities became established as the “national romantic” movement, which in this region manifested itself through the special phenomenon of “Karelianism”. An important impulse for that movement was the “Kalevala” epic initially published by Elias Lönnrot in 1835–1836 and extended in the 1849 edition. The publication of the Kalevala had a tremendous influence on the development of Finnish self-identity. During that period, Finnish literature, music, architecture, and painting flourished in an unprecedented manner.

A certain place in this process was held by “antiquities”, which laid the basis for archaeological source studies. For instance, even before Theodor Schvindt, the curator of the Ethnographic Museum of the Helsinki University, carried out large-scale excavations of burial grounds mostly in the 1880s, Henrik August Reinholm already conducted small excavations at the cemetery of Hovinsaari Tontinmäki in Räisälä in 1849. This site, where Schvindt later conducted extensive excavations in 1886–1888, has, up to the present, functioned as a reference site for studies of Karelian antiquities of the Crusade Period (Schvindt 1893: 51–81, Uino 1997: 290–296, Cacka 2010: 205–210).²

The most important studies in the region were conducted by Theodor Schvindt in 1885–1888, when he excavated a series of cemeteries and hill forts on the Karelian Isthmus and in Ladoga Karelia. The excavations of the burial grounds were not only the first large-scale investigations of Iron Age sites in Karelia, but until recently they also remained the most extensive excavations of their kind. T. Schvindt himself, as well as other researchers (A. Europaeus, E. Kivikoski, N. Cleve, V. Voionmaa, A. M. Tallgren, S. I. Kochkurkina, and A. I. Saksa), subsequently undertook excavations at Crusade Period

¹ *On the history and different areas of Karelia, see, e.g., Uino 1997: 13–16.*

² *According to Finnish periodization, the Crusade Period (c. AD 1050–1300 in Karelia) was followed by the Middle Ages. In the Russian system, this period is already a part of the Middle Ages.*

inhumation cemeteries, but on a considerably smaller scale. Even today, the materials obtained by Schvindt in 1885–1888 form the basis of our knowledge about the funerary rites of Karelia in the 12th–14th centuries and provide us with a typology of various objects and dates for their use.

In this connection, a fairly important circumstance should be noted, namely that the scientific interests of Theodor Schvindt were to a great extent influenced by the place of his birth and younger years. He was born to a physician's family on the Putoria estate, which was situated near the central village of Räisälä (now the settlement of Mel'nikovo in the Priozersky district of Leningrad oblast, or rather the south-eastern margin of this district). This place was to the south-west of Käkisalmi (now Priozersk), in the lower reaches of the Vuoksi River. Schvindt's future scientific activities were concerned with the study of the antiquities of his native locality, primarily in the parish of Räisälä, Käkisalmi itself, and neighbouring regions of north-western Ladoga (the parishes of Hiitola and Kurkijoki) (on Schvindt's background and work, see Haltsonen 1947, Sihvo 2001, Uino 1997: 25–32).

It is precisely in these localities that Schvindt conducted his archaeological investigations in the 1880s, after which he published in his PhD thesis on Iron Age Karelia (Schvindt 1893). He also worked actively in other regions, namely on the islands of Lake Ladoga near Sortavala and in the central and southern parts of the Karelian Isthmus: the parochial centres of Pyhäjärvi (now the village of Otradnoye), Sakkola (now the village of Gromovo), Rautu (modern Sosnovo), Muolaa (Pravdino), and Valkjärvi (Michurinskoye). However, these studies were limited to surveys, with the exception of excavations in Lapinlahti on the southern bank of Lake Suvanto (now the village of Sukhodol'skoye) undertaken not long before his death in 1917.

In this context, it seems appropriate to devote a few lines to Schvindt's field study methods. They were undoubtedly not devoid of certain shortcomings generally intrinsic to the early stages of the accumulation of archaeological knowledge. Among these shortcomings were the very imprecise description of the excavated sites, which made it difficult to locate them afterwards, trenching excavations without screening the soil, conducting very hasty investigations (ten burials of the cemetery of Kekomäki, the richest among the funerary complexes, were excavated during one day, the last working day of the expedition), no photographic recording, the preparation of drawings in the museum based on rough field sketches after studies in the field were finished, discrepancies between the descriptions and drawings of complexes, and so on.

But perhaps the main drawback was that Schvindt's attention was focused chiefly on rich assemblages, comprising numerous expressive bronze and silver artefacts. If a burial ground did not immediately satisfy his hopes of obtaining distinctive materials, its excavation ceased and the expedition, which was composed of T. Schvindt himself and two or three non-professional workers, moved to another place (Uino 1997: 28–32).

As a result, insufficient attention was paid to settlement structures or funeral complexes dating to earlier periods, although they certainly must have occurred within the area of the excavation, and, moreover, none of the inhumation burial grounds of the 12th–14th centuries were excavated completely or at least to some extent.

This conclusion is important particularly because these methodological shortcomings continued for a long time in subsequent research. As mentioned above, during his investigations Schvindt was interested primarily in antiquities of his native locality – Räisälä and Käkisalmi. At the same time, the western and southern parts of the Karelian Isthmus have appeared to be completely devoid of archaeological objects, especially objects dated to the medieval period, except for individual stray finds (e.g. Cakca 2010: 81, Fig. 13). This is due to the fact that later researchers were guided primarily by Schvindt's works, continuing to study archaeological objects in the same places where he conducted his excavations, although with their own goals and principles of investigation.

During the period immediately before World War II, archaeological investigations on the Karelian Isthmus and in the Ladoga Karelia region had not been carried out systematically. Very often, when it became known that artefacts or human bones were found, professional archaeologists did not deem it necessary to start excavations, as in their opinion the finds were in no danger of being destroyed. For instance, Sakari Pälsi, after his inspection of the Kalmistomäki hill in the village of Kylälahti in the Hiitola parish, wrote thus in his brief report on the results of the investigations: "... the site is not directly endangered" and "... local residents, farmers, take no interest in finds of ancient artefacts and are not interested in any special search for them. Therefore, this place should be regularly visited since they will not inform the National Museum about new finds" (cited after Uino 1997: 36).

Naturally, at the time, nobody could predict the dramatic events that awaited Finland, and especially the population of the Karelian Isthmus and the Ladoga region, in 1939–1944. According to the Paris Peace Treaty of 1947, these territories were ceded to the Soviet Union. The local population retreated to other parts of Finland, beyond the new border, while trains with settlers from central regions of Russia, Belorussia, Ukraine, and Kazakhstan were bound for the deserted localities. The archaeology of Karelia entered a new period when only Soviet scholars could carry out fieldwork in the area.

However, no systematic excavations were ever started in the first post-war decades. It was only in the early 1970s that Karelian questions were included into the sphere of regular investigations of Baltic-Finnish antiquities in the Leningrad oblast and neighbouring regions by the Department of Slavic-Finnish Archaeology organized in 1974 at the Leningrad Branch of the Institute of Archaeology (LOIA) of the Academy of Sciences of the USSR (AS USSR). In the first stage, the research of forts in the region was prioritized. In 1972–1973 and 1975–1976, an expedition of LOIA AS USSR, under the direction of

Anatoliy N. Kirpichnikov, conducted excavations within the limits of the city of Priozersk (Fi. Käkisalmi) in the Old Fortress (Korela) and New Fortress (Кирпичников 1979: 52–73, 1984: 119–144), as well as in Tiurinlinna (Tiversky Gorodok) in 1971 (Кирпичников 1984: 144–149).

Up to recent times, the expedition of the Institute of Linguistics, History and Literature, Karelian Research Centre of the Russian Academy of Sciences (RAS), headed by Svetlana I. Kochkurkina, has been working successfully in the Ladoga Karelia region. For several decades, attention has been paid to the investigation of settlement sites. In addition to the already mentioned Tiurinlinna (Tiversk), the expedition conducted excavations at Paasonvuori in Sortavala, Linnamäki in Lopotti, Soskua, Hämeenlahti, and Linnasaari in Kurkijoki in the 1970s and in 2005–2008 (Кочкуркина 2010).

Since 1978, archaeological investigations both on the Karelian Isthmus and in Ladoga Karelia have been carried out by the expedition of the Institute of the History of Material Culture (IIMK) of RAS under the direction of Aleksandr I. Saksa (Saksa 1997; Сакса 2010). Among the important results of these studies was locating archaeological sites, particularly the inhumation cemeteries studied in the 19th century, in the modern landscape, which has endured dramatic transformations due to active agricultural use during the 20th century. During the field investigations, A. I. Saksa defined and successfully realized a new principle of identification and study of archaeological sites from the Iron Age and medieval period.

Finally, by the beginning of the 21st century, the results of over one and a half centuries of archaeological investigations of the Iron Age and medieval period in Karelia were summarized, primarily owing to the works of S. I. Kochkurkina, P. Uino, and A. I. Saksa.

Meanwhile, it is impossible to neglect the fact that the research of the late 20th century was based on evidence from funerary sites as the single category of archaeological objects enabling us to develop a detailed chronology and correspondingly a periodic division of the antiquities in the region under study. The excavated strata in large towns (Korela and Vyborg – Käkisalmi and Viipuri) date from a younger period than the assemblages of Karelian inhumation cemeteries. However, the majority of the burial grounds in the region were excavated in the pre-war period, and, moreover, most of them as early as in the 1880s, owing to Schvindt's efforts. This disproportion in the study of different types of archaeological objects was to some extent overcome from the 1970s to the 1990s, when the interests of scholars were focused on the investigation of settlement sites and religious installations contemporary with the cemeteries. However, the surroundings of Lapinlahti (Ol'khovka) in Sakkola form perhaps the only area in which it has proved possible to connect these sites in space and time and to propose a model of the settlement pattern for a certain chronological period (see Saksa 1998: 69–82).

Therefore, the archaeology of the Iron Age and Middle Ages in the region under consideration is characterized, so to speak, by a certain mosaic quality: there is an assemblage of miscellaneous antiquities that is difficult to organize into any definite system because they have either been excavated at an insufficient methodical level or excavated incompletely, and some of them even remain unexcavated altogether. In some cases, however, the fact that they exist was established through evidence of stray finds of ancient artefacts or skeletal remains. Moreover, in many micro-regions, surveys have either not been conducted at all or not carefully enough.

The situation of the excavated cemeteries now seems to be as follows: according to P. Uino's calculations, 40 sites, archaeologically investigated to different extents, were known by 1997; in these, 186 graves have been excavated. Since the interment of two or more individuals in a single grave pit is fairly common, the total number of burials is 210. Roughly 60 of the latter contained grave goods (the number is approximate because it is not always possible to distinguish one complex from another by means of sometimes very complicated or inexact field documents). Of the latter number, slightly more than half of the burials were accompanied with more or less distinctive funerary offerings fit for statistical analysis (Uino 1997: 54).

The problem, however, is that during the post-war period, no such mortuary complexes have been excavated. In addition, it must be noted that these cemeteries are concentrated in the regions of Lapinlahti (Ol'khovka), on the southern and northern shores of the Vuoksi River (Tontinmäki and Suotniemi), and on the northern bank of Lake Koverilanjärvi (Lake Bogatyrskoje; the cemeteries of Kekomäki and Kulhamäki are located about 12 km directly north-west of the cemetery of Suotniemi).

In Ladoga Karelia, no similar burials are known, notwithstanding the seemingly abundant stray finds. Here, until recently, the most comprehensively excavated site was the cemetery of Kuuppala in Kurkijoki, where numerous artefacts, including those dated to the Iron Age and medieval period, have been found. However, no well-preserved graves with closed associations and distinctive materials comparable to those from Schvindt's excavations have been revealed (Cakca 2010: 246–254). Such burials are absent also in the western part of the Karelian Isthmus, although reported finds from this area include Karelian artefacts of the 11th–13th centuries, for instance from the territory of Viipuri (Vyborg; Kivikoski 1973: 116, Kopisto & Paloposki 1967: 27, Тюленев 1995: 16–17), and even cup-marked stones (Carpelan *et al.* 2008: fig. 9.12). On the other side of the state border, in Finland, the situation regarding the research of funerary antiquities is different: during the post-war period, archaeologists excavated the cemeteries of Visulahti in Mikkeli (34 burials), Tuukkala in the same parish (7 inhumations and one cremation), Kappelinmäki in Lappeenranta, and Papinniemi in Uukuniemi (Salo 1957, Laakso 2003: 139–154; Mikkola 2009: 177–185).

Questions related to the Iron Age and medieval period attracted the attention of various researchers, who employed different approaches to the evidence under study. In spite of the number of voluminous summarizing monographs published, numerous aspects of the study of the culture of medieval Karelia still remain controversial. The elucidation of these issues presently depends on the discovery and excavation of archaeological sites (on the medieval archaeological material of Karelia and related research problems, see also Hiekkanen 2003).

* * *

In the summer of 2002, we worked at the excavation of the burial ground of Papinniemi in Uukuniemi, eastern Finland. One day, the expedition was visited by Evita Majoinen, who then worked in the Carelicum Museum in Joensuu. She invited us to take part in a project that she had designed to search for archaeological sites in the Ladoga Karelia region. The investigation was meant to be extensive, and preparations for it took time. In the spring of 2005, we started the actual fieldwork. Our group for surveying medieval sites was organized as part of a larger expedition. The main goal was to locate the already known archaeological sites, particularly cemeteries, of the Iron Age and medieval period in the modern landscape.

However, there remained the additional task of discovering a promising burial ground for archaeological excavation. In the beginning, we were not especially enthusiastic about any of the sites examined. Either they were heavily disturbed or information about them was rather vague. Finally, on May 28, we left our Niva car at the side of the road, as we could not drive any farther, walked several kilometres, and ascended the Kalmistomäki hill in what was once the village of Kylälahti, of which only wall foundations remain (see Figs. 1–5). Fortunately, this locality was a very solitary place at that time. There were no villages nearby, no modern cottages, nor any other indications of implacably intruding civilization, while the lengthy formation leading towards the site may only with much reserve be called a “road”. All this despite the striking beauty of the place: from the rock barring our camp from the side of the Ladoga, a magnificent view opens upon Tiurulanselkä Bay, Ukonsaari Island, and small islets near it, as well as the area of the former village of Tiurula, where a large stone-built home for the elderly has been preserved from pre-war times up to today.

It is easy to remember how we could finally reply to our colleagues who asked whether we had found anything during the day: “At last we have found what we have sought for so long...” However, we could not yet be fully confident. Next year, we succeeded in organizing the first regular trial excavations on the Kalmistomäki hill realized by the Karelian and Northern European teams of the expedition of MAE RAS and the University of Turku (Finland).

At first, we did not plan any large-scale expedition. The tasks set were purely limited in character: it was necessary to discover a relatively well-preserved burial ground, to understand its nature and period of use, and ensure the state of preservation of the anthropological and, with good luck, archaeological remains. However, the excavated graves No. 1 and No. 3 revealed that in Kylälahti there was an archaeological site unique in terms of its materials and state of preservation.

In 2007–2009, excavations on a much larger scale were organized. During the four years of investigations, the total excavated area amounted to 426 m². The number of undisturbed burials uncovered was 93, of which 91 are inhumations and two cremations. The number of excavated graves is the largest on the Karelian Isthmus and in the Ladoga Karelia region over the entire period of studies of Karelian inhumation cemeteries. The number of excavated burials containing grave goods (fifty-one) is the largest among all the known cemeteries, including the burial grounds in present-day eastern Finland and Karelia.

The field investigations in Kylälahti could not have been carried out without the financial support of the Karelian Cultural Foundation (Karjalan Kulttuurirahasto), the Foundation for the Support of Studies of Karelian Culture (Karjalaisen Kulttuurin Edistämissäätiö), the Finnish Cultural Foundation (Suomen Kulttuurirahasto), the Karelia Foundation (Karjalan Säätiö), the Hiitola Foundation (Hiitola-Säätiö), the Russian Foundation for Humanities (projects # 07-01-18066e, # 08-01-18022e), the Field Commission of the Museum of Anthropology and Ethnography (MAE) of RAS, and the St Petersburg Scientific Centre of RAS. In addition, the restoration and conservation of the materials obtained during the fieldwork were financed by MAE RAS. The collection of finds was transferred for permanent storage to the Department of Archaeology of MAE RAS and is registered under No. 7426. The primary results were published earlier (Бельский & Лааксо 2009: 133–176; Бельский 2012). New information, new thoughts, and new ideas and interpretations came up a few years later and are presented in this publication.

For the excavation period, many people took part in the expedition. Some visited it for a few days, others worked during the entire term. The present authors are highly grateful to all of them. But we are particularly grateful to V. I. Khartanovich (MAE RAS) as one of the ideological inspirers of the project, professors J.-P. Taavitsainen (University of Turku) and M. Saarnisto (Finnish Academy of Science and Letters) for their invaluable background and practical support, I. D. Tkachenko (Russian Museum of Ethnography), D. V. Gerasimov (MAE RAS), E. Majoinen, M. Helminen, J. Ruohonen, T. Sepänmaa, and A. Honkala (University of Turku), B. G. Lych, V. Yu. Sobolev (St Petersburg State University), I. V. Stasevich, I. G. Shirobokov, and I. L. Marmer (MAE RAS) for their selflessness and resoluteness; M. V. Medvedeva and S. N. Lisitsyn (IIMK RAS),

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Chapter I:

Research history and topography of archaeological sites in the region of Hiitola

1.1. Iron Age and medieval sites in the north-western Ladoga area

In the territory of the former parish of Hiitola, which lies for the most part within the present-day administrative limits of the Hiitola rural settlement in the Lahdenpohja district of the Republic of Karelia, there are numerous archaeological find spots comprising 51 sites, according to the most comprehensive catalogue by P. Uino (Uino 1997: 214–225). In the 1880s, excavations under the direction of T. Schvindt were carried out at many sites here, primarily burial grounds. As a result, more cemeteries were known from Hiitola than anywhere else: their number exceeded even that of the cemeteries known on the Karelian Isthmus (Uino 1997: 224).

Notwithstanding the seeming abundance of information about finds of ancient artefacts and skeletal remains, until recently no burial grounds have been investigated comprehensively – not to mention settlement sites. In fact, all the sources were gained due to the studies of T. Schvindt, who applied a simple but effective method of fieldwork: when he acquired information about a place where ancient objects were found, he visited the site and conducted excavations there. In the case of Hiitola, he proved to be unsuccessful, since no distinctive complexes of rich grave goods like those from the Karelian Isthmus were found there. Usually only data on two or three burials containing no funerary offerings are available to us at each

Figure 1.

The location of the Kylälahti Kalmistomäki site (Lahdenpohja region of the Republic of Karelia, Russian Federation).





Figure 2.
The north-western shore of Lake Ladoga and the location of Kylälahti Kalmistomäki.

a settlement system spanning several centuries. In the post-war period, the landscape here was not changed, in contrast to the area of the Karelian Isthmus, where the organization of collective farms was particularly intensive and often drastically changed the relief.

The western Ladoga region still remains a peculiar, historically established cultural and landscape preserve. As the contexts of archaeological materials can still be seen in their natural environment, the main questions related to the settlement pattern of the epoch can be elucidated.

Geographically the region under study can be divided into the mainland part adjoining the first north-western skerries of Lake Ladoga and the insular territory, which includes Kilpolansaari – one of the largest islands in Lake Ladoga.

site because the researcher did not excavate them as continuous areas.

Afterwards, in the pre-war period, only archaeological surveys were conducted in the region by S. Pälsi, N. Cleve, and V. Voionmaa, and after the war, S. I. Kochurkina and A. I. Saksa carried out surveys (Cakca 2010: 237–245). In the 1980s and 1990s, the numerous fields and pastures were abandoned and at best turned into meadows where searching for archaeological objects is rather difficult.

Nevertheless, the situation with the present-day development of the region still allows us rare chances to study

Kilpolansaari Island

In the pre-war period, the island was very densely settled, but now it is practically uninhabited except for isolated country cottages and several camping sites. Prior to World War II, there were large villages on the island: Haapalahti, Tounaa, and the famous Kauppiaanranta, or later Kilpola, with unoccupied spaces between them. In the area of these villages, most commonly in the fields lying between separate farmsteads, numerous artefacts have been found since the second half of the 19th century.

The village of Haapalahti

The former village of Haapalahti was situated in the valley of the long and narrow Haapalahti Bay in the north of Kilpolansaari Island. The valley, not wider than one kilometre, is elongated from north-west to south-east and is of glacial origin. The edges of the valley are formed of rocky slopes overgrown with a pine forest. The north-eastern slope is the steepest, passing into the high hill of Soromäki. The south-western slope is relatively gentle but uneven and alternates with small hills, on which individual farmsteads once stood. Even now, their foundations are visible here. In the lowland of the valley are meadows, while higher localities are overgrown with deciduous and fir forests. Generally, a glacier landscape of this type is characteristic of the north-western Ladoga region.

At the turn of the 19th and 20th centuries, an oval tortoise brooch of the H/IIB:2b type was found near the house of Hassitarha (KM 5418:19).³ Near its find spot, T. Schvindt had already carried out an excavation and found an unfurnished grave (Schvindt 1893: 105, Кочкуркина 1981: 115, Uino 1997: 220). Schvindt also handed over to the National Museum a 15th–16th-century bronze baptismal cross, found not far from those places on the slope of the Lavakumpu hill (KM 2520:41; on the dating, see Laakso 2014: 183).

On the hill of Omenämäki (also known as Kalmistokumpu, literally the “Cemetery Knoll”), also located near these find places, Schvindt excavated two graves, one of which was a child’s burial. Afterwards, according to V. Voionmaa, some coins of unknown age were found on the same hill (Uino 1997: 224). On the opposite side of Haapalahti Bay, in a field close to the Tanninen farm, Schvindt found some human bones, but considered the cemetery to be destroyed. Also this place was called Kalmisto (“Cemetery”) by the locals (Schvindt 1893: 105; Uino 1997: 224). From the nearby Latsimäki hill comes a bronze

³ The abbreviation KM indicates Suomen Kansallismuseo, the National Museum of Finland (Helsinki, Finland), where the archaeological finds mentioned here are kept at present. The numbers after these letters indicate the number of the collection and the number of each artefact or find.

chain (KM 2486:3). Schvindt conducted excavations here and found separate human bones (Schvindt 1893: 105; Uino 1997: 219). In 2005, the present authors conducted a survey in this region in order to define the present state of the sites mentioned above.

In the course of these investigations, it became clear that the cemetery of Hassitarha is now occupied by a modern private estate that has inherited the buildings of the pre-war period. The burial hills of Omenamäki and Tanninen were discernible in the terrain, but have been considerably disturbed due to recent economic activities. The Latsinmäki hill, located 3.5 km to the east of the present village of Tiurula and 150 m to the south of the south-western boggy shore of Haapalahti Bay, is the best-preserved site here. The hill has a diameter of c. 200 m and rises about 30 m from the bay. The summit of the hill is relatively flat. In its western part, it is overgrown with large birches and firs; closer to the centre and in the eastern part it is covered with lower forest and shrubs. In the western part of the hill, various accumulations of stones and possible remains of war trenches can be seen on the modern surface.

Further to the east of Haapalahti, in the neighbouring village of Tounaa, an oval tortoise brooch of the type C2/1a (KM 2520:40) has been found on the south-western slope of the Juoponkumpu hill (Schvindt 1893: 105; Кочкуркина 1981: 115; Uino 1997: 220).

In the southern part of Kilpolansaari Island, in the valley of the Kilpolansalmi strait, T. Schvindt investigated in 1885–86 a series of burial grounds of the Crusade period and Middle Ages and found a number of artefacts of that date. Kilpolansalmi is up to 0.45 km wide, stretches in a latitudinal direction, and separates the islands of Kilpolansaari and Kurolansaari. The hilly valley of the strait is 0.3–0.5 km wide, bounded by rocky slopes. It represents a common glacier type of relief characteristic of the north-western Ladoga region. Within its bounds there are meadows alternating with rocky heights on which stand numerous well-preserved house foundations of the pre-war period.

Here, in the village of Kilpola, residents had found artefacts on several occasions “on a knoll” owned by Paavo Hannukainen. In 1896, the local bookshop owner J. Kauppi handed over to the Museum in Helsinki among others an oval tortoise brooch (type C1/1a according to Linturi), a horse-shaped pendant, a ring brooch, and a needle box (KM 3247:13–17). In the same year, T. Schvindt visited the place and carried out excavations there. He revealed three graves containing minor grave goods, such as a knife (Nordman 1924: 153; Schvindt 1893: 104; Uino 1997: 216; Кочкуркина 1981: 104–115).

In the summer of 1884, Schvindt received a number of artefacts from different areas of the village: a bronze spiral-ornamented chain holder, a pendant decorated with a palmette motif and a three-part strap divider (KM 2298:174–176), a discoid pommel of a sword, an unidentifiable iron object (KM 2298:177–178), three bronze three-part belt dividers (KM 2298:182–184) found under a large stone, a fragment of a cross-shaped

chain holder and a belt mount (KM 2298:179–180). According to local tradition, there had been a chapel at the site of the last-mentioned artefact finds, and human bones had also been found there. Three years later, other items, such as a fragment of a needle box (KM 2520:36), a black glass bead with yellow stripes (KM 2520:38), and a metal icon of the 15th–16th centuries (KM 2520:35) were retrieved from the area of the village (Schwindt 1893: 104–105; Nordman 1924: 126; Кочкуркина 1981: 23, 115; Uino 1997: 214–219; Saksa 1998: 127).

In 1885 in the same village, on Esko Hannukainen's land, Schwindt excavated three child graves with few finds, including two silver beads. He also excavated two unfurnished graves on the Kaivomäki knoll – the deceased were interred with their heads to the north and covered with a 5-cm-thick soil layer mixed with charcoal (Schwindt 1893: 103–105; Uino 1997: 217, 225). According to the local residents, numerous bronze and silver objects had been found in the same area. During the excavations at Kauppilänmäki in 1885–86, bones, pieces of charcoal, burnt stones, and burnt clay were recovered. A couple of years later, Schwindt received a glass bead (KM 2590:16) and a grave cross of sandstone (KM 2590:17; Schwindt 1893: 105; Кочкуркина 1981: 23; Uino 1997: 219; Saksa 1998: 127). Also, on a plot of land owned by Savolainen and located on a low hill, Schwindt excavated three child graves oriented to the north-west (Uino 1997: 225).

Kilpolansaari Island is also the place of provenance of a hoard of silver objects found in 1886 on Piimälänmäki, not far from the mouth of the bay on its southern shore. This hoard included a penannular brooch, a *sykerö* head ornament, a round brooch/pendant, and a fragment of a silver chain (KM 3641: 1–4; Uino 1997: 219).

For a long period, no archaeological surveys were conducted on the island. It was not until 1985 that A. I. Saksa undertook fieldwork here. In 1992, a Russian-Finnish research group collected sediment samples from small lakes on the island: Revolampi, Vitsalampi, and Suuri Kokkolampi. These studies have allowed us to define more precise geological stages in Ladoga's history and to date the formation of the Neva River (Саарнисто *et al.* 1993: 27–29).

In 2005–2006, the present authors conducted a survey in this region in order to define the modern state of the sites mentioned above. In 2009, the sites were re-examined (Бельский & Лааксо 2010).

Finds from the mainland region of Hiitola

The overwhelming majority of archaeological finds from this region are also linked to the name of T. Schwindt. In 1884–85, he excavated four burials in Lipola. Only a knife was found in one of the graves (KM 2298:1; Schwindt 1893: 102–103; Uino 1997: 220). In

the village of Kavonsalmi, Schwindt excavated a grave oriented to the west and containing no artefacts. In a field nearby, a brooch of the type F3 had been found (Schwindt 1893: 106; Uino 1997: 221). In 1885, in the village of Mustola, Schwindt excavated a burial site in which the graves contained no artefacts either and were oriented to the south-west. The interments were made in thick-board coffins (Schwindt 1893: 106; Uino 1997: 224).

In the village of Petkola, where local residents had found artefacts (such as a chain holder), Schwindt uncovered a grave oriented to the north-north-west (Schwindt 1893: 107; Uino 1997: 221–222, 224). According to A. I. Saksa, in the same village, a coin had been found in the post-war period, possibly of Western European origin and dating to the 11th century (Saksa 1998: 130; Сакса 2010: 243).

One of the most interesting sites was investigated by Schwindt in the village of Tenhola. In 1885, he carried out excavations on four grassy knolls situated on the shore of a bay of Lake Ladoga. Here, local residents had found human bones and “Russian crosses”. The original name of the place, *Sässynäkummut* (*Chapel Knolls*), also suggests that there had once been a cemetery and a village chapel here. Schwindt carried out excavations on one of these hills, on which rectangular stone frames, most measuring c. 2 x 0.6 m and oriented from west to east, were discernible on the surface. He revealed four graves with inhumations. The only artefact found was a piece of a whetstone from outside the graves (Schwindt 1893: 107–108, Кочкуркина 1981: 105; Uino 1997: 221). All of the above-mentioned burial grounds in the Hiitola mainland area were surveyed by the present authors in 2005.

Until recently, only the burial sites described above had been archaeologically investigated in Hiitola (see also Saksa et al. 2003: 423–424). Artefact finds at these sites remained few and fairly modest. However, also a series of remarkable stray finds has been discovered in this area. In the village of Huiskunniemi, two oval tortoise brooches of type C2/1a were found in the 1880s (KM 2298:185–186; Uino 1997: 220–221). The find evidently indicates a cemetery, since the objects most probably originate from a disturbed female burial. Unfortunately, an elite holiday settlement is now built in this place. In the same field, a bronze signet ring with a representation of a warrior with a shield and a spear has been found (KM 2298:187; Schwindt 1893: 106, Кочкуркина 1981: 115; Uino 1997: 222).

In addition, in the village of Nehvola, a large eyed glass bead (KM 2520:42) and a bronze signet ring (KM 2520:43) were found. According to Schwindt, there was a large cemetery here, in which the deceased were buried in thick, hollowed-out wooden logs. Also a small whetstone with a hole at one end was found here (KM 2486:1; Schwindt 1893: 106–107, Кочкуркина 1981: 104; Uino 1997: 221). In the village of Mustola, on the hill of Arkimäki, a fragment of a bronze chain was picked up (KM 2520:44), and a bronze plate with holes was found near Pakarinen’s house (KM 2520:46). In the village of Veijala,

a silver twisted neck ring and two spearheads were found (KM 13667; KM 5349:4, 5; Uino 1997: 222–223), and in the village of Kokkola, in a coastal field, two ear spoons of Saksa's type I:2 were found (KM 3247:11–12; Uino 1997: 222). According to Saksa (1998: 130), there is also a narrow spearhead from an unknown find spot.

There is an intrinsic difficulty in searching for and studying funerary sites of the Crusade Period and Middle Ages in the region. For this period, it was characteristic to perform inhumation rites without constructing any major structures above ground, at least any that could be discerned today. Therefore, after the cemetery fell out of use, information on its location may have gradually vanished from the memory of the subsequent generations. Since the Late Iron Age and the Middle Ages, agriculture was a central part of the economy of the population of this region (see Taavitsainen *et al.* 1994; Grönlund 1995; Saksa *et al.* 1995; Simola 2003; Alenius 2007). Accordingly, under the natural geographic conditions of the area, settlements, and often the cemeteries related to them, were positioned in a very definite type of landscape: lacustrine or riverine valleys near the water.

In fact, the settlement pattern established in the 12th and 13th centuries at the latest changed little throughout the Middle Ages and the modern period. When the agricultural area was expanded or settlement was transferred to another place, the areas of earlier cemeteries and settlements were often ploughed up. Development in the region was especially active in the period when it was part of the independent Republic of Finland as one of the most important agricultural regions of the country.

Subsequently, in the Soviet period, collective farms were actively organized here and villages were agglomerated – this development had fatal consequences for the settlement pattern organically established for centuries, the land use, and, in particular, the preservation of archaeological sites. Numerous sites of the Crusade Period and more recent periods are currently demolished or fundamentally disturbed compared to their state when Schvindt first recorded them.

Thus, by the early 21st century, two main tasks were defined for the archaeology of burial sites in the region under study: to locate the least disturbed cemeteries and to excavate them to the largest possible extent.

1.2. The research history of the village of Kylälahti

In the early 1920s, local inhabitants found a bronze cross-shaped chain holder (KM 8887) in a small field in the central area of the hill called *Kalmistomäki* (Fi. for “Cemetery Hill”), in the currently unsettled village of Kylälahti (Figs. 1–3). According to local people, even human bones had been found in the western part of the same hill in the process of digging a cellar for storing potatoes. On top of the hill, or possibly by the shore of a bay of Lake



Figure 3.
Part of Hiitola parish on a Finnish topographic map from the 1930s. Location of Kalmistomäki marked with the number 1.



Ladoga, near the foot of the hill, an iron spearhead and an unidentified metal artefact, possibly the hilt of a knife, had also been found, but later lost. In 1931, an oval tortoise brooch of type C2/2 according to Linturi (KM 9533:1; Linturi 1980: 92–93) and a spearhead (KM 9533:2) were found in the field, or, according to other information, during the digging for the cellar.⁴

In 1928, this site was inspected by Nils Cleve, and in 1933, by Sakari Pälsi. In his brief report, the latter described the locality in detail and indicated its major topographic

Figure 4.
Part of Hiitola area on a map drawn
by Erik Utter in 1643. Kylälahti
village is at the centre of the picture
(Kylälaxi). Riksarkivet, Stockholm.

⁴ The authors are grateful to L. Söyrinki-Harmo, L. Ruonavaara, and P. Uino for their valuable help in examining the collections and archive materials of the National Board of Antiquities in Helsinki.



Figure 5.
A view of the Kalmistomäki
hill from the north-west. Photo
by S. Belskiy.

reference points, thanks to which it was possible to find the site in 2005 (on the location of the site, see also Uino 1997: 222). Pälsi also noted that in the meadow covering the top of the hill, there were around 30 depressions oriented from west to east in an area of 30 x 20 metres. He interpreted them as probable signs of inhumation graves (on the early finds and history of research of the site, see Кочкуркина 1981: 115; Uino 1997: 222).

During the Soviet period, no archaeological investigations were carried out here. In 2005, due to the long-recognized need for thorough research of the burial sites, archaeological field surveys were realized in this region within the framework of the above-mentioned Finnish–Russian co-operation project. The main goal of these surveys was to locate the previously known archaeological objects, primarily burial sites, and to evaluate their present state of preservation and the prospects for their archaeological excavation.

A total of 30 sites were surveyed. Among these, the area most promising for excavation was that on the top of the Kalmistomäki hill, 2 km to the south-west of the village of Tiurula, 0.5 km south-east of the foundation of the Tiurula Orthodox church, and 0.1 km to the south of the south-western shore of Tiurulanselkä Bay in the Lahdenpohja district of the Republic of Karelia.

1.3. Topography of the cemetery

At all the Crusade Period and medieval Karelian cemeteries known to date, recorded burials are exclusively inhumations without any surface installations, at least any that could still be discerned. It is generally recognized that cemeteries belonging to this group occupy either the slopes of hills, primarily the southern slopes, or their tops (Schwindt 1893: 188; Кочкуркина 1982: 41; Uino 1997: 55; Laakso 2014: 29–32). This opinion, although correct, is nevertheless too generalized. The fact that the Karelian inhumation cemeteries of the Crusade Period (12th–14th centuries) and even later were set at low elevations in a certain type of landscape is much more important. Naturally, the cemeteries were located either on the slope or the summit of a hill.

Unfortunately, the state of Theodor Schwindt's field documents does not allow us to understand the internal structure of the sites he excavated. It is quite possible that the so-called "cemeteries on the slopes" are only the excavated areas of larger

Figure 6.
The Kylälahti Kalmistomäki archaeological complex. General plan of the site. Drawing, digitizing, and layout by S. Belskiy.

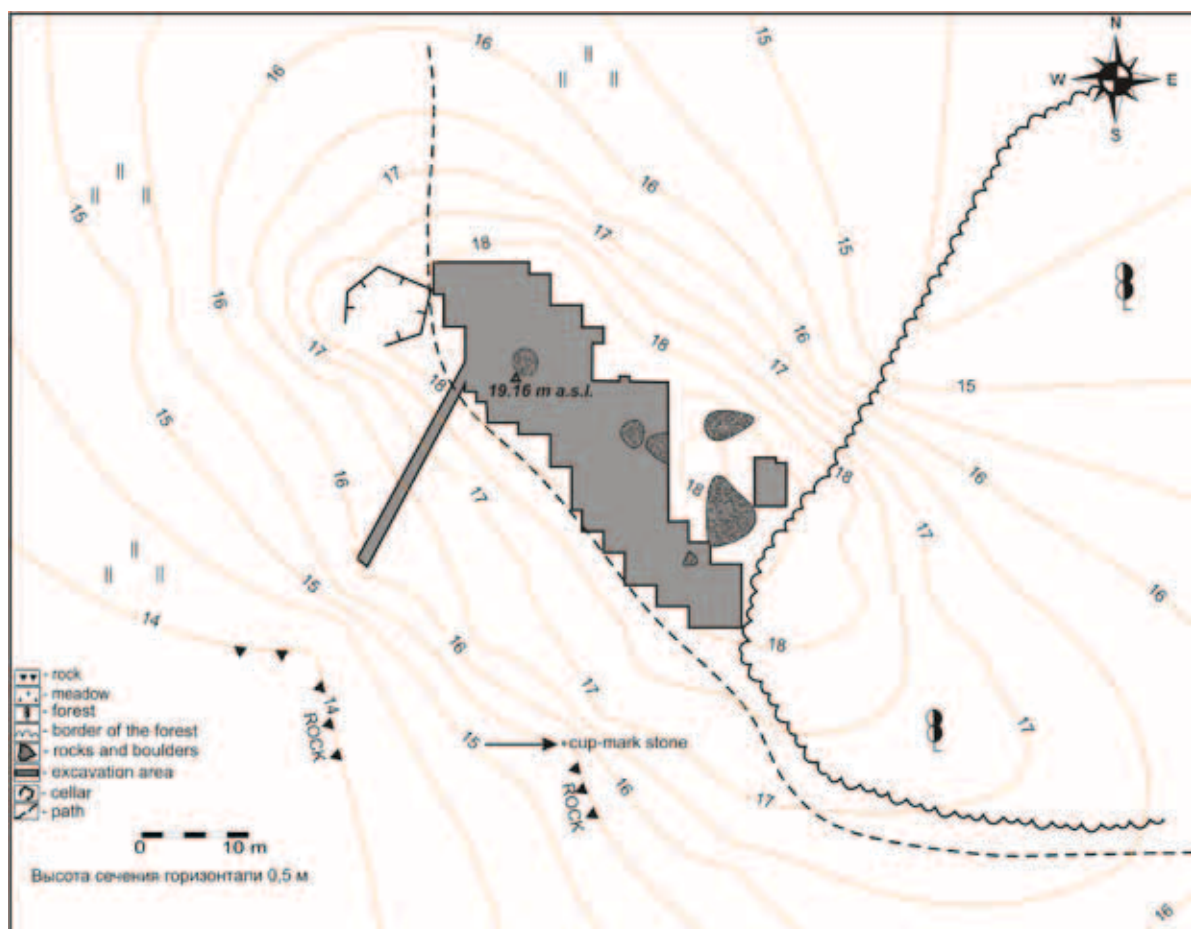




Figure 7.
*The stone structures on top of the graves
 in the central part of the cemetery from
 the south-east. Photo by S. Belskiy.*

burial grounds occupying the entire hill, including its summit.

Field studies of the topography of the cemeteries in both Russia and Finland lead to the conclusion that the choice of a natural elevation for the future cemetery was in no way coincidental. Firstly, the ground had to be fairly soft so that a relatively deep pit could be dug, at least deep enough to cover the corpse with soil. Under the geographical conditions prevalent in the Ladoga Karelia region, where outcrops of ancient granite-gneisses are common, finding such a location is not a simple task. Secondly, surveys in the terrain have shown that in all cases the cemeteries have a view onto a water area – a lake, a river, or a bay. All this does not seem accidental, but connected to certain religious or aesthetic notions of the ancient population.

Naturally, a regularly used cemetery must not be located in a disagreeable landscape: in a deep forest, on rocky areas, in a bog, and so on. It must also be placed outside the limits of the settlement, perhaps even beyond a water barrier, albeit a purely symbolic one, such as a beck. Thirdly, the cemeteries are located in intensely cultivated agricultural territories, many having been discovered in the process of ploughing the fields.

In order to interpret these observations, it seems fitting to use ethnographic evidence, although cautiously, since we are indeed dealing with a genetically and culturally

related population. This evidence suggests that in the 19th century, Karelian communities traditionally had a separate cemetery in each village, situated either at the outskirts of the village or in the centre. Moreover, each group of relatives could have its own cemetery or its own separate area in the common cemetery (Paulaharju 1924: 162, 166; Konkka 1985: 63).

We are thus dealing with ancestral cemeteries. The archaeological evidence available does not contradict this conclusion. The “collective” burials (including non-simultaneous ones) uncovered by Schwindt in a single grave pit directly attest to the tradition of something like family vaults (Schwindt 1893: 17, 67). All of the above-mentioned observations on the arrangement of cemeteries correspond exactly to the situation at Kylälahti.

The Kalmistomäki hill is c. 0.2 km long from north-west to south-east, nearly oval in shape, and about 0.1 km wide. The top of the hill is relatively flat. The north-western section of the hill is gentler, gradually sloping down. Nowadays, it is covered by a meadow. According to the type of vegetation, the entire surface of the hill can be divided into three approximately equal parts. The first is the north-western third of the hill covered by the meadow, the second, central part is overgrown with a deciduous forest covering the area of a field cultivated in pre-war times, and in the third, south-eastern area, coniferous species are predominant.

The hill surface rises gradually towards the south-

Figure 8.

The stone structures on top of the graves in the eastern part of the cemetery from the north-west. Photo by S. Belskiy.





Figure 9.
The stone structures on top of the graves.
General plan. Drawing, digitizing, and
layout by S. Belskiy, I. Tkachenko.

east. The south-western slope is rocky, precipitously falling towards the broad valley of a small creek rounding the hill on the south-west side and falling into Tiurulanselkä Bay. Separate rocky outcrops alternate here with low areas filled with loose soil. The north-eastern slope is partly covered with a meadow descending towards the bay. Near the

coastline, the meadow grasses are replaced by bushes.

In the north-western part of the hill, in the meadow near the slope, there are two large and deep pits with regular, rectangular outlines. These were the only visible pits on the hill, so it is probable that the old cellar with its human bone finds was located here. Pit 1, measuring 4 x 4 m and up to 2 m deep, is oriented with its sides to the cardinal points. This is probably the remains of a cellar, since on the west side there are traces of an entrance. Pit 2 is located 3 m to the south of Pit 1, measures 2 x 2 m, and is 1.5 m deep. It is oriented similarly to Pit 1. The dimensions of the first pit and its regular plan suggest that it was too large to be a simple cellar.

During archaeological surveys around Tiurulanselkä Bay, approximately 0.5 km to the north, a structure practically identical in dimensions and shape was discovered. Its location and state of preservation indicated unambiguously that it is the remains of a wood and earthen fortified point dating to World War II. In July and August of 1941, serious fighting took place in this region, most intensively on the opposite shore of the bay and on Kilpolansaari Island. The structure on the Kalmistomäki hill, which offers a good view of the northern part of the bay, could have been a military dugout for the construction of which the older household pit was enlarged and deepened.

This supposition involves two conclusions: firstly, part of the cemetery was more considerably disturbed than had previously seemed, and secondly, in the area of the hill adjoining the north-western slope, loose rocks are relatively thicker. This could be the remains of a sandy terrace contiguous with a moraine rib. The entire surface where the meadow is situated is overgrown with fairly high grasses, which had to be mown down in order to clear out the future area of excavation. No above-ground structures or traces of pits could be discerned on the modern surface.

This cemetery was found on the most elevated and relatively flat north-western section of the Kalmistomäki hill, bounded by rocky precipices (Figs. 6–10). There are a number of other features that characterize the situation in Kylälahti. Indeed, most of the houses of the pre-war village of that name were located on the hill opposite the cemetery, several hundred metres north-west of the latter. At the foot of the Kalmistomäki hill, in a field near its north-west slope, there was a farmstead called Ukkola, which belonged to the Hämäläinen family. The members of this family first discovered artefacts and human bones on Kalmistomäki. On the opposite bank of a small creek was the homestead of Aatinmäki.

However, on the Kalmistomäki hill itself, notwithstanding its highly favourable position, there were no permanent buildings. S. Pälvi mentioned only a smithy, but no surface traces of its foundations or any other remains have been found during excavations. It may have been just a light wooden structure.

These circumstances suggest that local residents knew about the existence of a cemetery in this place and tried to avoid using its territory for the construction or any significant earthworks. The same is suggested also by the microtoponymy of the hill –



Figure 10.
The graves of the Kalmistomäki cemetery. General plan. Drawing, digitizing, and layout by S. Belskiy.

at the outlet of the creek into Lake Ladoga, Kalmistomäki formed a promontory that was called Kalmistonniemi (literally, “Cemetery Cape”).⁵ This knowledge may have been maintained not only due to the stability of the tradition but also in view of the depressions left by the graves. These depressions could be

⁵ In the village, there was even a field called *Kalmistopelto* (“Cemetery Field”), the more exact location of which is, however, unknown (NA, Gösta Jernström 1935).

discerned on the surface oriented from west to east, as recorded in Päläsi's report. The fact that they had not been levelled out for centuries (for instance, by pasturing) was due to the peculiarities of the funerary rite at the cemetery.

It seems natural that in medieval times, each succeeding generation in this area also knew the locations of the graves of the previous generation marked by the stone structures (see Figs. 7–9). Hence, each subsequent interment did not disturb the preceding ones. Occasionally, even the wall of the earlier grave was used as a wall for the subsequent burial. In this way, distinctly regular rows of graves were formed. Due to these circumstances, the predominant majority of burials at the cemetery of Kylälahti have proved to be undisturbed.

Graves and other structures at the site

2.1. Excavation methods

The archaeological excavations during the season of 2006 were exploratory in nature because the existence of a burial ground in this area was not certain. Only indirect indications and some features of the site hinted at its presence. For this reason, a trench with a length of 32 m and a width of 1 m was dug across the hill through its highest point in order to reveal possible burials. The aim was to enable us to discover layers on the relatively horizontal surface at the foot of the hill, as well as on its slope and top.

Previous investigations had shown that Karelian cemeteries were often located on the slopes of hills. Since the hill of Kalmistomäki is a moraine rib of glacial origin and is thus oriented from north-west to south-east, the trench sunk across it was oriented not to the cardinal points, but from north-east to south-west with a deviation of 205° from the magnetic north. The position of the trench also enabled expansion in any direction during the excavation of any previously unknown structures and burials that might be revealed (as turned out to be the case).

Since the burials were discovered on top of the hill, in 2007 and subsequent seasons we decided to plan the excavation according to the more traditional orientation of the basic lines to the cardinal points. The absence of trees in the selected area also supported this decision. Moreover, the area of the 2006 excavation was included in the new excavation. At the same time, the extreme stake 132/200, whose location was marked with a reinforcing steel rod driven to a sufficient depth, was given the new coordinates 100/200 after the work was finished. These coordinates became the reference coordinates for the entire grid used during the subsequent excavation seasons. In this way, a common system of coordinates was followed at the site. All the structures and burials were brought with maximum precision into correlation with the new excavation grid, so that it was easy to superimpose them in the composite plan of the cemetery.

Excavation II was arranged 8 m to the east of the eastern edge of main excavation I, between two high natural rock formations. Here, on the eastern side of the hill, almost near the westernmost edge of the deciduous forest covering the central part of the Kalmistomäki hill, there was a relatively small flat area of about 40 m² where no large boulders or rocky outcrops were visible. During the investigations, it was supposed that some burials could also be located here. To check this hypothesis, a test excavation covering an area of 12 m² was started here, designated as 77-81/222-225. Graves 75, 78, and 79

were found and excavated in this area.

All measurements were conducted using a total station. The reference point was a point on the surface of the rock in the centre of the area under study. Its absolute altitude was 19.16 m. Thus, all the measurements made both within the excavated area and beyond it show absolute values above sea level (Baltic System of Heights).

Throughout the excavated area, a coordinate grid was marked with squares of 1×1 m in order to draw the plan and record the objects and finds in the layers. The basic axes were indexed as X and Y. The X axis was oriented to the north and its values increased northwards. The Y axis was oriented to the east with values increasing in that direction.

Figure 11.
The stone structure
on top of grave No. 1.
A view from the east.
Photo by S. Belskiy.

A combination of excavation methods was used. Before work was



started, the surface was levelled. Then, after the topsoil was removed, the first horizon was excavated in a similar way as a settlement site. When separate distinctly identified structures and burials were discovered, each was cleared out and recorded as a single object in correspondence with the excavation method used for flat-grave cemeteries. In general, the composition of the archaeological complex was rather complicated, and we therefore decided to follow the method accepted in excavations of multi-component settlements, considering the burials as isolated objects within a single context (cultural layer) in order to trace their 'spatial stratigraphy'.

The stony character of the soil presented additional difficulty during the excavation. In fact, the hill was a moraine rib consisting of loam very rich in gravel and boulders of different sizes. In certain areas, the surface of the bedrock (granite) outcrops was cleared out. Conducting excavations on a surface of this kind, and especially discerning the outlines of any structures, was often rather difficult. However, difficulties were faced also by the ancient inhabitants of this locality who used these heights as a cemetery. Burials were located mostly at a minimum depth, immediately under the overlying stone installations. The latter, in turn, were actually found immediately under the turf.

The character of the soil in excavation II is worth noting. It differed from the soil in excavation I in that it consisted of a larger amount of loam and smaller concentrations of moraine gravel, and there was also a thicker layer of soil on top of the bedrock. Therefore, burials were made here in grave pits deeper than those at excavation I.

Very often the border of the grave pit was difficult to discern on the ancient ground surface because of the extremely stony soil. The graves were therefore initially excavated within the limits of humic spots that could be discerned distinctly enough on the surface. Usually the bones, especially those of the skull, could be seen after the overlying stone structure was cleared and removed. The skeleton, the remains of the coffin (if there was a coffin), and the artefacts were consequently cleared, and then all the bones of the skeleton were removed and the edges of the pit were cleared out down to the bottom level where they could be discerned most distinctly. This technique enabled us to determine, even in soil of this type, the dimensions and depth of the grave pit and to record the skeleton and artefacts correctly.

The burial rite found at the cemetery of Kylälahti Kalmistomäki was extremely standardized. All the burials, with the exception of two, were individual. Under standardized overlying structures constructed of stone blocks of approximately equal dimensions, the graves were located at almost the same depth. They differed only in details: some disturbances that had taken place in the period of functioning of the cemetery and later, the state of preservation, and so on. For that reason, their description is also presented in a standardized way below.

The registration of the finds was carried out square by square and level by level.

Individual finds were recorded in the plan in two dimensions within the excavation squares and provided with levelling marks. Complex objects (accumulations of metal artefacts mixed with organics) were left in their places until completely cleared out. They were recorded and packed up separately. After each horizon was excavated, it was drawn at a scale of 1:20. The drawings of the burials were executed at a scale of 1:10. Each phase of the excavation was photographed with a digital camera. The entire soil from the excavated area was sifted through a sieve with a mesh not greater than 4 mm. For each grave in which the borders of the pit were distinctly expressed, the cross-section of the pit was drawn. After the excavations were completed, the excavated area was backfilled.

During the excavation process, samples of charcoal, bone, and wood were selected for radiocarbon dating. Samples of the wood of the coffins were taken in order to identify the tree species. Soil samples were selected for pollen analysis. Simultaneously with the standard procedures of a field archaeological investigation, the preliminary examination and conservation of skeletal remains were carried out with the goal of further anthropological studies. In order to obtain materials for these studies, the finds were cleaned in the field, recorded, preliminarily preserved, and described. Also preliminary laboratory studies were conducted (identification of sex and age).⁶

After all the work was completed, the iron artefacts, which were especially vulnerable to corrosion, were transferred to a restoration laboratory in order to restore and preserve them.

2.2. Inhumations and cremations

In this publication, the term “grave” is used to mean the unity consisting of an overlying stone installation and the burial itself, including the remains of the interred, the grave pit, traces of the burial containers (coffins or hollowed wooden blocks), and the assemblage of artefacts related to the burial concerned. The identifications of the sex and age of the deceased, presented in the text below, are based on anthropological and osteological observations (see also Хартанович & Широбоков 2012).

The present authors do not use the term “grave offerings” here, as in all the burials, the only finds were details of costume and ornaments (metal objects put immediately on the deceased before interment). At the burials, no archaeological traces of funerary ritual objects could be found: no sacrificial pottery, animal bones, weapons, and so on were found. In addition, in the opinion of the authors, the presence of metal ornaments or costume parts (such as numerous buttons), as well as belt sets, belt pendants, and knives, cannot be considered as attesting to any remnants of “heathen” rites in the burial tradition.

⁶ *Anthropological identifications were carried out by the scientific assistant of the Department of Anthropology of MAE RAS, I. G. Shirobokov.*

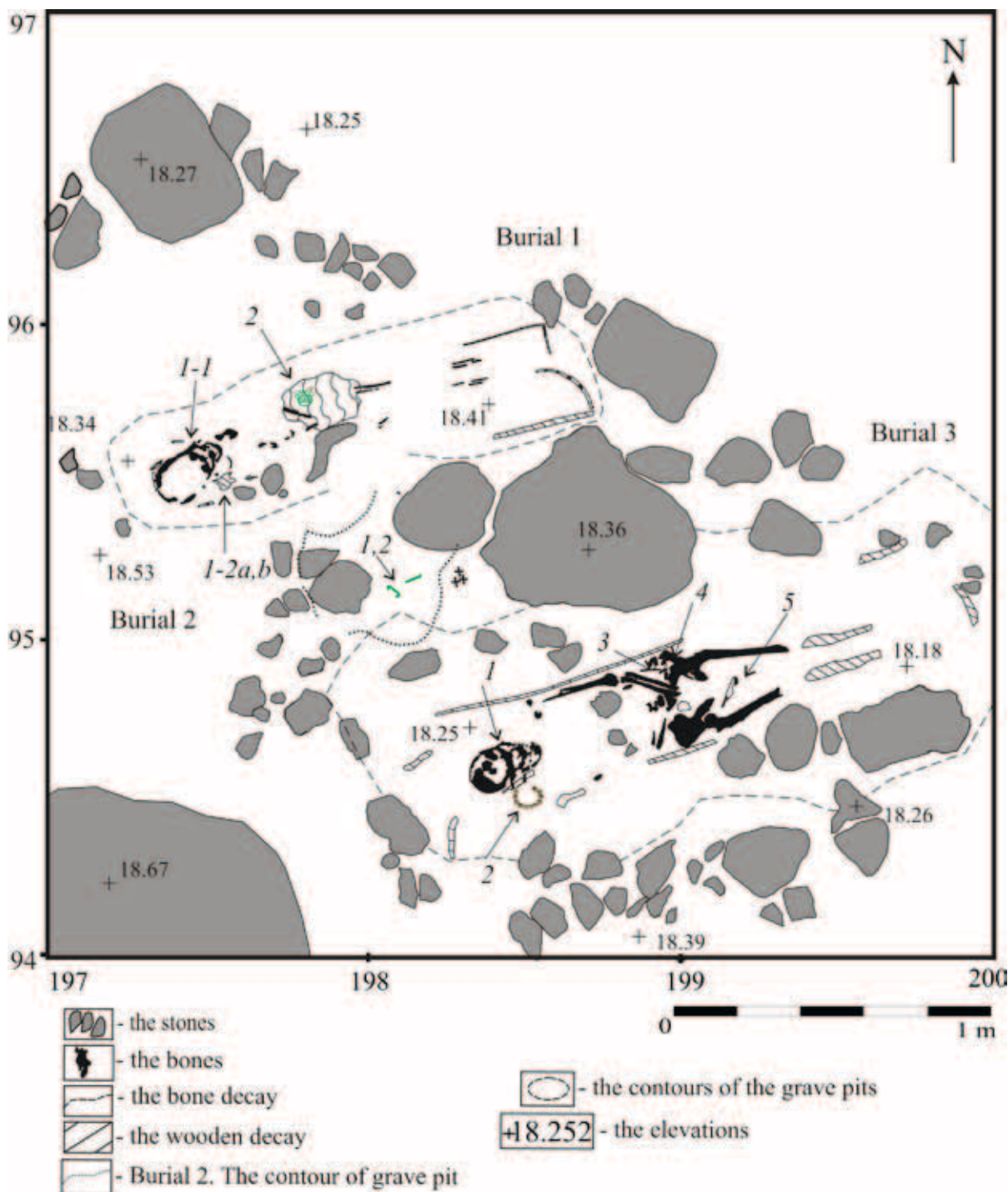


Figure 12.

Graves Nos. 1, 2, and 3. General plan.

Grave No. 1: 1-1, 2a, b – the temple rings/earrings), 2 – the pendant.

Grave No. 2: 1, 2 – the belt fittings (?).

Grave No. 3: 1, 2 – the temple rings/earrings, 3 – the bead, 4 – the finger ring, 5 – the knife.

Drawing, digitizing, and layout by S. Belskiy, D. Gerasimov.

Grave No. 1

(overlying stone structure No. I) (Figs. 11–14)

Overlying stone structure No. I was traced throughout the area of squares 97/198–199, at a level of 18.89 m at the south-western edge and 18.68 m at the north-eastern edge, on top of the hill nearer to its north-western slope (Fig. 12).⁷ This structure was composed of seventeen large (up to 0.45 m long) granite boulders, the upper surface of which, as in most cases at the cemetery, was found immediately beneath the topsoil layer, which was 5–7 cm thick. The boulders were arranged in a single row, forming a closed structure that was oval in plan and directed from west to east (azimuth 270°). It measured 2.05×0.85 m around the external perimeter and 1.37×0.3 m around the inner perimeter. The internal space of the structure was free of stones. At its south-western and north-eastern edges, there were

Figure 13.

Grave No. 1. A view from the north. Photo by S. Belskiy.

large marking boulders.⁸ The internal area of the structure was filled with greyish loam with a considerable mixture of small stones. Although looser, this fill was practically indistinguishable in colour from the deposits outside the fence.



⁷ The absolute heights are presented in the NN system of heights.

⁸ Here and below, we use the term “marking boulders” to mean the larger stone blocks located at the eastern and western edges of the overlying stone structures and marking their locations.

The exact outlines of the grave pit were difficult to discern, since the fill contained numerous moraine boulders, whereas the looser deposits were rather monotonously coloured. Besides, the interment was positioned very close to the modern surface, at a depth of only 0.25 to 0.3 m. However, the reconstructed dimensions of the grave pit, as estimated by the quality of the fill, were about 1.6 m in length (from west to east) and about 0.6 m in width (from north to south).

The deceased was interred in a coffin, as suggested by narrow streaks of decayed wood, not more than 2 cm wide, in the western area of the grave pit and the area beneath the skull over a bronze pectoral pendant and under the bone of the right forearm. The approximate reconstructed width of the coffin was about 0.35 m. It was probably closed with a lid, as traces of wood were recorded on the bronze pendant. Fragments of birch bark were also found on the pendant, suggesting that the body was additionally covered with birch bark.

The skull of the interred (who was probably an adolescent girl 12 or 13 years old at death) was fairly well preserved. The parietal bones were broken through. The occipital, temporal, and frontal bones, as well as the upper and fragmentary lower jaw were partly preserved. The postcranial skeleton was preserved fragmentarily: bones of the right clavicle, parts of the right forearm, and small fragments of vertebrae, femoral, and tibial bones were found. The bones of the feet were missing. Generally, the preservation of the skeletal remains was rather poor. The skeleton was lying in an extended supine position, head to the west. The arms were probably crossed over the stomach.

Assemblage of artefacts

1. On the right and left sides of the skull of the buried person, there were two temple rings or earrings composed of beads with bronze core rods of varying cross-sections: rectangular beads measured 2.5×1.5 mm and round beads 1.5 mm in diameter beyond a bounding mark. One of the terminals of the rod had a hammered quadrangular eye with a hole, whereas the other end was hammered and twisted in the form of a spiral coiled towards the inside of the ring.

Hollow gilded silver beads about 14 mm in diameter were threaded onto the bent rod, each bead soldered from two embossed halves. Of the ring at the left side of the skull, only the core/rod was preserved. Two fragments of the second ring were found to the right of the skull. One of them, retaining a globule, was 0.1 m to the east of the temporal bone, whereas the second fragment, with two silver globules, was found *in situ* near the skull. One fragment of a globule was uncovered near the lower jaw. In addition, a number of small fragments was found near the temporal bone. It seems that all these pieces originated from a single object that was crushed and broken after the interment. Through traces on the rod,

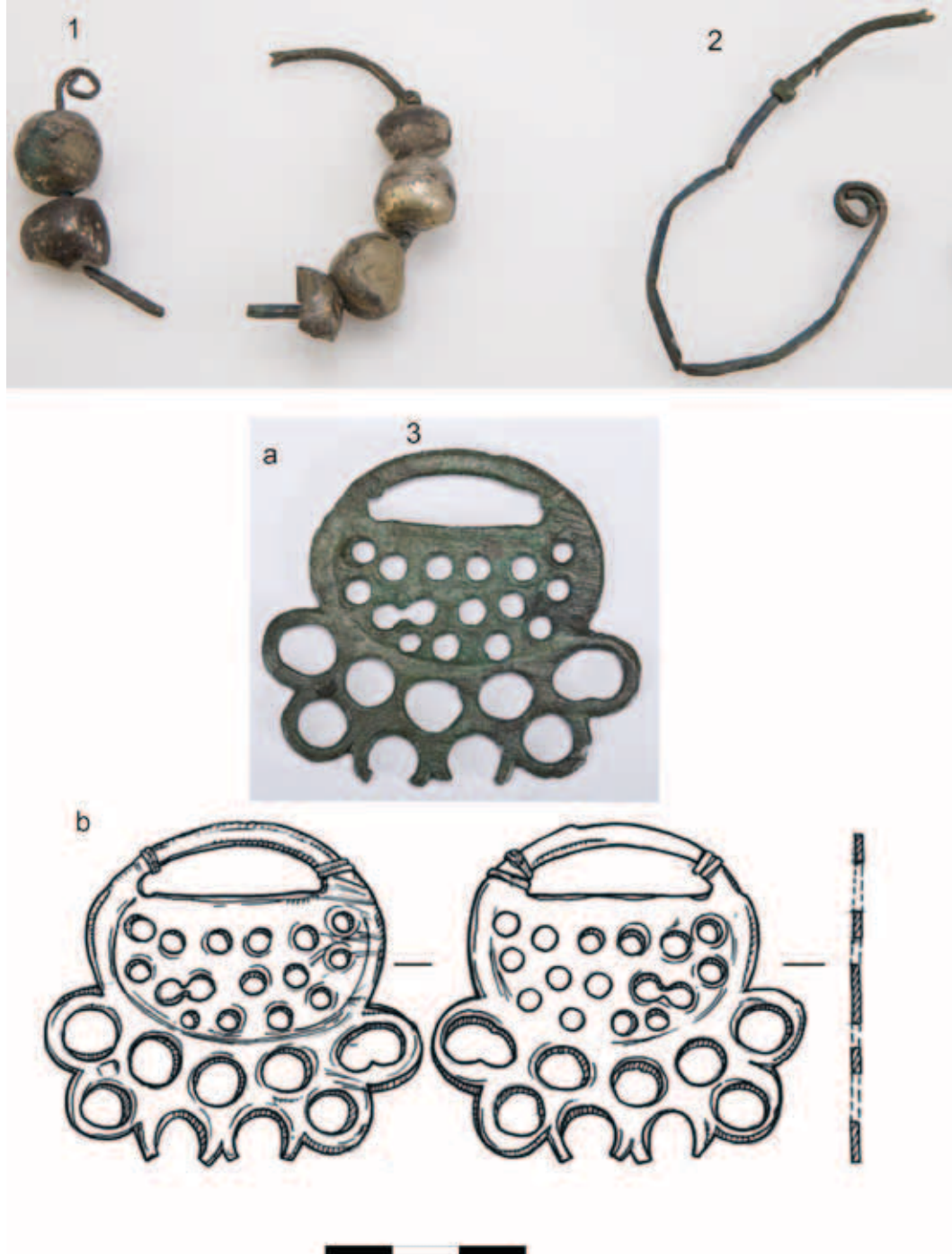


Figure 14.

The finds from grave No. 1.

1 – bronze, silver, gilding, 2, 3a, b – bronze. Photo by S. Shapiro, drawing by A. Masbezerskaya, layout by S. Belskiy.

it proved possible to count the number of beads (seven). Near the fragment of the ring uncovered *in situ*, remains of wood, hair, and organic materials were found, but they could not be identified in field conditions.

2. In the area of the thorax, a large stain measuring 12 × 8 cm was revealed, containing organic materials: birch bark, wood,

textiles, and leather. The birch bark and wood remains covered a large cast bronze pendant.

The outlines of the grave pit could not be clearly discerned. The pit was oval in plan and elongated from west to east. The dimensions were 1.7 m from west to east and 0.6 m from north to south. The maximum depth of the pit from the level of the modern surface was 0.35 m. Its bottom was flat.

Grave No. 2

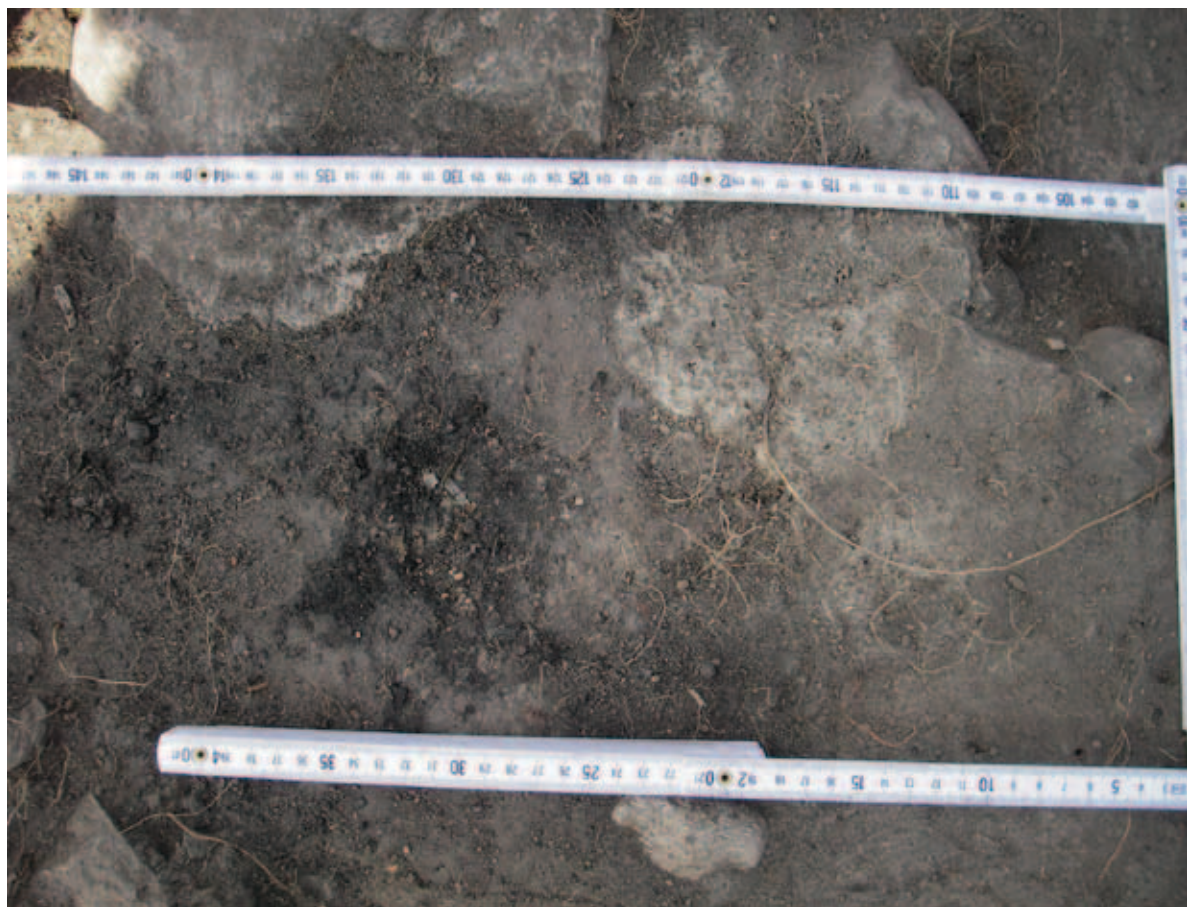
(Figs. 15–16)

Burial No. 2, with the remains cremated elsewhere, was excavated in square 95/199, between overlying stone structures Nos. I and III. It was seen at a depth of about 0.2 m beneath the present-day surface as a stain of intensively black sand with charcoal inclusions mixed with calcined bones, the largest of which were 2–3 cm long. This structure was irregular in plan, measuring 0.36×0.48 m; its borders could not be identified clearly.

In the eastern and south-eastern areas, it was covered with large stones, which made up part of the structure above burial No. 1.

Figure 15.

Grave No. 2. A view from the south. Photo by S. Belskiy.



Thus, field observations suggested that interment in grave No. 2 took place earlier than burial No. 1. Excavation of the structure showed that it was up to 6 cm thick. In order to define its shape, a cross-section was recorded. The bottom of the pit was rounded; no clear outlines could be identified. The approximate dimensions of the pit were 0.4 m from north to south and 0.53 m from west to east.

The calcined bones could have been put into a small hollow, in which they were disturbed during subsequent interments. In approximately the central area of the grave pit,

Figure 16.

The finds from grave

No. 2. 1–2 – bronze.

Photo by S. Shapiro.

two bronze artefacts were recovered in the form of pieces of thin wire (less than 2 mm in cross-section) about 4 cm long each and bent at the ends. It is difficult to identify these objects reliably, but most probably they were elements of a belt.





Grave No. 3

(overlying stone structure No. II) (Figs. 17–18)

Overlying stone structure No. II was discovered 0.3–0.6 m south of the southern edge of structure No. 1 and parallel to it, at a level of 18.76 m at the south-western edge and 18.66 m at the north-eastern edge. This structure extended from west to east (azimuth 285°) and was constructed of one row of ten large boulders (the largest, situated at the western edge, measuring 0.5 × 0.4 × 0.2 m). It was oval in plan and measured 2.4 m from west to east. Its maximum width was 1 m across the outer diameter and 0.4 m across the internal diameter. The internal space was free of large boulders. Originally it was probably a closed structure like overlying stone structure No. I, but later its southern wall was destroyed, perhaps during subsequent interments nearby.

The grave pit was fairly large: 2.2 m long from west to east and 0.79–0.88 m wide from north to south. Its boundaries were not straight because it was dug into stony soil.

The very poorly preserved remains of a coffin were traced only as rotten wood throughout isolated areas. The best preserved part was a wall of the coffin on the left side of the skeleton, where it was uncovered to the length of 0.8 m and was no thicker than 2 cm. It was oriented from west to east along the dead body (azimuth 270°). In addition, remains of the coffin in the form of short and narrow bands of rotten wood were recorded in the eastern area to the right of the skeleton and in the western section of the grave pit. The reconstructed dimensions of the coffin were thus 1.76 m in length and 0.27 m in width at the eastern edge, 0.31 m in the centre, and 0.41 m in the western section. The coffin may have been trapezoidal in plan. It could also have been closed with a lid, since remains of wood were recorded to the right of the skull, partly covering it; in addition, rotten wood

Figure 17.

Grave No. 3. A view from the south. Photo by S. Belskiy.



Figure 18.

The finds from grave No. 3.

1–2 – bronze, silver, gilding, 3 – silver, 4 – silver, 5 – iron. Photo by S.

Shapiro, drawing by A. Mashezerskaya, layout by S. Belskiy.

was found on a separately lying temple ring/earring.

The skeletal remains of the deceased (probably a young woman aged 20–23) were rather well preserved given the existing soil conditions. Most of the cranial bones were found, as well as the pelvic and femoral bones. The remains of the shoulder and forearm were preserved only fragmentarily, and the tibiae and fibulae, as well as the bones of the feet, have not survived. The skeleton was lying in an extended supine position, head to the west, hands crossed on the stomach.

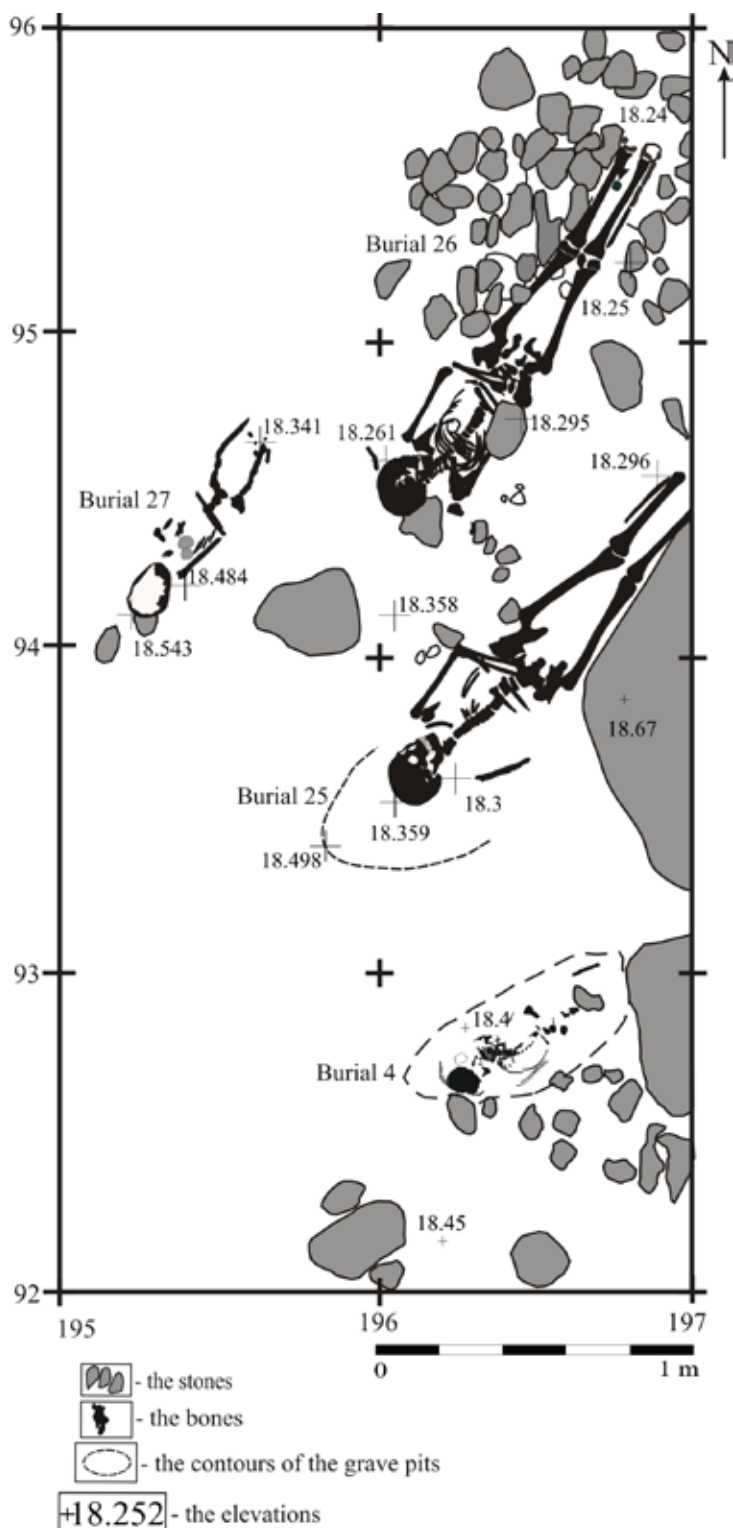
Assemblage of artefacts

1. On the right side of the skull, a complete temple ring was found, similar to the one recorded in burial No. 1 but of a different size, with eleven hollow gilded silver beads threaded onto a bronze core. The core/rod was rectangular in section, measuring 3×2 mm.
2. Part of a second, almost identical, temple ring was uncovered on the left side, but it was almost entirely under the skull. However, there were only ten silver beads on the second ring. On and near the ring, fragments of organics were preserved: wood, hair, and possibly textiles. The diameter of the two rings was 78 mm and the diameter of the beads was 17 mm.
3. At the pelvis, a separately lying complete hollow bead was found, similar to the ones threaded onto the temple rings. Its position first seemed inexplicable, but later in the laboratory, the second temple ring from the left side of the skull was cleaned, revealing that it had only 10 beads and that one of the ends of the bronze wire was broken off. At first we assumed that during interment or, possibly, transportation to the grave, this temple ring had broken and one of its beads was displaced into the pelvic area. This could have taken place before the coffin was destroyed and filled with soil. However, further investigations at the cemetery revealed a separately lying silver bead among other artefacts at the thorax or pelvis in many graves. This type of bead had probably been used as a button.
4. A silver bezelled ring braided of many pieces of wire was also found in the area of the pelvis. It was put on a finger of the right hand (the finger bones were partly preserved inside the ring).
5. An iron knife in a wooden sheath was found between the femoral bones. The total length of the object was 11.1 cm, the length of the blade was 7 cm, the maximum width was 1.2 cm, and the thickness was 0.3 cm. The sheath was very poorly preserved, and in fact only decayed wood dust could be discerned.

Figure 19.
Graves Nos. 4, 25, 26, and
27. General plan. Drawing,
digitizing, and layout by S.
Belskiy, D. Gerasimov.

Grave No. 4 (Fig. 19)

Grave No. 4 was found in square 92-93/196 at a level of 18.5 m as a distinct stain of dark humic loam with an admixture of small pieces of stone. The stain measured 0.76 m from west to east and 0.34 m from north to south. During its excavation, a skeleton belonging to a child aged 5–7 years was found at a level of 18.4 m. The deceased was buried in a supine position, head oriented westwards (azimuth 262°). The burial was in a grave pit measuring approximately 0.9 m in from west to east and 0.3 m from north to south. The depth was about 0.3 m from the modern surface.



The outlines and the shape of the grave pit were rather indistinct.

The interred child was literally squeezed into a short and narrow pit so that the bones of the pelvis and the cervical column turned towards the chest. The child may have been buried with legs bent and arms extended along the body. The skeletal remains were fairly well preserved. No artefacts were found in the grave.

Grave No. 5

(possible overlying stone structure No. III)

In square 92-93/196, at a depth of 0.25–0.3 m from the modern surface, a structure made of small, fairly densely adjoining stones (up 0.3 m) was found. This structure, when completely cleared of soil, was irregular in outline, but undoubtedly of artificial origin. Its dimensions were 2.1 m from north to south and 1.2 m from west to east.

Immediately under this structure, the top of the grave pit could be seen as an elongated stain of dark humic loam, measuring 1.3 m from west to east and 0.3 m from north to south. Under this stain, at a level of 18.3 m, was the burial of a child aged 7–9 years in a grave pit measuring approximately 1.4 m from west to east and 0.35 m from north to south. In the central area of the grave pit, as well as at the feet of the deceased, partly covering the bones, were the remains of a coffin made of thin boards. In the area of the knee joints, the tibias and femoral bones were slightly raised above the other skeletal remains, since they were lying upon a stone, the top of which was 3–4 cm higher than the bottom of the grave. The bottom was found at a level of 0.4 m from the level of the modern surface.

The deceased was interred in the extended supine position, head to the south-west (azimuth 241°) and hands crossed on the belly. The bones were fairly well preserved, especially the skull and the bones of the extremities.

No artefacts related to the burial were found.

Grave No. 6

On the south-eastern slope of the Kalmistomäki hill, in square 90/196, at a depth ranging from 18.0 to 18.1 m, a continuous horizontal structure of small stones (up to 0.2 m) was uncovered. It was round in plan and about 0.6 m in diameter. In its central part, there was a hardly discernible depression.

After the structure was recorded and removed, a strongly disturbed grave pit was

found under it, measuring approximately 0.45 m from north to south and 0.55 m from west to east. The pit was filled with loam containing small amounts of humus and mixed with yellowish moraine sand. The pit itself was dug to a depth of 0.15 m in yellowish, coarse-grained moraine soil abundant in pieces of stone. In its western section, the remains of a cranium of a child of unidentifiable age were found. No other bones or any artefacts were found.

Grave No. 7

(overlying stone structure No. IV) (Figs. 20–22)

Overlying stone structure No. IV was excavated in squares 91/201-202 and 92/202. It was a single row of twelve large (length up to 0.6 m) granite boulders forming a closed oval structure, oriented approximately from west to east

Figure 20.
Graves Nos. 7, 8, and
30. A view from the east.
Photo by S. Belskiy.



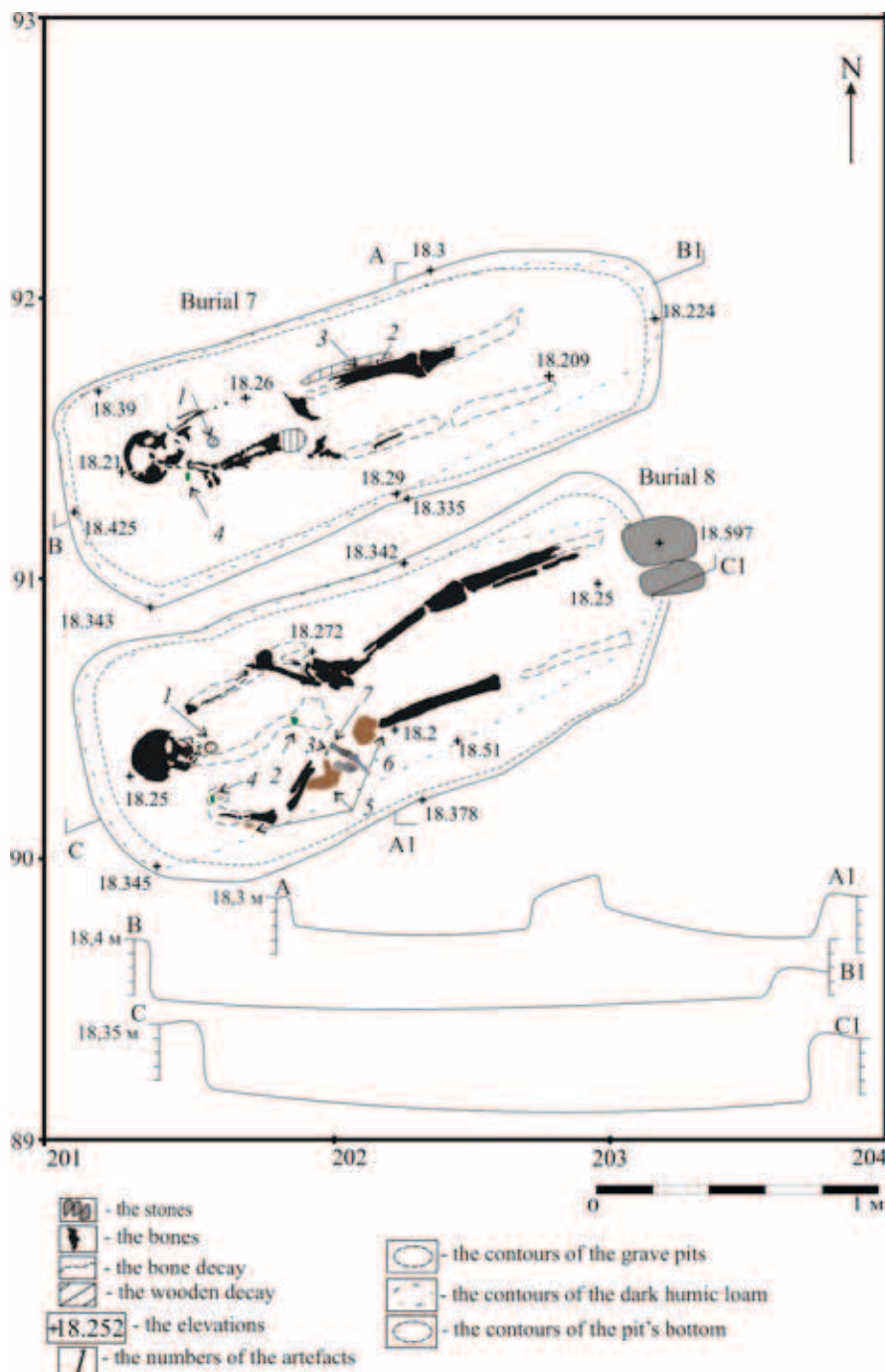


Figure 21.
Graves Nos. 7 and
8. General plan.

Grave No. 7:
1 – the brooch,
2 – the bead,
3 – the knife,
4 – the spirals.

Grave No. 8:
1 – the brooch,
2 – the button,
3, 4 – the spirals,
5 – the belt fittings,
6 – the rivet (?),
7 – the knife with
fragments of the
handle.

Drawing, digitiz-
ing, and layout by
S. Belskiy.

(azimuth 247°), with the maximum dimensions of 3 × 1 m around the outer perimeter and 2 × 0.5 m around the inner perimeter. The area inside the structure was free from stones and filled with greyish moraine loam containing a large amount of small stones. This fill was almost indistinguishable in colour from the deposits outside the structure. However,

the soil inside the structure was looser. At the eastern edge (correspondingly at the feet of the interred), the largest boulder was installed, the top of which was at a level of 18.68 m. At the western edge, a rocky outcrop, located roughly in the centre of the cemetery area, served as another marking block.

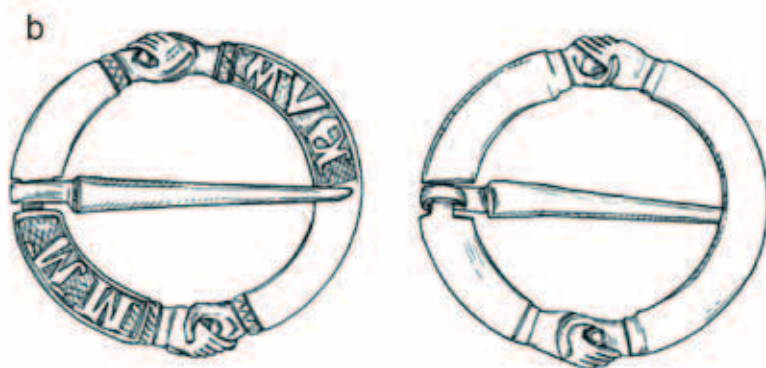
The finds from the fill of the internal space of the structure proved to be rather noteworthy. In square 91/201, in the western part of the overlying stone structure and at a depth of 18.71 m, that is, practically immediately beneath the turf, small fragments of a limestone cross (see Fig. 143) were found. They belonged to the same artefact whose first fragment was found in 2006 at the opposite side of the natural rock formation (Шахнович & Бельский 2009: 177–186). In addition, two small fragments of the same cross were found practically directly beneath the turf in square 91/201, at the depths of 18.73 m and 18.66 m, in the space between overlying stone structures Nos. IV and V.

The top of the grave pit was recorded at a level of 18.37 m. The pit could be distinguished as an oval stain of darkish-grey loam measuring approximately 2.2 m from west to east and 0.44 m from north to south.

After the boulders composing overlying stone structure No. IV were removed and the surface of the grave pit was cleared, the remains of a coffin were uncovered in the form of poorly discernible narrow streaks of rotten wood or simply humus, which differed from the surrounding soil only in colour. The best preserved part was a streak of rotten wood about 0.65 m long and less than 6 cm wide to the left of the skeleton along the left femur of the interred. This streak was recorded at a level of 18.26 m. A stain of rotten wood over the lower part of the cervical column was also clearly discernible. This latter stain evidently originated from the remains of the coffin cover. Thus, the reconstructed dimensions of the coffin were 1.8 m in length and about 0.4 m in width. Judging by the recordable configuration of the walls, the coffin was a regular quadrangle in shape.

The skeleton was very poorly preserved and lay in anatomical order in an extended supine position with the head oriented to the south-west (azimuth 242°). The skull was on the left side. It was cleared at a level of 18.21 m (the base). The tibiae were found at a level of 18.2 m, that is, immediately beneath the stones composing the overlying stone structure. The individual interred was a male aged 45–55 years at the moment of death. The skull was poorly preserved: the detachment of the compacta (dense bone crust) could be discerned, and the right parietal bone and the right eye socket were destroyed. In addition, the lifetime loss of all molars was recorded.

*Figure 22 (on right).
The finds from grave No. 7:
1 – silver, gilding, 2 – silver,
3 – iron, 4 – bronze, textile.
Photo by S. Shapiro, drawing
by A. Mashezerskaya, layout
by S. Belskiy.*



6 cm

1. A ring-shaped gilded silver plate brooch with the arches connected to each other by a decorative motif in the form of a handclasp was found at the cervical spine. The brooch was oval in plan with a maximum diameter of 4 cm and a minimum diameter of 3.7 cm. The width of the arcs was 0.6 cm and the maximum width of the pin was 0.4 cm.

On the external side of one arc half, the Latin letters “AVE” are embossed (?), on the other side, there are the letters “MA” (?) opposite to the former. The “hands” of the motif are shown with “cuffs” in the form of narrow quadrangles with a pattern of a single broken line inside them.

On the object, traces of wood were preserved, evidently from the lid of the coffin, since the direction of the fibres corresponded to the general orientation of the grave. Under the brooch, a dark stain of humus (possibly the remains of clothing) was detected.

2. A small (less than 1 cm in diameter) globular silver bead was found near the proximal end of the left femoral bone of the interred, at a level of 18.26 m. Also small fragments of wood were preserved on the bead.

3. Near the bead, to the left of the left femoral bone, was found an iron knife inside a stain of dark humus (remains of the sheath?).

The total length of the object was 15.2 cm. The length of the blade was 8.5 cm, its maximum width was 2.3 cm, and its thickness was 0.5 cm. The hilt was not preserved except for the upper and lower ferrules. The lower one was 2.3 cm in diameter, the upper one was 2.7 cm. In the course of conservation, fragments of leather from the sheath were detected along the entire length of the knife. On the internal surface of the lower ferrule, there were wood fragments from the hilt, and on the external surface there were fragments of leather from the sheath. On the ferrule itself, a design of impressed bands was discernible. The upper ferrule was covered by the remains of adhering textile impregnated with iron salts, and, possibly, remains of leather. Inside the fixture, fragments of the wooden hilt were preserved. On the tip of the blade there were imprints of black organics, possibly from the completely decayed remains of the leather sheath.

4. In the area of the skull, four small bronze spirals attached to each other with some dense organic substance (textile?) were found. They appeared to be the remains of an ornament sewn onto the clothes of the interred.

The maximum length of the grave pit was 2.2 m and its width was 0.76 m. The maximum depth was 0.22 m from the level of the ancient surface, on which overlying stone structure No. IV was built, and 0.45 m from the level of the modern surface.



Grave No. 8

(overlying stone structure No. V) (Figs. 20–21, 23–25)

Overlying stone structure No. V was excavated in squares 90/201–203 at a level of 18.6 m. It was a single row of twelve large (from 0.3 to 0.5 m in length) granite boulders. The boulders formed a closed structure oval in plan and oriented approximately from south-west to north-east (azimuth 246°). Its maximum dimensions around the outer perimeter were 2.3 × 0.95 m and around the inner perimeter 1.9 × 0.38 m. The internal area of the structure was free of stones and filled with greyish moraine loam with an abundant admixture of small stones, especially at the western edge.

The top of the grave pit was uncovered at a level of 18.35 m. The pit had the same orientation as the overlying stone structure. It was recognizable as an oval stain of darkish-grey loam measuring roughly 1.6 m from south-west to north-east and 0.5 m from north-west to south-east. In the eastern section, it was impossible to define the outlines of the grave pit exactly because of the numerous stones in the fill of the grave.

The remains of the coffin were preserved only in the eastern area of the grave pit as very poorly discernible streaks of rotten wood. It was impossible to reconstruct its length, but its width was about 0.35 m, at least in the eastern part (in the area of the feet). The coffin was closed with a lid, since traces of wood were recognizable also upon the ulnar bone of the interred woman.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 246°). The skeletal remains were uncovered at a level of 18.25 m. The skull was on the

Figure 23.

Grave No. 8. A view from the north-east.

Photo by S. Belskiy.

left side, the bones of the left hand were on the pelvic bones, and those of the right hand at the waist. The ribs, hand bones (except for two phalanxes), and bones of the feet were not preserved. The skull was preserved fragmentarily: the top of the cranium with the frontal bone, a fragment of the upper jaw, and the lower jaw in two fragments were found. The individual interred was a woman who died at the age of 25–35 years.

Assemblage of artefacts

1. At the cervical spine, at a level of 18.22 m, there was a ring brooch of gilded silver with 21 cones of filigree and globules of granulated work between them. The diameter of the object is 7 cm.

2. In the pelvic area, a bronze globular button with a loop was found, 2 cm in diameter.

3. Small bronze spirals:

a) Bronze spirals, 1.8 cm long and 0.5 cm wide, were retrieved from the proximal end of the right humerus. On them, three threads (red, yellow, and green) of a textile were preserved. Beneath them was a dark stain of organics, probably remains of birch bark and the bottom of the wooden coffin.

b) A similar object composed of 5 parallel bronze spirals coiled from tubes 1.7 cm long and 0.3–0.4 cm in diameter. These were found under the right forearm bones. Inside the spirals, textile remains were preserved.

4. Groups of iron objects (at a level of 18.29–18.3 m):⁹

a) To the right of the skeleton, between the bones of the forearm and pelvic area, there was an accumulation of iron artefacts measuring mostly 1–2 × 3 cm.

b) To the east of the right forearm, a round stain rich in organics was uncovered, possibly a piece of birch bark (measuring 8 × 6 cm). Beneath the stain there was an accumulation of iron artefacts. Among the latter, two plaques measuring 5 × 2.5 cm were notable.

c) Between the accumulation of iron objects near the right forearm, described above, and the knife blade, described below, another small accumulation of iron artefacts covered with birch bark was found.

Figure 24 (on right).

The finds from grave No. 8, part 1/2: 1 – silver, gilding, 2 – bronze, 3–4 – bronze, textile, 5 – bronze, 6 – iron, wood. Photo by S. Shapiro, drawing by A. Mashezerskaya, layout by S. Belskiy.

⁹ For a detailed description of the belt mounts after their conservation, see Chapter III.

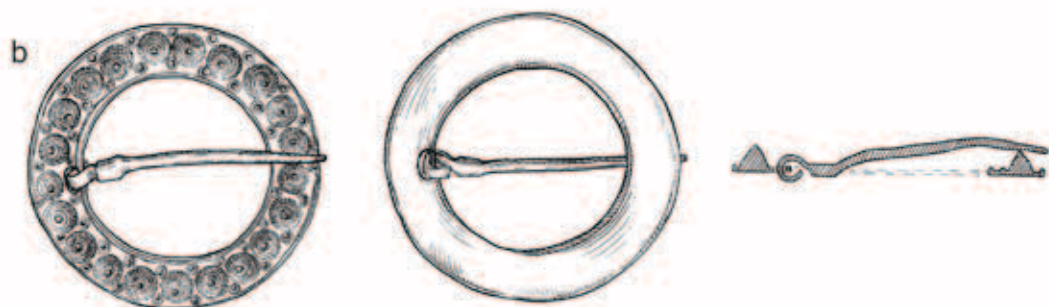




Figure 25 (on left).

*The finds from grave No. 8,
part 2/2: 1–15 – iron, silver.*

*Photo by S. Shapiro, layout
by S. Belskiy.*

d) Another accumulation of iron artefacts partly covered the proximal end of the right femoral bone. Among these objects there were two round objects and a strongly mineralized fragment of textile. In addition, near the right humerus there was a somewhat larger iron artefact (belt tip), under which

also a fragment of textile was detected.

Already during the field studies, it became clear that all these accumulations of iron artefacts of various shapes were parts of a belt set. However it was strange that the belt was stretched along the right side along the body of the interred woman rather than put on her.

5. A small bronze rivet (1 × 1 cm) was retrieved from the area near the southern edge of the grave pit. This object could also be related to the assemblage of belt mounts in the burial in question.

6. Near the bones of the right forearm, an iron knife with remains of the hilt was found. Fragments of birch bark were recorded on top of the knife. They did not belong to the presumable sheath of the knife because they covered a larger area and the direction of their fibres was not the same as the direction of the knife itself. These fragments of birch bark, unrelated to the artefacts, may provide indication that the body of the dead woman was covered by or wrapped in birch bark.

The total length of the knife was 14.1 cm. The length of the blade was 8.8 cm, its maximum width was 1.9 cm, and its thickness was 0.7 cm. The upper and lower ferrules of the hilt were also preserved. After conservation, greenish oxides could be discerned on the inner side of the upper ferrule. They may be traces of a copper alloy used as solder. On the external surface of the upper ferrule, a fragment of strongly mineralized textile was preserved. In addition, several fragments of a wooden hilt were found nearby.

The maximum length of the grave pit was 2.2 m and its width was 0.86 m. The maximum depth was 0.17 m from the level of the ancient surface, on which overlying stone structure No. V was built, and 0.5 m from the level of the modern surface.

Grave No. 9

(overlying stone structure No. VI) (Figs. 26–27)

Overlying stone structure No. VI was revealed in square 89/201–202, to the south of structures Nos. 4 and 5 described above, at a level of 18.89–18.82 m. It was a stone structure of similar type, only slightly smaller in dimensions: 1.92 × 0.92 m around the external perimeter and 1.2 × 0.46 m around the internal perimeter. It was oriented approximately from

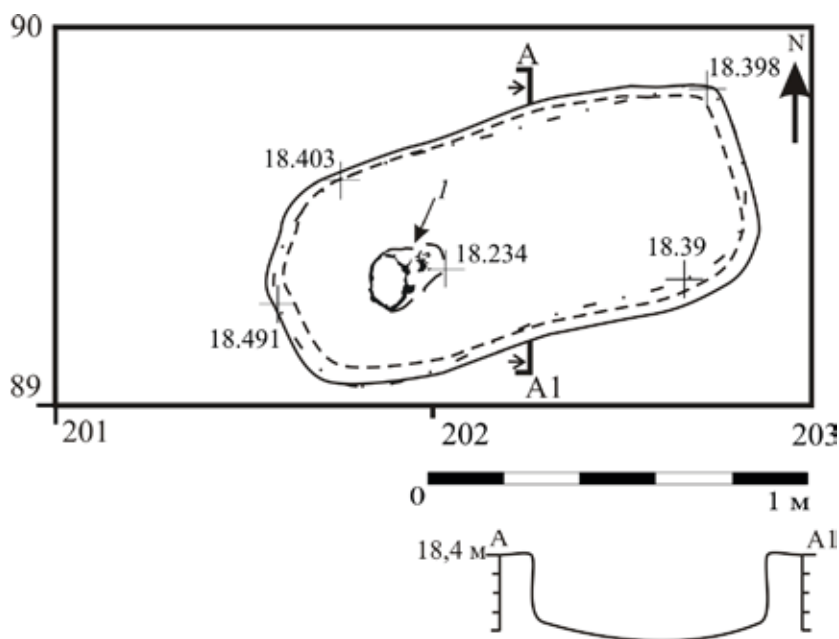


Figure 26.
Grave No. 9. General plan.
1 – the earring. Drawing,
digitizing, and layout by S.
Belskiy.

18.35 m at the eastern edge. It was oriented in the same direction as the overlying stone structure and could be seen as an oval stain of darkish-grey loam measuring approximately 1.14 m from south-west to north-east and 0.46 m from north-west to south-east. No remains of a coffin were traceable.

The postcranial skeletal remains were not preserved. In the south-western area of the burial, at a level of 18.23 m, a poorly preserved skull facing north-east and 7 cervical vertebrae were found. The top of the cranium was not preserved. The interred was possibly a child about 5 years old at death.

Burial artefact

To the right of the lower jaw, 6 cm from its fragments, there was a fragment of a miniature penannular earring made from a bent silver plate. No other artefacts were found in the burial.

The maximum length of the grave pit was 1.25 m and its width was 0.6 m. The maximum depth was 0.12 m from the level of the ancient surface, on which overlying stone structure No. VI was built, and 0.55 m from the level of the modern surface.

south-west to north-east (azimuth 239°). The structure was composed of 16 boulders measuring from 0.2 to 0.54 m. The largest boulders, with the maximum lengths of 0.44 and 0.54 m, were located at the western and eastern edges of the structure.

The top of the grave pit was recorded at a level of 18.47 m at the western edge and

*Figure 27.
The fragment
of the earring
from grave No.
9. Photo by S.
Shapiro.*



Grave No. 10

(overlying stone structure No. X) (Figs. 28–29)

In squares 85/205–206 and 86/206, at a level of 18.68 m, an overlying stone structure of the grave was revealed, similar to the ones described above. It was rather small: 1.42×0.6 m around the external perimeter and 0.8×0.4 m around the internal perimeter. It was composed of seven boulders, and the northern wall was partly destroyed, possibly during the building of the neighbouring structure, No. 11. The marking blocks at the western and eastern edges were the largest: the maximum lengths were 0.32 m and 0.26 m. Overlying stone structure No. X was oriented from south-west to north-east (azimuth 241°).

The top of the grave pit was recorded at a level of 18.34 m. It had the same orientation as the overlying stone structure and could be seen as an oval stain of darkish-grey loam measuring approximately 1.1 m from south-west to north-east and 0.46 m from north-west to south-east. During the excavation of the burial, the remains of a coffin were



Figure 28.

The stone structures on top of graves Nos. 10 and 11. A view from the south. Photo by S. Belskiy.

found at a level of 18.2 m as stains of rotten wood on the skull and in the central area of the grave pit. The coffin was closed with a lid, as rotten wood was recorded on top of some of the bones of the deceased.

The skeleton was poorly preserved and arranged in anatomical order, in an extended supine position with its head to the south-west (azimuth 245°). It was found at a level of 18.18 m. The feet and hand bones were not preserved (except for the right humerus). The cranium with the lower jaw also was poorly preserved: the facial bones and the frontal bone were detached from the other parts of the skull, the compacta (the compact surfaces of the bone) was peeled off, and the right eye socket and part of the upper jaw were destroyed. The interred was probably a child aged 7–9 years at death.

No artefacts were found in the burial.

The maximum length of the grave pit was 1.2 m and its width was 0.5 m. The maximum depth was 0.16 m from the level of the ancient surface, on which overlying stone structure No. X was built, and 0.47 m from the level of the modern surface.

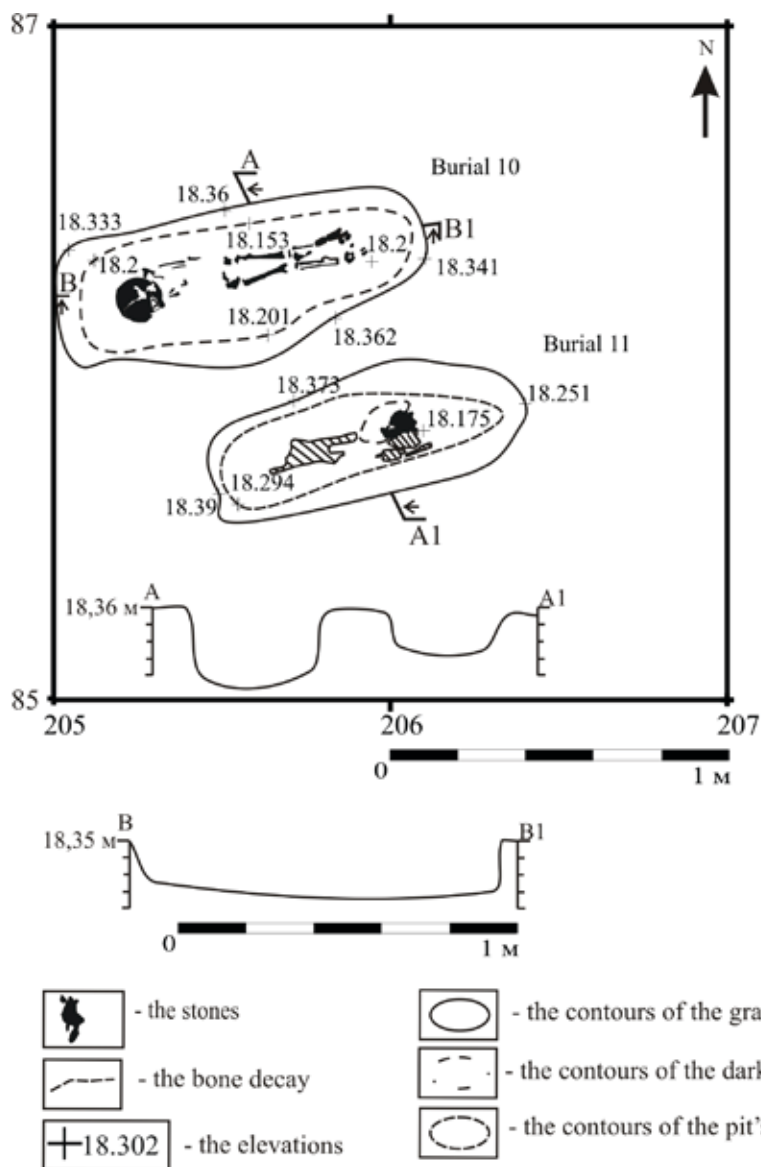


Figure 29.
Graves Nos. 10 and 11.
General plan. Drawing,
digitizing, and layout by
S. Belskiy.

Grave No. 11

(overlying stone structure No. XI) (Figs. 28–29)

In squares 85/205–206, south of overlying stone structure No. X at a level of 18.66 m, an overlying stone structure of boulders was revealed, similar in plan and dimensions to the structure described immediately above. The two structures were contiguous with each other and built over child burials. The dimensions of overlying stone structure No. XI were 1.22×0.74 m around the external perimeter and 0.67×0.3 m around the internal perimeter. It was constructed of ten boulders. The largest blocks were at the western and eastern edges, and their maximum lengths were 0.27 m and 0.66 m. Overlying stone structure No. XI was oriented from south-west to north-east, parallel to structure No. X (azimuth 242°).

The top of the grave pit was recorded at a level of 18.4 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam, measuring approximately 1 m from south-west to north-east and 0.4 m from north-west to south-east. In the course of the excavation, at a level of 18.25 m, the remains of a coffin were found in the form of stains of rotten wood to the right of the skull and in the centre of the grave. The coffin was closed with a lid, as rotten wood was recorded over some bones of the interred. The reconstructed dimensions of the coffin were 0.54×0.13 m.

In the centre of the grave, a fragment of the upper jaw was found, and further to the east there were unidentifiable fragments of the cranium, fragments of temporal bones and the lower jaw, two ribs, and fragments of poorly preserved scapulae, all of which seemed to be the traces of a disturbed burial (possibly by rodents?). It is worth noting that the skull was located near the eastern edge of the grave pit. The interred was a baby aged less than one year.

No artefacts were found in the burial.

The maximum length of the grave pit was 1 m and its width was 0.45 m. The maximum depth was 0.16 m from the level of the ancient surface, on which overlying stone structure No. XI was built, and 0.35 m from the level of the modern surface.

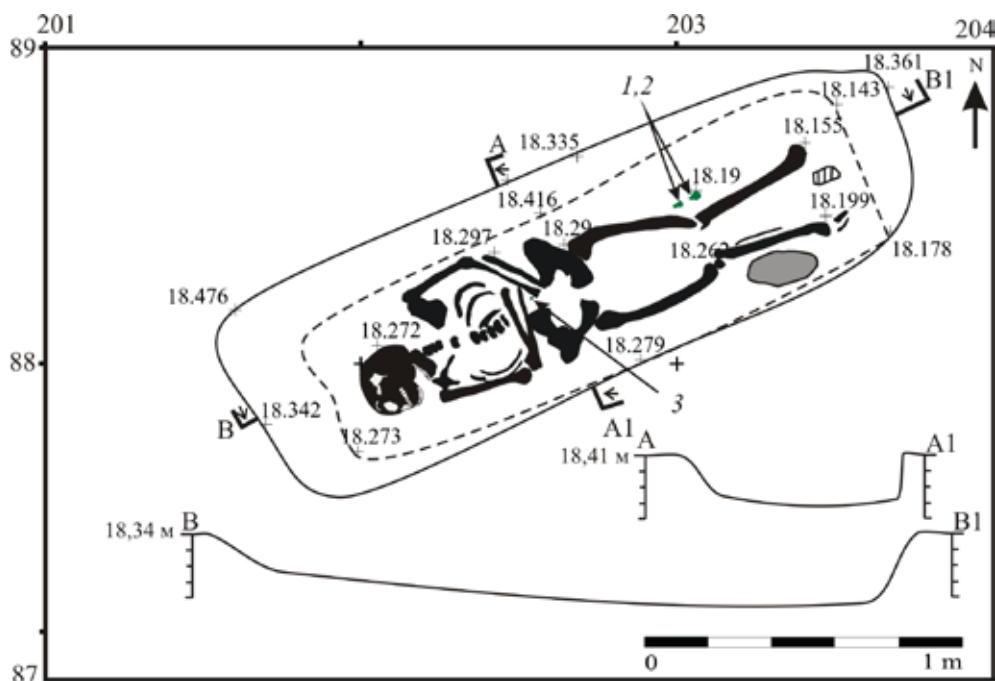
Grave No. 12

(overlying stone structure No. IX) (Figs. 30–31)

Overlying stone structure No. IX was revealed in squares 87-88/201 and 88/202, to the south of overlying stone structures Nos. V and VI, at a level of 18.64 m at the eastern edge and 18.74 m at the western edge. It was a stone structure similar to those described above, only of slightly larger dimensions: its size was approximately 2.76×1.74 m around the external perimeter and approximately 2.65×0.9 m around the internal perimeter. It was parallel to the structures mentioned above, as it was also oriented from south-west to north-east (azimuth 236°). The north-eastern edge of the structure appeared to have been disturbed during the construction of adjoining structure No. 7 (see below), and it is therefore impossible to discern its exact dimensions. It is clear that the structure in question was built sometime earlier than structure No. 7.

Overlying stone structure No. IX was composed of 20 boulders with a maximum length varying from 0.2 to 0.4 m. No particularly large boulders were recorded at the eastern and western edges, although at the eastern edge, a large block was possibly installed later for marking the south-western edge of overlying stone structure No. VII.

The top of the grave pit was recorded at a level of 18.43 m at the south-western



edge and 18.12 m at the north-eastern edge. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring approximately 1.97 m from south-west to north-east and 0.8 m from north-west to south-east. The remains of the coffin were preserved only as a small (about 0.16 m long) fragment of rotten wood in the north-eastern section of the grave pit, at a level of 18.19 m, between the left and right tibiae of the interred.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 236°), at a level of 18.29 m (skull) and 18.19 m (the area of the feet). The individual interred was a male aged 30–35 years at death. The skull was on the left side, the bones of the right hand were on the pelvic bones, and the bones of the left hand were on the waist. The left patella, left calf bone, and the bones of the left foot, as well as those of the hands, were not preserved, except for some fragments of the bones of the left hand (in it, a silver bead was found, which may have helped preserve these fragments). The skull with the lower jaw was poorly preserved: the bone compacta had peeled off, the left parietal and occipital bones were detached (preserved fragmentarily), and the frontal bone was partly fractured.

Figure 30.
Grave No. 12. General plan.
Drawing, digitizing, and layout
by S. Belskiy.
1, 2 – the pendants, 3 – the bead.



Assemblage of artefacts

Figure 31.

***The finds from grave No. 12:
1, 2 – bronze, 3 – silver. Photo
by S. Shapiro, layout by S.
Belskiy.***

1. In the area of the distal end of the left femoral bone and the knee, at a level of 18.19 m, two bronze “bell” pendants were found, marked as Nos. 1 and 2. Inside one of the specimens, remains of a braided cord were preserved.

2. Among the bones of the left hand there was a smooth silver bead.

The maximum length of the grave pit was 2.2 m and its width was 0.7 m. The maximum depth was 0.21 m from the level of the ancient surface, on which overlying stone structure No. IX was built, and 0.5 m from the level of the modern surface.

Grave No. 13

(overlying stone structure No. VII) (Figs. 32–35)

Overlying stone structure No. VII was revealed in squares 89/203–204 and 90/204, at a level of 18.88 m at the south-western edge and 18.69 m at the north-eastern edge. It was a stone structure similar to the ones described above and measuring 2.74×1.03 m around the external perimeter and 1.8×0.54 m around the internal perimeter. It was oriented from south-west to north-east (azimuth 231°). Its south-western edge joined the north-eastern edge of overlying stone structure No. IX. Structure No. VII was composed of 12 boulders with a maximum length varying from 0.20 m to 0.57 m. The largest boulders,



with the maximum lengths of 0.3 and 0.57 m respectively, were located at the south-western and north-eastern edges of the structure.

The top of the grave pit was recorded at a level of 18.21 m at south-western edge and 18.14 m at the north-eastern edge. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring approximately 2 m from south-west to north-east and 0.7 m from north-west to south-east.

The remains of the coffin, in the form of narrow streaks of rotten wood 0.5 m long and 5 cm thick, were recorded in the south-western section of the grave pit near the skull of the interred woman at a level of 18.2 m and along the right femoral bone and tibia at a level of 18.9 m. The latter streaks were 37 cm in length and 4 cm in width. The reconstructed dimensions of the coffin were approximately 1.75 × 0.4 m. It was closed with a lid and was made of boards without the use of nails.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 231°), at a level of 18.24 m (the area of the skull) and 18.2 m (the area of the feet). The hands were lying on the chest. The bones of the feet, the left clavicle, and the bones of the right hand were not preserved. The individual interred was a woman aged 20–25 years at death. The skull with the lower jaw was very poorly preserved: the frontal bone and facial remains were destroyed, the occipital part crushed, and the bone compacta peeled off.

Figure 32.
Grave No. 13.
A view from the
north. Photo by
S. Belskiy.

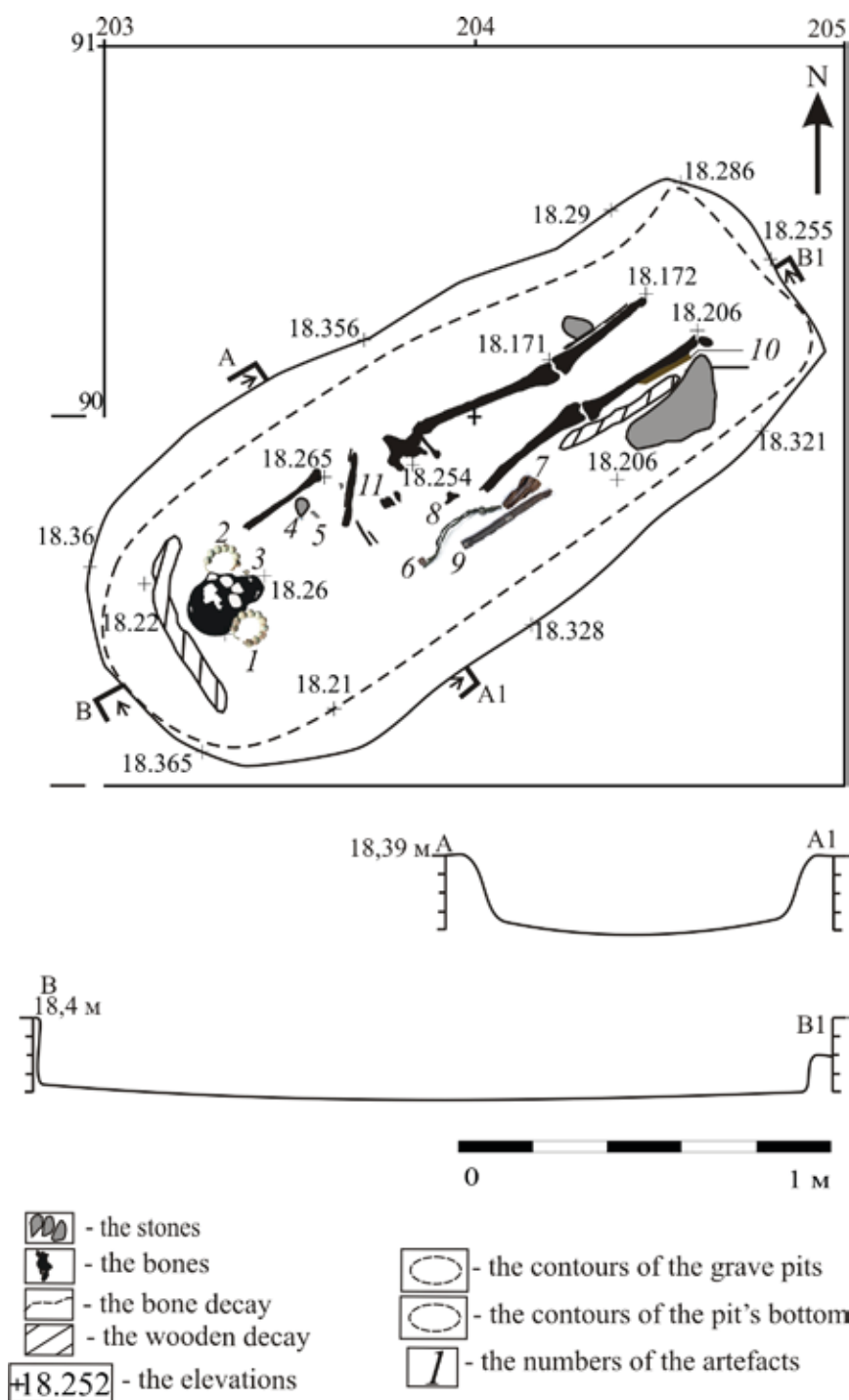


Figure 33.

Grave No. 13. General plan. Drawing, digitizing, and layout by S. Belskiy.

1, 2 – the temple rings/earrings, 3 – the neck pendant, 4 – the button, 5 – the finger ring, 6 – the belt pendant complex, 7 – the needle box (?), 8 – the weight, 9 – the knife, 10 – the leather boot fragments, 11 – the quartz core.

Assemblage of artefacts

1. At the right and left sides of the skull there were beaded temple rings. The rings are of the same type as those from burials Nos. 1 and 3, but of a slightly different variant with a larger diameter (8.1 cm). Ten beads had a diameter of 2.1 cm. The rod/core was rectangular in section and measured 2×1.2 mm. Beyond the stopper, it was round in section and 1.5 mm in diameter. Upon each ring, over the silver beads composing them, traces of wood with the fibres oriented in the same direction as the grave itself were discerned. These traces were probably remains of the coffin cover. On the right ring, the remains of some organic material, possibly birch bark, were recorded over the rotten wood. Near the same ring

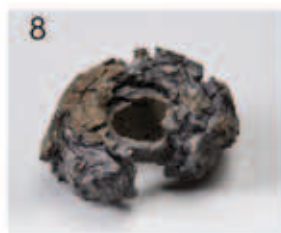


Figure 34.
The finds from grave
No. 13.
1, 2 – bronze, silver,
gilding,
3 – silver, gilding,
4, 5 – silver,
6 – bronze, glass, leather,
7 – iron,
8 – lead (?).
Photo by S. Shapiro,
drawing by A.
Mashezerskaya, layout by
S. Belskiy.



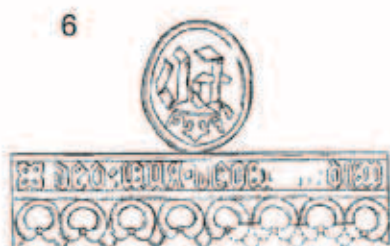
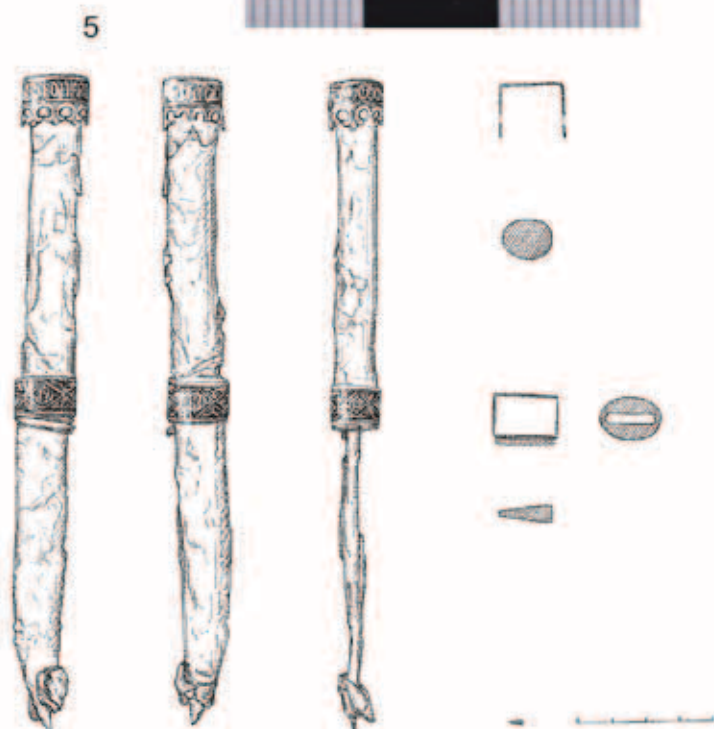


Figure 35 (on left).

The knife from grave No. 13. Photo by S. Shapiro, drawing by A. Mashezerskaya, layout by S. Belskiy.

and partly upon one of the beads, several dark human hairs had been preserved. In addition, hairs were recorded between the ring itself and the skull of the interred woman. Upon one of the beads of the right ring, a small fragment of

textile was uncovered. Another fragment of textile was retrieved from under the left ring.

2. A peculiar pendant was found near the left side of the lower jaw. It was a spherical bead decorated with false granulation ornaments. The bead was about 1 cm in diameter with two suspension eyes: a ribbon appeared to have been threaded through the upper eye, whereas the lower loop fixed a flat “leaf-shaped” pendant 1.2 cm long.

3. To the right of the left humeral bone, at a level of 18.24 m, there was a smooth button of gilded silver with a loop and a bezelled ring braided of numerous silver wires, similar to the specimen from burial No. 3. The ring may have been put on a finger of the right hand. The two objects were found in a stain of organics.

4. In the pelvic area and at the proximal end of the right femoral bone, a peculiar assemblage of artefacts was found at some depth:

a) A belt pendant set.¹⁰

b) A trapezoidal iron object.

c) A knife with a wooden hilt and the remains of a sheath.¹¹ The knife was found at a level of 18.2 m, to the right of the proximal end of the right femoral bone. Near the hilt, fragments of very dry leather, probably from the sheath, were found. Some of the leather fragments adhered to the wood of the hilt.

The remains of the leather sheath were found on both sides of the blade and near the hilt. They were very fragile flat bands of a dark orange organic material (evidently leather on some kind of probably wooden substrate) extended along the blade of the knife. Between the blade and the proximal end of the right femoral bone, fine fragments of textile were recorded.

d) Yet another find was connected with the complex under description. A powdered white accumulation was discerned 4 cm to the north-west of the blade. After being cleaned in the conservation laboratory, it was identified as a corroded lead weight.

5. Under the bones of the left forearm, in a stain rich in organics, there were two sewn-on garment mounts, bronze spirals about 2 cm long.

¹⁰ For a detailed description, see Chapter 3.14.

¹¹ For a detailed description, see Chapter 3.12.

6. To the south of the right tibial bone, under wood fragments about 2 cm thick (probably the remains of the coffin lid), the remains of some leather objects, probably footwear, were found. The largest fragment was 21 cm long and about 16 cm wide. Slightly to the east, another fragment was uncovered measuring 5 × 2 cm. The upper edge of the leather object, apparently undisturbed, was approximately 4.5 cm below the knee. Under the proximal end of the fibula, there were traces of bronze in a stain containing organics and measuring 2 × 2 cm. The bronze was in contact with the leather object. This may be the remains of an ornament of thin metal wire that was applied onto the footwear. No traces of leather were recorded near the left tibia.

7. In the thoracic area, 7 cm east of the lower jaw, a quartz nucleus was found. It was probably under the bottom of the coffin, where it was located by chance. During the excavations in 2006, some materials were recovered related to a presumable Early Metal Age site situated at the edge of the Kalmistomäki hill. The cultural level at this site, at least within the excavated area, was completely annihilated. The artefact in question probably belongs to the materials from this site.

The maximum length of the grave pit was 2.1 m and its width was 0.7 m. The maximum depth was 0.19 m from the level of the ancient surface, on which overlying stone structure No. IX was built, and 0.53 m from the level of the modern surface.

Grave No. 14

(overlying stone structure No. XX) (Figs. 36–37)

Overlying stone structure No. XX was revealed in squares 86/201-203 and 87/202-203 at a level of 18.67 m at the south-western edge and 18.72 m at the north-eastern edge. It was a stone structure similar to that described above, measuring 3 × 1.12 m around the external perimeter and 2.3 × 0.7 m around the internal perimeter and oriented from south-west to north-east (azimuth 249°). As became clear in the course of the excavation, the marking stone at its north-eastern edge simultaneously served as the marking stone at the south-western edge of overlying stone structure No. VIII. On the south-western side, the structure in question joined overlying stone structure No. XV, which appeared to have been built later, as it had partly disturbed this edge of the structure in question and caused the displacement of its marking block. Overlying stone structure No. XX was composed of 18 boulders up to 0.7 m long.

*Figure 36 (on right).
Grave No. 14. A view
from the east. Photo by
S. Belskiy.*

The top of the grave pit was recorded at a level of 18.29 m at the south-western



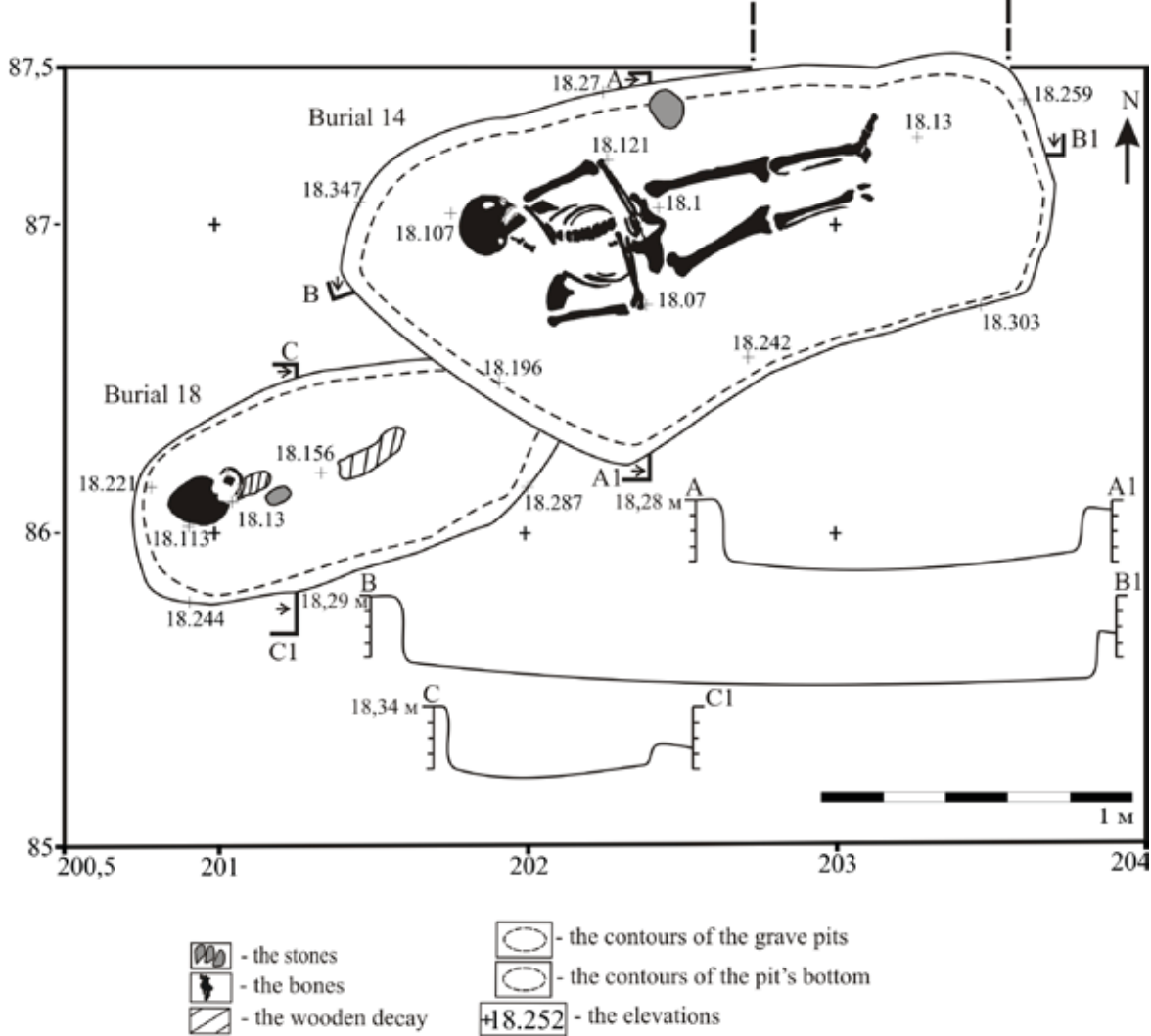


Figure 37.
Graves Nos. 14 and 18. General plan.
Drawing, digitizing, and layout by
S. Belskiy.

edge and 18.23 m at the north-eastern edge. It had the same orientation as the overlying stone structure and was recognizable as an oval stain of darkish-grey loam measuring approximately 2 m from south-west to north-east and 1.1 m from north-west to south-east.

No traces of a coffin were discerned in the burial.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 249°), at a level of 18.1 m (skull area) and 18.13 m (area of the feet). The skull was on the left side, the hands lying on the pelvis. The bones of the right foot were not preserved. The skull with the lower jaw was in a fairly good state of preservation; it could be discerned that the first upper molars were lost during the individual's lifetime. The individual interred was a male aged 30–40 years at death.

No artefacts were found in the burial.

The maximum length of the grave pit was 2.25 m and its width was 1.4 m. The

south-western section of the grave was especially broad, apparently because a large boulder was removed from the place when the pit was dug. The maximum depth was 0.22 m from the level of the ancient surface, on which overlying stone structure No. XX was built, and 0.55 m from the level of the modern surface.

Grave No. 15

(overlying stone structure No. VIII) (Fig. 39)

Overlying stone structure No. VIII was revealed in squares 87/205 and 88/205-206 at a level of 18.72 m at the south-western edge and 18.64 m at the north-eastern edge. It was a stone structure similar to the ones described above, measuring 2.24×0.88 m around the external perimeter and 1.54×0.4 m around the internal perimeter. It was oriented from south-west to north-east (azimuth 232°). A noteworthy feature of this structure was that the marking block marking its north-eastern edge was a natural rock outcrop or a large boulder, which was most likely not displaced during the functioning of the cemetery.

The top of the grave pit was recorded at a level of 18.29 m at the south-western edge and 18.23 m at the north-eastern edge. Its orientation was the same as that of the overlying stone structure, and it was distinguishable as an oval stain of darkish-grey loam measuring approximately 1.9 m from south-west to north-east and 0.6 m from north-west to south-east.

The burial was made in a coffin. The wood remains were 0.15–0.16 m thick and were preserved as isolated small areas south-west of the skull at a level of 18.31 m. The length of the preserved part was over 0.1 m, and the wood fibres were oriented from south-west to north-east in accordance with the general orientation of the pit. Above this area, there was a marking boulder measuring $45 \times 20 \times 6$ cm. The wood was preserved also over the skull and between the marking boulder and the skull. It seems that the coffin was made of boards and was closed with a lid.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 232°), at a level of 18.3 m (skull area) and 18.01 m (area of the feet). The skull was slightly inclined to the right side, the bones of the left hand lay on the pelvic bones, and the bones of the right hand lay on the waist. Near the right femoral bone there was a small fragment of an unidentifiable tubular bone. The skull with the lower jaw was fairly well preserved. The individual interred was a male aged 25–35 years at death.

No artefacts were found in the burial.

The maximum length of the grave pit was 2.14 m and its width was 0.84 m. On the bottom of the pit, approximately in the centre but closer to the south-western



*Figure 38 (on left).
Grave Nos. 16 and 17.
A view from the east.
Photo by S. Belskiy.*

edge, was the top of a large flat boulder that had not been removed from the grave pit. The maximum depth of the grave pit was 0.25 m from the level of the ancient surface, on which overlying stone structure No. XVI was built, and 0.5 m from the level of the modern surface.

Graves Nos. 16 and 17

(overlying stone structure No. XIX) (Figs. 38–40)

Overlying stone structure No. XIX was revealed in squares 88/204 and 89/205 at a level of 18.76 m at the south-western edge and 18.45 m at the north-eastern edge. It was a stone structure measuring approximately 2.25×0.9 m around the external perimeter and 1.74×0.4 m around the internal perimeter and oriented from south-west to north-east (azimuth 230°). In the course of its excavation, the boundaries of the pit remained unclearly defined due to an abundance of stones, which appeared to have been repeatedly displaced. Ten boulders with lengths varying from 0.2 to 0.4 m may have belonged to this structure. Since the place had been used for burials twice, it was not quite clear which of the stones were related to the first structure and which to the later one. In the south-western corner, two marking blocks were found, one upon the other.

As in the case of overlying stone structure No. VIII, which is parallel to this structure, it is worth noting that a natural rocky outcrop or a large boulder that was not displaced during the functioning of the cemetery served as a marking block at the north-eastern edge.

Grave No. 16

The top of the grave pit was recorded at a level of 18.12 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring approximately 2.2 m from south-west to north-east and 0.7 m from north-west to south-east.

When the burial was excavated, it became clear that the initial grave recorded as No. 17 was subsequently disturbed by grave No. 16. The skeleton in the latter was preserved in anatomical order. Clearing the walls of the pit showed that it had partly disturbed the north-eastern edge of the grave pit of burial No. 12.

Between the bones of skull No. 17 and bones of the thorax in grave No. 16, traces of rotten wood were recorded outlining the rectangular plan of a coffin with a general

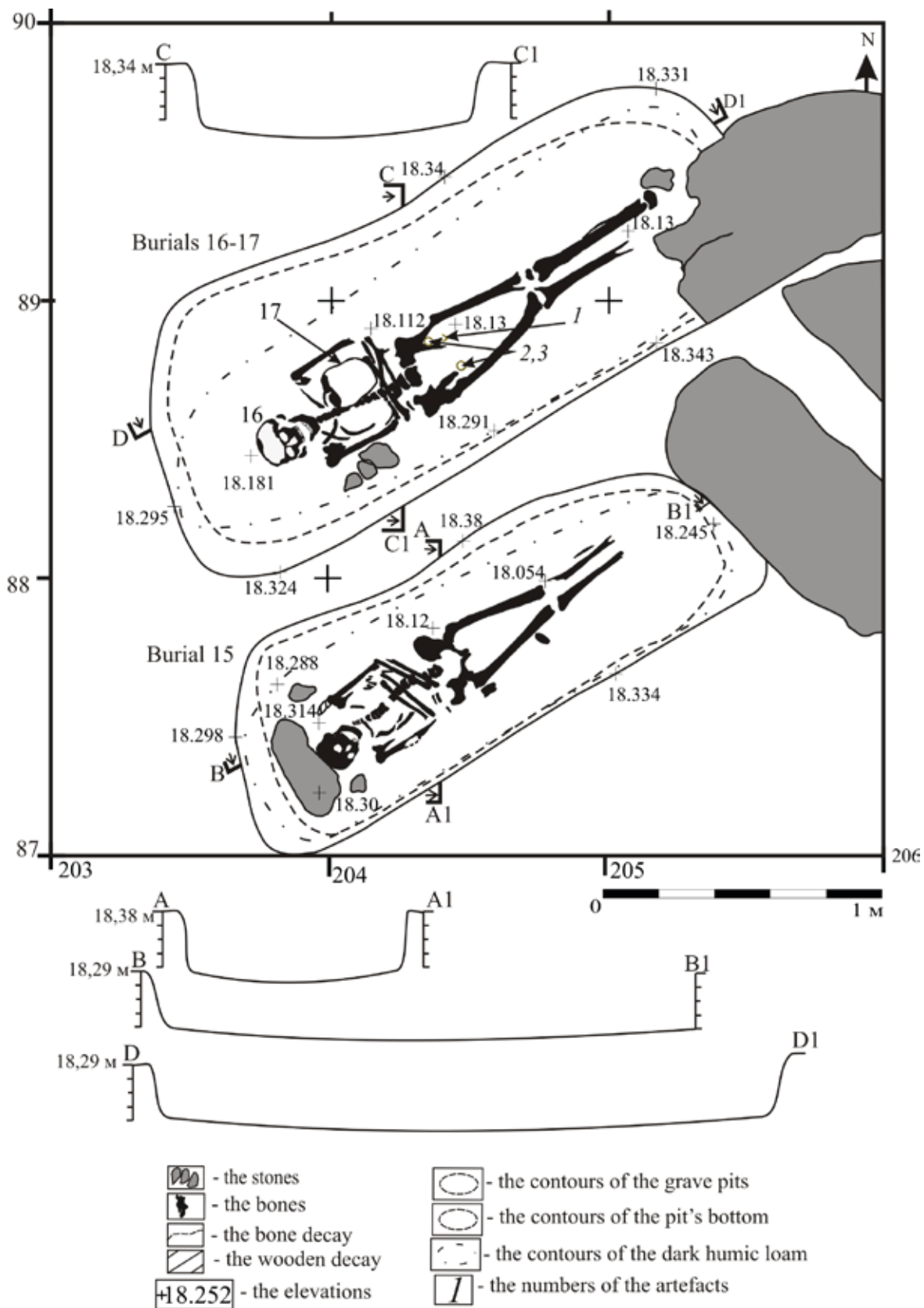


Figure 39 (on left).

Graves Nos. 15, 16 and 17. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 16: 1 – the belt buckle, 2, 3 – the strap dividers.



length of about 0.65 m and a width of 0.11 m in its north-eastern part and 0.18 m in its south-western part.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 230°), at a level of 18.18 m (skull area) and 18.13 m (area of the feet). The individual interred was a male aged 35–45 years at death. The hand bones were located on the waist. The skull with the lower jaw was poorly preserved in fragments.

Figure 40 (on top).

The finds from grave No. 16: 1, 2, 3 – iron. Photo by S. Shapiro, layout by S. Belskiy.

Assemblage of artefacts

Slightly below the pelvis, between the proximal ends of the femoral bones, at a level of 18.13 m, the following artefacts, which once composed a belt set, were found:

- 1) A quadrangular buckle 2.8 cm long and 2.1 cm wide.
- 2) A ring (near the right femoral bone) 2.8 cm in diameter and of quadrangular section measuring 0.5 × 0.3 cm.
- 3) Another identical ring near the left femoral bone.

Grave No. 17

The skeleton as such was not preserved. In the south-western section of the grave pit, in the pelvic area of the male from burial No. 16, at a level of 18.13 m, a poorly preserved skull was uncovered with its upper part destroyed. Fragments of the temporal, parietal, and occipital bones were present, as well as two fragments of the upper jaw. The interred was a child who died at the age of less than one year.

The maximum length of the grave pit was 2.21 m and its width was 0.86 m. In the eastern corner of the pit, its boundaries were limited by a natural rock formation, the surface of which was uncovered at a level of 18.26 m. The maximum depth of the grave

pit was 0.22 m from the level of the ancient surface, on which overlying stone structure No. XIX was built, and 0.51 m from the level of the modern surface.

Grave No. 18

(overlying stone structure No. XV) (Fig. 37)

The small overlying stone structure No. XV was revealed in squares 85/200-201 and 86/201, at a level of 18.62 m (at the south-western edge). It was a stone structure similar to the ones described above, although of slightly smaller dimensions: 1.2×0.86 m around the external perimeter and 0.7×0.46 m around the internal perimeter. It was oriented from south-west to north-east (azimuth 245°). As noted above in the description of overlying stone structure No. XX, the south-western edge of the latter was partly destroyed during the construction of overlying stone structure No. XV, which was apparently made later. The structure in question was composed of eight fairly large boulders with a maximum length of up to 0.62 m. The boulders composing the long south-eastern wall were simultaneously part of overlying stone structure No. XIV, which is described below.

It must be noted that the corners of four overlying stone structures, Nos. XIII, XIV, XV, and XX, joined in the square with the arbitrary coordinates 86/202 at a level of 18.65 m. At the same time, in the course of excavations it became clear that the grave pits under the first three structures did not disturb each others' boundaries, that is, they were dug consecutively during the extension of the area occupied by the cemetery.

The top of the grave pit was recorded at a level of 18.15 m at the south-western edge and 18.28 m at the north-eastern edge. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring 1.24 m from south-west to north-east and 0.41 m from north-west to south-east.

At the lower jaw and in the north-eastern section of the grave, nearer to its centre, at a level of 18.15 m, the remains of a coffin were uncovered in the form of streaks of rotten wood up to 25 cm long and up to 7 cm wide. The burial was in a coffin made of boards with a total length of about 1.12 m.

The skeleton itself was not preserved. In the south-western section of the grave pit, at a level of 18.11 m, a fractured skull was found facing the north-east.

No artefacts related to the burial were found.

The maximum length of the grave pit was 1.25 m and its width was 0.68 m. The maximum depth of the grave pit was 0.11 m from the level of the ancient surface, on which overlying stone structure No. XV was built, and 0.54 m from the level of the modern surface.

Overlying stone structure No. XVI was revealed in squares 86/199-200 and 87/200-201 at a level of 18.77 m at the south-western edge and 18.74 m at the north-eastern edge. It was a stone structure measuring 2.4×1.1 m around the external perimeter and 1.42×0.6 m around the internal perimeter and oriented from south-west to north-east (azimuth 234°). The structure was composed of twenty boulders with lengths varying from 0.20 m to 0.58 m. As usual, the largest blocks were at the south-western (up to 0.58 m) and north-eastern (up to 0.4 m) edges. At the north-eastern edge, the overlying stone structure in question joined the south-western edge of overlying stone structure No. IX (above burial No. 12), but did not disturb the latter.

The top of the grave pit was recorded at a level of 18.31 m at the south-western edge and 18.4 m at the north-eastern edge. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring 2 m from south-west to north-east and 0.7 m from north-west to south-east.

The remains of a coffin in the form of a streak of rotten wood 0.44 m long and up to 0.14 m wide were traced at a level of 18.19 m in the south-western part of the grave, to the left of the skeleton, along the skull and bones of the left shoulder and forearm. The coffin was made of boards. Its reconstructed width in the south-western part was about 0.4 m. No remains of the coffin were preserved in the north-eastern area.

The skeletal remains were fairly well preserved and arranged in anatomical order. The skeleton was lying in an extended supine position, head to the south-west (azimuth 234°), at a level of 18.2 m (skull area) and 18.15 m (area of the feet). The skull was on the left side, the lower jaw turned to the north-east. The bones of the right arm were extended along the body, and those of the left arm were lying on the pelvic bones. All parts of the skeleton were present, including the sublingual bone. The skull with the lower jaw was poorly preserved: the compact surface was peeled off, there was post-mortem deformation, the left parietal and occipital bones were fractured, and the enamel of the first lower molars was strongly worn.

The individual interred was a male aged 25–30 years at death.

Assemblage of artefacts

1. To the right of the right femoral bone, at a level of 18.14 m, a large gilded silver button or bead was found. The maximum diameter of the object was 2.1 cm. It may have been

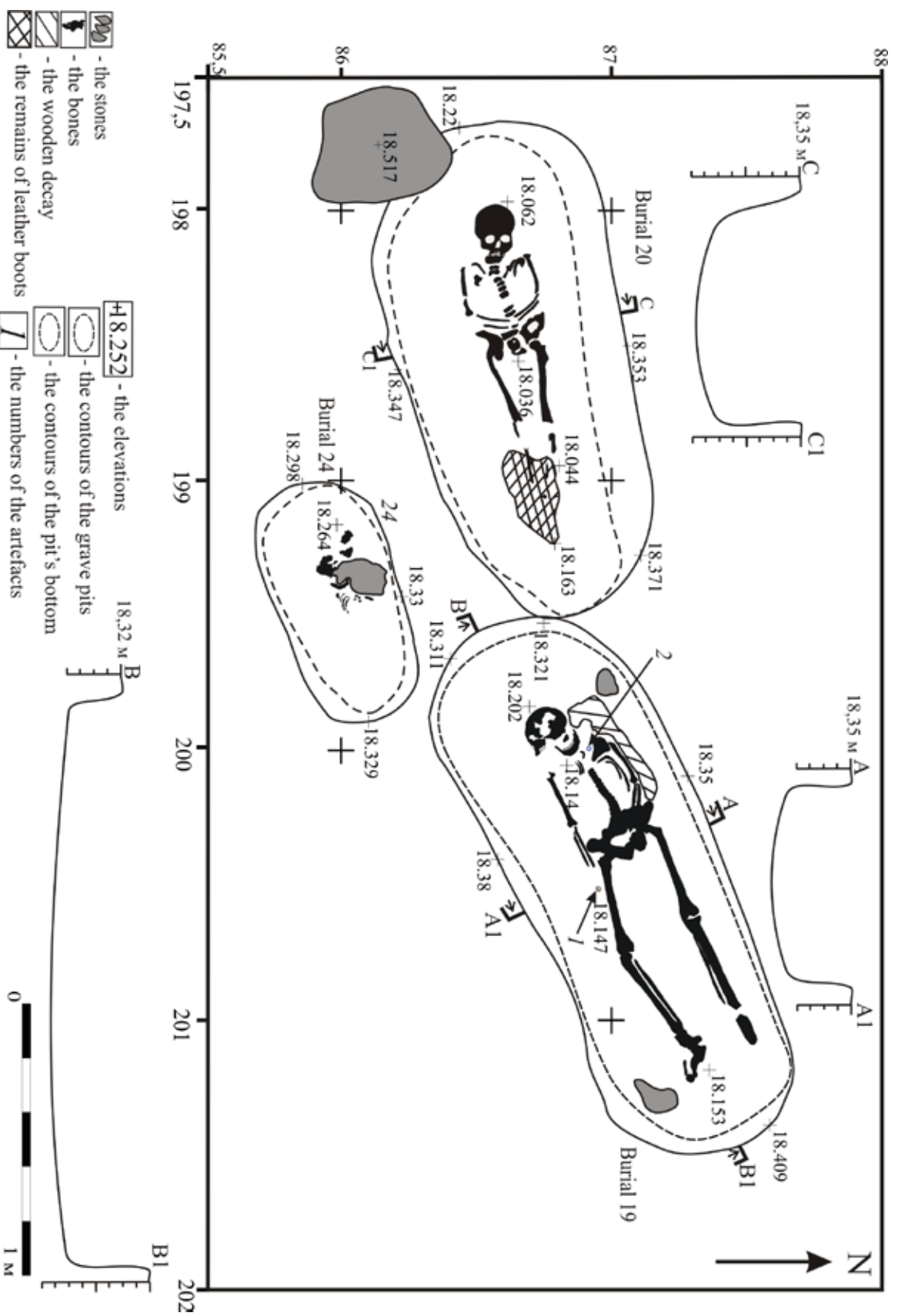


Figure 41 (on left).

Graves Nos. 19, 20, and 24. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 19: 1 – the bead, 2 – the button.



Figure 42 (on right).

The finds from grave No. 19: 1, 2 – silver, gilded. Photo by S. Shapiro, layout by S. Belskiy.

clutched in a fist or sewn onto the clothes of the deceased.

2. Near the left clavicle, a small globular button with a loop was found.

The maximum length of the grave pit was 2.14 m and its width was 0.8 m. The maximum depth of the grave pit was 0.22 m from the level of the ancient surface, on which overlying stone structure No. XV was built, and 0.57 m from the level of the modern surface.

Grave No. 20

(overlying stone structure No. XVIII) (Fig. 41)

Overlying stone structure No. XVIII was revealed in squares 86-87/197-198, near the south-western slope of the hill, at a level of 18.48 m at the western edge and 18.75 m at the eastern edge. During the beginning of the excavation, it seemed that this stone structure was of a different type than those described above. Throughout the area of the squares specified, at levels from 18.65 m to 18.75 m, a structure of rounded outline with a diameter of about 1.3 m was uncovered, composed of smallish stones with a maximum length of up to 0.15 m set close against each other. Many of these stones showed traces of fire.

After the structure was cleared and recorded, the stones were removed. At this point, it became clear that this masonry consisted of a single continuous horizon of stones extended over the grave pit. At the eastern edge of the structure, a large boulder was uncovered installed over the south-western marking block of overlying stone structure No. XVI. At the western edge, in square 86/197 at a level of 18.48 m, there was the surface of a large boulder, or perhaps a rocky outcrop, used as a marking block for this overlying stone structure.

Thus, overlying stone structure No. XVIII is almost similar in type to the structures described above. Its only peculiarity is that it, as well as part of the grave pit, was covered with small stones extracted from earlier structures. A row of three larger stone

blocks (up to 0.25 m) may have been related to the same overlying stone structure. This row was built to the north of the eastern marking stone. The stones may have been part of the northern wall of the structure. Thus, its reconstructed dimensions (around the external perimeter) were 2.28 m in length (approximately from west to east) and 0.8 m in width (roughly from north to south).

The top of the grave pit was recorded at a level of 18.30 m at the south-western edge and 18.38 m at the north-eastern edge. At this depth, it was recognizable as an oval stain of darkish-grey loam measuring 0.8 m from south-west to north-east and 0.48 m from north-west to south-east.

No remains of a coffin were discovered in the pit. The pit, in contrast to those described above, was filled with coarse-grained, yellow, slightly humic sand with an admixture of small stones. Soil of this type was recorded during the excavations of 2006 on the slopes of the Kalmistomäki hill and nearby. As this soil was looser than the soil on the very top of the hill, it probably allowed digging a deeper pit for the burial in question.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 254°), at a level of 18.05 m (skull area) and 18.02 m (area of the feet). The arm bones were crossed on the waist with the bones of the right arm under the bones of the left. The skull with the lower jaw was preserved fairly well. The interred was a child aged 10–12 years at death.

Assemblage of artefacts in the burial

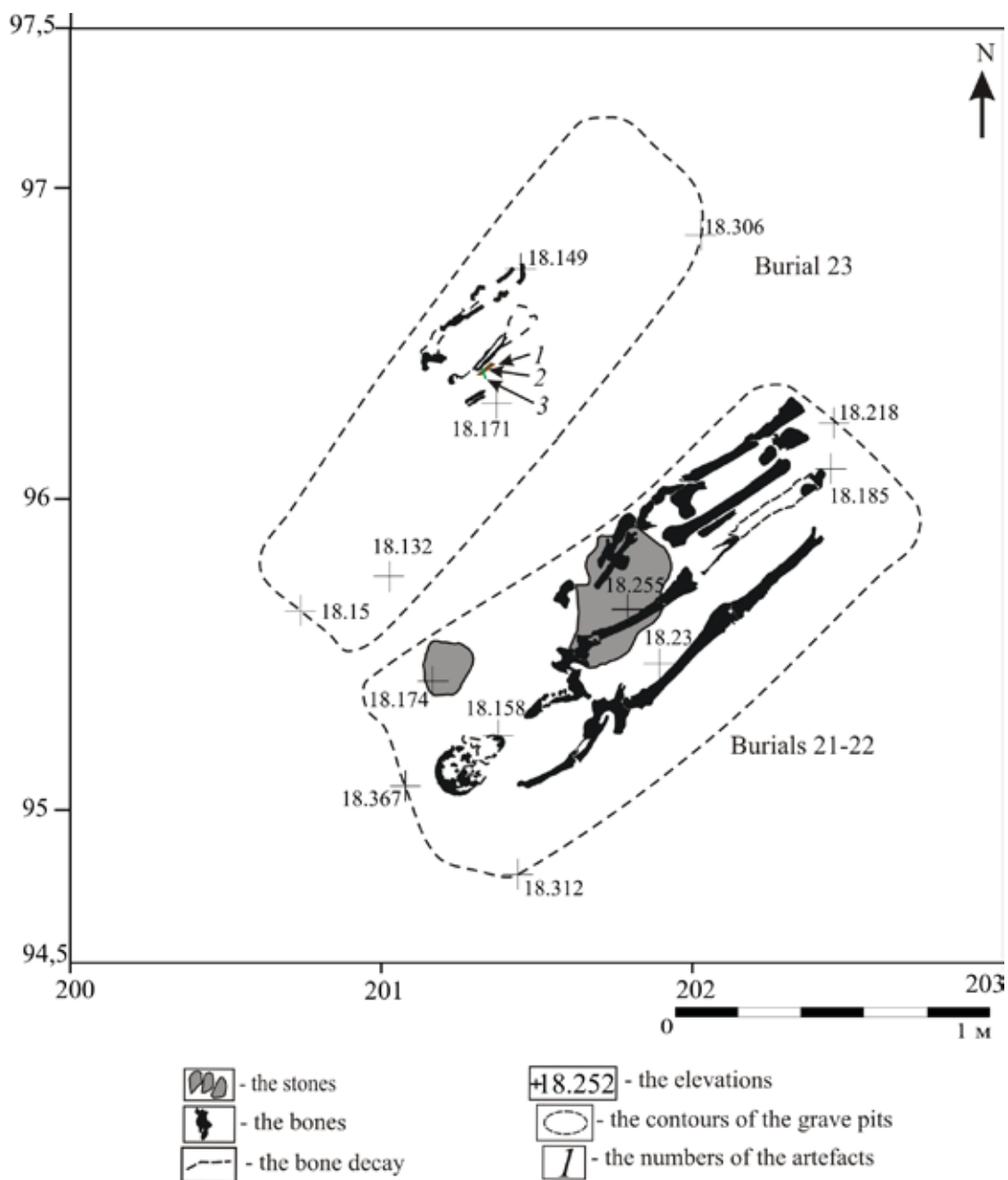
1. In the north-eastern part of the grave pit, in the area around the tibiae of the interred at a level of 18.16 m, fragments of leather footwear were uncovered in a stain rich in organic matter. The footwear was preserved on the bones of both feet. The preservation of the leather objects may have been aided by the relatively deep grave pit and conservation due to the continuous layer of stones above. No other artefacts related to this burial were found.

The maximum length of the grave pit was 1.8 m and its width was 0.84 m. The maximum depth of the grave was 0.35 m from the level of the ancient surface, on which overlying stone structure No. XVIII was built, and 0.65 m from the level of the modern surface.

Graves Nos. 21 and 22

(overlying stone structure No. XX) (Fig. 43)

Overlying stone structure No. XX was revealed in squares 95/201 and 96/202 at a level of 18.36 m at the south-western edge and 18.68 m at the north-eastern edge. It was



a stone structure measuring 2.24×1.16 m around the external perimeter and 1.66×0.74 m around the internal perimeter and oriented from south-west to north-east (azimuth 234°). The structure was composed of twelve large boulders with a maximum length of up to 0.67 m. The north-eastern edge of the structure was bounded by a rocky outcrop, the surface of which was uncovered in square 96/202 at a level of 18.68 m. The largest boulder was the marking stone at the

Figure 43.
Graves Nos. 21, 22, and 23. General plan. Drawing, digitizing, and layout by S. Belskiy.
Grave No. 23: 1 – the knife, 2 – the fire steel, 3 – the wire

south-western edge. Over it lay a long (up to 0.74 m) and narrow (below 0.26 m) stone. A similar stone block was found in the centre of the structure. These blocks most likely belonged to an earlier structure that disturbed the original composition over burial No. 21.

Because of the large quantity of small and medium-sized stones in the original soil and the fill, it was impossible to distinguish the outlines of the grave pit properly.

Grave No. 21

Burial No. 21 was disturbed by burial No. 22: the skeletal remains were not in anatomical order. The fractured skull without the facial bones was on the right side, the occipital area turned to the north-west. The skull was found at a level of 18.17 m. The other bones were uncovered to the north-west of the skeleton from burial No. 22. The upper epiphysis of the left femoral bone was turned towards the north-east, and to its north was the right femoral bone in the natural position. To the south was a tibia fragment and fragments of the right humerus, to the south-west was a fragment of the right scapula and a tibia fragment, as well as a fragment of the left humerus, of which the lower epiphysis was turned towards the north-east. Above them to the left, a fragment of the right side of the lower jaw was uncovered, above which there was a fragment of an unnamed human pelvis bone.

Fragments of the skull were poorly preserved: the occipital and right parietal bones were left, as well as a fragment of the right side of the lower jaw with traces of the lifetime loss of the first molar. The individual interred was a male aged 40–50 years at death.

No artefacts related to the burial were found.

During the digging of the grave for burial No. 22, described below, skeletal remains from the earlier burial No. 21 may have been found and displaced 0.1–0.2 m to the north-west. Burial No. 22 was nearby.

Grave No. 22

Burial No. 22 was uncovered in squares 95/201–202 at a level of 18.15 m (skull area) and 18.18 m (area of the feet) under overlying stone structure No. XX. The skeleton was very poorly preserved and arranged in anatomical order in an extended supine position, head to the south-west (azimuth 226°) and face turned to the north-east. The bones of the left arm and the hand and feet bones were not preserved. The skull with the lower jaw was poorly preserved: the upper layers of the cranial bone (compacta) had peeled off and the facial and frontal bones were destroyed (only fragments survived). The individual interred was a male

aged 40–50 years at death.

No artefacts related to the burial were found.

After skeleton No. 22 was uncovered and removed, the approximate outlines of the grave pit could be discerned. Its length from south-west to north-east was about 2.7 m, and its maximum width in the south-western section was 1.55 m. The first pit with burial No. 21 was possibly slightly narrower. Burial No. 22 was made later, disturbing the south-eastern edge of the original pit.

The depth of the grave pit was about 0.2 m from the level of the ancient surface, on which overlying stone structure No. XX was built, and 0.65 m from the level of the modern surface.

Grave No. 23

(overlying stone structure No. XXV) (Figs. 43–44)

Overlying stone structure No. XXV was uncovered to the north of the complex described above, in squares 95-96/200 and 96/201 at a level of 18.66 m at the south-western edge and 18.59 m at the north-eastern edge. The structure was partly disturbed in its south-western section. Its reconstructed dimensions were approximately 2.76×1.18 m around the external perimeter and 2×0.66 m around the internal perimeter. The structure was aligned from south-west to north-east. At the north-eastern edge it was bounded by a rocky outcrop, like the structure described above. In the south-western area, another rocky outcrop or large natural boulder was uncovered in square 95/200 at a level of 18.66 m.

The best-preserved wall of overlying stone structure No. XXV was the north-western wall, which consisted of a row of joining boulders bounded by rocky outcrops at the edges. It seems that the burial was made between several rocky outcrops in a depression filled with looser soil. The south-eastern wall, particularly its south-western edge, was partly destroyed when burial No. 21 was made.

Burial No. 23 was uncovered in square 96/201, at a level of 18.16 m, under overlying stone structure No. XXV. The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 211°). The preserved bones included fragments of the skull, fragments of the pelvis, and femoral bones without the lower epiphyses. The skull with the lower jaw was in a poor state of preservation: the facial skeleton and occipital bones were destroyed and only a few fragments of the lower jaw were preserved.



Assemblage of artefacts

1. To the right of the skeleton, on the right side of the proximal end of the right femoral bone, remains of very poorly preserved iron objects

were uncovered. They were extracted from the soil as a single aggregate. After conservation they were identified as a strongly corroded knife and a fragment of an openwork fire steel. The length of the knife was 16 cm, and its tang was broken. The blade was 15.8 cm long and 1.6 cm wide; the back was 0.5 cm thick.

2. On the knife there was a tangled fragment of bronze wire, 3 cm long with a loop at the end. This may have been part of the sheath.

After skeleton No. 23 was uncovered and extracted, the outlines of the grave pit could be determined roughly. Its length from south-west to north-east was 1.86 m and its width was 0.58 m. Its southern corner joined the western corner of the grave pit which contained burials Nos. 21 and 22. Between the two pits, an indistinctly identifiable bridge less than 0.1 m in width was distinguished in the lowest section. When burial No. 21 was made, the grave pit with burial No. 23 may have been partly disturbed.

The depth of the grave pit containing burial No. 23 was about 0.1 m from the level of the ancient surface, on which overlying stone structure No. XXV was built, and 0.55 m from the level of the modern surface.

Figure 44.

The finds from grave No. 23: 1, 2 – iron, 3 – bronze. Photo by S. Shapiro, layout by S. Belskiy.

Grave No. 24

(Fig. 41)

Grave No. 24 was uncovered in square 85-86/199, south of graves Nos. 19 and 20 and parallel to the latter, near the edge of the western slope of the Kalmistomäki hill. No overlying stone structure was found above the burial. At a level of 18.32 m, in a horizon of coarse-grained sand with a considerable admixture of small pieces of stone, the top of the grave pit was uncovered as a humic oval stain extending from south-west to north-

east and measuring 0.86 m from south-west to north-east and 0.45 m from north-west to south-east.

The skeleton was not preserved. While the central area of the burial was excavated, fragments of the skull and the upper jaw without teeth were found, as well as several fragments of ribs. All of the bones were very poorly preserved. The interred was a baby aged less than six months at death. The skeletal remains lay on the bottom of the pit on the surface of a large stone, which remained in its natural position during the interment, indicating that the deceased was laid immediately onto it.

No artefacts related to this burial were found.

The maximum length of the grave pit was 0.88 m and its width was 0.46 m. The maximum depth of the grave pit was 0.48 m from the level of the modern surface.

Grave No. 25

(overlying stone structure No. XXVIII) (Figs. 19, 45)

Overlying stone structure No. XXVIII was revealed in squares 93/195 and 94/196. It was a single line of five large boulders with a maximum length of up to 0.56 m each, uncovered at a level of 18.82 m at the south-western edge and 18.74 m at the north-eastern edge and oriented from north-east to south-west (azimuth 234°). The total length of the

Figure 45.

Graves Nos. 25, 26, and 27.

A view from the south-east.

Photo by V. Laakso.



row of boulders was 2.3 m, which is quite similar to the lengths of all other oval overlying stone structures recorded at the cemetery.

After overlying stone structure No. XXVIII was drawn and photographed, the boulders of which it was built were removed. On the surface exposed, no outlines of a grave pit were discernible. The entire area here was occupied by a homogeneous grey loam containing an abundant quantity of stones.

The skeleton was fairly well preserved and arranged in anatomical order, in an extended supine position, head to the south-west (azimuth 234°), at a level of 18.35 m (skull area) and 18.29 m (area of the feet). The bones of the left hand were lying on the pelvic bones, and the bones of the right hand were extended along the body. The bones of the right hand, right clavicle, ribs, left calf bone, and feet phalanges were not preserved. The skull with the lower jaw was rather well preserved. However, the right molar and parts of the temporal bones were fractured, the compacta had peeled off, and two lower bicuspids were lost during the person's lifetime. All of the molars were strongly worn. The individual interred was a woman aged 30–40 years at death.

No artefacts related to the burial were found.

After skeleton No. 25 was uncovered and extracted, the outlines of the grave pit could be roughly defined, particularly in its south-western part. Its length from south-west to north-east was approximately 1.74 m and its maximum width in the south-western section was 0.48 m. Its depth was about 0.15 m from the level of the ancient surface, on which overlying stone structure No. XXVIII was built, and 0.45 m from the level of the modern surface.

Grave No. 26

(Figs. 19, 45)

Grave No. 26 was uncovered 0.4 m to the north-west of burial No. 25 in square 94-95/196 at a level of 18.31 m (skull area) and 18.29 (area of the feet). Above the burial, at the same level as overlying stone structure No. XXVIII described above, there were four fairly large (up to 0.4 m) stones adjoining it from the north-west.

The skeleton was rather well preserved and arranged in anatomical order, in an extended supine position, head to the south-west (azimuth 207°), the skull on the left side. The hands and the phalanges of the feet were not preserved and the left clavicle was displaced, being located to the north-west of the skull approximately 0.1 m from its natural position. The epiphyses of the humeral, femoral, and tibial bones had not fused. The skull was fairly well preserved: the right parietal and occipital bones were fractured (only fragments were preserved). The individual interred was a woman aged 16–20 years at death.

No artefacts related to the burial were found.

The burial was made on top of a peculiar structure of small stones (up to 0.1 m) laid in a continuous horizon through an area of about 4 m² in the north-western section of the excavation. The femoral and tibial bones were partly covered by this pavement. Stratigraphic studies suggested that the burial was made later than the stone pavement of boulders, covering and partly disturbing this pavement, which was constructed immediately on the virgin soil. In addition, the burial was covered with stones that had originally been part of this pavement.

Grave No. 27

(Figs. 19, 45)

Grave No. 27 was uncovered 0.4 m to the west of burial No. 26, in square 94/195, at a level of 18.54 m (skull area) and 18.31 m (area of the feet). No overlying stone structures were found above this burial. The outlines of the grave pit could not be distinguished.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 207°). The burial was disturbed: the damaged and upturned cranium was facing north-east. Beneath it, on the south-western side, two fragments of the upper jaw (also upturned) were uncovered, and the lower jaw in its natural position was found lower down. The leg bones were not preserved below the femur. The bones of the right hand were on the waist, and a fragment of the left radius was located beneath the vertebrae. This suggests that the burial was disturbed, possibly due to its shallow position very close to the modern surface.

The dark humic loam in which this burial was uncovered also seemed to have been dug over later, perhaps in recent times. The skull with the lower jaw was poorly preserved, and only fragments of the parietal, frontal, and temporal bones and the upper jaw were found. The lower jaw was fairly well preserved. The interred was a child aged 10–12 years at death.

No artefacts related to the burial were found.

Graves (?) Nos. 28 and 29

(possible overlying stone structure No. XVIII)

To the north of overlying stone structure No. XVI, in square 88/200 at a level of 18.73 m, there was a stone structure adjoining its north-western wall from the north. In type and structure, this structure was similar to No. XVIII. It consisted of a continuous oval pavement approximately 1.2 m in diameter and built of rather small stones (0.1–0.15 m). This may

have been part of a somewhat larger structure destroyed later when the neighbouring structures were built. This supposition seems probable, as on the northern side the structure is bounded by a long row of five stone blocks resembling the walls of the overlying stone structures described above. From the west, this row adjoined the south-western marking block of overlying stone structure No. VI.

Approximately in the centre of the structure, the surface of a rocky outcrop or a large boulder was uncovered at a level of 18.64 m. From the west and east, it was adjoined by two stains of darker humic coarse-grained sand. These stains were elongated in outline, less than 1.5 m long, and up to 0.4 m wide, resembling the contours of grave pits where child burials were found. For these reasons, these stains were numbered 28 and 29.

Grave (?) No. 28

In the first stain, a depression filled with coarse-grained sand, darker than that of the surrounding virgin soil, was uncovered in square 88/201 at a level of 18.5 m. The depression was about 1.5 m long and oriented approximately from west to east. No bones or artefacts were found in the fill of the structure. Its depth was 0.3 m from the level of the modern surface. This may have been a child burial where the skeletal remains were not preserved.

Grave (?) No. 29

A similar structure was uncovered in square 88/200 at the same depth and with the same orientation as burial No. 28. From its fill, a small fragment of a silver object and an iron ring about 2.5 cm in diameter were retrieved. These artefacts may also have been related to a child burial where the skeletal remains were not preserved due to natural causes. The depth of the presumed grave pit was 0.35 m from the modern surface.

Grave No. 30

(overlying stone structure No. XXI) (Figs. 20, 46–52)

Overlying stone structure No. XXI was revealed in the central area of the excavation in squares 92/200–201 and 93/200–201 to the north of a natural rock formation at a level of 18.78 m. It seems to be a stone structure similar to the ones described above, but partly

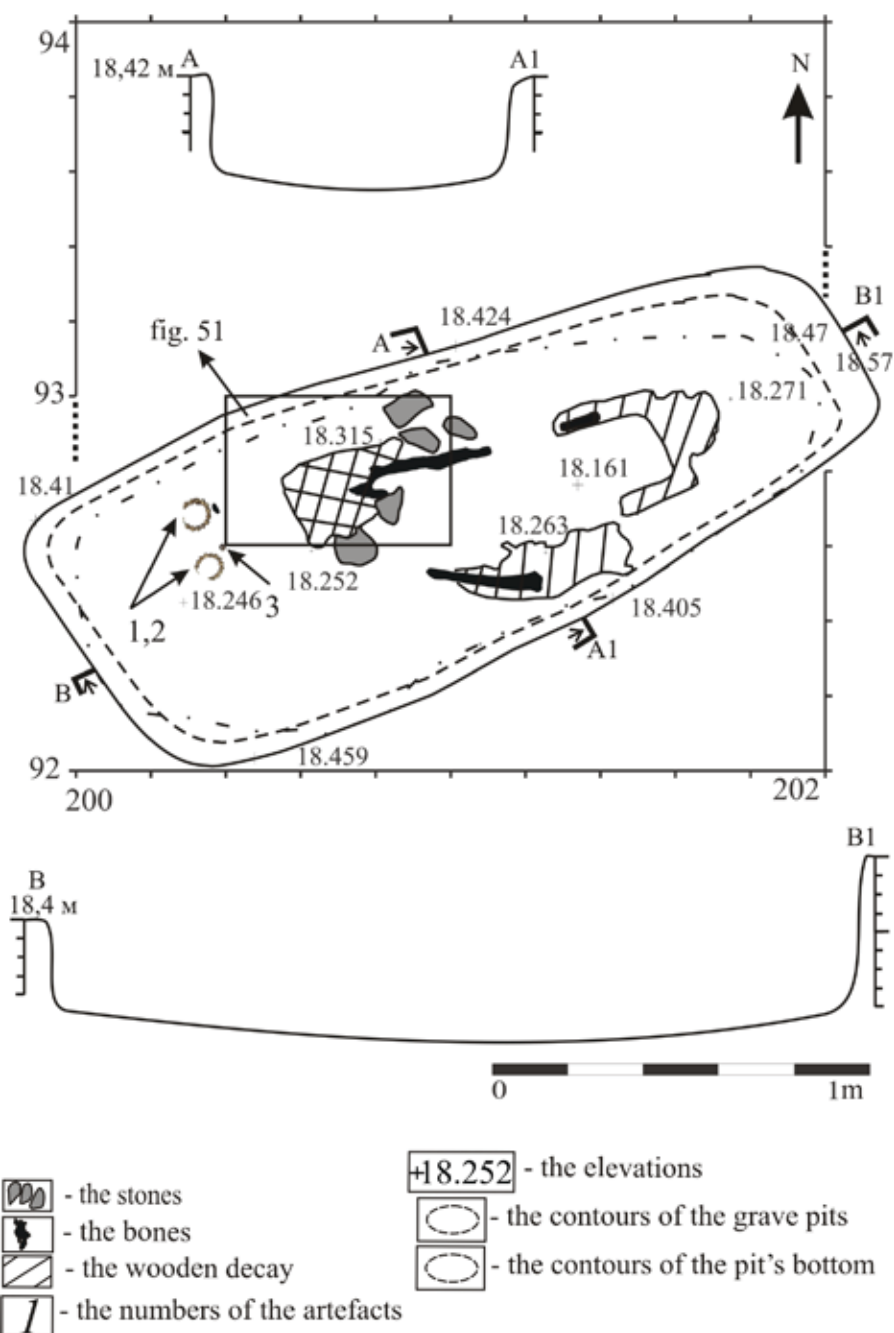


Figure 46.

Grave No. 30. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 30: 1, 2 – temple rings/earrings, 3 – button.

disturbed in its eastern section. Its reconstructed dimensions were approximately 2.66×1.44 m around the external perimeter and 1.8×0.72 m around the internal perimeter. The structure was

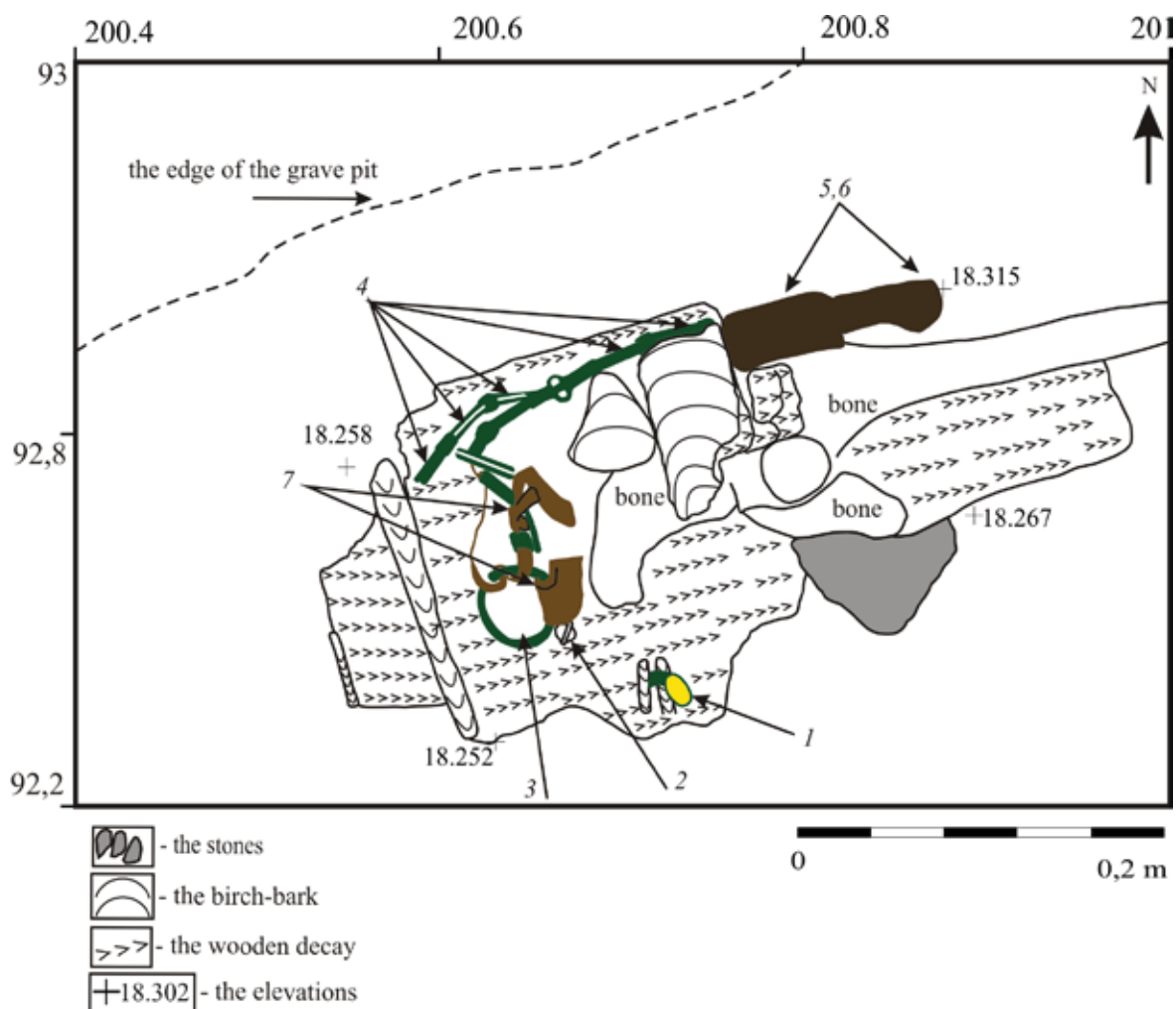


Figure 47.

Grave No. 30. The central part of the grave. The artefact concentration. Drawing, digitizing, and layout by S. Belskiy.

1 – the finger ring, 2 – the button, 3 – the strap divider, 4 – the “belt pendant” complex, 5 – the pocket, 6 – the knife, 7 – the leather strap fragments.

oriented approximately from west to east (azimuth 248°).

Only a large marking stone block at the western edge was preserved. It was installed on a smaller stone less than 0.4 m in length. When the burial was uncovered, it became clear that the stones were located directly over the skull, which was therefore crushed and almost completely destroyed. It appears that the northern and southern walls of the structure were partly removed. The stones from the latter may have been used for building overlying stone structure No. IV (above burial No. 7) located to the south.

The internal space of overlying stone structure No. XXI was filled with grey loam with abundant small stones, particularly in the eastern area, possibly originating from structures preceding the cemetery.

No distinct outlines of the grave pit were identifiable. The remains of the coffin



were uncovered near the right femoral bone and in the eastern part of the grave pit where its edge was preserved intact: the butt end and the adjoining walls of the coffin were marked by accumulations or streaks of rotten wood and dust. The coffin was 1.7 m long, made of boards, and closed with a lid (the wood was preserved over the bones and artefacts). In the eastern area, the preserved thickness of the boards could be defined and turned out to be about 1 cm.

The skeleton was in an extremely poor state of preservation. It was arranged in anatomical order, probably in an extended supine position, head to the south-west (azimuth 248°). Among the preserved remains there were small fragments of the skull, left femur and tibia, two fragments of unidentifiable tubular bones, and a fragment of the upper epiphysis of the ulna. The skull fragments were poorly preserved and included fragments of the temporal and occipital bones and two teeth. The individual interred was a woman (as suggested by the artefacts) aged 20–30 years at death.

Figure 48.
Grave No. 30. The temple
rings/earrings and the button
in situ. Photo by S. Belskiy.

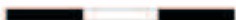
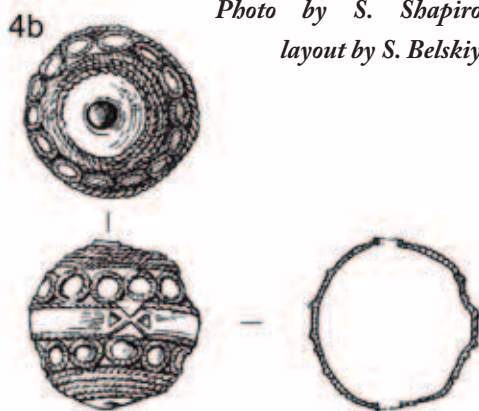


Figure 49.
Finds from grave No.
30: 1, 2 – bronze, silver,
gilding, 3 – bronze,
(gold?), 4 – silver, gilding.
Photo by S. Shapiro,
layout by S. Belskiy.



Assemblage of artefacts

Burial No. 30 was the richest among all the excavated complexes at the cemetery.

1. Two temple rings composed of beads were uncovered in the western section of the grave pit at a level of 18.24 m. The rings were practically undamaged, found *in situ* notwithstanding the fact that only small fragments were preserved of the skull itself. The ornaments were of excellent quality; on the beads, the gilding was preserved better than on similar objects from other burials. The diameter of the supporting rod was 7.9 cm and the diameter of the beads was 1.6 cm. Organic fragments were retrieved under the left ring: a black human hair and a stain of organics (about 1 mm thick), presumed to be the traces of a leather object or textile. Under these finds there was rotten wood, probably from the bottom of the coffin.

Figure 50.
Grave No. 30. The central
part of the grave. The
artefact complex in situ.
Photo by V. Laakso.



Figure 51.
Finds from grave No.
30: 1 – leather, textile,
2 – textile.

2. Slightly east of the temple rings and between them at the same depth there was a large gilded silver button decorated with filigree and resembling the specimen from burial No. 19.

3. In the central area of the grave pit, at a level of 18.25 m, in an organic stain composed of large fragments of birch bark, wood (most likely from the coffin cover), and probably textiles, there was a bronze signet ring, probably gold-plated. On the signet was the representation of a beast of prey with the head thrown back. Inside the ring was a finger bone, possibly from the right hand.

4. To the north-west of the signet ring, at a distance of 6 cm from the latter, a large silver button was uncovered similar to the one found near the temple rings in the same grave, but slightly smaller in diameter. This button was also found in a thick stain of organic matter.

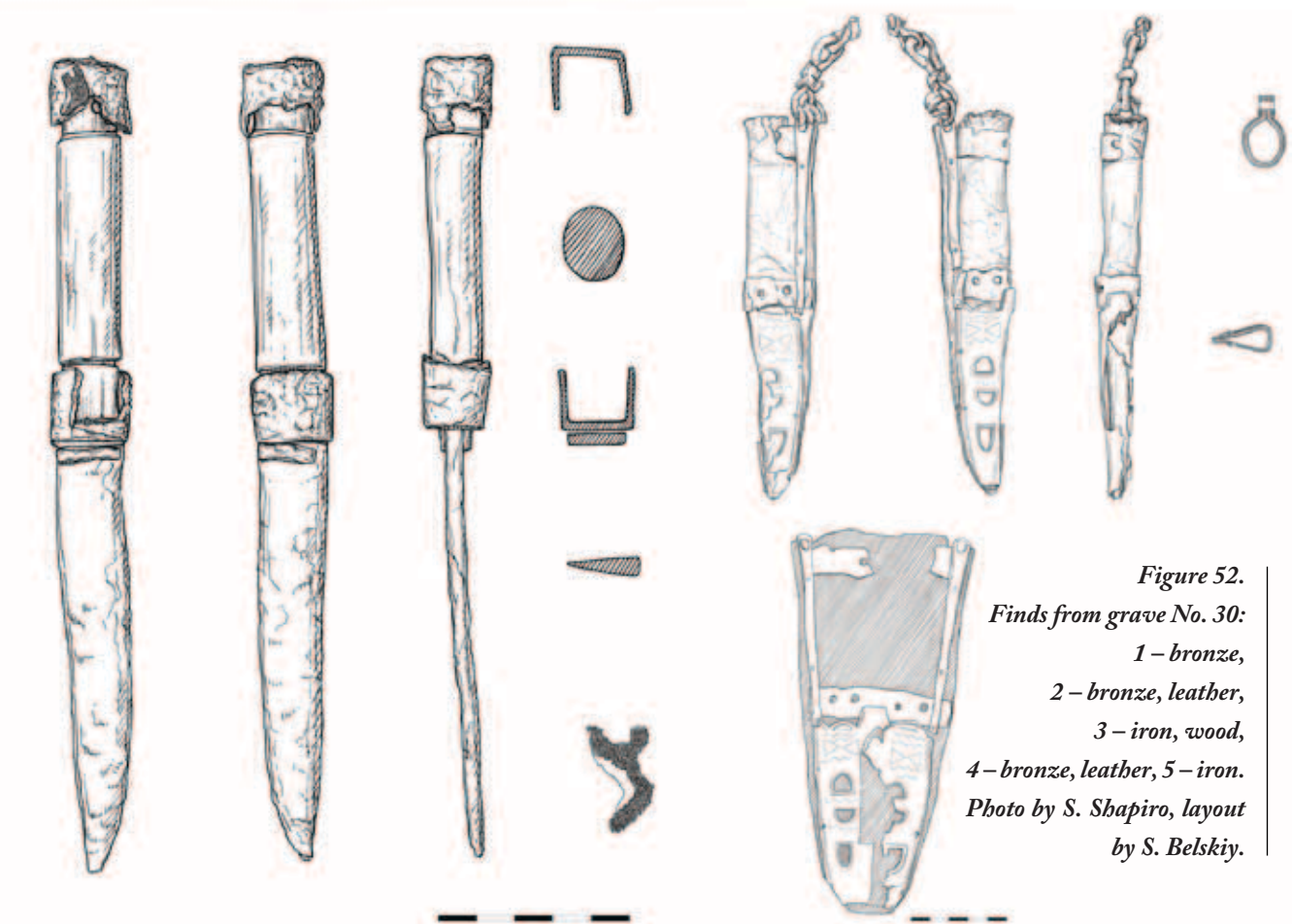


Figure 52.
Finds from grave No. 30:
 1 – bronze,
 2 – bronze, leather,
 3 – iron, wood,
 4 – bronze, leather, 5 – iron.
 Photo by S. Shapiro, layout
 by S. Belskiy.

5. At the left side of the interred, in the area of the pelvis and left femoral bone, a complex of artefacts was uncovered.

The following items were found near the proximal end of the left femoral bone:

a) A bronze belt ring 4 cm in diameter. Fragments of wood (probably from the coffin lid) were preserved on the ring. The following objects were attached to the ring by means of iron chains and leather straps:

b) A composite belt pendant.¹² It had a small leather bag at the end.

c) An iron knife with a bone hilt in a leather sheath with bronze ferrules. The knife could be cleared out only after the aggregate of bronze objects was removed and conserved. The total length of the knife was 21.1 cm, the length of the blade was 10.8 cm, its maximum width was 2 cm, and its thickness was 0.6 cm. The hilt, which was fixed on the tang by means of two ferrules (lower and upper), was preserved practically completely. The diameter of the lower ferrule was 2.3 cm and that of the upper ferrule was 2.4 cm. The thickness of the plate of which the ferrules were soldered was 0.4 cm.

The knife was in a leather sheath. The upper edge of the sheath was found under the left femoral bone. The sheath was composed of several layers of leather less than 1.5 mm thick each. These were well preserved, sheathing the knife almost completely up to the upper clamp of the hilt. The sheath was fixed on both sides by bronze mounts: two carved plates 0.6 cm wide were set along the blade part of the sheath and two clamps were on the middle part of the sheath and at the tip. All these details were fixed by means of bronze bands along the seam of the sheath. Over the sheath, in its upper part, fragments of a strongly mineralized textile were found, as well as fragments of wood (the cover of the coffin?) and birch bark. The sheath was attached to the strap divider by means of a thin iron chain, three links of which were preserved.

d) Iron ear spoon attached to a ring by means of a thin iron chain.

The maximum length of the grave pit was 2.06 m and its width was 0.81 m. The maximum depth of the grave was 0.23 m from the level of the ancient surface, on which overlying stone structure No. XXI was built, and 0.5 m from the level of the modern surface.

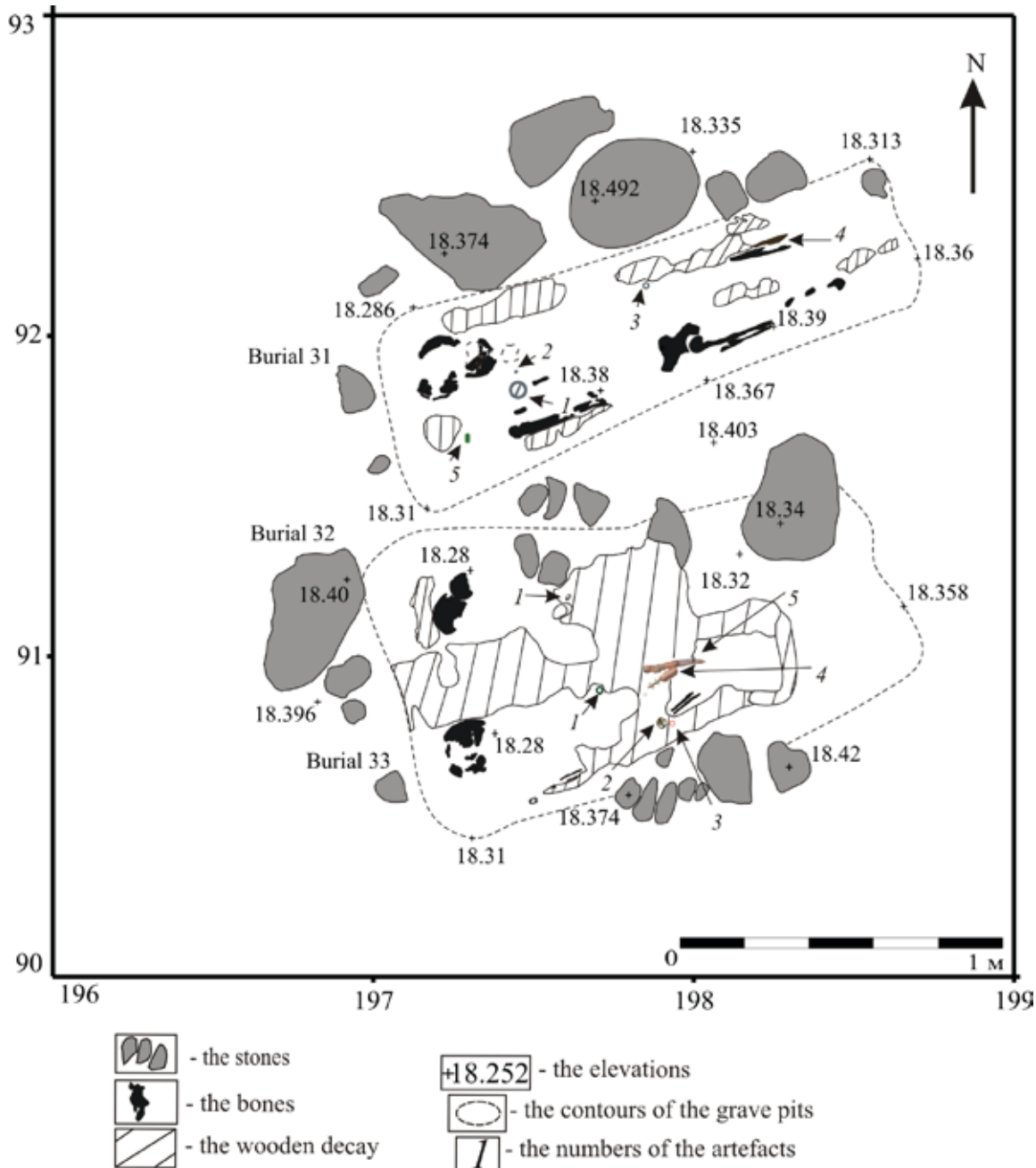
Grave No. 31

(Figs. 53–54)

Grave No. 31 was uncovered in squares 91/197 and 92/198 in the central part of the excavated area north-west of a natural rock formation, at a level of 18.34 m (skull area) and 18.38 m (area of the feet).

There was probably once an overlying stone structure here, but it was later

¹² For details see Chapter 3.14.



partly destroyed and removed during subsequent interments nearby. Anyway, in the squares specified, a row of five large stone blocks was uncovered (up to 0.4 m) at a level of 18.89 m (the extreme south-western block) and 18.76 m

Figure 53.
Graves Nos. 31, 32, and 33. General plan. Drawing, digitizing, and layout by S. Belskiy.
Grave No. 31: 1 – the brooch, 2 – the button, 3 – the finger ring, 4 – the knife, 5 – the spirals.
Grave No. 32: 1 – the bead.
Grave No. 33: 1 – the finger ring, 2 – the strap divider, 3 – the weight (?), 4 – the eared tube and the needle box, 5 – the knife.



Figure 54.

The finds from grave No. 31: 1 – silver, gilding, 2, 3 – silver, 4 – iron, 5 – bronze, textile. Photo by S. Shapiro, drawing by A. Masbezerskaya, layout by S. Belskiy.

(the extreme north-eastern block). The row was oriented from south-west to north-east. These stones could have been part of the north-western wall of the overlying stone structure above the burial in question.

The top of the grave pit was recorded at a level of 18.48 m. From its upper surface it was recognizable as an

oval stain of darkish-grey loam in yellow coarse-grained virgin sand containing numerous stones. The dimensions of the pit were approximately 1.48 m from south-west to north-east and 0.8 m from north-west to south-east. Immediately after the stones were removed, the remains of the coffin could be seen in the form of streaks of rotten wood and dust along the left side of the skeleton to the right of the skull, along the left side of the right humeral bone, between the femoral bones, and in the area of the right foot. The maximum width of the streaks of rotten wood was 0.1 m. The reconstructed dimensions of the coffin were about 1.6 m in length and 0.5 m in width. The coffin was closed with a lid, since wood fragments were encountered over the bones and artefacts.

The skeleton was extremely poorly preserved and lying in anatomical order in an extended supine position, head to the south-west (azimuth 247°). The skull was on the left side facing the north. The right parietal bone was fractured. The preserved remains included fragments of humeral bones, a small fragment of the right ulna or radial bone (judging by the position of the fragment, the arm had been lying on the pelvic bones), and fragments of the pelvis and femoral bones. The skull with the lower jaw was fragmentary and poorly preserved. It was difficult to identify the sex of the interred (judging by the artefacts, it was probably a male). The age of the interred was 20–25 years at death.

Assemblage of artefacts

1. To the right of the lower jaw, in the area of the right humerus at a level of 18.37 m, an undecorated gilded silver ring brooch of nearly triangular cross-section was found. Its diameter was 4.7 cm, the width of the arc was 0.6 cm, and the maximum breadth of the pin was 0.5 cm. Below the brooch, a 1.3-cm-thick fragment of wood was preserved, possibly the remains of the bottom of the coffin.
2. To the left of the brooch, in the neck area, a small globular silver button with a loop was found at the same depth as the brooch.
3. On the left side at a level of 18.35 m, there was a smooth silver-plated signet ring in the area of the pelvis. North of this ring, a wood fragment from the coffin wall was uncovered.
4. To the right of the left tibia, between this bone and the remains of the coffin wall, at a level of 18.39 m, an iron knife was uncovered. The strongly mineralized remains of a leather sheath and a wooden hilt were preserved on the knife. The total length of the knife was 15.2 cm, the length of the blade was 10.3 cm, its breadth was 2.3 cm, and the thickness of the back was 0.5 cm.

5. Two bronze spirals with fragments of textile inside were found 0.15 m to the south of the skull and 0.15 m to the west of the proximal end of the right humeral bone.

The maximum length of the grave pit was 1.72 m and its width was 0.62 m. The maximum depth of the grave pit was 0.48 m from the level of the modern surface.

Graves Nos. 32 and 33

(overlying stone structure No. XXII) (Figs. 53, 55–57)

Overlying stone structure No. XXII was uncovered in the central area of the excavation in squares 90/197–198 and 91/197–198, west of a natural rock formation, at a level of 18.4 m at the western edge and 18.35 m at the eastern edge. It was a closed oval structure. Its northern wall was partly disturbed. Although similar to the structures described above, this one was slightly different, particularly in its dimensions, measuring approximately 2.12×1.5 m around the external perimeter and 1.25×1 m around the internal perimeter. That is, it was almost circular, only slightly elongated from west to east with a deviation to the south-west (azimuth 249°). At its western edge there was a large oval boulder oriented with its longer side (up to 0.6 m) approximately from north to south. To the west of this block, there was a row of three smaller boulders aligned almost parallel to the first. The northern wall of the structure consisted of a row of six smaller boulders (less than 0.3 m). At the north-eastern edge, there was a larger boulder also oval in shape and with its longer side oriented from north to south.

The relation of this overlying stone structure to that which presumably once existed over burial No. 31 noted above is not quite clear. As the excavation of the burials under structure No. 22 has shown, these graves were probably paired graves in a single pit. Over them, an overlying stone structure was built broader than those over the individual burials described above. It is worth noting that both burials (Nos. 32 and 33) were undisturbed. Most probably burial No. 31 was made first in this area, and the simultaneous burials Nos. 32 and 33 were added later with the result that the stones composing the original overlying stone structure were displaced or used for the new ones.

*Figure 55 (on right).
Graves Nos. 32 and 33.
A view from the south.
Photo by S. Belskiy.*



33

34



Burials Nos. 32 and 33

The top of the grave pit was recorded at a level of 18.38 m at the south-western edge and 18.43 m at the north-eastern edge. At that depth it could be discerned as an oval stain of grey loam measuring 1.44 m from south-west to north-east and 0.95 m from north-west to south-east. It was extremely difficult to define the outlines of the north-eastern edge because this space (between the grave pit and the natural rock formation in the centre of the cemetery) was filled exclusively with small stones. In the fill, a fragment of a limestone grave cross was found (see Fig. 143).

Figure 56.

The find from grave No. 32: 1 – silver. Photo by S. Shapiro, drawing by A. Mashezerskaya, layout by S. Belskiy.

Position and state of preservation of skeleton No. 32

The skeleton as such was not preserved. In the south-western area of the burial, at a level of 18.28 m, fragments of the skull were found, consisting of parietal and frontal (?) bones and a tooth. It appears that the interred was lying in an extended supine position, head to the south-west (azimuth 250°). It was a child, but the poor state of the bones precluded a more exact identification of the age.

Burial artefact

At a distance of 0.3 m to the east of the skull, there was an openwork gilded silver bead decorated with filigree technique.

Grave No. 33

Grave No. 33 was uncovered to the south of grave No. 32, in squares 90/197-198.

The extremely poorly preserved skeleton was positioned in anatomical order in an



Figure 57.
*The finds from grave
 No. 33: 1, 2, 4 –
 bronze, 3 – slate (?),
 5, 6 – iron. Photo by S.
 Shapiro, drawing by
 A. Masbezerskaya,
 layout by S. Belskiy.*

extended supine position, head to the south-west (azimuth 249°). The preserved remains included fragments of the parietal and temporal bones of the skull, right ulna, femoral, and nameless bones without the lower epiphyses. The age of the deceased was unidentifiable.

Assemblage of artefacts

1. In the central area of the burial, at a level of 18.28 m, a bronze signet ring with a rhomboid plate was found.

2. To the east of the ring, parts of a composite belt pendant and objects attached to the belt were found. The belt was probably made of leather and was not preserved.

a) Near the fragments of the right femoral bone, 0.55 m east of the skull, at a level of 18.38 m, there was a large, ornamented, round bronze (possibly gilded) strap divider, 5 cm in diameter. On one part of this artefact (its northern section in the grave) a 0.8-cm-wide fragment of a leather object, possibly a belt, was preserved.

b) At a distance of 2 cm east of the strap divider was a spindle whorl or bead made of pink slate (?), 1.5 cm in diameter.

c) At a distance of 0.12 m to the north of the latter, at the same depth, a bronze eared tube was found. A cord was threaded inside it and attached at the other end to a trapezoidal iron object (6.2 × 2.5 cm), probably a needle box. This complex was aligned from north-east to south-west.

d) To the south-west of the assemblage described above, there was a stain of whitish powdered substance, about 1 cm in diameter, possibly the remains of a tin bead.

e) To the north of the stain was an iron knife with the remains of a wooden hilt. The knife was aligned from west to east. In the area of the joint between the hilt and the blade, it was contiguous with one corner of the trapezoidal artefact described above. The total length of the knife was 16.6 cm, the length of the blade was 9.7 cm, the maximum width was 2.2 cm, and the thickness was 0.6 cm. Fragments of the wooden hilt were preserved on the tang. The middle part of the hilt was lost, and the lower part was preserved in small fragments. The upper and the lower parts of the hilt were encircled with iron ferrules (the lower one was 2.1 cm and the upper one 2.6 cm in diameter). In the seam of the upper ferrule there were green products of copper corrosion, suggesting that a solder based on a copper alloy was used in making the object. On the ferrule, fragments of textile impregnated with oxides of iron were recognizable.

The maximum length of the grave pit was 1.6 m and its width was 0.97 m in the south-western part and 0.68 in the north-eastern part. The maximum depth of the grave pit

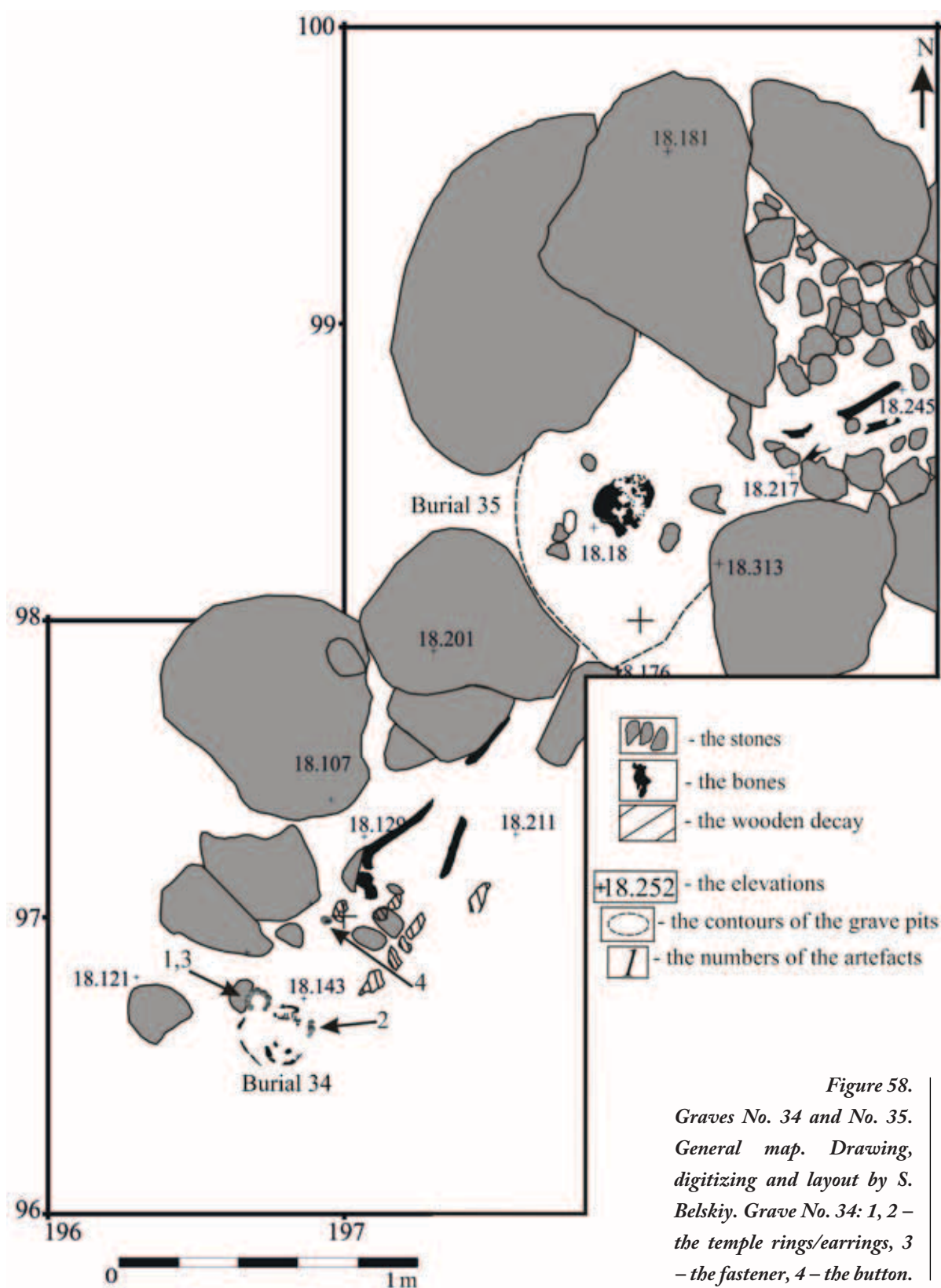


Figure 58.
Graves No. 34 and No. 35.
General map. Drawing,
digitizing and layout by S.
Belskiy. Grave No. 34: 1, 2 –
the temple rings/earrings, 3
– the fastener, 4 – the button.

was not more than 0.1 m from the level of the ancient surface, on which overlying stone structure No. XXII was built, and 0.4 m from the modern surface.

Grave No. 34

(overlying stone structure No. XXIII) (Figs. 58–60)

Overlying stone structure No. XXIII was revealed in squares 97/196–197 at a level of 18.49 m at the south-western edge and 18.67 m at the north-eastern edge. It was a stone structure similar to the ones described above and measuring approximately 2.44×1.3 m around the external perimeter and 1.8×0.8 m around the internal perimeter. The structure was oriented from south-south-west to north-east (azimuth 212°). The south-south-western edge of the structure did not have a marking block. This edge may have been damaged during the digging of burial No. 35, which was located 1 m to the south-west of this one. That is, burial No. 34 was made earlier than No. 35. The surviving part of overlying stone structure No. XXIII was composed of 11 large boulders with a maximum length varying from 0.20 m to 0.47 m. The largest boulder was the marking block at a level of 18.67 m in the north-eastern area of the overlying stone structure. This block measured 0.47×0.4 m.

After the stones composing the overlying stone structure were recorded and removed, it was clear that the body of the deceased woman was literally squeezed into a rocky cleft of apparently suitable depth and dimensions. To the north-east, north, and south, the burial was bounded by rock or huge boulders that were probably not displaced during the interment. The area was free of boulders only in the south-western section, where the skull was located. Due to these facts, no outlines of the grave pit itself could be traced. The fill of the grave was a dark loam containing large amounts of stones.

The burial was in a coffin, which was preserved in the form of small fragments of rotten wood and dust (rather unclear traces of wood) in the central area of the burial, to the right of the skeleton and on top of the artefacts. The coffin seems to have been closed with a lid. The dimensions of the coffin were unidentifiable.

The skeleton was very poorly preserved and lay in anatomical order in an extended supine position at a level of 18.21 m (near the skull) and 18.18 m (near the tibiae), head to the south-west (azimuth 212°). The preserved fragments were those of the skull (fragments of parietal bones and teeth), as well as pelvic and femoral bones with fractured lower epiphyses. To the north-east of these bones, a fragment of an unidentifiable tubular bone (possibly the tibia) was uncovered, and to the north-east of the skull fragments, there were three thoracic vertebrae.

*Figure 59 (on right).
Grave No. 34. The skull in
situ. A view from the north-
east. Photo by S. Belskiy.*



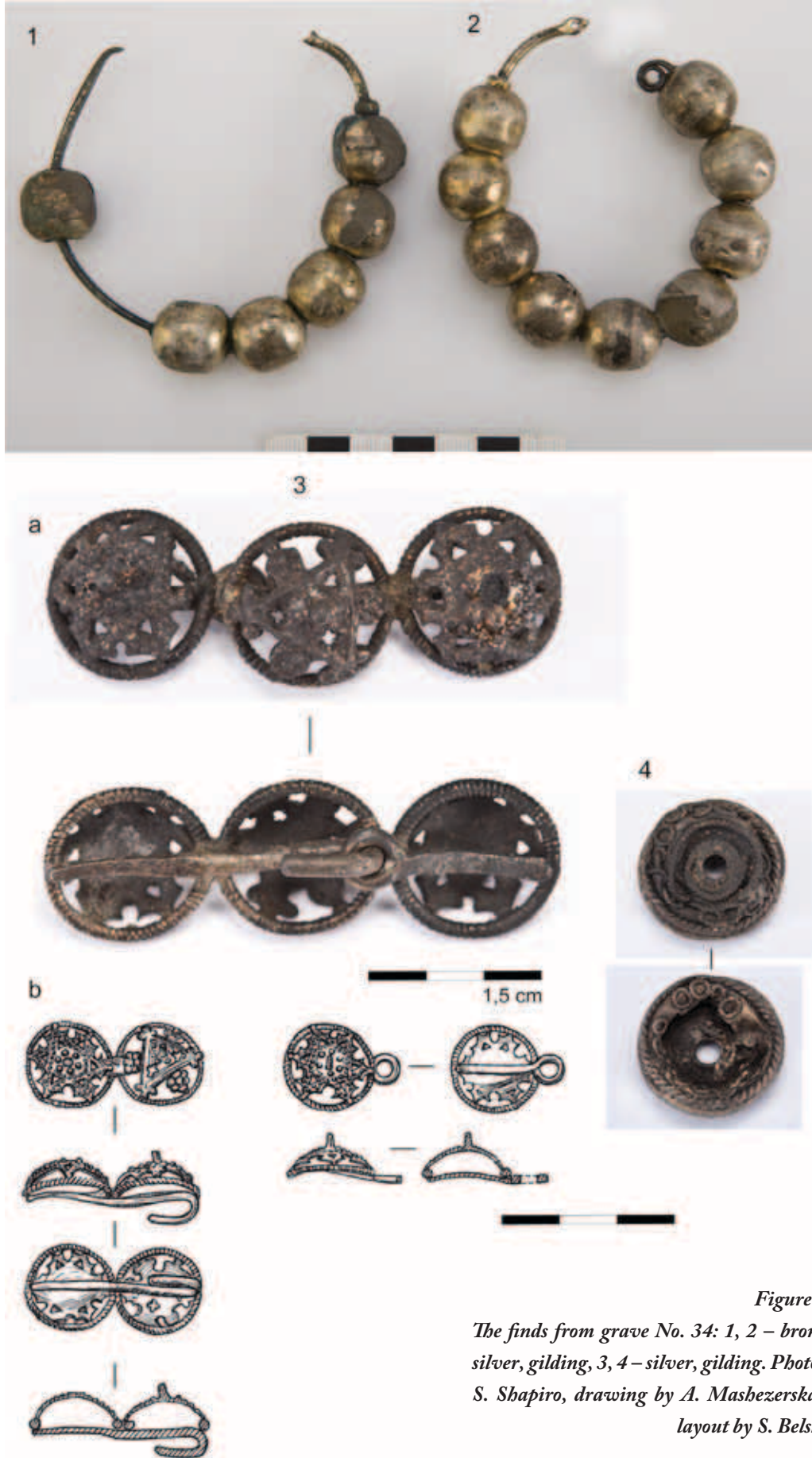


Figure 60.
The finds from grave No. 34: 1, 2 – bronze,
silver, gilding, 3, 4 – silver, gilding. Photo by
S. Shapiro, drawing by A. Mashezerskaya,
layout by S. Belskiy.

Assemblage of artefacts

1. On right and left sides of the skull, at levels of 18.18 m and 18.21 m respectively, many-beaded temple rings (or earrings) were found. A characteristic feature of these objects was in the number (nine) of the stamped silver beads threaded onto a bronze rod bent into a ring 6 cm in diameter. Both in size and number of beads, these rings differ from those found in burials Nos. 3, 13, and 30.
2. Under the right temple ring, one beneath the other, there were fragments of a leather object, textiles (at least two white and dark green pieces), and wood from the bottom of the coffin.
3. At a distance of 0.3 m to the north-east of the skull, in the central area of the burial and close to its left edge, a large gilded silver bead was found. This was a button similar to the specimens from burials Nos. 19 and 30. This button was crushed.
4. When the left temple ring was cleaned in laboratory conditions, a clasp was found under it. This clasp was probably used to fix a textile headdress, possibly two edges of a shawl that was not preserved.

The grave pit was approximately 1.8 m long and up to 0.7 m wide. Its depth was not over 0.15 m from the level of the ancient surface, on which overlying stone structure No. XXIII was built, and 0.3 m from the level of the modern surface.

Grave No. 35 (Figs. 58, 61)

Grave No. 35 was excavated north-east of burial No. 34, in squares 98/197-198. No clearly discernible overlying stone structure was recorded in this area. Burial No. 35 was made in the continuous structure of small stones in the northern part of the excavation area and was filled with stones extracted from the structure.

The marking stone block at the north-western edge of overlying stone structure No. XXIII (over burial No. 34) uncovered in square 97/198 at a level of 18.67 m could have been used as a marking block also at the south-eastern edge of the burial in question. However, this hypothesis is not confirmed for certain, although it cannot be ruled out that burials No. 34 and No. 35 were made consecutively.

The burial was excavated after the horizon of small stones, the top of which



Figure 61 (on left).

**Graves Nos. 35 and 36. A
view from the north-east.**

Photo by S. Belskiy.

was revealed at a level of 18.68 m, was uncovered and recorded. This horizon of stones also included dark loam and the fill of the grave pit.

The skeleton was not preserved. In the south-western section of the grave pit, at a level of 18.15 m, there was a fragmentary skull with the lower jaw remaining, and to its north-east there were fragments of leg bones at a level of 18.24 m. Apparently the interred (a child aged 9–10 years at death) was lying in an extended supine position (approximate azimuth 244°).

Fragments of the femoral bones were found slightly higher than the skull because the surface was uneven due to the presence of abundant stones and a rocky outcrop. Besides, the deceased was laid onto a part of the continuous horizon of small stones described above, which does not seem to have been completely removed when the grave pit was dug. This is another indication that the stone horizon had been constructed considerably earlier than the burial in question was made.

No artefacts related to the burial were found.

The bottom of the grave pit was the surface of the bedrock. Indistinct outlines of the grave could be traced in the loam only at the south-western edge. Based on them, the length of the grave was about 1.6 m and the width was about 0.7 m. The depth of the grave pit was 0.4 m from the level of the modern surface.

Grave No. 36 (Figs. 61–63)

The arrangement of burial No. 36 is very similar to that of burial No. 35: it was uncovered under the continuous horizon of small stones. A series of six boulders (with a maximum length of up to 0.25 m) aligned from north-east to south-west, found during the excavation in 2006, may have made up part of the overlying stone structure above burial No. 36. It was uncovered in square 99/200, at a level of 18.72 m (the extreme south-western stone) and 18.83 m (the extreme north-eastern stone). It seems that the south-western edge of the structure and its north-western wall were destroyed during the preparation of burial No. 35, uncovered 1 m to the west.

The fill of the grave pit of burial No. 36 was composed almost exclusively of small stones (some with traces of fire), apparently originating from an older structure. This indicates that the grave was made immediately on top of the continuous horizon of stones.

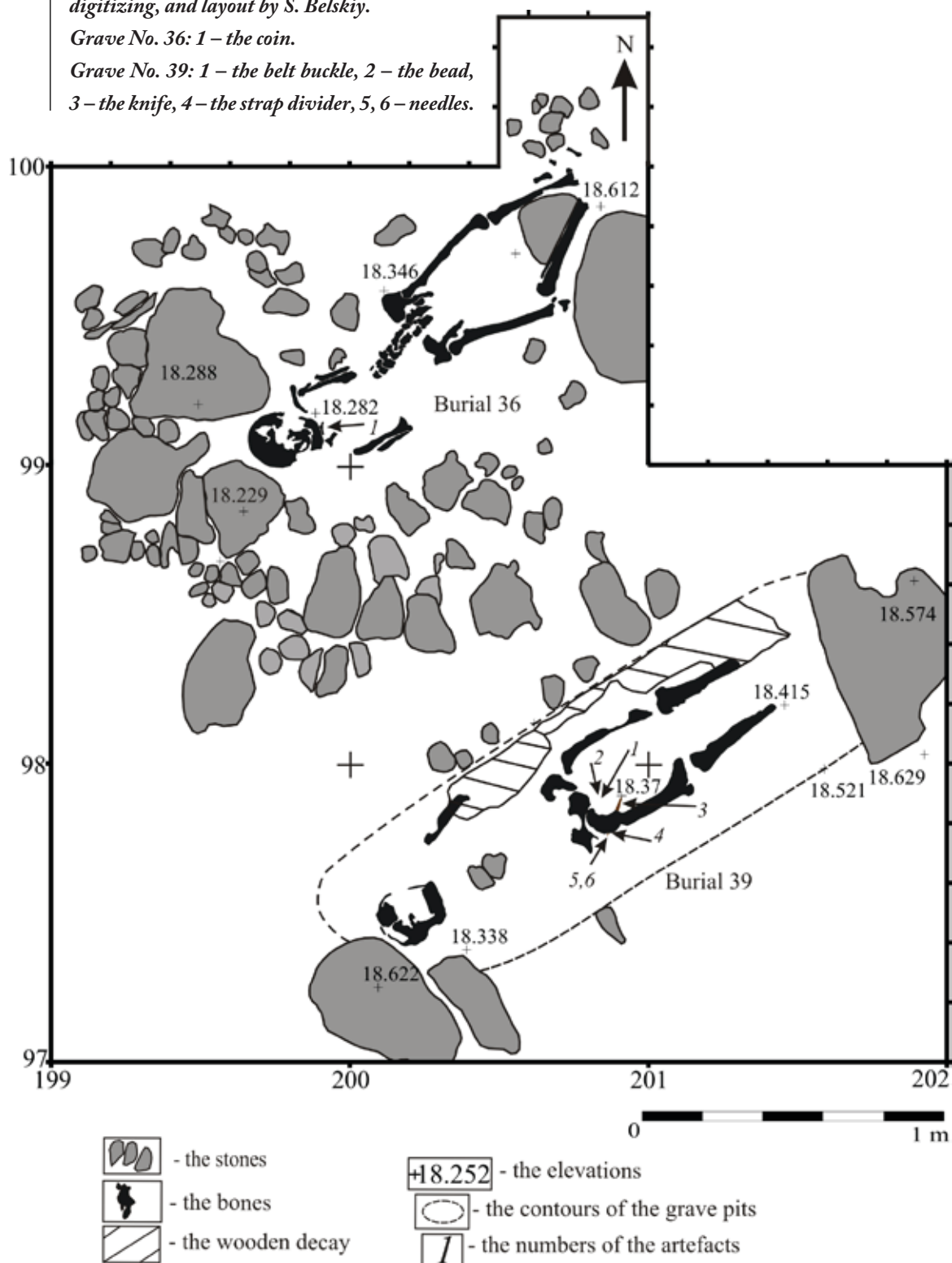
The poorly preserved skeleton was lying in anatomical order in an extended supine position at a level of 18.27 m (near the skull) and 18.49 m (near bones of the feet), head to the south-west, face to the east (azimuth 224°). The left arm was bent at

Figure 62.

Graves Nos. 36 and 39. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 36: 1 – the coin.

Grave No. 39: 1 – the belt buckle, 2 – the bead, 3 – the knife, 4 – the strap divider, 5, 6 – needles.



the elbow: the left ulna was at the place of the left humerus and the phalanxes of the left hand were found under the skull. The bones of the right foot, ribs, and arms were not preserved, with the exception of fragments of two ulnar bones and the lower epiphysis of the right humerus, as well as the thoracic and cervical vertebrae.

The skull with the lower jaw was fairly well preserved, although peeling-off of the compacta was recorded and the right parietal bone and the edge of the right eye socket were fractured (only some fragments of them were preserved). The individual interred was a male aged 18–20 years at death.



Figure 63.
The coin from grave No. 36
(a Novgorod denга). Photo
by S. Shapiro.

Burial artefact

Under the lower jaw, a Novgorod silver coin (a *denга*) was found in a stain of very dark loam. The coin was clutched in the fist of the left hand, and for some reason the left arm was bent at the elbow so that the hand was in the area of the skull.

The interred body, as in burial No. 35 described above, was literally squeezed into a narrow cleft of the rock. The femoral bones, which were lying on the horizon of small stones incompletely removed from the remains of the earlier stone structure, proved to be slightly higher than the skull. The depth of the grave pit was 0.48 m from the modern surface.

Grave No. 37 *(overlying stone structure No. XVI) (Figs. 64–65)*

Partly disturbed overlying stone structure No. XXVI was revealed in squares 93/199–200 and 94/200, at a level of 18.66 m at the south-western edge and 18.76 m at the north-eastern edge. It was a stone structure similar to that described above, measuring approximately 2.2×1 m around the external perimeter and approximately 1.7×0.6 m around the internal perimeter. It was oriented from south-west to north-east (azimuth 240°) and located 0.5 m to the south of and parallel to overlying stone structure No. II over burial No. 3. It seems that when the burial in question was made, the north-western wall of overlying stone structure No. XXVI was partly destroyed while its marking stone blocks at the south-western and north-eastern sides were displaced. Near overlying stone structure No. XXVI, only the south-eastern wall, 2.15 m long and uncovered in squares

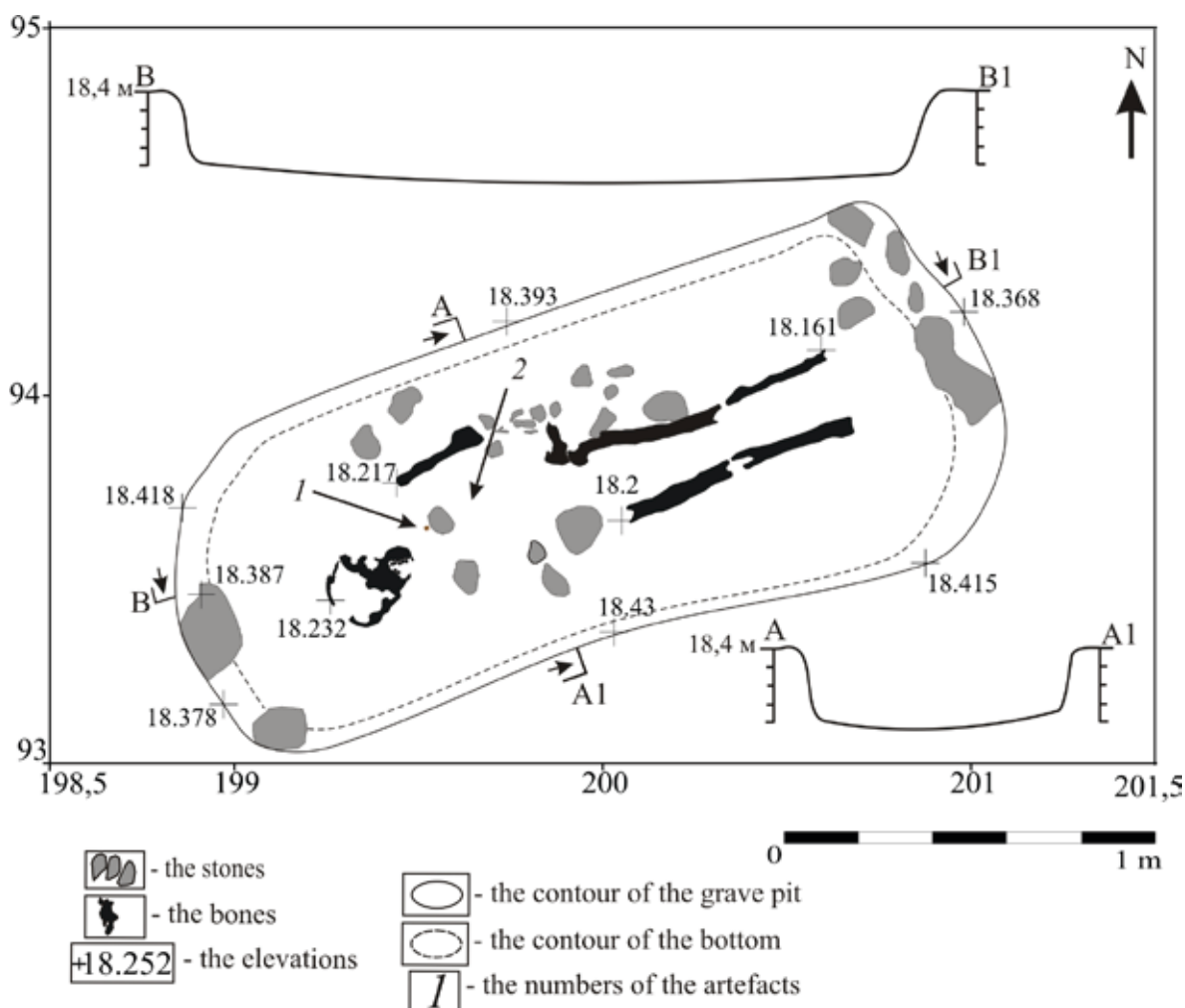


Figure 64.
Grave No. 37. General plan. Drawing,
digitizing, and layout by S. Belskiy.
1 – the button, 2 – the bead fragment.

93/199–200, was preserved. It was composed of six large boulders (up to 0.46 m) and oriented from south-west to north-east.

The outlines of the grave pit could not be defined exactly since its fill was a continuous horizon of small and medium-sized stones with small interstices of dark loam between them. This horizon was uncovered at a level of about 18.4 m.

The poorly preserved skeleton was lying in anatomical order in an extended supine position at a level of 18.23 m (near the skull) and 18.16 m (at the feet bones). It was oriented with the head to the south-west (azimuth 240°). The skull, which was in an extremely poor state of preservation, lay on the right side facing south-east. Fragments of the frontal bone and the upper jaw were preserved, and the lower jaw survived in two fragments. The interred was probably a male aged 25–35 years at death.

Assemblage of artefacts

1. To the north-east of the lower jaw, in the cervical area at a level of 18.23 m, there was a small (less than 1 cm in diameter) spherical button with a loop. The button was made of coiled silver wire and probably gilded.

2. Under the bones of the thoracic area there was a fragment of a silver bead.

The maximum length of the grave pit was 2.3 m and its width was about 1 m. Its maximum depth was 0.2 m from the level of the ancient surface, on which overlying stone structure No. XXVI was built, and 0.5 m from the level of the modern surface.



Figure 65.
The finds from grave No. 37: 1
– silver, gilding (?), 2 – silver.

Grave No. 38 *(Figs. 66–67)*

Grave No. 38 was excavated in squares 89/196–198, at a level of 18.4 m (near the skull) and 18.42 m (at the feet bones).

No distinctly visible overlying stone structure was revealed above the burial in question. However, in the same squares at a depth ranging from 18.73 m to 18.87 m, an amorphous accumulation of relatively large stones (with a maximum length of up to 0.45 m) was uncovered, possibly originating from an overlying stone structure destroyed by later activities in this area. The skeleton itself was not disturbed by these activities.

Immediately after the upper horizon of stones was recorded and removed, the outlines of the grave pit could be traced, at least its north-eastern edge. The pit was distinguishable as an indistinct stain of humic soil in yellowish coarse-grained sand with an abundance of small stones at a level of 18.55 m in squares 90/197–198. The fill of the pit was composed of slightly humic sand mixed with small stones.

The burial was made in a coffin traced in the form of two long streaks of rotten wood along the skeleton. The streaks were detected at a level of 18.42 m to the left and 18.45 m to the right of the skeletal remains. The length of the left streak, beginning at the skull and ending at the distal end of the shinbone, was 1.38 m, and its width was up to 0.1 m. The length of the right streak of rotten wood, beginning at the proximal end of the right humeral bone and ending at the feet bones, was 1.3 m, and its width was up to 7 cm. The recorded thickness of the boards was from 1 to 1.5 cm, in some areas as much as 5 cm.

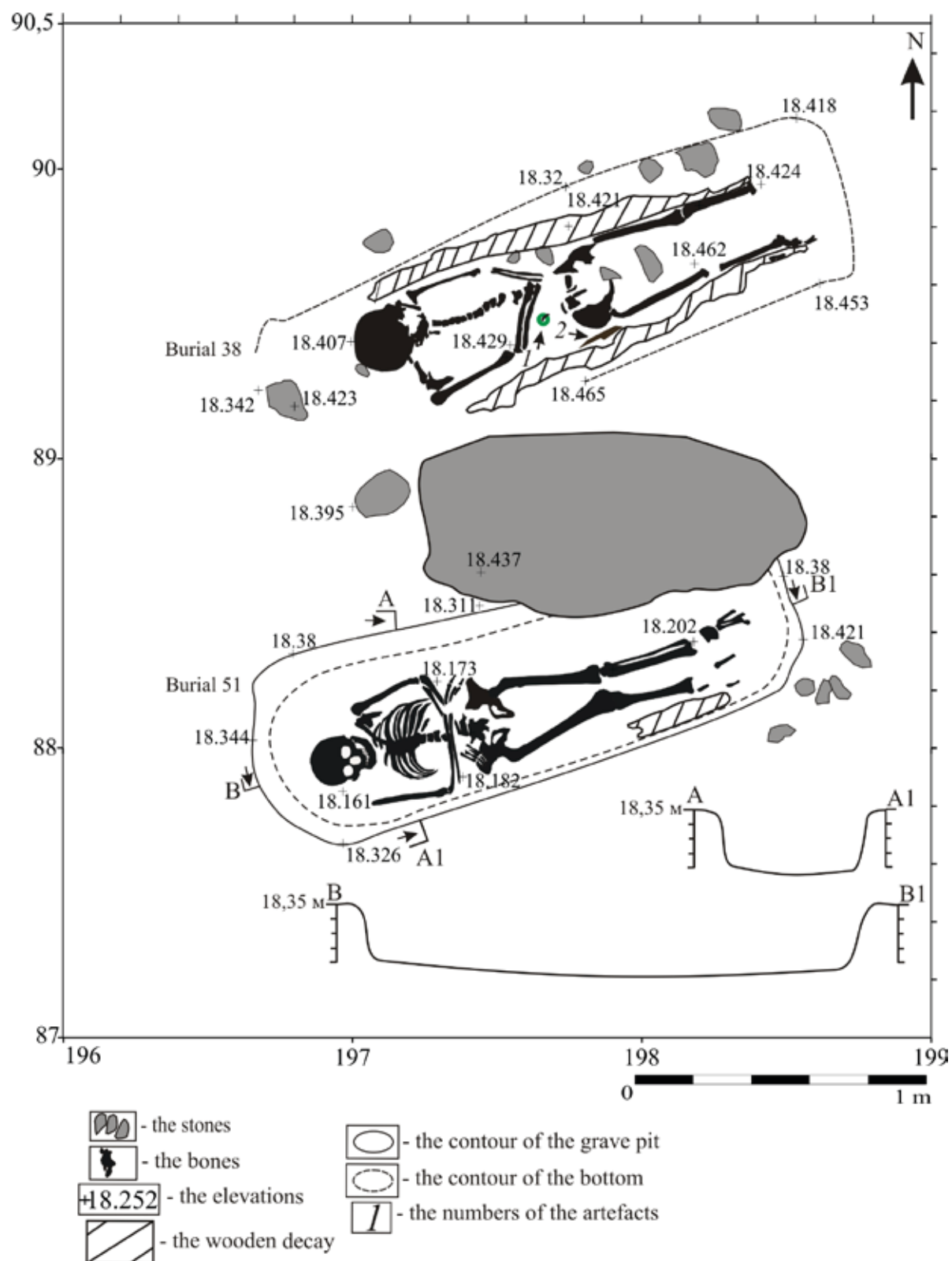


Figure 66 (on left).

Graves No. 38 and 51. General plan.

Drawing, digitizing, and layout by S. Belskiy

Grave No. 38: 1 – the finger ring, 2 – the knife and the sheath remains.

The poorly preserved skeleton was lying in anatomical order in an extended supine position, head to the south-west (azimuth 246°). The skull was on the left side. The hand bones rested on the waist, the palm of

the right hand under that of the left. The skull with the lower jaw was fairly well preserved, but the compacta had peeled off and the right side of the facial area and the right temporal bone were crushed. The individual interred was a woman aged 25–35 years at death.

Assemblage of artefacts

1. Between the bones of the right forearm and pelvis, at a level of 18.43 m, there was a bronze (possibly with an admixture of silver) signet ring plaited of many wires. The ring was similar to that from burial No. 3, but of slightly poorer quality and smaller diameter. Inside the ring was a finger phalanx.



Figure 67 (on bottom).

The finds from grave No. 38: 1

– silver, 2, 3 – iron. Photo by S.

Shapiro, layout by S. Belskiy.

2. To the south-east of the signet ring, near the proximal end of the right femoral bone, an iron knife with a wooden hilt was uncovered at the same depth. It retained possible remains of a leather sheath in the form of strongly mineralized bands along both edges of the blade. The total length of the knife was 17 cm, the length of the blade was 8.7 cm, its width was 2.3 cm, and thickness of the back was 0.6 cm.

On the wooden hilt of the knife there were two ferrules. The lower ferrule was preserved fragmentarily to a width of about 2.3 cm with fragments of the hilt adhering to its back. The upper ferrule, 2.5 cm wide, was covered with unidentified organics and the remains of an adhered textile impregnated with iron salts. The remains of wood were preserved along the entire length of the hilt, suggesting the possibility of reconstruction. On the butt of the upper ferrule, a link of a thin iron chain was preserved. There were also remains of iron ferrules of the sheath in the form of triangular plaques with narrow bands extending from them (up to 1 cm wide), which on the two sides fixed the seam of the leather sheath with small rivets. In addition, two plate fragments with a length of 6.2 cm were preserved. The approximate length of the sheath ferrules was 17 cm.

The grave pit was approximately 2.1 m in length and 0.65 m in width. Its maximum depth was 0.45 m from the modern surface.

Grave No. 39

(overlying stone structure No. XXVII) (Figs. 62, 68)

Overlying stone structure No. XXVII was revealed in the north-eastern section of the excavation in squares 97/200–201 and 98/201 at a level of 18.74 m at the south-western edge and 18.82 m at the north-eastern edge. This appeared to be a stone structure similar to that described above, but partly disturbed in the south-western part and of smaller dimensions: approximately 1.4×0.74 m around the external perimeter and 0.86×0.32 m around the internal perimeter. It was oriented from south-west to north-east.

The overlying stone structure was composed of eight large boulders, the most remarkable of which were located at the south-western and north-eastern edges of the structure (respectively up to 0.4 m and 0.27 m in size). It seemed that some of the blocks composing the structure were displaced, particularly from the north-western and south-eastern walls, possibly in the course of building overlying stone structure No. XXVI (above burial No. 23). However, this is only a hypothesis.

The grave pit was completely filled with small stones, many of which showed traces of fire and originated from an earlier structure, as mentioned above. The skeleton was entirely covered with these stones with practically no inclusions of loose soil. The grave was made inside a thick stone structure, parts of which were uncovered throughout a fairly

broad area in the northern section of the excavation. Under the pressure of the stones filling the grave pit, the grave seems to have sunk down, so that both the skeleton and the remains of the coffin turned out to be inside a thick horizon of stones.

Burial No. 39 was made in a coffin, which was preserved as long streaks of rotten wood along the right and left sides of the skeleton. To the right of the skeleton, the streak from the coffin was not very distinct, having been traced only in the first uncovered layer at a level of 18.41 m. Its length was about 1.1 m and its width was about 6 cm. To the left of the skeleton, the streak of rotten wood was better preserved, particularly near the bottom of the pit at a level of 18.44 m. Its length was 1.2 m, its maximum width (in the area of the left tibia at the north-eastern edge of the grave pit) was 20 cm, and its thickness was more than 1 cm. Thus, the reconstructed length of the coffin was about 1.7 m and its width was about 0.6 m. The coffin was closed with a lid, since fragments of wood were found over the left humeral and tibial bones.

Almost nothing of the skeleton was left. In the south-western part of the burial, at a level of 18.33 m, a poorly preserved skull without facial bones was found facing the north-east. The position of the arms could not be reconstructed. The preserved remains included only fragments of the left scapula and humeral bone, fragments of pelvic bones, and two femoral and two tibial bones found at a level of 18.41 m. The skeleton was probably lying in an extended supine position (azimuth 230°). The skull survived in fragments: the back part with the occipital hole and occipital bone, two fragments of the upper jaw, and the lower jaw with the second and third molars strongly worn. The interred was most probably a woman, but the age could not be determined.

Assemblage of artefacts

Below the pelvic bones, between the proximal ends of femoral bones, the following artefacts were found:

1. Slightly below the bones of the sacral area at a level of 18.37 m, a quadrangular iron buckle was found.
2. Slightly to the right of the knife, also under the bones, an iron belt ring was found.
3. Higher than the buckle, immediately below the bones of the sacral area, there was a silver bead identical to the ones threaded onto the temple rings.
4. Under the proximal end of the right femoral bone, there was an iron knife. The total length of the object was 14.5 cm, the length of the blade was 8.5 cm, its maximum width



Figure 68.

The finds from grave No. 39: 1, 2, 4, 5, 6 – iron, 3 – silver. Photo by S. Shapiro, layout by S. Belskiy.

was 2.2 cm, and its thickness was 0.5 cm.

5. Slightly above the ring, nearer the pelvic bones, there were two iron needles, which were possibly kept in a case or bag that was not preserved.

All the artefacts listed here, except for the silver bead, were parts of a belt set or objects hypothetically kept in a small bag, which was not preserved. The base of the belt was also not preserved.

To the south-west and north-east, the grave pit was bounded by natural rock outcrops, the top surfaces of which were uncovered at levels of 18.62 m and 18.57 m. Thus the approximate length of the grave pit was 1.94 m and its width was 0.65 m. The maximum depth of the grave pit was 0.3 m from the ancient surface, on which overlying stone structure No. XXVII was built, and 0.45 m from the level of the modern surface.

Graves Nos. 40 and 41

(overlying stone structures Nos. XIII and XIIIa) (Figs. 69–70)

Overlying stone structure No. XIII and the younger overlying stone structure No. XIIIa, which partly disturbed the former, were uncovered in squares 85-86/202-203 and 86/204.



Overlying stone structure No. XIII retained only its south-eastern part in square 85-86/202: a marking stone measuring 0.44×0.36 m uncovered at a level of 18.67 m, as well as part of the north-western wall composed of four boulders. This row of boulders was aligned from north-east to south-west. Only a part of the south-eastern wall, composed of two boulders, was preserved.

The north-western wall of overlying stone structure No. XIII and part of the wall of overlying stone structure No. XIIIa, which continued the former to the north-east, also formed the south-eastern wall of overlying stone structure No. XX (over burial No. 14). The south-eastern wall of the structures in question also formed the north-western wall of overlying stone structure No. XII (over burial No. 46 described above). Moreover, it seems that the latter structure was built later than the others in this group, since it had no distinct traces of destruction or displacement of the blocks composing it.

At a distance of 0.35 m to the east of the south-western stone of overlying stone structure No. XIII, that is, closer to the centre of the latter and at a level of 18.67 m, overlying stone structure No. XIIIa was found. The approximate dimensions of this structure were 2.26 m from north-east to south-west and 1.1 m from north-west to south-east. Overlying stone structure No. XIII was probably of similar dimensions, typical of the majority of structures at this cemetery.

Grave No. 40

The pit in which grave No. 40 was uncovered partly disturbed the eastern edge of the pit of burial No. 41. The two grave pits were identically oriented in the same direction as

Figure 69.
Graves Nos. 40 and 41 and the stone structure above grave No. 46. A view from the north. Photo by S. Belskiy.

Figure 70 (on left).

Graves Nos. 40, 41, and 46. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 46: 1 – the belt buckle and the fittings, 2 – the knife, 3 – the bead.

their overlying stone structures. Even though one pit was later disturbed by the other, the dimensions of both pits could be determined. The pit where burial No. 40 was uncovered was 2.1 m long from south-west to north-east and 0.44 m wide from north-west to south-east. Its north-western edge was bounded by

the rock whose the top was uncovered at a level of 18.4 m in square 86/204-205.

The poorly preserved skeleton was lying in anatomical order in an extended supine position at a level of 18.24 m (near the skull) and 18.16 m (near the distal ends of the tibial bones), head to the south-west (azimuth 236°). The bones of the hands rested on the chest with the bones of the left hand over the bones of the right hand. The skull with the lower jaw was fairly well preserved, but on its right side, the peeling-off of the compacta was recorded and the right cheek bone and the edge of the eye socket were fractured. The lifetime loss of all the teeth was recorded, except for the second and third right upper molars and the lower incisors and canines. The interred was an adult woman whose exact age could not be identified.

No artefacts related to the burial were found.

At the eastern edge of the grave pit at a level of 18.27 m, the remains of a coffin were uncovered in the form of a streak of rotten wood 0.6 m long and 9 cm wide.

Grave No. 41

Skeleton No. 41 was arranged parallel to No. 40 and at the same depth to the south-east of the latter, but in a separate grave pit. The skull was at the level of the right femoral bone in grave No. 40. The time between the two interments was probably quite short.

The grave pit of burial No. 40 was 1.65 m long from south-west to north-east and 0.55 m wide from north-west to south-east. The corpse of burial No. 40 was laid in a coffin, preserved as a streak of rotten wood along the left side of the skeleton up to a length of 0.55 m and a maximum width of 7 cm (at the north-eastern edge, in the area of the pelvic bones).

The poorly preserved skeleton was arranged in anatomical order in an extended supine position at a level of 18.16 m, head to the south-west (azimuth 243°). The skull was found on the right side, the bones of the right hand rested on the chest, and the bones of the left arm were bent at the elbow with the palm in the upper area of the thorax. The skull with the lower jaw was fairly well preserved, although the compacta had peeled off, the

left cheekbone and the edge of the eye socket were fractured, and all the left upper molars were lost during the individual's lifetime. In addition, the first two lower right teeth (the first lower molar on the left and the third on the right) were strongly worn. The individual interred was a male aged 30–40 years at death.

Burial artefact

Among the bones of the left hand, a smooth silver bead was found.

The maximum depth of the grave pit of burial No. 40 was 0.49 m from the modern surface. The maximum depth of the grave pit of burial No. 41 was 0.45 m from the modern surface.

Grave No. 42

Grave No. 42 was located in the western section of the excavation in squares 89-90/195-196. Above the burial, several rather small stones, which did not seem to compose any overlying stone structure, were uncovered. It was also impossible to trace the outlines of the grave pit. The soil over the burial contained very large amounts of small stones; some areas were covered exclusively by stones practically with no admixtures of loam.

The burial was made in a coffin with a cover, since many bones were covered with rotten wood. The coffin was preserved as expansive areas of rotten wood dust, covering almost the entire skeleton at a level of 18.27–18.29 m. The approximate dimensions of the coffin were 1.15 m in length and 0.3 m in width. The thickness of some fragments varied from 1 to 1.5 cm.

The skeleton was fairly well preserved and arranged in anatomical order, lying in an extended supine position at a level of 18.28 m (near the skull) and 18.32 m (at the feet bones), head to the south-west (azimuth 221°), face to the east. The skull was preserved in fragments: the occipital bone and facial skeleton with fractured eye sockets and nasal bones were preserved. The bones of the hands rested on the waist, the bones of the left hand under the bones of the right hand. The interred was a child who died at the age of 7–9 years.

No artefacts related to the burial were found, nor were any distinct outlines of the grave traceable.

Grave No. 43 was located in the north-eastern section of the excavation in squares 92/203–204. It was covered with spoil from a later household pit. This spoil consisted of mixed dark loam containing stones and clay. If there was originally an overlying stone structure on top of the burial, it has been destroyed. It also cannot be excluded that the north-eastern marking block of overlying stone structure No. IV (above burial No. 7) was used as the marking stone at the south-western edge of the potential overlying stone structure here.

The outlines of a grave pit could be traced only at a level of approximately 0.5 m from the modern surface in the form of a stain of dark mixed loam containing numerous stones. The stain was oval, oriented approximately from west to east, 1.22 m in length and 0.4 m in width.

Of the skeleton, only the skull survived. It was facing north-east in square 92/203 in the western section at a level of 17.9 m. The top of the cranium was fractured. However, it was clear that the interred was lying in an extended supine position, head to the south-west (azimuth 259°).

No artefacts related to the burial were found.

The grave pit was fairly deep and oriented approximately from west to east with a slight deviation to the south-west. To the south, the grave was bordered by a natural rock outcrop, the top surface of which was uncovered at a level of 18.11 m. The grave pit was about 1.5 m in length and 0.55 m in width. Its maximum depth was 0.65 m from the level of the modern surface. The pit was deeper than usual, apparently due to a thicker horizon of loose soil in this area of the hill.

Grave No. 44

Burial No. 44 was uncovered in squares 97/193–194 at a level of 17.75 m (skull area). No distinctly visible stone structure was recorded on top of the burial. The burial was covered with a horizon of small stones, the surface of which was uncovered at a level of 17.89 m.

The deceased was buried in a coffin, which was preserved as three relatively small stains of rotten wood in the central and north-eastern sections of the grave pit. The coffin seems to have had a lid, since fragments of wood were found over an iron knife.

The skeleton was not preserved. In the south-western area of the burial there was a skull lying on its left side. It retained the lower jaw, while the right parietal bone was fractured. The skeleton was apparently lying in an extended supine position (azimuth 226°). The skull with the lower jaw was poorly preserved: the right part of the facial skeleton, the right parietal bone, and part of the occipital bone were fractured, the compacta had peeled

off, and the lifetime loss of all the lower molars was recorded. The interred was probably a male who died at a mature age.

Burial artefact

In the north-eastern area of the grave pit, 0.1 m to the south-east of its north-western edge at a level of 17.7 m, a strongly worn iron knife with a triangular blade was found. The total length of the object was 9.9 cm, the length of the blade was 5.6 cm, its width was 1.4 cm, and the thickness of the back was 0.6 cm.

The grave was oriented approximately from north-east to south-west. The grave pit was 1.22 m in length and 0.6 m in width. The maximum depth of the grave pit from the level of the modern surface was 0.55 m.

Grave No. 45

(overlying stone structure No. XXIV) (Fig. 79)

Overlying stone structure No. XXIV was revealed in squares 95/194-195 at a level of 18.6 m. It was a stone structure similar to those described above, but apparently partly disturbed in its south-western section. It measured approximately 1.4×0.6 m around the external perimeter and 0.9×0.3 m around the internal perimeter. The overlying stone structure was oriented from south-west to north-east. A huge boulder was used as the south-western marking block. It was uncovered at a level of 18.56 m – slightly lower than the basic structure.

After the stones of this overlying stone structure were recorded and removed, the skeleton was found almost immediately beneath them. No distinct boundaries of the grave pit were identifiable.

The skeleton was very poorly preserved. It was lying in anatomical order in an extended supine position at a level of 18.38 m (near the skull) and 18.36 m (near the tibial bones), head to the south-west (azimuth 211°). The bones of the hands were found on top of the pelvic bones. Fragments of the skull with the lower jaw were preserved: the upper part of the cranium, fragments of the occipital and parietal bones, fragments of the upper jaw, and the lower jaw in two fragments. The pelvic, humeral, femoral, tibial, right radial, and ulnar bones also were preserved. The interred was probably a male who died at a mature age.

No artefacts related to the burial were found.

Overlying stone structure No. XII was revealed in squares 85/202–204 and 84/203, south of overlying stone structures Nos. XIII and XIIIa described above. From the north-east, it was adjoined by overlying stone structures Nos. X and XI, and from the north-west by stone structure No. XIV. The structure in question was uncovered at a level of 18.39 m at the south-western edge and 18.68 m at the north-eastern edge. It was similar in type to the stone structures described above, measuring 2.65×1 m around the external perimeter and 2.1×0.6 m around the internal perimeter. The structure was oriented from south-west to north-east (azimuth 244°) and composed of thirteen large boulders (0.3–0.5 m).

The top of the grave pit was recorded at a level of 18.33 m at the south-western edge and 18.37 m at the north-eastern edge. The pit was traceable as an indistinct oval stain of darkish-grey loam measuring approximately 2 m from south-west to north-east and 0.75 m from north-west to south-east.

Grave No. 46 contained a coffin, fragments of which were preserved only in the pelvic area in the form of small stains of rotten wood. The coffin was closed with a lid, since the rotten wood was discerned on the femoral bones and bronze artefacts. The exact dimensions of the coffin were unidentifiable.

The skeleton was fairly well preserved, lying in anatomical order in an extended supine position at a level of 18.17 m (near the skull) and 18.21 m (at the feet bones). The head was to the south-west (azimuth 244°) and the skull was on the right side. The bones of the hands were found on top of the pelvic bones with the phalanxes of the left hand under those of the right. The scapulae and epiphyses of the ulnae were fractured, and the clavicles and ribs were poorly preserved. The skull with the lower jaw was fairly well preserved. The upper premolars were strongly worn and the lifetime loss of all the lower molars was recorded. The individual interred was a male aged 40–50 years at death.

Assemblage of artefacts

1. Belt set.

On the pelvic bones at a level of 18.24 m, a bronze belt set was uncovered consisting of the following five elements:

a) At the proximal end of the right femoral bone, there was a “heart-shaped” belt tip. Fragments of wood (from the coffin cover) were preserved on this object. Under it, on the bone, there were the remains of a leather object (belt) 1–2 mm thick.

b) To the north of the belt tip and to the left of the proximal end of the right femoral bone was a bronze belt ring 2 cm in diameter.



Figure 71 (on left).

*Grave No. 46. A view
from the south-east.*

Photo by S. Belskiy.

c) To the north of the belt ring was a belt buckle with a pin.

d) To the right of the proximal end of the left femoral bone, a ring linked with a belt plaque was found.

e) On the proximal end of the left femoral bone, there was a belt tip identical to the first. Under it, to the right of the proximal end of the same bone, were the remains of a leather belt consisting of two fragments of leather up to 3 cm long. Around its perimeter there were small holes (stitching).

2. To the right of the pelvic bones, between them and the proximal end of the right femoral bone, an iron knife in a sheath was found. Its total length was 14.1 cm, the length of the blade was 10 cm, its width was 2 cm, and its thickness was 0.4 cm.

Along the entire length of the knife, textile fragments were preserved. In the areas where traces of the leather sheath were discerned, the pieces of textile were lying immediately under the remains of the leather. Under the knife, along its entire length, remains of dry and degraded wood were discerned, which differed in colour and texture from the wood of the knife hilt. These wooden fragments were probably the remains of the

*Figure 72 (on bottom).
Grave No. 46. The belt
buckle and the fittings in
situ. Photo by S. Belskiy.*



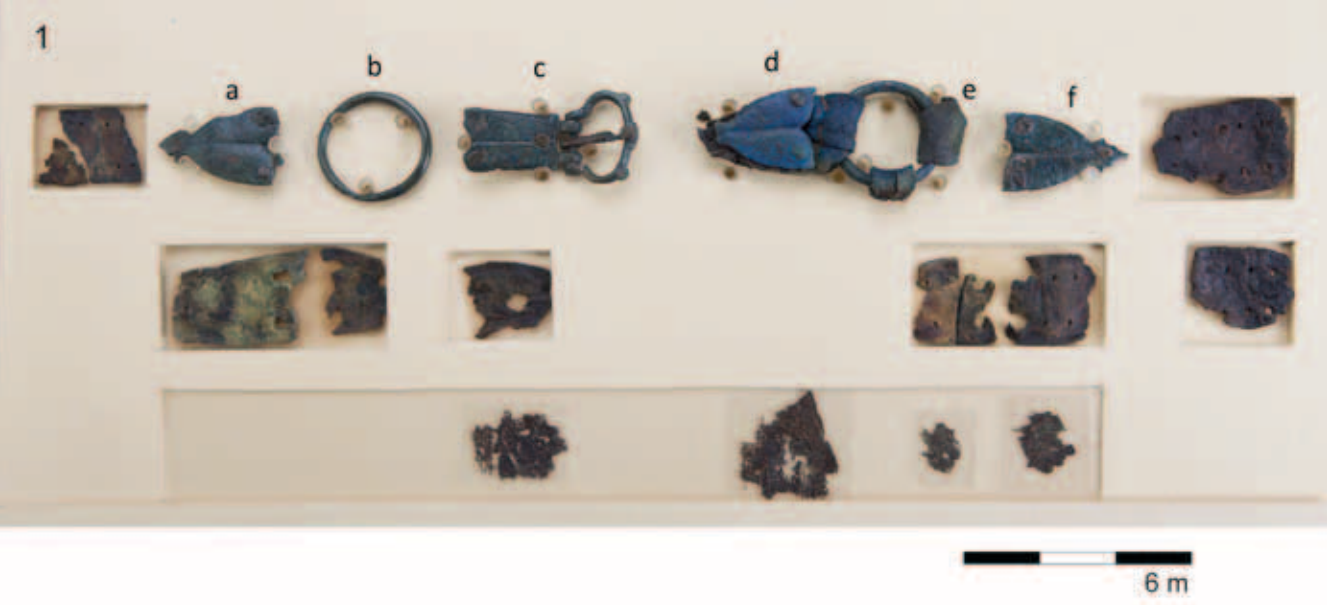


Figure 73.

Finds from grave No. 46:

1 – bronze, leather, textile.

**Photo by S. Shapiro, layout
by S. Belskiy.**

bottom of the coffin. In the area of the hilt, some fragments of leather, evidently from the sheath, were preserved. At the tip of the blade, also remains of leather were preserved with a seam and the remains of threads on the back side. Along the entire length of the knife and beneath it, as well as under the parts of the belt set, unidentifiable remains of organics were uncovered mixed with long, hard, dark brown hair resembling animal fur. It seems that the interred was clad in fur clothes.

3. During cleaning in the laboratory, a small textile bag attached to the belt by means of a leather strap was found under the pelvic bones. In the bag there was a flake of grey flint, a fire striker.

The maximum length of the grave pit was 2.1 m and its width was 0.9 m. Its maximum depth was 0.24 m from the level of the ancient surface, on which overlying stone structure No. XII was built, and 0.46 m from the level of the modern surface.

Grave No. 47

(overlying stone structure No. XIV) (Figs. 75–76)

Overlying stone structure No. XIV was revealed in squares 85/201–202 to the south of overlying stone structure No. XV described above and parallel to it. On the north-east side, it was adjoined by overlying stone structures Nos. XIII and XIIIa. This structure was uncovered at a level of 18.54 m at the south-western edge and 18.65 m at the north-eastern edge. It was partly destroyed at the south-western edge. The overlying stone structure measured approximately 1.4 m in length. Its width was 0.9 m around the external



perimeter and 0.5 m around the internal perimeter.

The structure was parallel to all the previously described structures, being oriented from south-west to north-east (azimuth 242°). The preserved section was composed of ten boulders (with a maximum length between 0.2 and 0.4 m). At the north-eastern edge in square 85/202, an oval stone was uncovered. Its longer side was oriented approximately from north to south and measured 0.44 × 0.2 m. In the northern corner, this structure could partly have disturbed the south-eastern wall of structure No. 15 (over burial No. 18), indicating that it

Figure 74.
Finds from grave No. 46:
1, 2 – iron, 3 – textile,
iron, 4 – flint. Photo by S.
Shapiro.

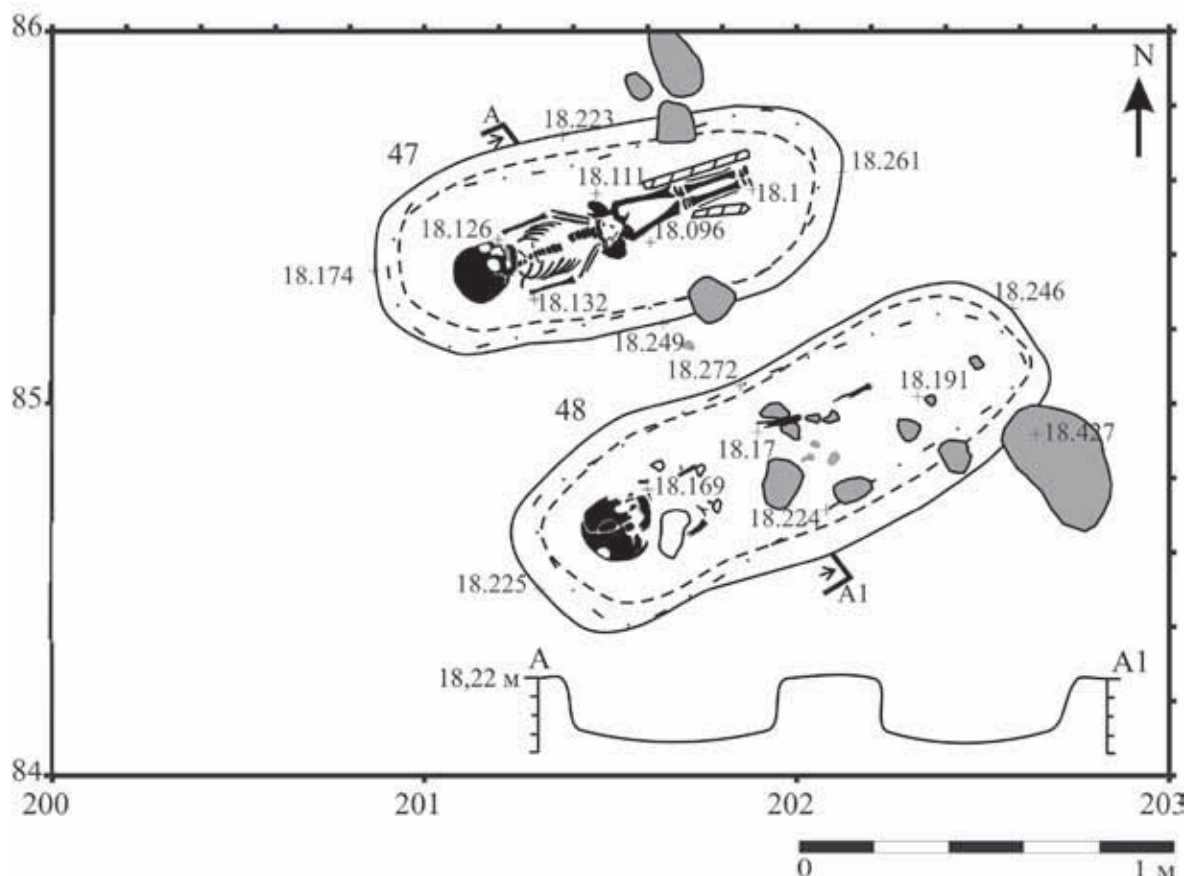


Figure 75 (on top).

Graves Nos. 47 and 48.

General plan. Drawing, digitizing, and layout by S. Belskiy.

was built later than the latter.

The top of the grave pit was recorded at a level of 18.21 m at the south-western edge and 18.32 m at the north-eastern edge. At that depth, the grave was distinguishable as an indistinct oval stain of darkish-grey loam measuring approximately 1.2 m from south-west to north-east and 0.42 m from north-west to south-east. The pit was filled with dark mixed loam with abundant small stones.

The remains of the coffin in the form of streaks of rotten wood were recorded to the right and left of the skeleton at a level of 18.1 m. To the left of the skeleton, a streak 30 cm long, 3 cm wide, and about 1 cm thick was uncovered. It began approximately at the proximal end of the left femoral bone and continued to as far as the bones of the feet. To the right of the skeleton, at the same depth, a band of rotten wood 15 cm long, 3 cm wide, and about 1 cm thick was uncovered, beginning at the proximal end of the right femoral bone and continuing approximately as far as the distal end of the same bone. Thus, it was possible to define at least the width of the coffin, which was about 0.2 m.

The skeleton was well preserved and arranged in anatomical order, lying in an extended supine position. It was found at a level of 18.12 m (near the skull) and 18.1 m (at the feet bones), head to the south-west (azimuth 242°), face to the north-east. The bones of the hands were found

Figure 76 (on right).

Graves Nos. 47 and 48.

A view from the east.

Photo by S. Belskiy.



on top of the pelvic bones. Almost all the skeletal remains were preserved, including the skull with the lower jaw. The interred was a child aged 4–5 years at death.

No artefacts related to the burial were found.

The maximum length of the grave pit was 1.22 m and its width was 0.52 m. The maximum depth of the grave pit was 0.2 m from the level of the ancient surface, on which overlying stone structure No. XII was built, and 0.57 m from the level of the modern surface.

Grave No. 48

(Figs. 75–76)

Grave No. 48 was revealed in squares 84-201/202, 0.55 m to the south of burial No. 47 and parallel to the latter. No overlying stone structure was recorded over the burial. Moreover, the area was almost free of stones, which was rather uncommon at the cemetery under study. At a level of 18.27 m, immediately after the turf was removed, the outlines of the grave pit were seen in a horizon of coarse-grained yellow sand. The fill was mixed dark loamy sand. At the depth specified, the pit was recognizable as an oval stain oriented from north-east to south-west and measuring about 1.35×0.4 m.

No traces of a coffin were found in the grave.

The very poorly preserved skeleton was lying in anatomical order in an extended supine position at a level of 18.18 m, head to the south-west (azimuth 240°) and skull on the left side. The preserved remains included fragments of the left femur and left tibia, the right humerus, and six ribs. The skull was preserved in fragments.

No artefacts related to the burial were found.

The maximum length of the grave pit was 1.28 m and its width was 0.5 m. Its maximum depth was 0.45 m from the level of the modern surface.

Grave No. 49

(overlying stone structure No. XXIX) (Fig. 77)

Overlying stone structure No. XXIX was revealed in squares 92-93/206-207, at a level of 18.49 m at the south-western edge and 18.31 m at the north-eastern edge. It was a stone structure similar to that described above, but considerably disturbed. Only a section of a wall at the north-eastern edge composed of five large boulders (with a maximum length of up to 0.6 m) was preserved, as well as individual stones at the south-western edge. The marking stones were probably also displaced. The structure measured approximately

2.4 m in length and 1.2 m in width around the external perimeter. It was oriented from south-west to north-east. The preserved part of overlying stone structure No. XIV was composed of ten large boulders (0.2–0.4 m in cross-section).

After the stones of the surviving part of overlying stone structure No. XXIX were recorded and removed, a horizon of dark mixed loam containing stones was uncovered on top of burial No. 49. No distinct outlines of the grave pit were recognizable.

The skeleton was very poorly preserved. It was lying in anatomical order in an extended supine position, head to the south-west, face to the north-east (azimuth 248°). The skull was crushed. Among the preserved remains were fragments of the right humerus, right ulna, and right radius, two femoral bones and the tibiae, and a fragment of the right pelvic bone, as well as four lumbar and one thoracic vertebrae (all the vertebrae found were under the hand bones). The interred was a male who died at a mature age.

During excavation it became clear that burial No. 49 had disturbed an earlier burial (which received no separate number because it was completely redeposited). Beyond the border of the grave pit, 0.35 m to the south of skull No. 49, near a rocky outcrop at a level of 17.93 m, a crushed skull was uncovered lying on its right side, face to the east. To the north-east of burial No. 49 at a level of 17.84 m, there were fragments of the right pelvic bone, fragments of two femoral bones lacking the epiphyses, a fragment of the right humeral bone, and two unidentifiable fragments of tubular bones. The skeletal remains belonged to a male aged 40–50 years at death.

Burial artefact

In the centre of the burial, at a level of 17.85 m, an iron knife was found. The total length of the object was 9.3 cm, the length of the blade was 5.5 cm, its maximum width was 2.1 cm, and its thickness was 0.4 cm.

The maximum length of the grave pit was 1.68 m and its width was 0.52 m. Its maximum depth was 0.62 m from the level of the modern surface.



Figure 77.
The knife from grave No. 49.
Photo by S. Shapiro.

Grave No. 50

(overlying stone structure No. XXX) (Figs. 78–80)

Overlying stone structure No. XXX was revealed in squares 95-96/193-194 at a level of 18.74 m at the south-western edge and 18.48 m at the north-eastern edge, 0.35 m to the north-east of the partly destroyed overlying stone structure (No. XXIV) described above. This was a stone structure similar to that described above and measuring 2.72×1.2 m around the external perimeter and 1.94×0.8 m around the internal perimeter. It was oriented from south-west to north-east (azimuth 218°). The structure was composed of 16 large boulders (with a maximum length of 0.3–0.4 m). The boulders at the south-western and north-eastern edges were notably large, namely up to 0.42 m and 0.68 m. The northern corner of the structure and part of its north-western wall may have been disturbed in a later period.

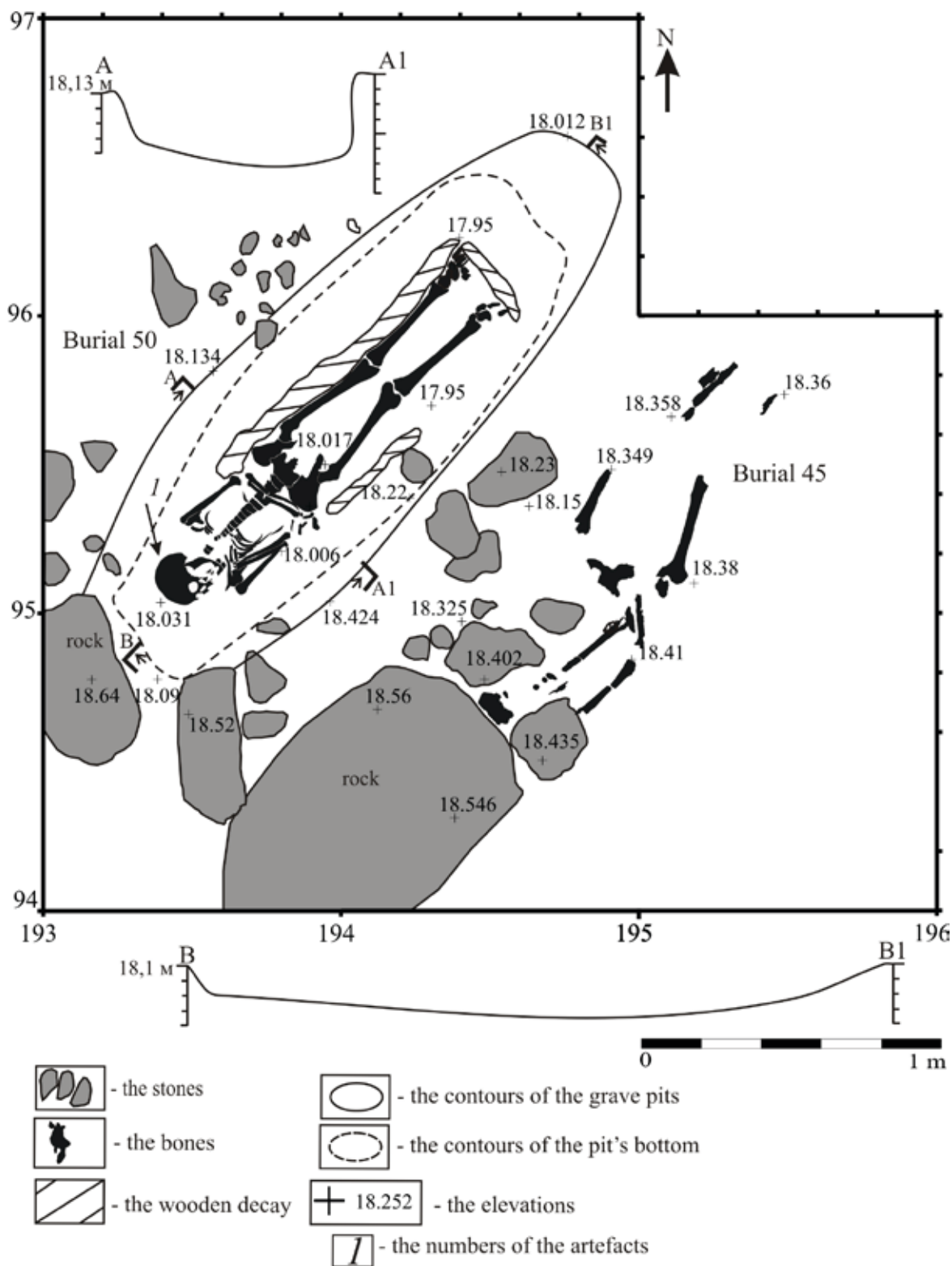
The top of the grave pit was recorded at a level of 18.15 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring approximately 1.76 m from south-west to north-east and 0.64 m from north-west to south-east.

Burial No. 50 was made in a coffin, which was preserved in the form of narrow streaks of rotten wood and dust on both sides of the skeleton and at the north-eastern edge of the grave pit. The wall of the coffin was preserved the best along the left side of the skeleton. It began approximately from the distal end of the left humeral bone and continued as far as the area of the feet bones, where a corner of the coffin and the joint of the lengthwise and butt end walls were uncovered in square 96/194 at a level of 17.95 m. The length of the wall traced along the left side of the skeleton was 1.1 m, its width was up to 1 cm, and its thickness was up to 2 cm. The butt end of the coffin was evidently preserved to its entire breadth. Its length was 0.31 m, its width was 5 cm, and its thickness was up to 2 cm. To the right of the skeleton, a section of the coffin wall was preserved to the length of 0.41 m extending along the bones of the pelvis and right femoral bone. Thus, the reconstructed dimensions of the coffin were 1.6 m in length and up to 0.35 m in width.

The skeleton was fairly well preserved and arranged in anatomical order lying in an extended supine position, head to the south-west (azimuth 218°), skull on the right side. The right arm was bent at the elbow and the hand was on the upper part of the thorax. The bones of the left hand rested on the waist. Phalanxes of the fingers and toes were preserved. The skull with the lower jaw was fairly well preserved, although peeling-off of the compacta was recorded. The left side of the facial skeleton and the left parietal bone were partly fractured, the first upper molar on the left was decayed, and a lifetime loss of the first lower molar

*Figure 78 (on right).
Grave No. 50. A view from
the east. Photo by S. Belskiy.*





*Figure 79 (on left).
Graves Nos. 45 and 50.
General plan. Drawing,
digitizing, and layout by S.
Belskiy. Grave No. 50: 1 –
the earring.*

*Figure 80 (on right).
The earring from grave No.
50. Silver, gilding. Photo by
S. Shapiro.*

on the left, as well as possibly the first right molar, were recorded. The individual interred was a woman aged 30–35 years at death.



Burial artefact

To the left of the skull, at a level of 18.03 m, there was a single broken earring of gilded silver in the shape of a question mark(“?”), 2.7 cm in diameter, with two wire stoppers.

At the south-eastern edge, the grave pit was limited by a rocky outcrop or a large boulder which was undoubtedly not displaced during interment. The maximum length of the pit was 2.8 m and its width was 0.75 m. The maximum depth was 0.2 m from the level of the ancient surface, on which overlying stone structure No. XXX was built, and 0.5 m from the level of the modern surface.

Grave No. 51

(overlying stone structure No. XXXI) (Fig. 66)

Overlying stone structure No. XXXI was revealed in squares 87-88/196 and 87/197 at a level of 18.72 m at the south-western edge and 18.76 m at the north-eastern edge, 0.9 m to the north-east of overlying stone structure No. XVIII (over burial No. 20) described above. It was a stone structure similar to that described above, measuring 2.1 × 0.9 m around the external perimeter and 1.4 × 0.4 m around the internal perimeter and oriented from

south-west to north-east (azimuth 248°). The structure was composed of boulders with a maximum length of 0.3–0.4 m. The boulders at the south-western and north-eastern edges were remarkably large, up to 0.6 m and 0.48 m.

The top of the grave pit was recorded at a level of 18.43 m. Its orientation was the same as that of the overlying stone structure, and it could be discerned as an indistinct oval stain of darkish-grey loam measuring approximately 1.4 m from south-west to north-east and 0.6 m from north-west to south-east.

Burial No. 51 was made in a coffin preserved as a streak of rotten wood along the right tibia and bones of the feet, 0.37 m long and 0.1 m wide. This streak was recognized at a level of 18.2 m.

The skeleton was fairly well preserved and arranged in anatomical order lying in an extended supine position, head to the south-west (azimuth 248°) and face to the north-east. The hand bones were found upon the pelvis with the bones of the left hand on top of the right hand. The ribs, clavicles, and shoulder blades were poorly preserved. The skull with the lower jaw was fairly well preserved. The individual interred was a woman aged 35–45 years at death.

No artefacts related to the burial were found.

From the north, the grave pit was bounded by a rocky outcrop. The maximum length of the grave was 2 m and its width was 0.66 m. The maximum depth was 0.32 m from the level of the ancient surface, on which overlying stone structure No. XXX was built, and 0.53 m from the level of the modern surface.

Grave No. 52

Grave No. 52 was uncovered in squares 92/203–204 between the eastern edges of overlying stone structures Nos. IV and V (above burials Nos. 7 and 8). No overlying stone structure was found above this grave.

At a level of 18.2 m near the western edge of the grave pit, there was a fragment of the coffin in the form of an area of rotten wood measuring 20 cm in length and 8 cm in width. Beneath it were small unidentifiable fragments of bones (probably from the skull) and one milk tooth (molar).

The burial was made in a grave pit measuring 1.24 m from west to east and 0.66 m from north to south (approximate azimuth 257°) at a level of 18.01 m. Neither skeletal remains (except for small fragments of the skull) nor artefacts were found in the burial. Judging by the dimensions of the grave pit, it appears to have been the burial of a child.



Grave No. 53

(overlying stone structure No. XXXII) (Figs. 81–84)

Overlying stone structure No. XXXII was uncovered in squares 84–85/204–205. It was a single row of twelve large (maximum length between 0.3 and 0.6 m) granite boulders, oriented approximately from north-east to south-west (azimuth 224°). The maximum dimensions were 2.5 × 1.05 m around the external perimeter and 2 × 0.6 m around the internal perimeter. At the north-eastern edge, a larger boulder was used as a marking stone. Its top surface was uncovered at a level of 18.73 m, no deeper than 0.1 m down from the level of the modern surface. The marking block at the south-western edge was missing. The inner space of the structure was filled with loamy, greyish moraine soil.

After overlying stone structure No. XXXII was drawn and photographed, we decided to try to clear the burial without extracting the stones in order to more clearly define the stratigraphic relationships of all the elements of the complex under study. The clearing of the skeleton was carried out throughout the inner area of the overlying stone structure, after which the blocks composing the structure were removed.

At a level of 18.31 m at the south-western edge and 18.26 m at the north-eastern edge, the remains of a coffin were uncovered in the form of streaks and isolated stains of

Figure 81.

The stone structures Nos. XXXII and XXXIII above graves Nos. 53 and 54. A view from the north-west. Photo by V. Laakso.



Figure 83 (on bottom).

Graves Nos. 62, 53 and 54. General plan. Drawing, digitizing, and

layout by S. Belskiy.

Grave No. 53: 1 – the bead, 2 – the needle box, 3 – the knife.

Grave No. 54: 1, 2 – temple rings/earrings), 3 – the bead, 4 – the tip,





Figure 84.

The finds from grave No. 53: 1 – silver, 2 – bronze, 3 – bronze, textile, 4 – iron. Photo by S. Shapiro, drawing by A. Mashezerskaya, layout by S. Belskiy.

rotten wood. The reconstructed length of the coffin was 1.42 m, and its width was 0.29 m at the north-eastern edge and 0.27 m at the south-western edge. The coffin was made of boards without the use of nails and was closed with a lid preserved as separate wooden

fibres over the skull, left femoral bone, and artefacts.

The poorly preserved skeleton was lying in anatomical order in an extended supine position with the arms crossed on the chest and the head to the south-west (azimuth 223°). The skull was on the right side, with the face turned to the south-east. It was uncovered at a level of 18.32 m. Fragments of the scapulae, radial and ulna bones, both humeral bones, two fragments of ribs, a fragment of the left clavicle, two vertebrae, fragments of the left tibia and femur, and a fragment of the pelvis were preserved. The interred was an adolescent aged 11–13 years at death.

Assemblage of artefacts

1. In the central part of the grave pit, between the femoral bones, a silver biconical bead with a length of 3.2 cm was uncovered.

2. Near the proximal end of the right femoral bone, there was a needle box with a length of 7.2 cm. The object is a bronze tube with a smooth surface that broadens towards the lower end. The diameter of the upper opening was 1.2 cm and that of the lower one was 1.9 cm. The upper edge was also widened with the help of three parallel fillets protruding over the rest of the smooth object. The lower edge was ornamented with four fillets of this type. Another widening with three fillets was in the central part of the artefact. In the course of conservation, a complicatedly woven rope impregnated with oxides of bronze was identified inside the object. A thin bronze needle, 4.5 cm long, was tied to it by separate threads. In the upper part of the needle box (where it had the smallest diameter), a fragment of a leather object was preserved. There were also fragments of leather, probably from the sheath, between the needle box and the wooden hilt of the knife.

3. An iron knife with the remains of a wooden hilt was found near the needle box lying parallel to it. The total length of the object was 13 cm, the length of the blade was 9 cm, its maximum width was 2.3 cm, and the thickness of the back was 0.5 cm.

4. In the area of the feet, in the north-eastern section of the grave pit at a level of 18.25 m, a fragment of a leather object was uncovered, possibly footwear, measuring 15.5 × 5 cm and composed of two or three sheets.

The maximum length of the grave pit was 2.1 m and its width was 0.5 m. The maximum depth was 0.3 m from the level of the ancient surface, on which overlying stone structure No. XXXII was built, and 0.5 m from the level of the modern surface.



Figure 85 (on left).

**Grave No. 54. A view
from north-east. Photo
by V. Laakso.**

Overlying stone structure No. XXXIII was excavated 0.4 m to the south-east of structure No. 32 in squares 82/205 and 83/206 at a level of 18.68 m. It was composed of seventeen granite boulders (maximum length between 0.3 m and 0.4 m). No marking stones were revealed at the edges of the structure. The boulders were set in a single row forming a closed, oval structure that was oriented approximately from north-east to south-west (azimuth 218°). Its maximum dimensions were 2.1 × 0.9 m around the external perimeter and 1.7 × 0.4 m around the internal perimeter. The space inside the structure was free of stones.

The top of the grave pit was recorded at a level of 18.4 m. Its orientation was the same as of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring approximately 2 m from south-west to north-east and

Figure 86 (on bottom).

**Grave No. 54. The artefact complex
in the central part of the grave pit
in situ. Photo by S. Belskiy.**





Figure 87 (on left).

The finds from grave No. 54: 1, 2 – bronze, silver, gilding, 3 – silver, 4 – iron, 5a – bronze, leather, 5b – bronze, glass, leather, 5c – bone, 5d, f, e – bronze.

Photo by S. Shapiro, layout by S. Belskiy.

0.78 m from south-east to north-west.

Immediately after the boulders composing overlying stone structure No. XXXIII were removed

and the upper surface of the grave pit was cleared, the remains of the coffin could be seen as indistinct isolated stains of rotten wood or sometimes simply spots of humus that only differed slightly in colour from the surrounding soil. The fragments of the cover and bottom of the coffin were preserved mostly in the areas conserved by bronze artefacts in the central part. The state of preservation of these traces did not allow for the reconstruction of the coffin's dimensions.

A noteworthy feature of the fill of the grave pit was the presence of rich amounts of charcoal. The burial may have taken place in the winter, when the soil had to be heated before a grave pit could be dug.

The fragmentary skeleton was in an extremely poor state of preservation. It was arranged in anatomical order. The preserved fragments included long bones without the epiphyses and some fragments of a crushed skull lying on the right side. The interred seemed to have been placed in an extended supine position, oriented to the south-west (azimuth 205°). The orientation of the burial differs slightly from the orientation of the overlying stone structure, but this seems to be due to the process of degradation of the burial itself. The interred was a child (a girl judging by the artefacts) aged 9–10 years at death.

Assemblage of artefacts

1. To the left and right of the skull, many-beaded temple rings (or earrings) were uncovered. They were similar to the specimens from other burials at the cemetery, but of slightly smaller dimensions: each ring had a diameter of 5.2 cm, and each of the eight beads had a diameter of 1.5 cm. The left ring was preserved completely and the right one was slightly damaged. Under the right ring, human hairs were found, under which were remains of the coffin bottom.

2. Near the lower jaw, a separately lying smooth silver bead was uncovered.

3. In the central area of the grave pit, an iron object of conical shape was found. This artefact was located slightly higher than the set of artefacts described further below, and its

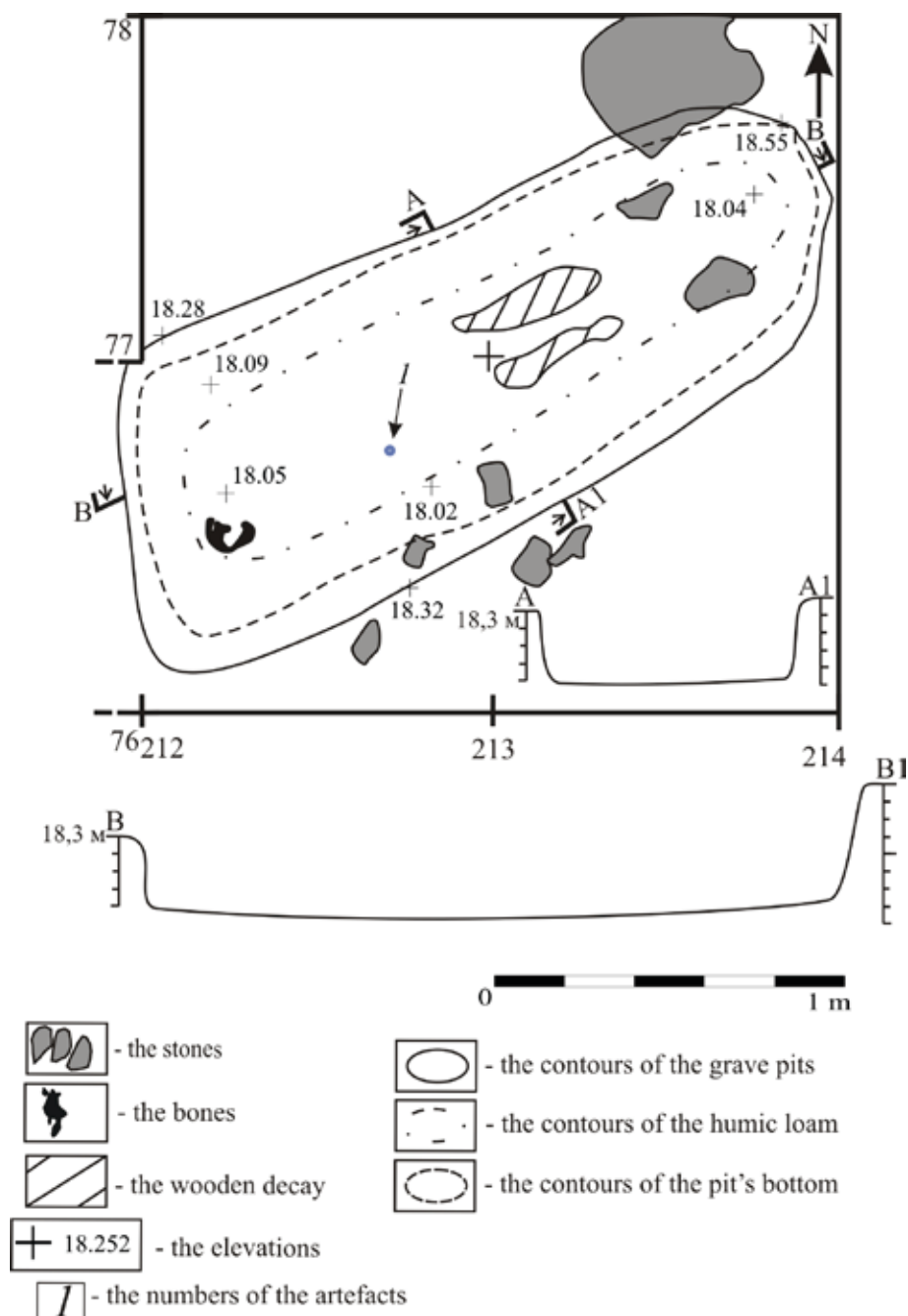


Figure 88.

Grave No. 55. General plan. Drawing, digitizing, and layout by S. Belskiy.

1 – finger ring.

connection with the latter is not wholly clear. After conservation, it was clear that this object, which was 6.3 cm long, was soldered from a single plate coiled into a cone. Inside it, fragments of wood were preserved. It could have been a point or butt of a wooden object put onto the body of the deceased girl above her hands, which were crossed on the chest.

4. A set of ornaments were found in the central area of the grave pit:

a) A circular ring-shaped strap divider arranged into three sectors with internal crosspieces, 2.8 cm in diameter, with a round arc 0.3 cm in diameter. Upon the object, a fragment of a leather strap (about 1 cm wide) tied into a knot and two red threads were preserved. These fragments were relatively short, not over 1.5 cm long, but it seems that they originally continued eastwards from the divider under the right arm of the interred and that the set of ornaments uncovered below was attached to them.

b) Under the fragments of the radial bones, there were two leather cords around which bronze spirals were braided and which were threaded through a bead of black opaque glass with three wavy white lines. They were tied to a bispiral bronze chain holder, which terminated this belt ornament.

c) Near the chain holder was a discoid spindle whorl (a weight?) made from the epiphysis of an animal bone.

d) Further in the north-eastern direction, at the same level, the following artefacts were found: an ornamented bronze holder, a bronze belt loop for attaching an object to the belt, and immediately under it a hollow zoomorphic bronze pendant – a horse that terminated this element of the belt ornament. The ornamented bronze holder was fixed on a cord that passed through a perforation in the zoomorphic pendant. The relationship of these artefacts with the set attached to the chain holder is not quite clear. They were all probably attached by straps to the belt divider or to a belt loop hanging down along the right thigh of the deceased.

The maximum length of the grave pit was 1.95 m and its width was 0.8 m. The maximum depth was 0.2 m from the level of the ancient surface, on which overlying stone structure No. XXXIII was built, and 0.5 m from the level of the modern surface.

Grave No. 55

(overlying stone structure No. XL) (Figs. 88–89)

Overlying stone structure No. XL was revealed in squares 76/211–213 at a level of 18.46 m. In this area of the excavation, the soil was less stony, consisting of grey moraine loam. For this reason, the depth of the deposition of the overlying stone structure and the burial itself was slightly greater than in other areas of the excavation. The top surface of the stone at the north-eastern edge of the structure was uncovered at a level of 0.1 m from the modern surface.

Overlying stone structure No. XL was composed of boulders with a maximum length of up to 0.5 m. The stones could be distinguished at the south-western and



Figure 89.
*The finger ring from
grave No. 55. Photo
by S. Shapiro.*

north-eastern edges. The boulders were arranged in a single row forming a closed oval structure oriented approximately from north-east to south-west (azimuth 234°). Its maximum dimensions were 2.5 × 1.15 m around the external perimeter and 1.8 × 0.6 m around the internal perimeter. The inner space of the structure was free of stones.

The top of the grave pit was recorded at a level of 18.28 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring approximately 2.2 m from south-west to north-east and 0.88 m from south-east to north-west.

The fill of the grave contained numerous pieces of charcoal.

In the central area, at a level of 18.09 m, two very indistinct streaks of rotten wood were uncovered with a length of less than 0.45 m and a width of less than 0.12 m. These were traces of a coffin.

Fragments of the skeleton were extremely poorly preserved and arranged in anatomical order. The preserved skeletal remains included fragments of the skull as well as decayed bones of the feet. The skeleton was oriented to the south-west (azimuth 234°). Although rather massive fragments of bones were preserved, the sex of the interred was unidentifiable. The deceased was 50–60 years at death.

Burial artefact

In the central section of the grave pit, a ring made of multiple braided silver wires was uncovered. Due to the rather poor preservation of organics, the find context of the ring could not be defined more precisely, but there is no reason to suggest it does not originate from this burial.

The maximum length of the grave pit was 1.89 m and its width was 0.4 m. The maximum depth was 0.25 m from the level of the ancient surface, on which overlying stone structure No. XL was built, and 0.53 m from the level of the modern surface.

Grave No. 56

(overlying stone structure No. XLV)

Overlying stone structure No. XLV was disturbed. It was found in square 87-88/209 at a level of 18.55 m and was composed of thirteen medium-sized granite boulders (with a maximum length of less than 0.4 m). The north-eastern edge and south-eastern wall of the structure were partly destroyed. The south-western edge, with a noteworthy stone measuring 0.4 × 0.3 m, was preserved best of all. The boulders were apparently lined in a single row forming a closed structure that was oriented approximately from north-east to south-west (azimuth 216°) and measured 2.2 × 1.1 m around the external perimeter and 1.9 × 0.5 m around the internal perimeter.

The top of the grave pit was recorded at a level of 18.19 m. Its orientation was the same as that of the overlying stone structure. It was poorly distinguishable as an oval stain of greyish loam measuring approximately 2 m from south-west to north-east and 0.9 m from south-east to north-west.

The excavation of the grave pit uncovered the remains of a coffin in the form of isolated areas and streaks of rotten wood. The coffin appears to have been made of thin boards and closed with a lid, since areas of rotten wood were encountered over the bones. The length of the coffin was about 1.5 m and its width was 0.4 m.

Fragments of the skeleton were extremely poorly preserved in anatomical order. The interred seemed to be lying in an extended supine position, head to the south-west (azimuth 215°). Fragments of the skull were preserved, as well as two fragments of tubular bones, including a fragment of the left femur. The interred was probably a male aged over 55 years at death.

No artefacts related to the burial were found.

The grave pit was approximately 2.1 m long and 0.56 m wide. The maximum



Figure 90.

**Graves No. 57a, b. A view
from the north-east. Photo by S.
Belskiy.**

depth was 0.15 m from the level of the ancient surface, on which overlying stone structure No. XLV was built, and 0.33 m from the level of the modern surface.

Grave No. 57

(overlying stone structure No. XXXVIII) (Figs. 90–93)

Overlying stone structure No. XXXVIII was revealed in squares 85–86/207–208 at a level of 18.46 m at the south-western edge and 18.51 m at the north-eastern edge. It was a closed oval stone structure similar to those described above and composed of fourteen granite boulders with a maximum length of up to 0.6 m. It was oriented from north-east to south-west (azimuth 216°). However, its dimensions differed from the structures described above, as it was 2.9 m long and 1.3 m wide. A natural rocky formation was used for the stone at the north-eastern edge of the structure.

The top of the grave pit was recorded at a level of 18.3 m. Its orientation was the same as that of the overlying stone structure and its outlines were distinguishable as an oval stain of grey loam measuring approximately 1.75 m from south-west to north-east and 0.8 m from south-east to north-west.

The fill of the pit contained numerous pieces of charcoal. At a level of approximately 0.2–0.25 m from the modern surface, the character of the fill changed slightly: the grey loam was darker here. The boundary between these two layers was represented by a thin (less than 1 cm) intercalation of rotten wood in the central part of the grave pit. This intercalation was uncovered throughout a fairly expansive area: 1.57 × 0.73 m (at the north-eastern edge). This intercalation probably represented the remains of a large lid for a single coffin for two bodies or a peculiar wooden roof for a broad grave pit. Anyway, no traces of the coffin bottom were discernible.

Burial No. 57a

As two interred individuals were found in this burial complex, they were identified with the letters “a” and “b”.

Along the south-eastern wall of the grave pit, there was a poorly preserved skeleton arranged in anatomical order in an extended supine position, head to the south-west (azimuth 220°), hands crossed on the pelvic bones. The bones of the right hand were found beneath those of the left hand. The skull was found at a level of 18.22 m and was

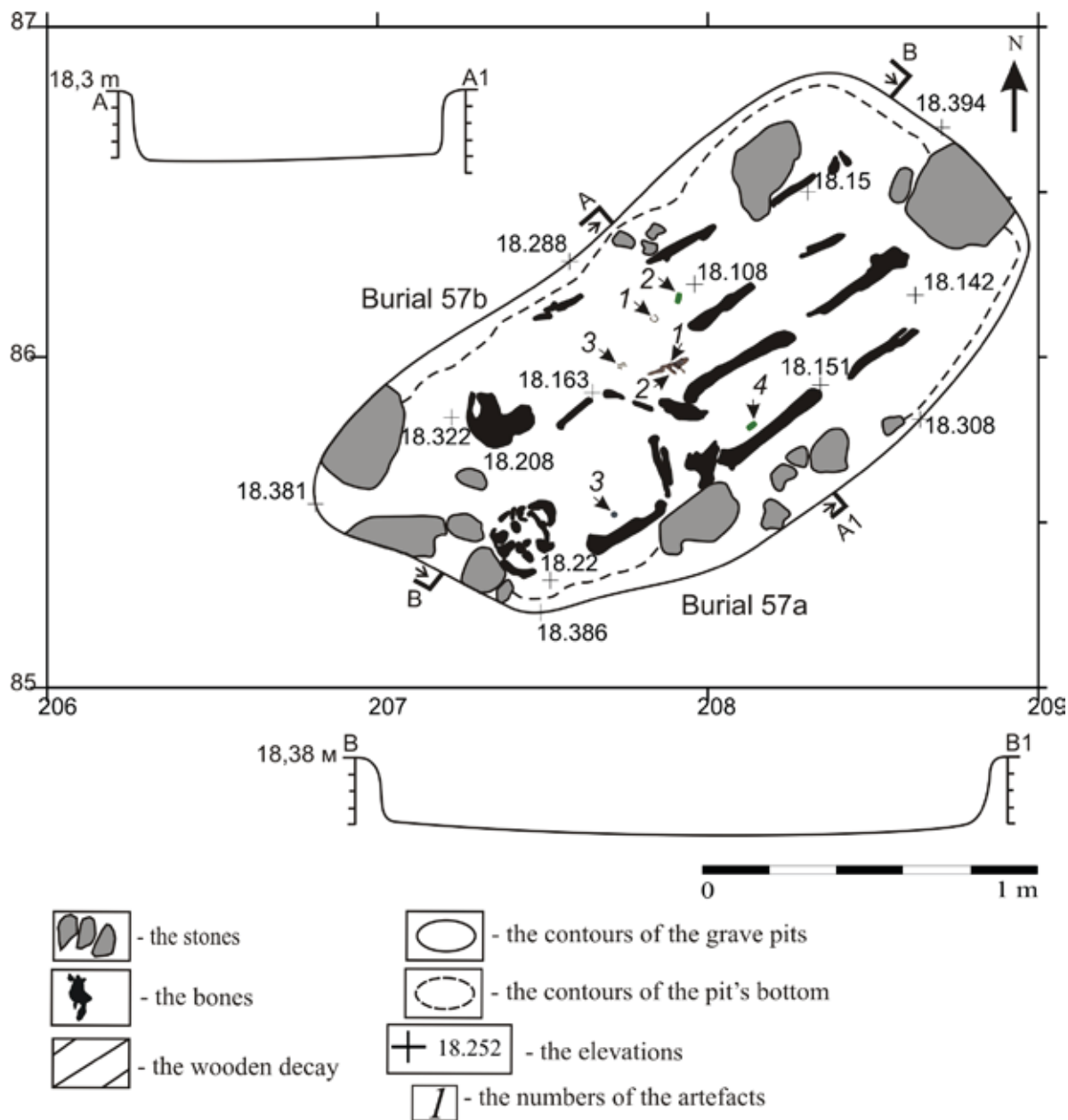


Figure 91.

Graves No. 57a, b. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 57a: 1 – the knife, 2 – the fire steel, 3 – the button, 4 – the spirals.

Grave No. 57b: 1 – the finger ring, 2, 3 – the spirals.

strongly fractured. The preserved remains included the long bones of the extremities at a level of 18.14 m, lumbar vertebrae, pelvic bones and the sacrum, and several foot and hand bones. The interred was probably a male aged 45–55 years at death.



Assemblage of artefacts

On the outside of the left femoral bone, the following artefacts were found near each other:

1. An iron knife, 13.6 cm long. The length of the blade was 8.5 cm, the maximum width was 2 cm, and the thickness of the back was 0.4 cm. The wooden hilt was preserved only as a stain of rotten wood.
2. An oval fire steel (fragmentary).
3. On the inside, near the right humeral bone, was a smooth spherical silver button, about 1 cm in diameter, with a loop.

Figure 92.

The finds from grave No. 57a:

1, 2 – iron, 3 – silver. Photo by S. Shapiro, layout by S. Belskiy.

Burial No. 57b

Fragments of the extremely poorly preserved skeleton were arranged in anatomical order along the north-western wall of the grave pit in an extended supine position. The skeleton was oriented with its head to the south-west (azimuth 219°). The skull was on the right side at a level of 18.32 m and was strongly fractured. The preserved remains included small fragments of the tubular bones of the left arm and a fragment of the right pelvic bone. The individual interred was a woman aged 30–35 years at death.



Assemblage of artefacts

1. In the pelvic area, a plate-bezel penannular bronze signet ring was found. Inside the ring, a fragment of a finger bone was preserved, probably from the right hand.

2. At a distance of 0.15 m to the south-east of the latter, in the area of the right humeral bone, four small bronze spirals were found. Each spiral was 2 cm long and had remains of a textile inside.

Figure 93.

The finds from grave No. 57b: 1 – bronze, 2, 3 – bronze, textile. Photo by S. Shapiro, drawing by A. Masbezerskaya, layout by S. Belskiy.

3. A similar set of spirals was found in the pelvic area.

The grave pit was about 2.21 m long and 1.05 m wide. The maximum depth was 0.15 m from the level of the ancient surface, on which overlying stone structure No. XXXVIII was built, and 0.4 m from the level of the modern surface.

Grave No. 58

(Figs. 94–95, 115)

During investigations at the cemetery of Kylälahti in 2007, the pedestal of a limestone cross was uncovered in square 94/202 at a level of 18.43 m. Fragments of the same cross were probably revealed in 2006–2007 around the natural rock formation in the central area of the cemetery (Шахнович & Бельский 2009: 177–186). The cross base was probably used in building another overlying stone structure. The pedestal was a narrow and long granite block, possibly specially dressed at the edges. The centre of the block was pierced by a hole that was oval in section and parallel to the sides of the block and measured 20 × 9 cm. It was the presence of this hole that gave grounds to consider this stone as the support for the cross.

After the topsoil, which was less than 0.1 m thick, was removed in square 93–



94/203, six relatively large (up to 0.35 m) granite boulders were uncovered at a level of 18.37 m, aligned from north to south. No distinctly traceable overlying stone structure was found. These boulders may be the remains of a strongly disturbed overlying stone structure, which may have been displaced already during the period of use of the cemetery. After they were recorded and removed, the tops of two grave pits were uncovered in squares 93-94/202-203 at a level of 18.1 m.

Grave pit No. 58 at the depth specified was traceable as an oval stain of dark grey humic moraine sand that measured 0.21 m from north-east to south-west and 0.6 m from north-west to south-east. In the course of the excavation of grave pit No. 58, the remains of a coffin were uncovered. They were found at its north-eastern edge, at a level of 18.05 m, in the form of two almost perpendicular streaks of rotten wood that were 1–1.5 cm wide, 0.3 m long along the south-eastern wall of the grave pit, and 0.25 m long along the north-eastern wall. The coffin was made of thin boards without the use of nails.

The burial was disturbed. The skeleton was lying in an extended supine position, head to the south-west (azimuth 220°), at a level of 18.07 m. The skull was facing north-east. The bones of the right arm were preserved, and they were bent at the elbow towards burial No. 73. The preserved remains also included the right pelvic bone and bones of the right leg (including the foot), as well as the left humerus, three fragments of ribs, a fragment

Figure 94.
The pedestal of the limestone cross. A view from the south. Photo by S. Belskiy.



Figure 95.

The finds from grave No. 58: 1 – bronze, 2 – bronze, textile, 3 – bronze, glass, leather, 4 – silver. Photo by S. Shapiro, layout by S. Belskiy.

of a scapula, three cervical vertebrae, a fragment of the right clavicle, and the upper epiphysis of the left ulna. The individual interred was a woman aged 50–60 years at death.

Assemblage of artefacts

1. Near the proximal end of the right femoral bone, at a level of 18.03 m, a large ∞-shaped bronze object was uncovered (strap divider?). Several red textile threads were preserved on this object.

2. Immediately beneath it, in a stain containing organics (traces of clothes?), was a bronze eared tube. A leather cord was threaded through the channel of the tube. The cord was braided with bronze spirals preserved on both butt sides of the bead. Near the western loop of the eared tube, fragments of textile were preserved.

3. Further to the south-east of the eared tube, there was a dark red bead.

4. Near the bead was a second bronze eared tube (of another type).

5. Near the opposite butt end of the second eared tube was a smooth bead of opaque black

glass inlaid with three white wavy lines.

These artefacts appear to have composed a single set of ornaments typologically similar to those retrieved from other burials in the cemetery. This set, which was attached to the belt or belt divider, consisted of a strap (straps) braided around with thin bronze wires and threaded through bronze eared tubes and beads.

6. On the surface of the right femoral bone, a small smooth silver bead with a suspension loop was found.

The length of the grave pit was 2.1 m, its width was 0.6 m (at the south-western edge) and 0.4 m (at the north-eastern edge), and its depth was 0.5 m from the modern surface.

Grave No. 59

(overlying stone structure No. XXXVII) (Figs. 96–101)

Overlying stone structure No. XXXVII was revealed in square 83/206–207 at a level of 18.7 m. It was a closed oval stone structure similar to the ones described above. It was composed of fourteen granite boulders of medium size (with a maximum length of up to 0.4 m) and was oriented from north-east to south-west (azimuth 223°). The structure was partly disturbed at the south-western edge, evidently when overlying stone structure No. XXXIII was built. This disturbance resulted in a slight displacement of the stone at the south-western edge of structure No. 37 to its centre, so that it was difficult to define the original dimensions of the structure. It seems to have been about 2 m long and 1 m wide.

The top of the grave pit was recorded at a level of 18.25 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as a rather unclear oval stain of greyish loam measuring approximately 2 m from south-west to north-east and 0.9 m from south-east to north-west.

During the excavation of the fill of the grave at its north-western edge, separate partly charred wooden blocks were uncovered at a depth of 0.1–0.15 m above the skeleton. The largest of these measured 33 × 6 cm. The direction of the fibres of some of the blocks corresponded to the general orientation of the grave, whereas in other blocks, it deviated over 45° both in the horizontal and vertical planes. All these pieces of wood may have originated from a single block accidentally brought into the fill when covering the grave pit.

At a level of 18.4 m, the remains of a coffin were uncovered in the form of areas and streaks of rotten wood. The coffin was made of boards approximately 2 cm thick and measured 1.7 m in length, 0.38 m in width at the south-western edge, and 0.24 m in width



Figure 96 (on top).
Grave No. 59. A view from the north. Photo by S. Belskiy.

Figure 97 (on right).
Graves Nos. 59, 64, and 68. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 59: 1 – the finger ring, 2 – strap divider, 3 – the belt pendant complexes, 4 – the needle box (?), 5 – the spirals, 6 – the knife, 7 – the bead.

Grave No. 64: 1 – the brooch, 2 – the strap divider, 3, 4 – the spirals, 5 – the knife.

Grave No. 68: 1 – the bead.

at the north-eastern edge, which was less well preserved.

The poorly preserved skeleton was lying in anatomical order in an extended supine position with the hands folded onto the chest, head to the south-west (azimuth 223°). The skull was on the right side, the left parietal bone destroyed. The vertebrae (except for two lumbar ones) and ribs were not preserved. The interred was aged 30–40 years at death, and the sex was anatomically unidentifiable (judging by the assemblage of artefacts, it was a woman).

Assemblage of artefacts

1. In the central section of the grave near the bones of the left forearm at a level of 18.17 m, the following objects were found:

a) A bimetallic finger ring with a plate bezel onto which a silver top of conical section was soldered. Inside the ring, a finger bone of the right hand was preserved (the finger bones of the left hand were found near the bronze belt divider described below).

b) Near the ring, a crushed silver bead with a smooth surface was found.

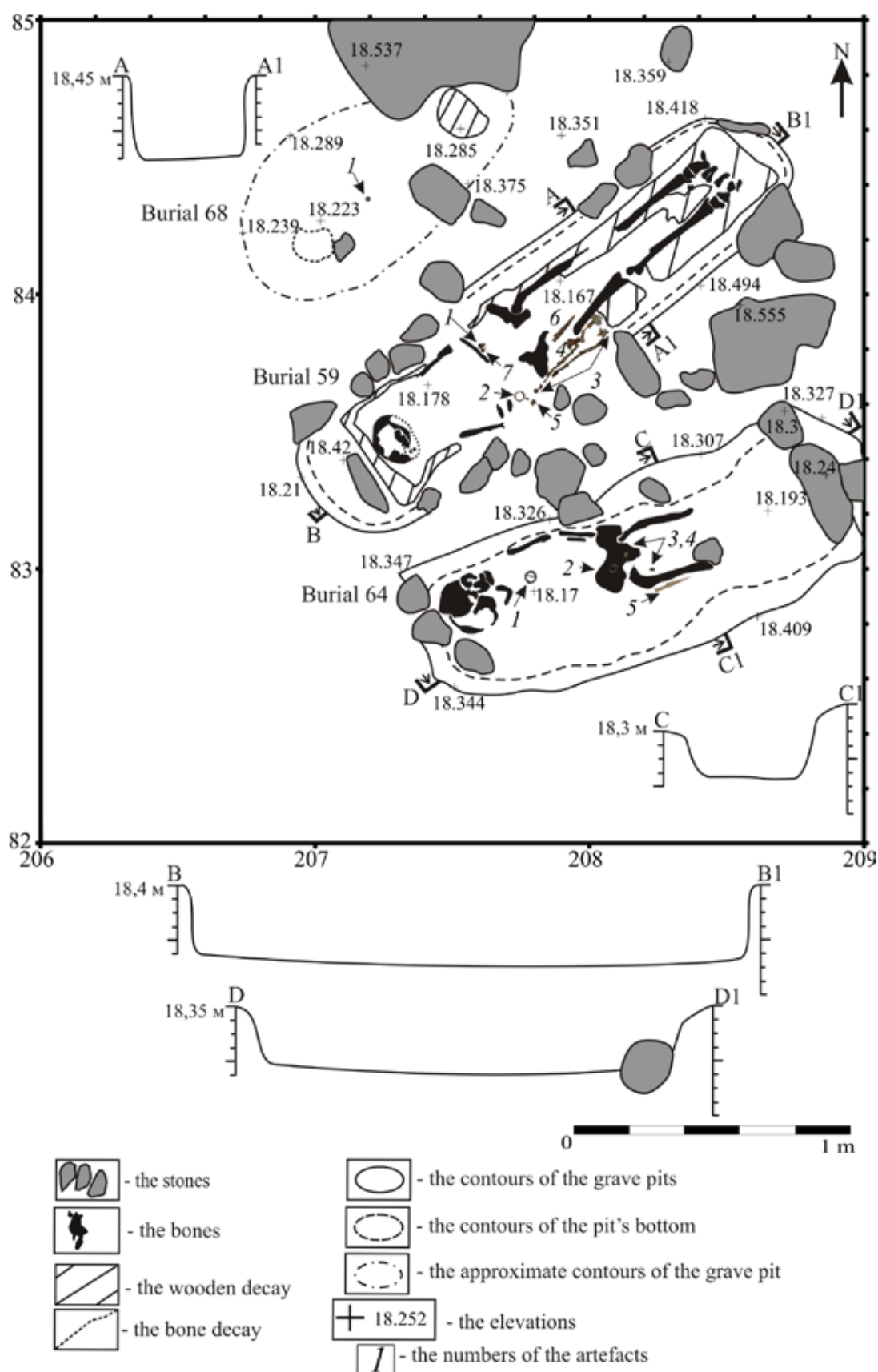




Figure 98.

Grave No. 59. The artefact complex in the central part of the grave pit in situ. Photo by S. Belskiy.

2. On the pelvis and along the femoral bones, a belt set with pendants was uncovered:

- a) At a distance of 6 cm to the north-east of the bones of the left forearm was a ring-shaped strap divider with a round section, ornamented with incisions. Its diameter was 3.2 cm and the diameter of the arc was 0.3 cm.
 - b) Two parallel sets of objects were attached to the divider. They were double leather straps braided around with bronze wire and divided into two parts, about 2 cm long, by glass or metal beads (some were preserved only in the form of a powdery white substance).
 - c) Near the proximal end of the right femoral bone, under the left pendant composed of spirals separated by beads (and terminating in a chain holder), there was another bronze ring (from a belt?) about 2 cm in diameter, which held a trapezoidal iron object about 4 mm thick.
3. South-east of the belt divider, four bronze spirals were found parallel to each other with remains of textile inside. Each spiral was about 2 cm long.



Figure 99.

4. When the finds were cleaned in the conservation laboratory, a discoid lead weight similar to the one from burial No. 13 was found under the right humerus.

Finds from grave No. 59: 1 – bronze, silver, 2 – iron, 3 – bronze, 4 – silver, 5 – bronze, textile, 6 – lead (?). Photo by S. Shapiro, drawing by A. Mashezerskaya, layout by S. Belskiy.



Figure 100.
Finds from grave No. 59:
1 – bronze, leather, 2, 3 –
bronze, glass, leather. Photo
by S. Shapiro, drawing by A.
Masbezerskaya, layout by S.
Belskiy.

5. To the right of the proximal end of the femoral bone, on the inside, was an iron knife with an ornamented bronze hilt and the remains of a leather sheath ferruled at the edge with a narrow iron plate. Between the strap divider and the knife there were small fragments of strongly corroded iron. The sheath may have been attached to the knife by means of a thin iron chain.

6. Between the bones of the metatarsus were two fragments of a leather object, possibly footwear, measuring 3 × 3 cm each.

Because of the very stony soil, the outlines of the grave pit were difficult to trace. Its approximate dimensions were about 2 m in length and about 0.7 m in width. The burial was at a depth of 0.25 m from the ancient surface, on which overlying stone structure No. XXXVII was built, and 0.5 m from the modern surface.

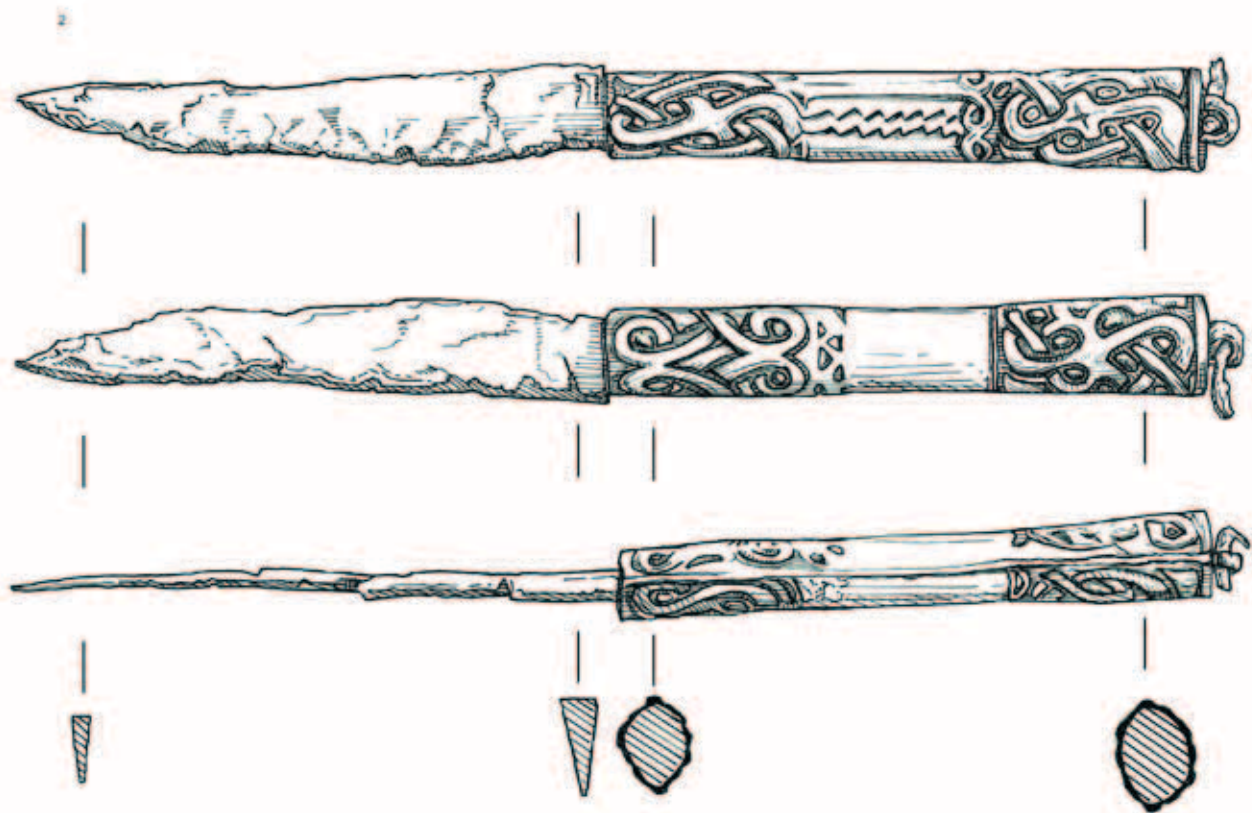
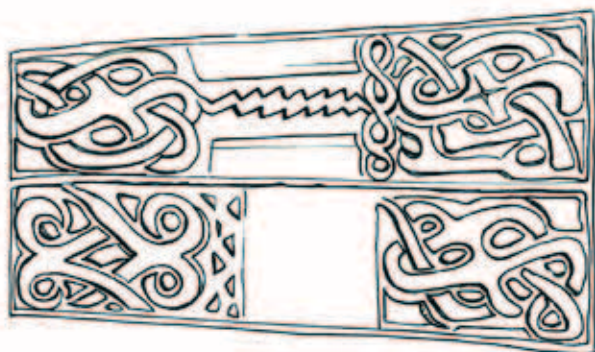


Figure 101.
The knife from grave No. 59.
Photo by S. Shapiro, drawing
by A. Mashezerskaya.



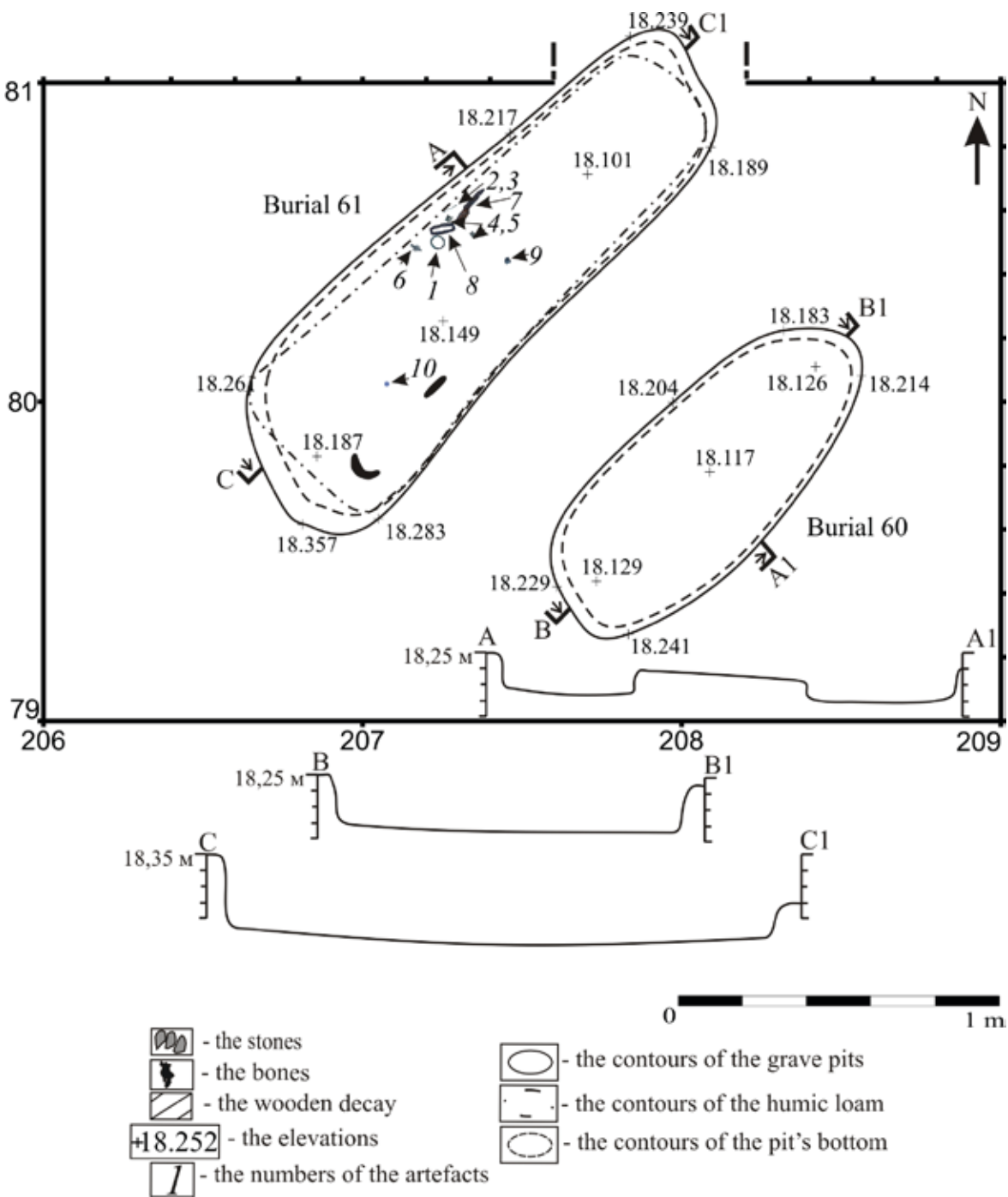


Figure 102.

Graves Nos. 60 and 61. General plan. Drawing, digitizing, and layout by S. Belskiy

Grave No. 61: 1 – the strap divider, 2, 3 – the needles, 4, 5 – the spirals, 6 – the pendant, 7 – the knife, 8 – the fire steel, 9, 10 – the beads.

Grave No. 60 was revealed in squares 79-80/207-208 at a level of 18.2 m. No overlying stone structure was revealed above the burial. After the turf was removed and the level of greyish-yellow moraine sand at a depth of 0.25 m from the modern surface was cleared, the top of the grave pit could be traced. It was oriented from north-east to south-west (azimuth 215°) and measured 0.88 m from north-east to south-west and 0.24 m from north-west to south-east. The grave was filled with slightly humic greyish moraine sand.

During the excavation at the north-eastern edge at a level of 18.12 m, very indistinct traces of rotten wood, evidently from a coffin or a wooden log container, were uncovered.

In the south-western corner of the grave pit at a level of 18.12 m, a single milk tooth was found. No other bones or artefacts were recovered from the burial.

The dimensions of grave pit No. 60 were 1.2 m from north-east to south-west and 0.5 m from north-west to south-east. Its depth was 0.35 m from the modern surface.

Grave No. 61

(overlying stone structure No. XXXVI) (Figs. 102–103)

Overlying stone structure No. XXXVI was revealed in squares 79-80/206-207 at a level of 18.7 m at the south-western edge and 18.4 m at the north-eastern edge. It was a closed oval stone structure. The south-eastern wall of overlying stone structure No. XXXV may have been employed as the north-western wall of this structure. This suggests that the structure described here and the burial beneath it might have been constructed later than structure No. XXXV.

The structure consisted of eleven large granite boulders (with a maximum length of up to 0.7 m), including the four boulders composing the south-eastern wall of overlying stone structure No. XXXV. Structure No. XXXVI was oriented from north-east to south-west (azimuth 220°) and measured about 2.15 m in length and 1.1 m in width.

The top of the grave pit was at a level of 18.26 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as a rather indistinct oval stain of greyish loam measuring 1.67 m from south-west to north-east and 0.61 m from south-east to north-west at the south-western edge and 0.35 m at the north-eastern edge. It was thus trapezoidal in shape, broadening at the south-western edge in the area of the upper parts of the skeleton.

At a level of 18.1 m in the central part of the grave pit, the remains of a coffin in the form of indistinct streaks of rotten wood were uncovered. The coffin was made



Figure 103.

The finds from grave No. 61: 1, 2, 3, 6 – bronze, 4, 5 – bronze, textile, 7 – iron. Photo by S. Shapiro, layout by S. Belskiy.

south-west (azimuth 220°), hands crossed on the chest, left hand under right hand. The positions of the bones were identifiable only through the directions of streaks of decay that were poorly visible in the moraine sand. The skull was displaced onto the left parietal bone, face to the north-east. Vertebrae, ribs, scapulae, and feet bones were not preserved. The interred was probably a woman aged 25–35 years at death.

of thin boards without the use of nails and was closed with a lid, since some of the artefacts found were partly covered with wooden fibres. In the central section of the grave pit, near its north-western wall, a spread of organic substance, probably birch bark, was found over the remains of the coffin cover. The direction of the fibres of the organic substance was perpendicular to that of the coffin lid. It seems that the coffin was additionally wrapped in birch bark.

The skeleton was very poorly preserved. It was lying in anatomical order, probably in an extended supine position, head to the

Assemblage of artefacts

In the central part of the grave pit at a level of 18.14 m, near its north-western edge, the following artefacts were uncovered:

1. An unornamented bronze belt ring, 3.5 cm in diameter, with a round section 0.5 cm in diameter. A fragment of a leather strap was preserved on top of the ring. Spread nearby to

the north were objects that had presumably been kept in a bag attached to the belt ring.

2, 3. Two thin bronze needles.

4. Near the needles were four bronze spirals, each 2 cm long, parallel to each other with the remains of a textile inside (ornaments sewn onto a bag or clothing?).

5. Three other similar bronze spirals were uncovered 0.1 m to the north-east of the ring, closer to the centre of the grave.

6. A “heart-shaped” bronze pendant was on the opposite, northern side of the bronze ring.

After this group of objects was extracted, a thin intercalation of a poorly identifiable organic substance, possibly birch bark, was uncovered immediately beneath them. Under this layer was rotten wood, apparently the bottom of the coffin.

7. Slightly to the south of this group, an iron knife with the remains of a wooden hilt was uncovered lying parallel to the direction of the wall of the grave pit. The total length of the object was 10.6 cm, the length of the blade was 6 cm, the maximum width was 1.8 cm, and the thickness of the back was 0.3 cm.

8. Nearby was an oval fire steel.

9. In the central section of the grave pit, at the same level, a fragmentary silver bead was found. Under it was rotten wood, probably the remains of the coffin bottom.

10. Another, similar silver bead was found in fragments in the south-western part of the grave pit, in the thoracic area.

The grave pit was about 1.9 m long, 0.65 m wide at the south-western edge, and 0.45 wide at the north-eastern edge. Its maximum depth was 0.25 m from the level of the ancient surface, on which overlying stone structure No. XXXVII was built, and 0.5 m from the level of the modern surface.

Grave No. 62

(overlying stone structure No. XLII)

Overlying stone structure No. XLII was found in square 84/204, 0.2 m to the north-west of the north-western wall of overlying stone structure No. XXXII (over burial No. 53), at a level of 18.4 m. It was a closed oval stone structure similar to the ones described above, but considerably smaller. It was about 1.2 m long and 0.5 m wide around the external perimeter and 0.7 m long and 0.4 m wide around the internal perimeter. The north-western wall of the structure was disturbed. It was oriented from north-east to south-west (azimuth 242°), parallel to overlying stone structure No. XXXII and adjoining it.

The top of the grave pit was recorded at a level of 18.4 m. Its approximate dimensions were: 0.88 m from north-east to south-west and 0.25 m from north-west to south-east. The grave was filled with slightly humic greyish moraine sand.

Excavation of the central area of the grave pit at a level of 18.35 m revealed a fragment of a wooden coffin preserved in the form of a narrow streak of poorly distinguishable rotten wood, about 4 cm long.

No bones or artefacts were found in grave pit No. 62. The approximate length of the grave pit was 1 m and its width was about 0.5 m. Its depth was not more than 0.1 m from the ancient surface, on which overlying stone structure No. XLII was built, and 0.25–0.3 m from the modern surface.

Grave No. 63

(overlying stone structure No. XXXIV) (Figs. 104–105)

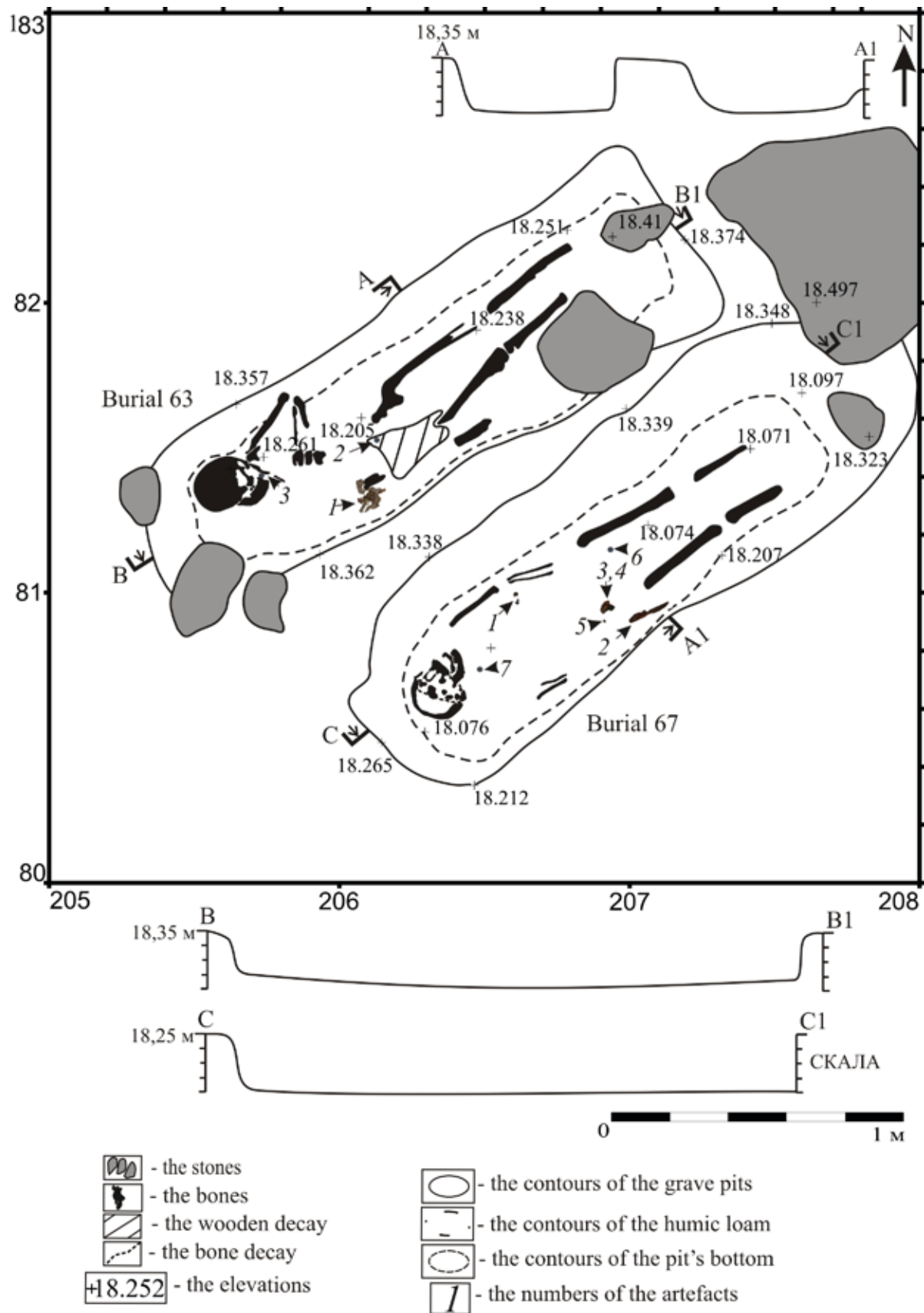
Overlying stone structure No. XXXIV was located in squares 81–82/205–206 between overlying stone structures Nos. XXXIII and XXXV. It composed a single row together with these structures at a level of 18.7 m. It was a closed oval stone structure similar to the ones described above, built of twelve boulders (with a maximum length of up to 0.4 m). It was 2.3 m long and 0.9 m wide around the external perimeter and 1.6 m long and 0.5 m wide around the internal perimeter. The internal space of the structure was free of stones. Its south-western and north-eastern edges were marked by larger granite boulders (with a maximum length of up to 0.6 m). The structure was oriented from north-east to south-

Figure 104 (on right).

*Graves Nos. 63 and 67. General plan.
Drawing, digitizing, and layout by S.
Belskiy.*

*Grave No. 63: 1 – the belt pendant complex,
2, 3 – the beads.*

*Grave No. 67: 1 – the fastener with religious
image, 2 – the knife, 3, 4 – the spirals, 5 – the
fitting, 6, 7 – the beads.*



west (azimuth 225°).

The top of the grave pit was recorded at a level of 18.35 m and was recognizable as a stain of slightly humic greyish sand extended from north-east to south-west. Its approximate dimensions were 2.1 m from north-east to south-west and 0.6 m from north-west to south-east.

At a level of 18.3 m in the central section of the grave pit, the remains of a coffin were uncovered in the form of a stain of rotten wood measuring 0.27 × 0.2 m. The coffin was made of thin boards without the use of nails. It appears to have been closed with a lid because traces of rotten wood were preserved on the right femoral bone and on the silver bead found in the centre of the grave pit.

The poorly preserved skeleton was lying in anatomical order at a level of 18.26–18.2 m in an extended supine position, head to the south-west (azimuth 220°), hands crossed on the chest, left hand under right. The skull was lying on the occipital bone, slightly turned to the left parietal bone. A clavicle, a fragment of the sacrum, the pelvic bones, and the long bones (except for the feet bones) were preserved. The individual interred was a woman aged 35–45 years at death.

Assemblage of artefacts

1. In the central section of the grave pit, near the bones of the right forearm at a level of 18.2 m, there was an ornamented bronze eared tube, 6.2 cm long and 1.2 cm in diameter. Bronze pendants were attached to each of the loops of the tube with ring-shaped terminals. On the right was a ∞-shaped pendant with its rings turned perpendicularly to each other. The pendant on the left was otherwise similar but terminated in a “claw-shaped” tip.

Traces of a textile and, presumably, birch bark were preserved on top of this composite object. Under the object there was a large fragment of birch bark. It seems that the body of the deceased was additionally wrapped in or covered with birch bark, and the bottom of the coffin also was lined with birch bark. The entire aggregate of finds was extracted as a whole and cleaned further in laboratory conditions. Cleaning revealed that the eared tube was kept in a small textile bag or case, which was fairly well preserved under it. A leather cord was threaded through the channel of the tube, probably for attaching it to the belt or to an element of outerwear that was not preserved. A plated, bezelled bronze ring, 2.3 cm in diameter, was tied to the other end of the cord with a clearly recognizable knot. Judging by the way it was hung by a cord, the eared tube may have served as a needle box.

2. A smooth silver bead, 1.7 cm in diameter, was uncovered in the central part of the burial, to the left of the bones of the lower vertebral column. Remains of wood were preserved on



the bead, probably from the lid of the coffin. In the channel inside the bead, a piece of a thin cord was preserved. This object apparently served as a button.

3. A similar silver bead (button) was found under the lower jaw of the interred woman.

Figure 105.

*The finds from grave No. 63:
1 – bronze, leather, textile, 2 –
silver, textile, wood, 3 – silver.*

*Photo by S. Shapiro, layout by S.
Belskiy.*

The length of the grave pit was 2.1 m and its width was 0.6 m. Its depth was 0.15 m from the ancient surface, on which overlying stone structure No. XLII was built, and 0.6–0.5 m from the modern surface.

Grave No. 64

(overlying stone structure No. XXXIX) (Figs. 97, 106–107)

Overlying stone structure No. XXXIX was revealed in squares 82-83/207-208 at a level of 18.6 m. It was a single row composed of thirteen granite boulders of medium size (with a maximum length of up to 0.4 m). The closed oval structure was oriented from north-east to



Figure 106 (on left).

**Grave No. 64. A view
from north-east. Photo**

by V. Laakso.

south-west (azimuth 234°). Its maximum dimensions were 2.2 × 1 m around the external perimeter and 1.6 × 0.5 m around the internal perimeter.

The south-western edge of the structure may have been partly disturbed when overlying stone structure No. XXXIV was built, indicating that the structure discussed here may have been built somewhat earlier. The north-eastern edge, which adjoined a high rocky outcrop in the centre of the excavation, was not disturbed.

The top of the grave pit was recorded at a level of 18.35 m and was identifiable as a poorly visible stain of slightly humic greyish sand extended from north-east to south-west. Its approximate dimensions were 1.8 m from north-east to south-west and 0.65 m from north-west to south-east.

The burial was made in a coffin, traces of which were preserved only as small stains of rotten wood on the skull and under it. This suggests that the coffin was similar in construction to most burial containers at this cemetery, namely made of thin boards without the use of nails and closed with a lid.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 245°). The skull was lying on the occipital bone, the facial skeleton fractured. Fragments of bones of the left arm and femoral and pelvic bones, as well as a single cervical vertebra, were preserved. The individual interred was a woman aged 30–40 years at death.

Assemblage of artefacts

1. A silver ring brooch (diameter 4.6 cm) with arcs joining in a motif of a handclasp was found in the thoracic area at a level of 18.17 m.

On the pelvic bones, the following artefacts were uncovered:

2. A bronze belt ring, 3.3 cm in diameter and round in section, measuring 0.4 cm in diameter. Fragments of a leather belt were preserved in two places on the ring.

3. Four small bronze spirals, 2 cm long and parallel to each other, with the remains of a textile inside.

4. Similar small spirals (clothing ornaments) were uncovered to the inside of the right femoral bone.

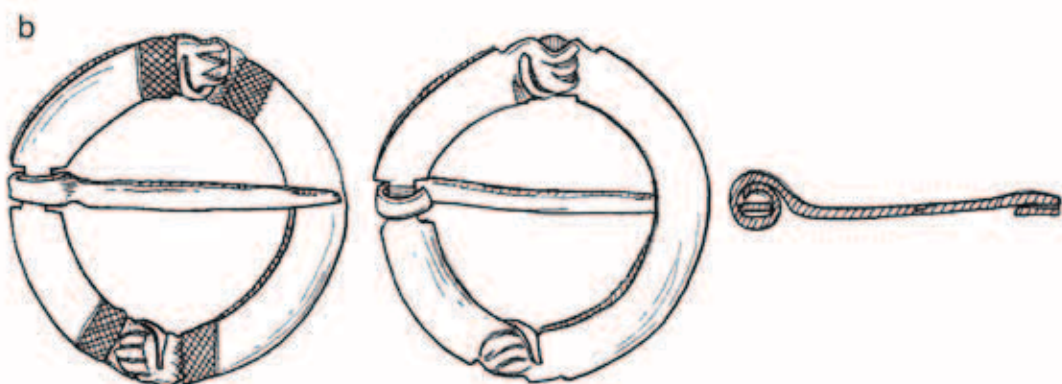


Figure 107 (on left).

The finds from grave No. 64: 1 – silver, 2 – bronze, leather, 3, 4 – bronze, textile, 5 – iron. Photo by S. Shapiro, drawing by A. Mashezerskaya, layout by S. Belskiy.

5. An iron knife with preserved fragments of a wooden hilt around the tang was uncovered to the outside of the right femoral bone. The total length of the object was 15 cm, the length of the blade was 9.5 cm, its maximum width was 2 cm, and the thickness of the back was 0.5 cm.

The length of the grave pit was 1.75 m and its width was 0.65 m. Its depth was 0.25 m from the ancient surface, on which overlying stone structure No. XLII was built, and 0.6 m from the modern surface.

Grave No. 65

(overlying stone structure No. XLIV) (Figs. 108–109)

The partly disturbed overlying stone structure No. XLIV was located in square 89-90/207 at a level of 18.3 m. It was built in a single row of nine granite boulders of medium size (with a maximum length of up to 0.4 m). The closed oval structure was oriented from north-east to south-west (azimuth 230°). It measured 2.1 × 1 m around the external perimeter. It was disturbed at the north-eastern and south-western edges, possibly when overlying stone structure No. XXXVIII (over double burials Nos. 57 and 57b) was constructed.

The top of the grave pit was recorded at a level of 18.3 m. It was a stain of strongly humic dark grey loam extending from north-east to south-west. Its approximate dimensions were 1.8 m from north-east to south-west and 0.7 m from north-west to south-east.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 230°), hands resting upon the chest. All the bones of the left arm were arranged practically parallel to each other. The bones of the spinal column, the left scapula, and the ribs (except two right ones) were not preserved. The individual interred was a male aged 40–50 years at death.

Assemblage of artefacts

1. Near the proximal end of the left femoral bone, an iron knife was found with the remains of a wooden hilt. The total length of the object was 14.5 cm, the length of the blade was 9 cm, its maximum width was 2.1 cm, and the thickness of the back was 0.5 cm.

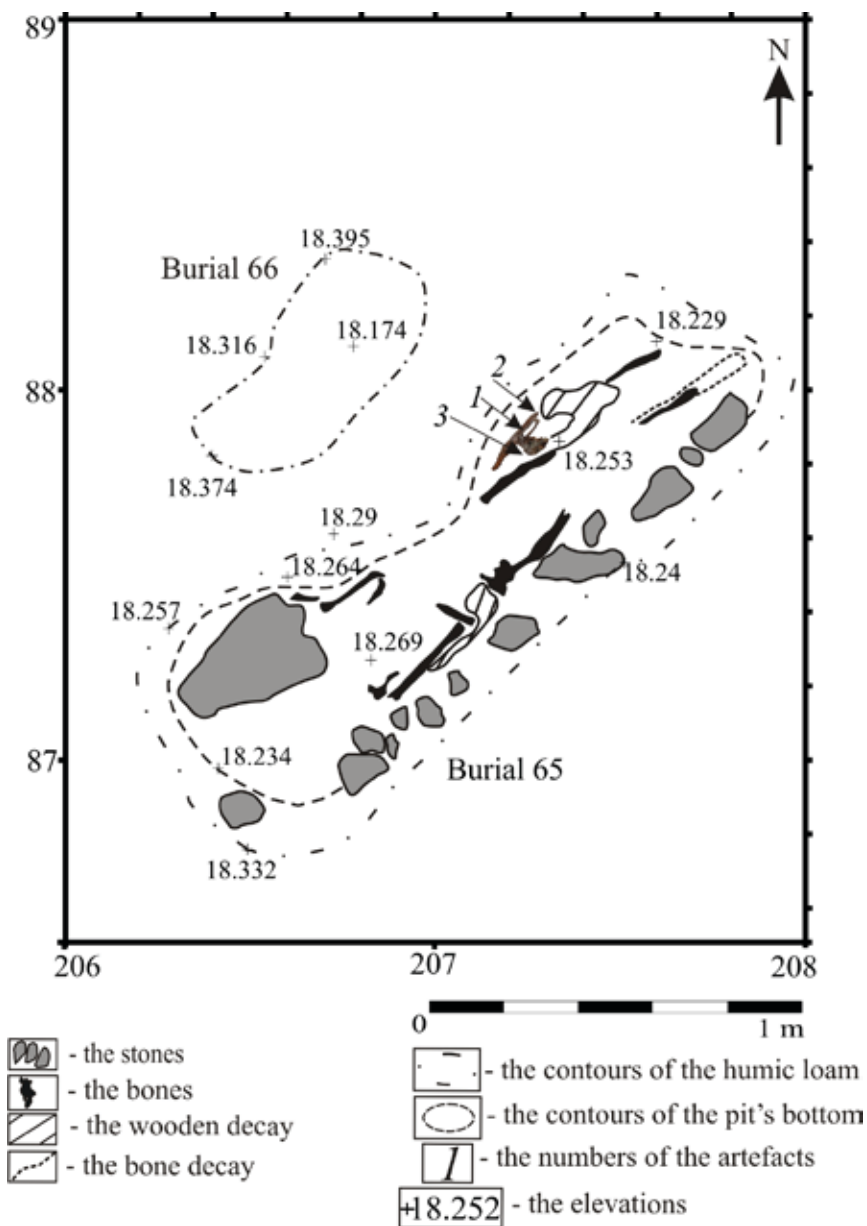


Figure 108.

Graves Nos. 65 and 66. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 65: 1 – the knife, 2 – the fire steel, 3 – the pocket.

The wooden hilt was preserved in rotten wood along the tang and inside the lower ferrule, which was 2 cm in diameter. On the ferrule, strongly mineralized fragments of an object consisting of an organic material, probably a leather sheath, were discernible.

2. Near the hilt of the knife there was an oval fire steel with straight butt ends. Its length was 6.3 cm and its maximum width was 2.5 cm.

3. Between the fire steel and the femoral bone, a leather purse or bag measuring 6 × 5 cm was found. It was open and could therefore be investigated even in field conditions. Inside the purse was the tooth of an adult person. On the tooth, greenish oxides of

another object lying in the purse were clearly discernible. In addition, a powdered yellow substance, presumably sulphur, could be discerned inside the purse. The bronze object was probably a small vessel in which sulphur was kept.

The approximate length of the grave pit was 1.9 m, its width was 0.7 m (slightly narrowing down to 0.45 m in the central section), and its depth was 0.1 m from the ancient surface level on which overlying stone structure No. XLII was built and 0.4 m from the modern surface.



Figure 109.

The finds from grave No. 65: 1,

2 – iron. Photo by S. Shapiro,

layout by S. Belskiy.

Grave No. 66

(overlying stone structure No. XLIII) (Figs. 108)

The partly disturbed overlying stone structure No. XLIII was located in square 88-89/206 at a level of 18.45 m. The closed oval structure was built in one row from ten rather small granite boulders (with a maximum length of up to 0.25 m). The structure was arranged parallel to structure No. 44 and oriented from north-east to south-west (azimuth 222°). The dimensions of the structure were 1.6 × 0.7 m around the external perimeter and 1.1 × 0.45 m around the internal perimeter. The north-western and south-eastern walls were evidently disturbed and their stones displaced at some point during the functioning of the cemetery. At the south-western and north-eastern edges, larger boulders were used (up to 0.3 m).

The top of the grave pit was recorded at a level of 18.37 m. It was recognizable as a stain of strongly humic dark grey loam extended from north-east to south-west. Its approximate dimensions were 0.55 m from north-east to south-west and 0.3 m from north-west to south-east.

No bones or artefacts were found in the pit. It seems that only a baby could have been buried here, although an overlying stone structure was nevertheless installed.

Grave No. 67

(overlying stone structure No. XXXV) (Figs. 104, 110–111)

Overlying stone structure No. XXXV was found in squares 80-81/205-206 at a level of 18.71 m between overlying stone structures Nos. XXXIV and XXXVI. It was similar to the structures described above, composed of a line of fifteen granite boulders (with a maximum length varying from 0.4 m to 0.6 m). The closed oval structure was oriented approximately from north-east to south-west (azimuth 227°). Its maximum dimensions were 2.6 × 1.1 m around the external perimeter and 1.7 × 0.55 m around the internal perimeter. There were larger (up to 0.6 m) stones at the south-western and north-eastern edges.

The top of the grave pit was recorded at a level of 18.33 m. It was distinguishable as an oval stain of darkish-grey loam measuring approximately 2.2 m from south-west to north-east and 0.7 m from south-east to north-west. Its orientation was the same as that of the overlying stone structure.

During the excavation of the fill of the grave, the remains of a coffin in the form of very indistinct stains of rotten wood were traced at the north-eastern edge. The dimensions of the coffin could not be reconstructed.

The skeleton was poorly preserved and lying in anatomical order at a level of 18.08 m in an extended supine position, head to the south-west (azimuth 227°). The bones of the hands were found on the pelvic bones. The skull was lying on the left side. The bones of the spinal column, the right scapula, and ribs (except for the three left ribs, upon which a clasp/icon was lying) were not preserved. The interred was presumably a male aged 35–45 years at death.

Assemblage of artefacts

1. In the thoracic area near the proximal end of the bones of the left forearm, there was a silver clasp composed of two parts: a round loop about 1 cm in diameter with an open-work representation and an eye. The eye for attaching the object was not on the top, as in the case of pendants, but on the right side. The second part was composed of a silver hook decorated with a rosette-like element. This object was thus a clasp that fixed the collar or lapels of clothing. Beneath this object, fragments of ribs and possibly a textile were preserved.

2. Near the proximal end of the right femoral bone, an iron knife was found with the remains of a wooden hilt. The total length of the object was 15.6 cm, the length of the blade was 8.2 cm, the maximum width was 2.2 cm, and the thickness of the back was 0.5 cm. It differed slightly in shape from other knives found in burials in Kylälahti. The transition from

the blade to the tang is distinctly different in character: smooth at the upper edge and projecting at the lower edge. Also, the maximum width of the tang was wider than in the case of other knives.

Fragments of the wooden hilt were preserved on the tang as isolated areas of wood fibres.

3. Slightly above the knife, in the pelvic area, two sewn-on costume ornaments typical for the cemetery were uncovered. Each of them was composed of four small bronze spirals, about 2 cm long, arranged parallel to each other with fragments of textiles (reddish and greenish) inside them.

The two composite ornaments were positioned at an acute angle to each other.

4. Nearby, at the same level, a small bronze fitting was found.

5. A smooth silver bead, 1.2 cm in diameter, was found near the lower jaw.

6. A similar bead was uncovered between the proximal ends of the femoral bones, closer to the left bone.

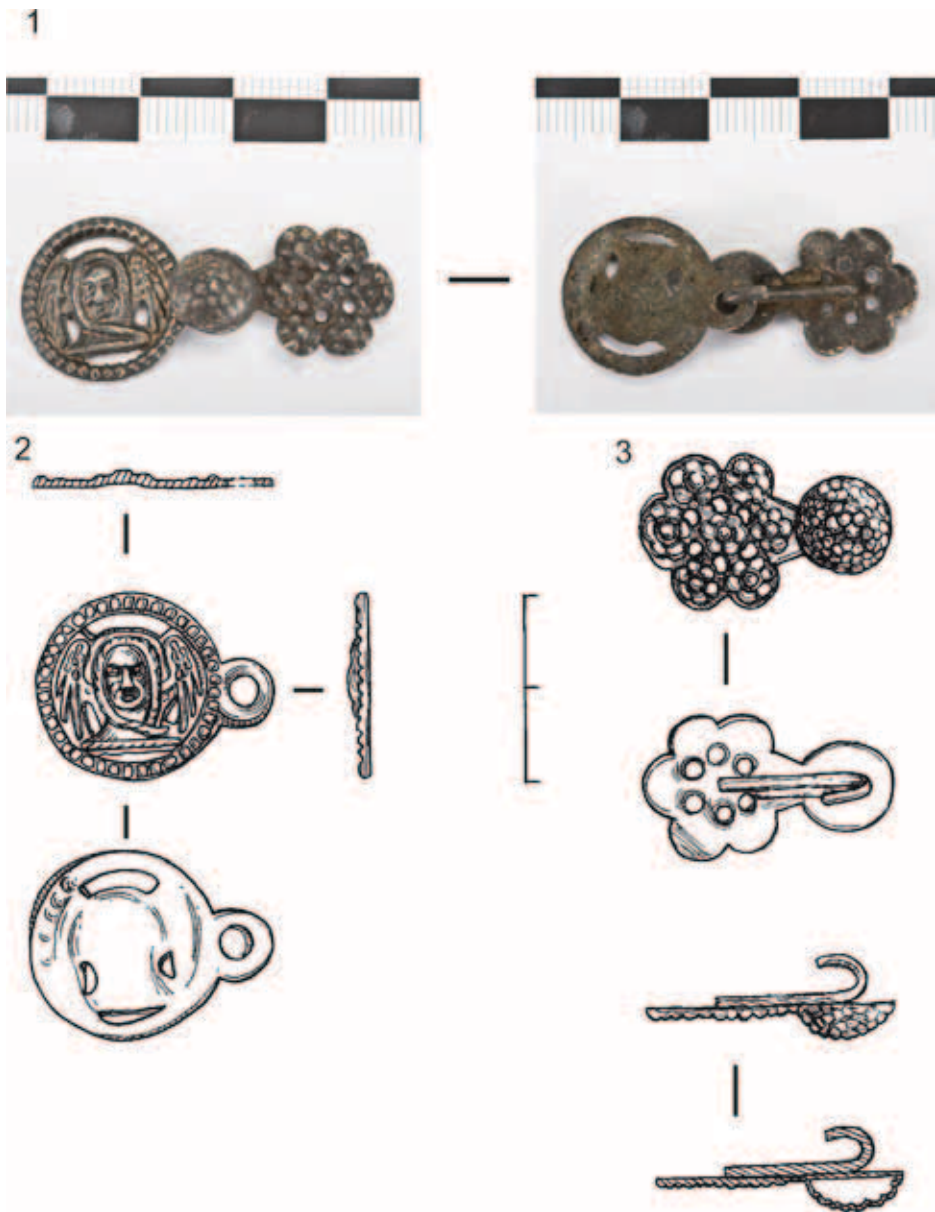


Figure 110.
The clasp-agraffe
from grave No. 67:
1–3 – silver. Photo by
S. Shapiro, drawing
by A. Mashezerskaya,
layout by S. Belskiy.



Figure 111.

Finds from grave No. 67: 1 – iron, 2, 3 – bronze, textile, 4 – bronze, 5, 6 – silver. Photo by S. Shapiro, layout by S. Belskiy.

The length of the grave pit was 2.1 m and its width was 0.7 m. Its depth was 0.4 m from the ancient surface level, on which overlying stone structure No. XXXV was built, and 0.6 m from the modern surface.

Grave No. 68

(Fig. 97)

Grave No. 68 was the interment of a newborn baby (younger than six months). It was revealed in squares 84/206–207 at a level of 18.23 m. There was no overlying stone structure above the burial. The grave pit measured about 1.15 m from north-east to south-west and 0.6 m from north-west to south-east. The oval pit extended from north-east to south-west. Its fill was slightly humic moraine sand, discernible at a level of 18.3 m.

The burial was made in a coffin of dugout type (hollowed out of a single log). A fragment of the block was well preserved in the north-eastern section of the grave at a level of 18.28 m. It was 11 cm long, 15 cm wide, and 7.5 cm thick. In the south-eastern

part of the grave at a level of 18.22 m, fragments of the skull were preserved. The interred was positioned with the head to the south-west (azimuth 220°).

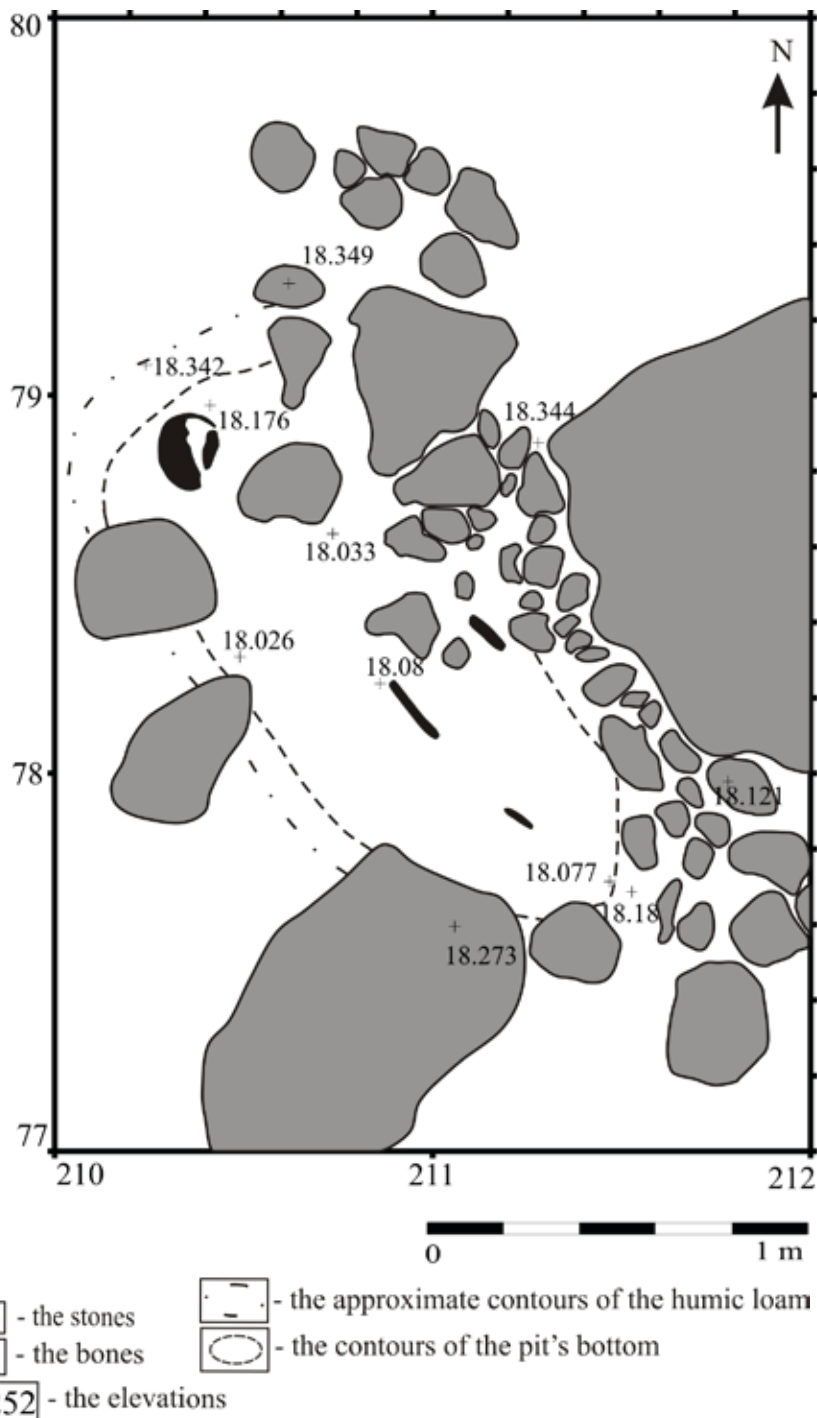
Burial artefact

In the central part of the grave pit at a level of 18.23 m, a smooth silver bead, about 1 cm in diameter, was retrieved.

The depth of the grave pit was 0.3 m from the modern surface.

Figure 112.

Grave No. 69. General plan. Drawing, digitizing, and layout by S. Belskiy.



Grave No. 69
(Fig. 112)

Grave No. 69 was located in squares 77-78/210-211 at a level of 18.17 m (skull area) and 18.05 m (area of tibiae). No overlying stone structure was found above it. The burial was made in a grave pit measuring about 1.85 m from north-west to south-east and 0.85 m from north-east to south-west. The oval pit extended from north-west to south-east. The

fill was slightly humic moraine sand with a rich amount of small stones and gravel. This fill was discernible beginning at a depth of 18.35 m. This grave intruded an older structure consisting of two or three horizons of small stones around a natural rocky outcrop in the eastern section of the excavation. The grave pit in question was also partly filled with these stones after the interment in a manner similar to the situation in grave No. 36.

To the north of the skull, indistinct traces of rotten wood were uncovered, possibly remains of the coffin. It was impossible to identify the dimensions and shape of the coffin.

Fragments of the skeleton were extremely poorly preserved but arranged in anatomical order. The buried was lying in an extended supine position, head to the north-west (azimuth c. 302°). The fractured skull was lying on the right side, face to the south-east. The left parietal bone and the facial skeleton were also fractured. The right femur and tibia without the epiphyses, as well as fragments of the left femoral bone, were preserved. The sex of the interred was unidentifiable and the age was approximately 50–60 years at death.

No artefacts related to the burial were found.

The depth of the grave pit was 0.35 m from the modern surface.

Grave No. 70

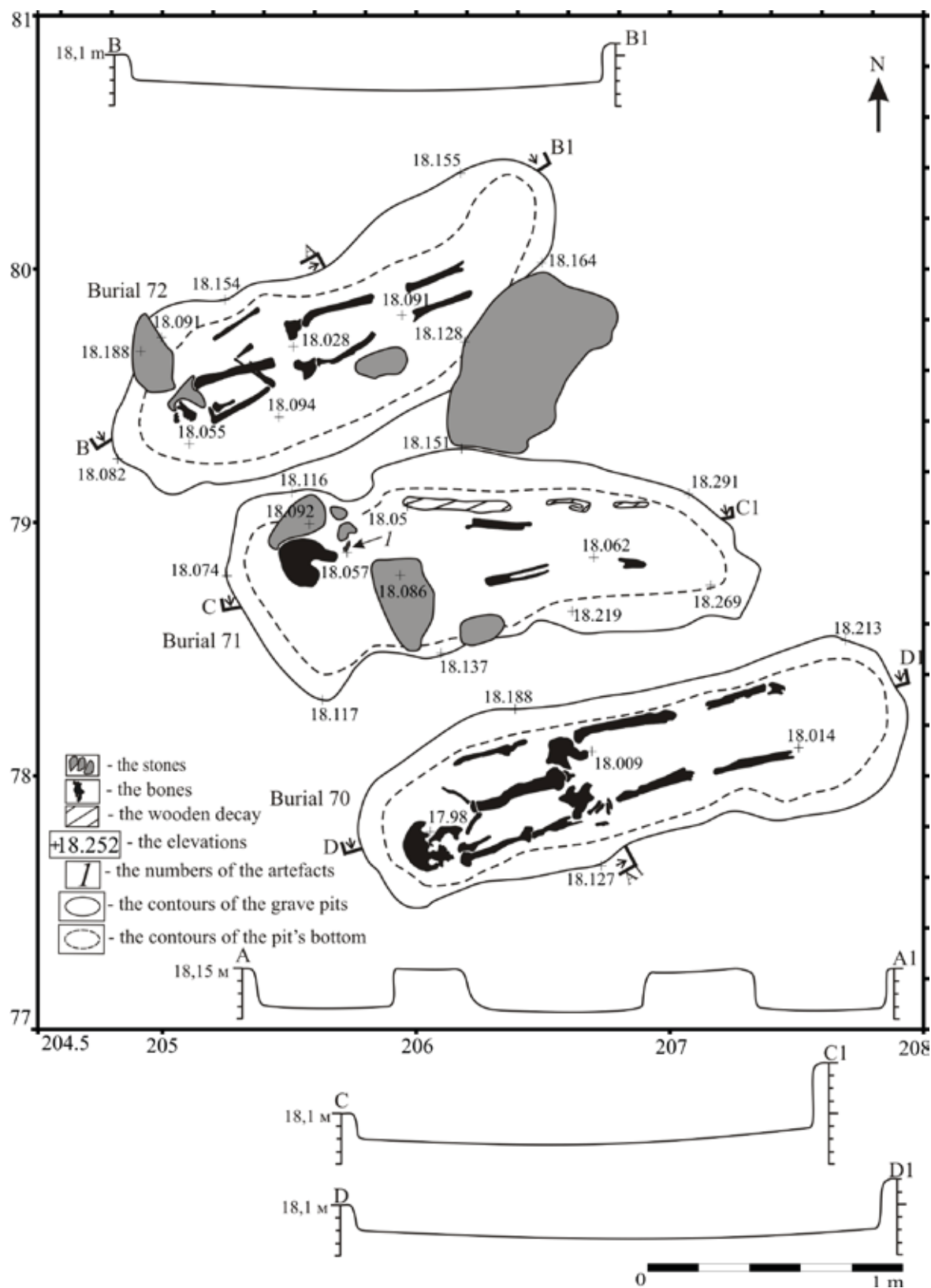
(overlying stone structure No. XLI) (Figs. 113)

In squares 77-78/206-207 at a level of 18.56 m, the partly preserved overlying stone structure No. XLI was uncovered. Its south-western edge was disturbed, evidently in the modern period, since here in the lower part of the hill, there was a small country road leading to the extremity of the Kalmistoniemi promontory. Traces of this road are discernible even today.

The structure was similar to the ones described above and was composed of ten boulders of medium size (with a maximum length of up to 0.4 m). The boulders were laid in a single course forming a closed oval structure oriented approximately from north-east to south-west (azimuth 246°) with the reconstructed dimensions of 1.9 × 0.7 m. The orientation of this structure differed slightly from that of the neighbouring row of graves, which were closer to the centre. At the north-eastern edge, there was a stone larger than the other boulders, up to 0.6 m in size.

The top of the grave pit was recorded at a level of 18.21 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as a rather indistinct oval stain of greyish humic loam

*Figure 113 (on right).
Graves Nos. 70, 71,
and 72. General plan.
Drawing, digitizing, and
layout by S. Belskiy.
Grave No. 71: 1 – the bead.*



measuring approximately 2.3 m from south-west to north-east and 0.7 m from south-east to north-west.

In the central area of the grave pit, extremely indistinct traces of rotten wood were discerned. This indicates that the burial was possibly made in a coffin.

The skeleton was fairly well preserved and arranged in anatomical order in an extended supine position, head to the south-west (azimuth 244°), at a level of 17.98 m (near the skull bones), arms extended along the body. Only bones of the feet and fibulae were not preserved. The scapulae were found as fragments. The skull was lying on the right side. The individual interred was a male aged 45–55 years at death.

No artefacts related to the burial were found.

The length of the grave pit was 2.2 m and its width was 0.65 m. Its depth was 0.25 m from the ancient surface level, on which overlying stone structure No. XXXV was built, and 0.5 m from the modern surface.

Grave No. 71

(Figs. 113–114)

Throughout squares 78-79/205-207 at a level of 18.45–18.55 m, an accumulation of small stones was uncovered forming a single horizon in a layer of grey humic moraine sand. No distinct structure was identified in this horizon. These stones were probably the remains of an older structure resembling a kind of continuous stone pavement that was disturbed at some point during the functioning of the cemetery.

Burial No. 71 was in a grave pit whose top was traced throughout squares 78/205-206 at a level of 18.25 m. At the depth specified, the pit was recognizable as a rather indistinct oval stain of greyish humic loam measuring approximately 2.1 m from west to east and 0.75 m from north to south. The fill of the pit contained abundant small boulders and gravel.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the west (azimuth 258°). The fractured skull was lying on the left side. The femoral bones and the right tibia were preserved without epiphyses. On the skull, traces of a lifetime (healed) trauma were discerned. The sex of the interred was unidentifiable, the age was 50–60 years at death.

Figure 114.

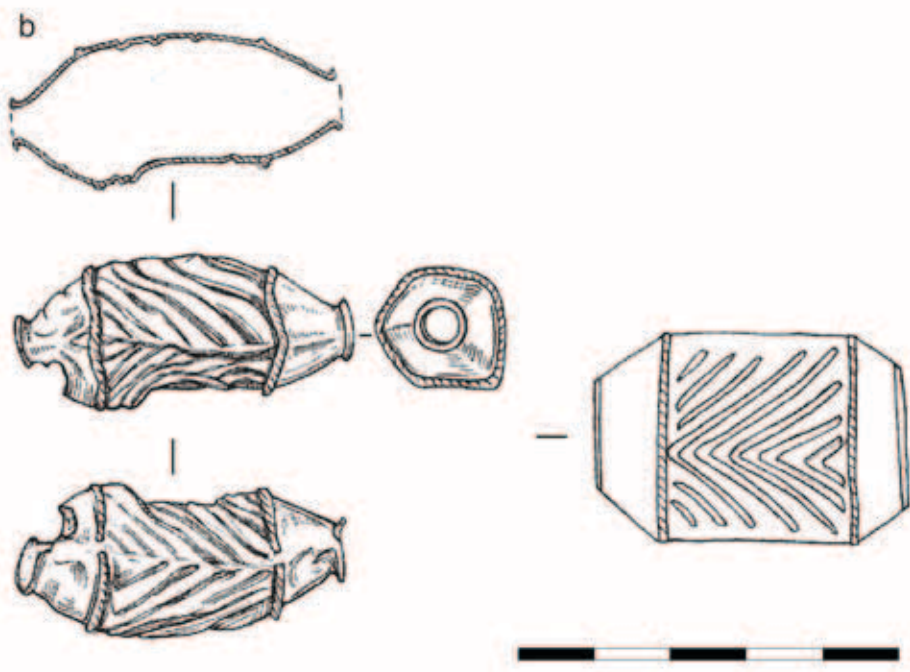
The bead from grave No. 71.

*Photo by S. Shapiro, drawing by
A. Mashezerskaya.*



Burial artefact

Near the lower jaw, at the cervical spine, a large gilded silver bead (button?) with a stamped pattern of oblique lines was uncovered. The object was similar to that found in burial No. 53, but larger.



The length of the grave pit was 2.2 m, its width was 0.75 m, and its depth was 0.35 m from the modern surface.

Grave No. 72
(Fig. 113)

Grave No. 72 was in a grave pit, the top of which was discerned throughout squares 79/204-205 at a level of 18.15 m. At this depth, it was recognizable as a rather indistinct oval stain of greyish humic loam measuring approximately 2 m from south-west to north-east and 0.7 m from north-west to south-east. The south-western edge of the grave was partly disturbed, possibly by the small old country road. In its fill, large quantities of small boulders and gravel were encountered.

No traces of a coffin were found.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 241°), hands crossed on the chest. The skull was practically destroyed except for the lower jaw and a fragment of the upper jaw.

Bones of the spinal column, fragments of the scapulae and ribs, humeral bones, fragments of pelvic bones, long bones of the extremities (except for the left ulna), and the tarsus of the right foot were preserved.

No artefacts related to the burial were found.

The length of the grave pit was 2.1 m and its width was 0.75 m. Its depth was 0.3 m from the modern surface.

Figure 115 (on right).

Graves Nos. 58, 73, and 74. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 58: 1 – the strap divider, 2 – an eared tube and spirals (the “belt pendant” complex), 3 – an eared tube and beads, 4 – the button.

Grave No. 74: 1 – the wire, 2 – the leather footwear fragments.

Grave No. 73

(Fig. 115)

Grave No. 73 was uncovered to the south of the south-western edge of grave No. 58 in squares 93/202-203 at a level of 18.2 m. The burial was in a grave pit measuring 0.8 m from north-east to south-west and 0.2 m from north-west to south-east. At a level of 18.17 m, the grave was recognizable as an indistinct stain of humic moraine sand.

The deceased was buried in a coffin 0.6 m long and 0.1 m wide, located in the central part of the grave and uncovered at a level of 18.18 m. The skeletal remains were in a poor state of preservation and arranged in anatomical order. The burial was oriented to the south-west (azimuth 239°). Only fragments of the skull with the lower jaw were preserved.

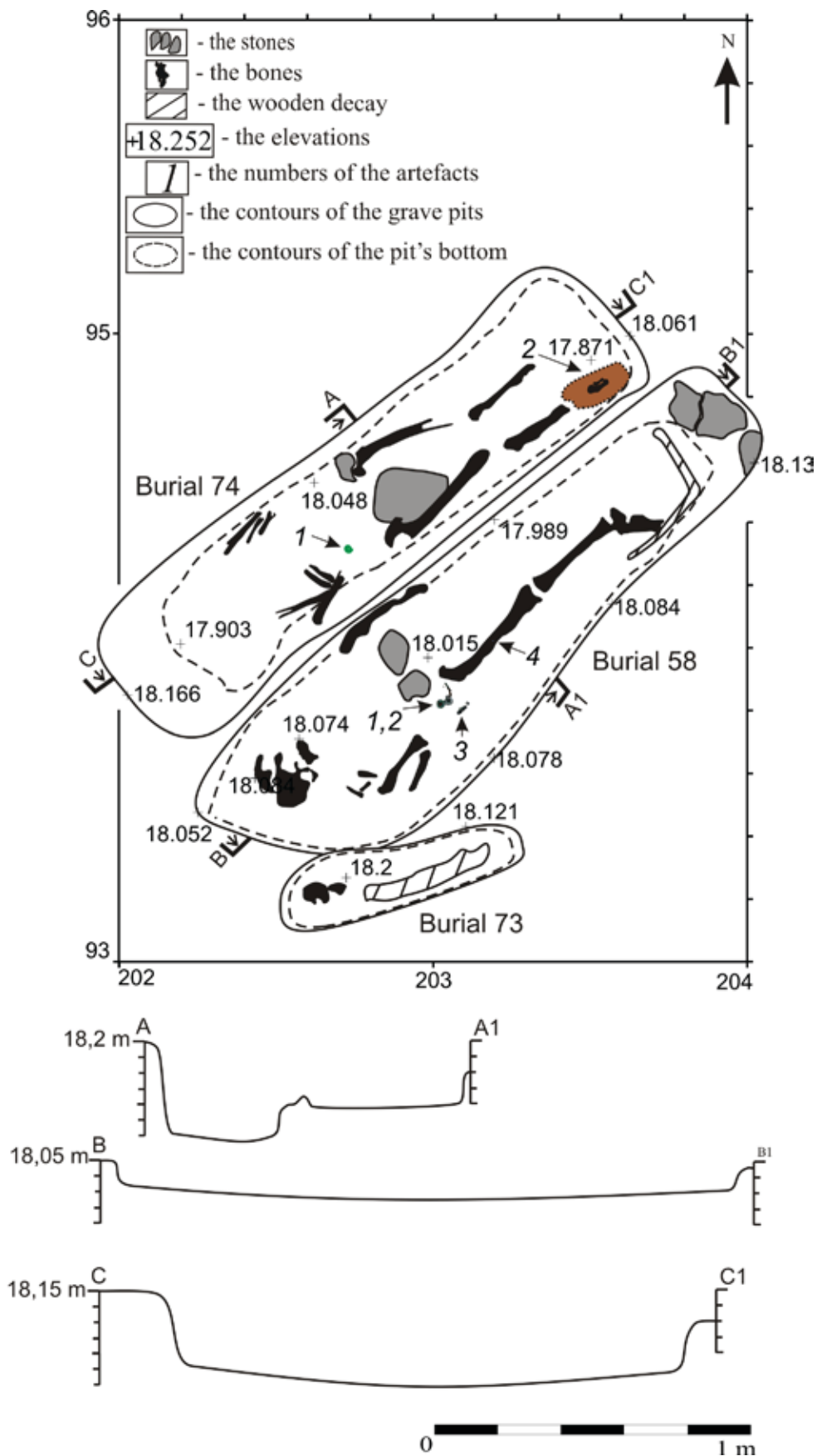
No artefacts related to the burial were found.

The depth of the grave pit from the modern surface was 0.4 m.

Grave No. 74

(Fig. 115)

Grave No. 74 was found north-east of burial No. 58 in squares 93-94/202-203 at a level of 17.9 m. It was made in a relatively deep grave pit distinguishable at the top as a stain of dark humic loam at a level of 18.16 m. It measured 2 m from north-east to south-west and 0.5 m from north-west to south-east. During the excavation of the north-eastern section of the grave pit, two fragments of an unrelated left femoral bone were found at a level of 18.1 m in the area of the left humeral bone of skeleton No. 74. These fragments apparently belonged to skeleton No. 58, which had been redeposited when burial No. 74 was made.



According to stratigraphic evidence, this indicates that burial No. 74 was made later than burial No. 58.

During the excavation of the fill of grave No. 74, a fairly well preserved coffin was discerned at a level of 18.05 m as a practically continuous horizon of rotten wood covering the skeleton. This coffin measured 1.76 m in length, 0.37 m in width at the north-eastern edge, and 0.45 m in width at the south-western edge. The north-eastern butt end of the coffin also was preserved, and its height was 0.18 m. This was the only coffin that was preserved this well among the excavated burials at the cemetery in question. The walls of the coffin were 5 cm thick. It was made without the use of nails.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 228°), hands crossed on the chest. Of the skull, only a fragment of the occipital bone and teeth were preserved. The preserved remains also included the long bones of the arms and legs, bones of the right foot with fragments of leather footwear, and a fragment of the right pelvic bone. The interred was probably a woman aged 25–35 years at death.

Assemblage of artefacts in the burial

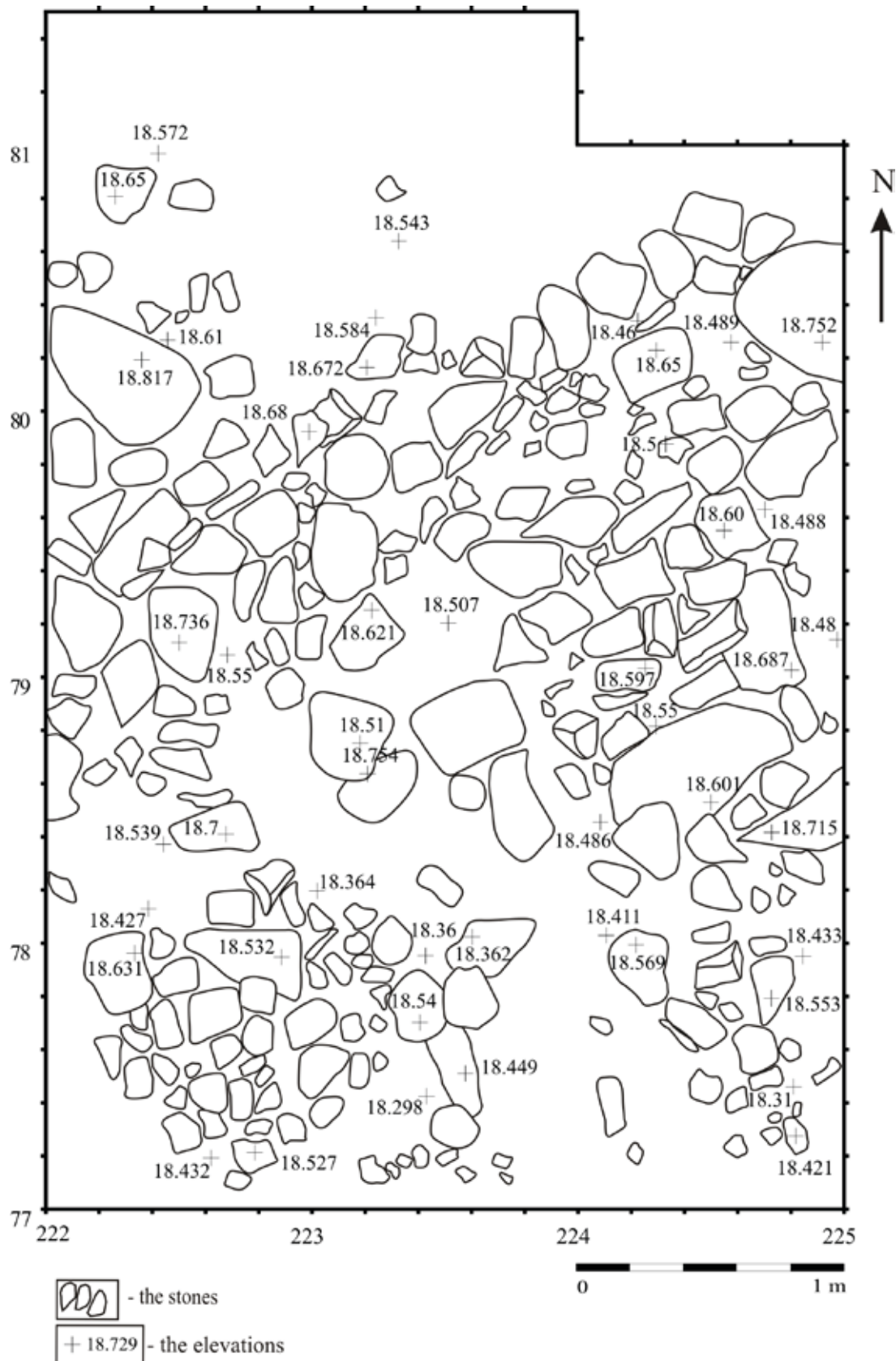
1. Between the right humerus and pelvic bones was a thin bronze wire coiled into a spiral about 1 cm in diameter.

2. Around the bones of the right foot, in a stain containing dark brown organics, a large fragment of a leather object, probably footwear, was uncovered.

3. At the level of the skeleton or slightly above it, an iron needle was found. It may come from the fill and not originally belong to this grave.

The length of the grave pit was 2.1 m, its width was 0.6 m, and its depth was 0.6 m from the modern surface.

Figure 116.
Excavation area II. The
plan of the first layer (stone
structures above graves).
Drawing, digitizing, and
layout by S. Belskiy.



Grave No. 75

(overlying stone structure No. XLVI) (Figs. 117)

After the area of excavation was marked out, the surface was levelled, and the topsoil layer, which was up to 0.1 m thick, was removed, stone settings were uncovered with the upper surface at a level of 18.6–18.7 m.

The stone structure was located mostly in squares 77-79/222-224 and presented a continuous structure composed of large granite boulders (0.4–0.5 m in cross-section) laid in a single horizon. However, a row of fourteen large boulders aligned from north-east to south-west was clearly distinguishable among those in squares 79/222-224. At the north-eastern edge, this row joined a larger block (with a maximum length of up to 0.6 m) uncovered in the north-eastern corner of the excavation pit in square 80/224 at a level of 18.75 m. From that stone, another distinct row extended parallel to the former. This latter row consisted of ten stones of similar dimensions, but it was shorter and had possibly been disturbed at its south-western edge. The distance between the two rows was about 0.7 m from north-west to south-east. The length of the first, north-western row was about 3 m. The space between the two rows was filled with separate large boulders, as well as numerous smaller stones.

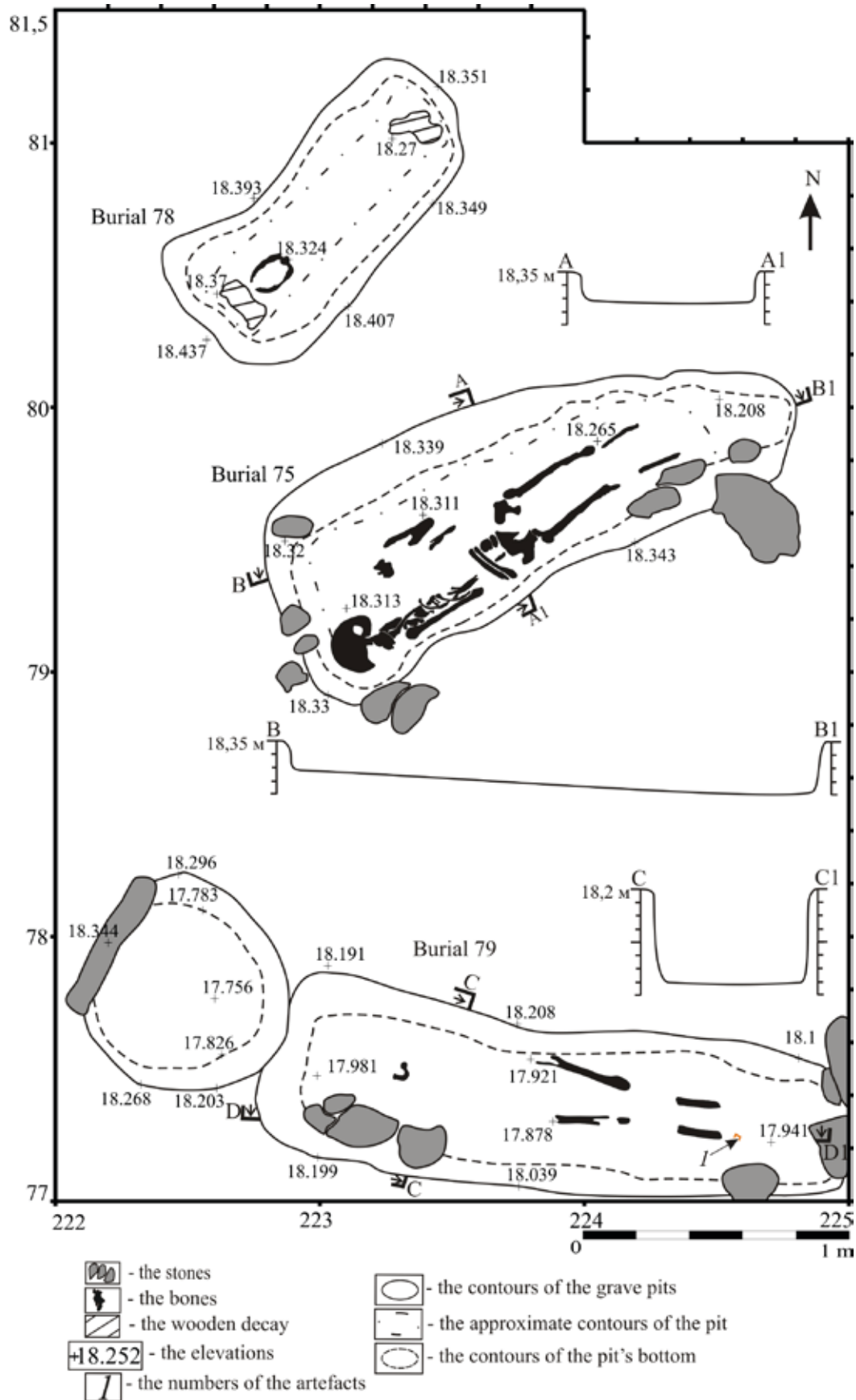
It seemed that within the excavated area, there was an overlying stone structure similar to those revealed in excavation I, but slightly differing in its dimensions and the fill of the internal space. We may be dealing with evidence of a single burial tradition that has developed over time. After the discovery of undisturbed burial No. 75 beneath this structure, the structure received the sequential number 46.

In squares 79-80/223-224, the top of a grave pit was uncovered in the form of an oval stain of a strongly humic dark loam, extended from north-east to south-west and measuring 2 m in this direction and 0.5 m from north-west to south-east. In the fill, isolated stones were encountered.

Burial No. 75 was uncovered in squares 79/222-223 at a level of 18.3 m (skull area) and 18.2 m (area of the feet). At the north-eastern edge of the grave pit, at a level of 18.23 m, extremely indistinct traces of rotten wood, probably the remains of a coffin, were discerned.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 230°), hands crossed on the chest. The skull was on the left side, the facial skeleton fractured. The preserved remains included the humeral and femoral bones, pelvic bones, the right clavicle, and some right ribs. The interred was probably a male aged

Figure 117.
Graves Nos. 75, 78, and 79.
General plan. Drawing,
digitizing, and layout by S.
Belskiy.
Grave No. 79: 1 – the iron
beam hanger.



25–35 years at death.

When the soil from grave pit No. 75 was sieved, fragments of a smooth silver bead were retrieved. No artefacts directly related to this burial were found.

The length of the grave pit was 2.1 m and its width was 0.7 m. Its depth was 0.2 m from the ancient surface level, on which overlying stone structure No. XLVI was built, and 0.55 m from the modern surface.

Grave No. 76

Grave No. 76 was found in the south-eastern section of the excavation in squares 77/207–208 at a level of 17.95 m. Throughout this area, under the topsoil at a depth ranging from 18.5 m to 18.3 m, separate granite boulders of medium size (with a maximum length of up to 0.45 m) were uncovered, but they did not form any distinct overlying stone structure. The top of the grave pit was discerned as an oval stain of greyish humic loam measuring about 2 m from north-east to south-west and 0.55 m from north-west to south-east. In the fill, large amounts of small stones and gravel were encountered.

The skeletal remains were in an extremely poor state of preservation, lying in anatomical order at a level of 17.95 m. The interred was positioned in an extended supine position, head to the south-west with a slight deviation to the south (azimuth 214°). Fragments of the skull, lying on the right side, were preserved, as well as fragmentary shafts of the femoral bones. The interred was a child aged 10–12 years at death.

The length of the grave pit was 1.9 m, its width was 0.5 m, and its depth was 0.35 m from the modern surface.

Grave No. 77

Grave No. 77 was found in squares 75/207–208 at a level of 17.8 m. No overlying stone structure or any accumulation of stones was revealed above the burial. At a level of 17.85 m, between separate large boulders and rocky outcrops, the top of the grave pit was uncovered in the form of an indistinct oval stain of greyish humic loam measuring about 1.2 m from north-east to south-west and 0.4 m from north-west to south-east. In the fill, large amounts of small stones and gravel were encountered.

The skeletal remains were in an extremely poor state of preservation. The interred

was an individual aged 18–20 years at death, but the sex was unidentifiable. Based on the location of the skull remains, the interred was oriented with the head to the south-west (approximate azimuth 234°).

No artefacts related to the burial were found.

The approximate length of the grave pit was 1.2 m, its width was 0.5 m, and its depth was 0.35 m from the modern surface.

Grave No. 78

(Fig. 117)

Grave No. 78 was located 0.5 m to the north-west of burial No. 75 in squares 80/222–223 at a level of 18.3 m (the skull area). The outlines of the grave pit were traceable at a depth of 0.2 m from the modern surface. The pit was recognizable as a distinct oval stain of dark loam measuring 1.7 m from south-west to north-east and 0.6 m from north-west to south-east, extended from south-west to north-east (azimuth 273°). The pit was filled with strongly humic dark loam with a slight admixture of small stones.

During the excavation of the grave fill, areas of rotten wood were discerned in the south-western part at a level of 18.34 m and in the north-eastern part at a level of 18.35 m. These areas were 18 cm long and 8 cm wide at the south-western edge (near the fragments of the skull) and 0.2 m long and 0.1 m wide at the north-eastern edge. In addition, areas of rotten wood were uncovered under the skeleton. The burial was probably made in a coffin of the dugout type, about 1.1 m long and about 0.25 m wide.

The skeleton was very poorly preserved and lying in anatomical order. The body was in an extended supine position, head to the south-west (azimuth 273°). Fragments of the skull with the lower jaw and tubular bones of the legs without the epiphyses were preserved, as well as bones of the left arm, which was possibly extended along the body or positioned on the pelvic bones. The interred was a child whose sex and exact age could not be identified.

No artefacts related to the burial were found.

The approximate length of the grave pit was 1.6 m, its width was 0.6 m, and its depth was 0.4 m from the modern surface.

Grave No. 79

(Fig. 117)

Grave No. 79 was located 1 m to the south of burial No. 75 in squares 77/222-223 at a level of 17.95 m (skull area). The outlines of the grave pit were discernible at a depth of 0.3 m from the modern surface as a distinct oval stain of dark loam measuring 2.2 m from west to east and 0.6 m from north to south, extended from west to east with a slight deviation to the north-west (azimuth 213°). The pit was filled with strongly humic dark loam with a slight admixture of small stones.

In the course of the excavation of the grave fill in its central and south-western parts, at a depth of 0.8 m, extremely indistinct traces of rotten wood were discerned. They were preserved to a length of about 1.1 m and probably represented the remains of a coffin. The coffin was closed with a lid, since traces of rotten wood were encountered over the bones of the interred.

The extremely poorly preserved skeleton was arranged in anatomical order. It was lying in an extended supine position, head to the west-north-west. The skull with fractured parietal bones and fragments of the scapulae, cervical vertebrae, and several ribs were preserved. The interred was a child whose sex and exact age could not be identified.

The length of the grave pit was 2.1 m, its width was 0.5 m, and its depth was 0.7 m from the modern surface.

Grave No. 80

(Figs. 118–119)

Grave No. 80 was uncovered in squares 71-73/212-214 near the edge of the slope of the Kalmistomäki hill. The outlines of the oval grave pit were detected at a level of 17.93 m immediately after the topsoil, which in this area was up to 0.15 m thick, was removed. No overlying stone structure was found above the burial, although at the north-eastern edge of the grave pit, at a level of 18.21 m, a large, nearly square boulder was uncovered. This block was simultaneously the south-western marking stone of overlying stone structure No. XLIX. On the opposite side, at the south-western edge, the grave was also marked with a separate boulder, the top surface of which was uncovered at a level of 18.13 m in square 71/212. Burial No. 80 was evidently made according to the rite typical at this cemetery, although without building a complete overlying stone structure but instead only using two marking stone blocks. The interval between these stones was 1.8 m.

The grave pit could be distinguished quite clearly against the background of light-yellow sandy loam containing numerous small stones typical of the slope deposits of the Kalmistomäki hill. The grave was filled with a dark humic sandy loam. The grave stain measured 1.7 m from south-west to north-east and 0.55 m from north-west to south-east.

No remains of a coffin were discerned.

The skeleton was fairly well preserved and arranged in anatomical order in an extended supine position, head to the south-west (azimuth 239°). The skull survived in fragments, which were partly lying under a flat, nearly square stone measuring 0.4 × 0.4 m. The lower jaw was fractured. The humeral and forearm bones were preserved, and the femur, tibiae, and fibulae were preserved fragmentarily. As suggested by the arrangement of the bones of the forearms, the arms of the deceased were crossed in the thoracic area. The

interred was probably a male aged 50–55 years at death.

Burial artefact

Right at the south-eastern edge of the grave pit at a level of 17.88 m, a small (2.3 cm in diameter) bronze ring brooch was found. Because of its find location, it is not clear whether it was related to this burial; it may even originate from an older grave in the area, since there was at least one loose human bone in the fill of grave No. 80.

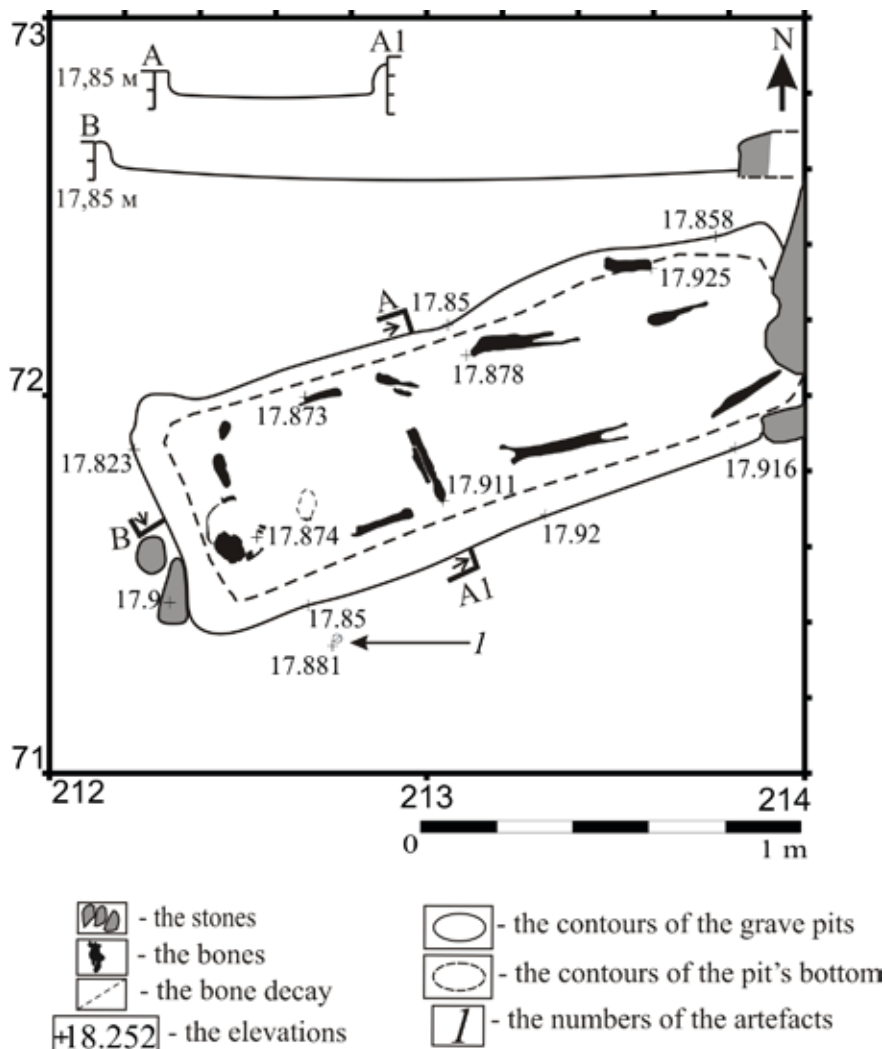


Figure 118.

Grave No. 80. General plan.

Drawing, digitizing, and layout by S. Belskiy. 1 – the brooch.



The maximum length of the grave pit was 1.8 m and its width was 0.6 m. The maximum depth was 0.5 m from the level of the modern surface.

Figure 119.
The brooch from grave
No. 80. Bronze. Photo by
S. Shapiro.

Grave No. 81

(Fig. 120)

Grave No. 81 was located in square 73/208 at a level of 17.94 m. At the depth of 0.3 m from the modern surface, an elongated stain of dark mixed sandy loam was uncovered, oriented approximately from south-west to north-east. The grave pit was very shallow, about 0.1 m deep, as revealed by excavation down to the virgin soil. The top of the cranium of the interred proved to be higher than the edges of the top of the pit. The pit of burial No. 82 disturbed the contour of the preceding pit in its south-eastern part, indicating that burial No. 82 was performed later than burial No. 81. Nevertheless, both graves were approximately equally deep. As a result, a common grave pit was formed, broadening in the south-western part. Its maximum length was 2.4 m and its width was 0.9 m.

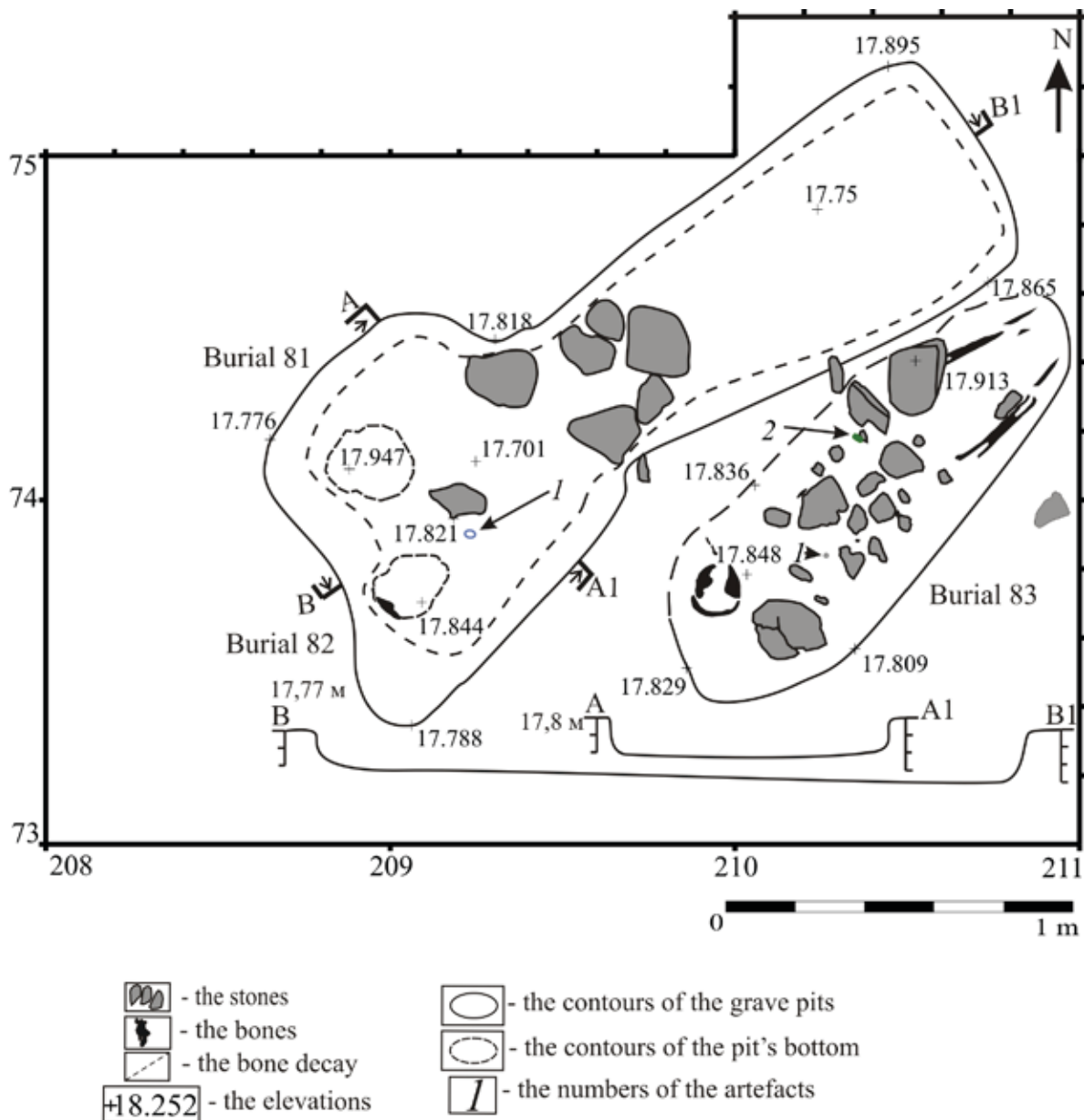
The interred appeared to have been laid in an extended supine position, head to the south-west (azimuth approximately 238°). The sex was unidentifiable. The only preserved tooth – an upper premolar – had no traces of wear. The buried was probably an adolescent aged 14–18 years at death.

No artefacts related to the burial were found.

Grave No. 82

(Figs. 120–121)

Poorly preserved fragments of the skull were uncovered 0.2 m to the south of the skull fragments in burial No. 81 at the same depth and in the same grave pit in square 73/209.



As suggested by the contour of the bottom of the grave pit, which was traced during excavation down to the virgin soil, the grave extended slightly to the south-west.

The interred was lying in an extended supine position, head to the south-west, although it was impossible to define the exact orientation. As suggested by the thickness of the cranial bones, the deceased was an adult aged 50–60 years at death.

Figure 120.
Graves Nos. 81, 82, and 83. General plan.
Drawing, digitizing, and layout by S. Belskiy.
Grave No. 82: 1 – the earring.
Grave No. 83: 1 – the bead, 2 – the spirals.

Figure 121.
The earring from grave
No. 82. Silver. Photo by
S. Shapiro.

Burial artefact

Approximately 0.15 m to the north-east of the largest fragments of the skull and near the small fragments of the lower jaw, at a level of 17.82 m, in square 73/209, an earring made from silver wire with an openwork decoration at one of the ends was found. The earring was 2.7 cm in diameter, and the round wire was 0.2 cm in diameter.

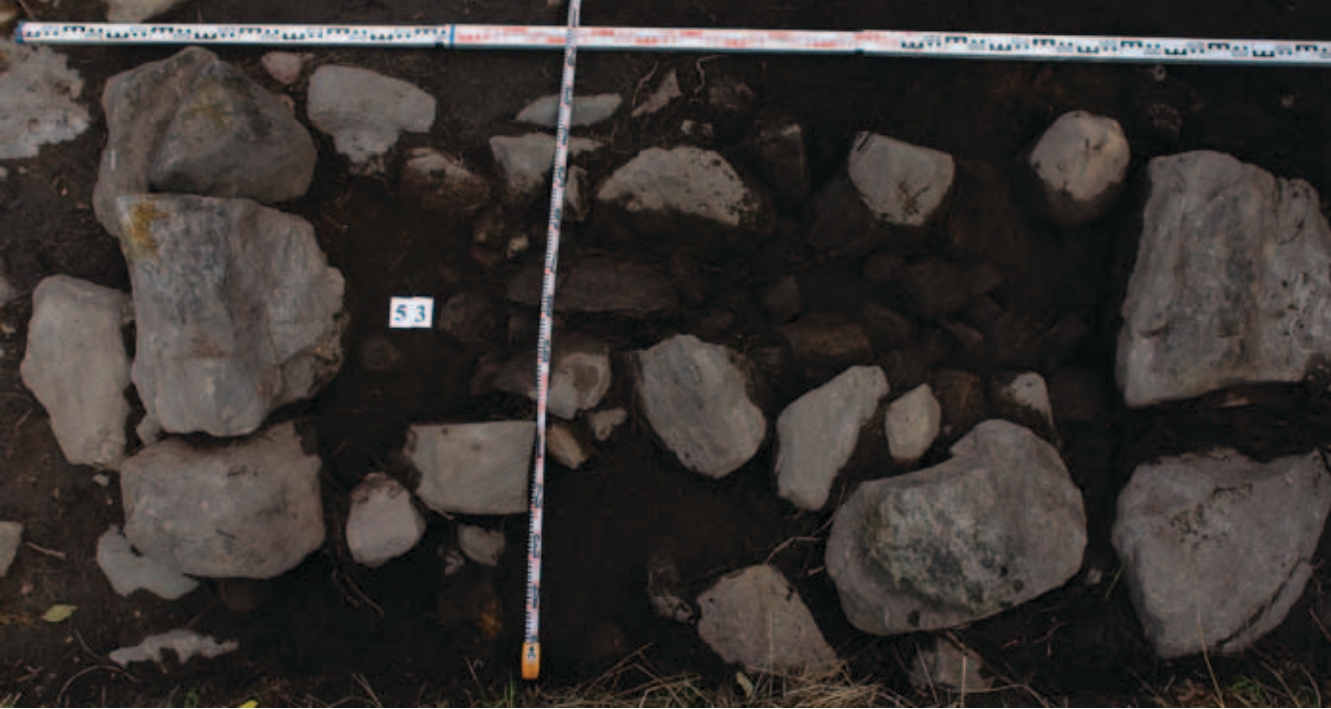


Grave No. 83

(Fig. 120)

The grave pit in which burial No. 83 was made was discerned 0.2 m to the south-east of the south-eastern edge of grave pit No. 82 in square 73-74/209-210 at a level of 17.85 m. It was recognizable as an oval stain of dark sandy loam that extended from south-west to north-east. It measured approximately 1.5 m from south-west to north-east and 0.5 m from south-east to north-west. The pit was dug in very stony soil and filled with a large amount of small stones so that its outlines were poorly identifiable. No overlying stone structure was traced above the burial.

Fragments of the skull in an extremely poor state of preservation were uncovered near the south-western edge of the grave pit in square 73/209 at a level of 17.93 m. There were also recordable fragments of the bones of the forearm, as well as femoral and tibial bones. The skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 225°). The interred was probably a woman (it was not possible to identify the age).



Assemblage of artefacts

1. To the right of the skeleton, 0.28 m to the north-east of the fragments of the skull, a smooth silver bead or button about 1 cm in diameter was found.

At a distance of 0.1 m to the north-east of the bead, an indistinct narrow streak of rotten wood, about 5 cm long, was traced. Its fibres were aligned from south-west to north-east. These were probably the remains of a coffin, but no other traces of it were recordable in the burial.

2. To the left of the skeleton, in the pelvic area, four bronze spirals were uncovered, inside which yellow and reddish threads were preserved.

The approximate maximum length of the grave pit was 1.55 m and its width was 0.55 m. Its north-western contour was defined indistinctly because of the abundance of stones in the fill and at the level of the virgin soil. The maximum depth was 0.5 m from the level of the modern surface.

Figure 122.

The stone structure No. LIII (above grave No. 84). A view from the south. Photo by S. Belskiy.

Grave No. 84

(overlying stone structure No. LIII) (Figs. 122–124)

Overlying stone structure No. LIII was among the largest ones at the cemetery. It was uncovered throughout the area of squares 66–67/217–219 almost immediately beneath the

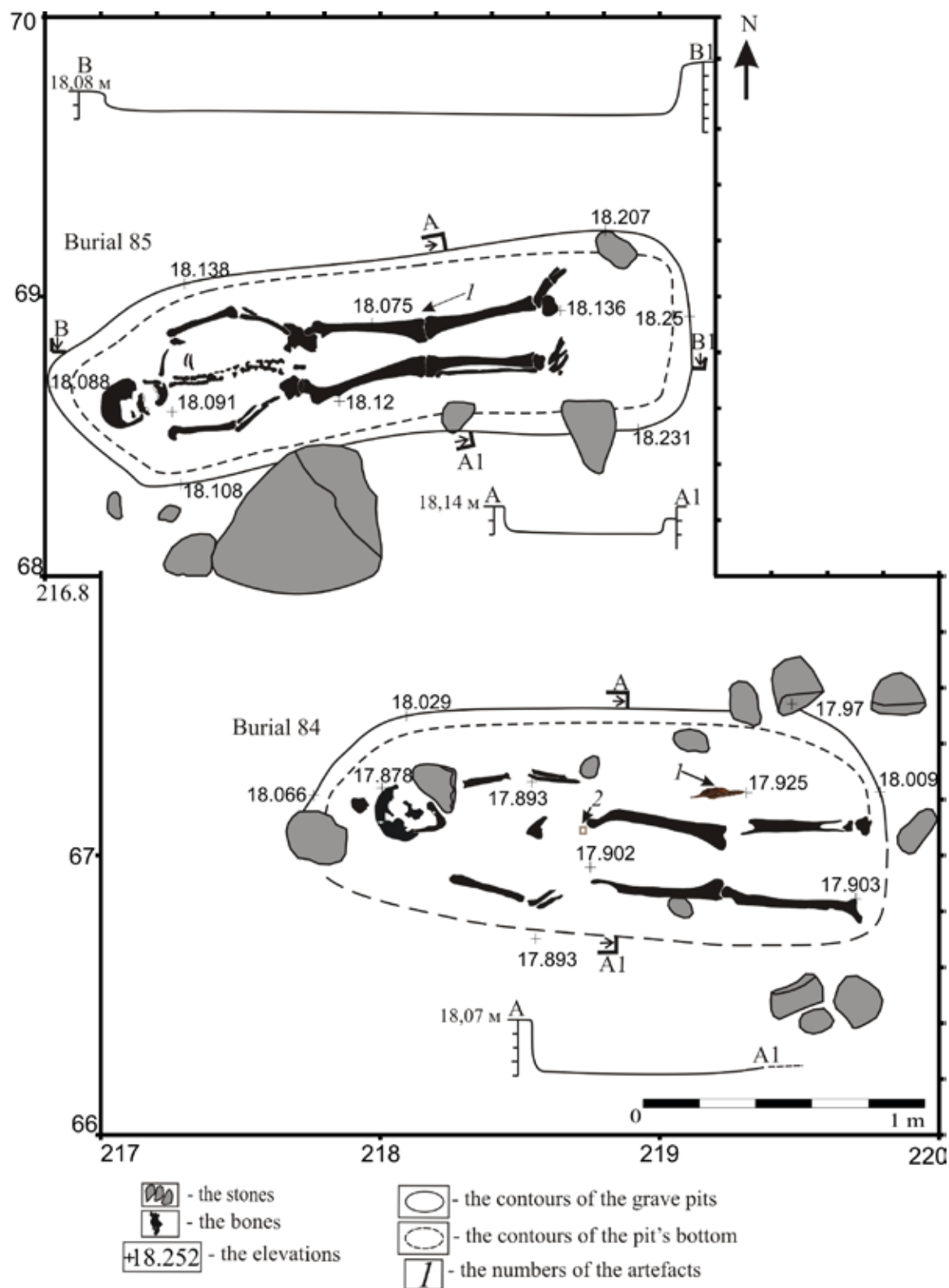


Figure 123 (on left).

Graves Nos. 84 and 85. General plan. Drawing, digitizing, and layout by S. Belskiy

Grave No. 84: 1 – the knife, 2 – the belt buckle.

Grave No. 85: 1 – the button.

topsoil layer at a depth ranging from 18.39 m at the eastern edge to 18.54 m at the western edge. The structure was composed of stone blocks with a maximum length varying from 0.3 to 0.5 m. At the eastern edge was a large boulder whose top was uncovered at a level of 17.39 m, practically directly below the turf. The western edge of the structure was composed differently: originally it

was made of three large boulders, one placed nearer the centre and serving as a marking stone for this structure, and two others added to it from the north and south. Then, in the centre of the structure, another large boulder was installed so that the previous three stones served as a kind of foundation for it. The monumentality of the structure was thus enhanced.

The other boulders were laid into a single row forming a closed oval structure that was aligned approximately from west to east (azimuth 266°). Its maximum dimensions were 2.84 × 1.3 m around the external perimeter and 1.72 × 0.4 m around the internal perimeter. The inner space of the structure was filled with small stones.

The excavation of overlying stone structure No. LIII applied a technique in which the burial inside the overlying stone structure was uncovered without first removing the stone blocks. This method enabled the relationship between the burial itself and the structure above it to be recorded more exactly. The results of such studies showed that the axial lines of the overlying stone structure and the burial under it were displaced relative to each other. In fact, the skeleton was located under the northern wall composed of stones of the overlying stone structure. This was due to the fact that the area of the grave pit considerably exceeded that of the structure above it. It was therefore finally necessary to remove the boulders composing overlying stone structure No. LIII in order to uncover the burial itself.

The top of grave pit No. 84, which was visible as an oval stain of dark humic loam, extended from west to east. It measured 2.1 m from west to east and 0.7 m from north to south and was uncovered at a level of 18.03 m. This grave pit was among the deepest ones at the cemetery.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the west (azimuth 267°). The skull was fragmented. It was uncovered at a level of 17.87 m, 0.2 m below the top of the grave pit and 0.8 m below the modern surface. Also the bones of the shoulder, forearms, fragments of the femoral and tibial bones, pelvis, and left metatarsus were preserved. The latter was uncovered at a level of 17.9 m. As suggested by the positions of the bones of the forearm, the arms of the deceased were crossed on the chest. The individual interred was a male advanced in



Figure 124.
The finds from grave No. 84: 1, 2 – iron.
Photo by S. Shapiro, layout by S. Belskiy.

years (the teeth of the lower jaw were not preserved, and the alveolar sockets of the molars and premolars were skinned over), aged over 60 at the time of death.

Assemblage of artefacts

1. An iron knife was retrieved from the outside of the left femoral bone. The total length of the object was 16 cm, the length of the blade was 9.5 cm, the maximum width was 2 cm, and the thickness of the back was 0.5 cm. On the surface of the knife, on the inside of the hilt, a few wooden fibres were recorded. They were oriented from west to east in accordance with the axial line of the grave pit.

2. At the same level, near the proximal end of the left femoral bone, was a fragmentary iron belt buckle, seemingly of round or oval shape. Under this object, a very thin intercalation of rotten wood was discerned, evidently suggesting the presence of a coffin.

The maximum length of the grave pit was approximately 2.1 m and its width was 0.8 m. The maximum depth was 0.9 m from the level of the modern surface.

Overlying stone structure No. LIV was located 0.5 m to the north of the northern wall of overlying stone structure No. LIII, in squares 68-69/216-218. It was an oval structure typical to the cemetery composed of nine relatively large boulders (up to 0.4 m) laid in a single row. The structure was oriented from west to east (azimuth 257°). The southern wall of the structure was destroyed. The top surfaces of the marking stones were uncovered at a level of 18.59 m at the western edge and 18.39 m at the eastern edge, practically immediately below the topsoil layer. The reconstructed dimensions of the structure were 3 × 1.2 m around the external perimeter, and 2.5 × 0.6 m around the inner perimeter.

The top of the grave pit was recorded at a level of 18.22 m. Its orientation was the same as that of the overlying stone structure, and it was recognizable as an oval stain of darkish-grey loam measuring approximately 2.4 m from west to east and 0.8 m from north to south.

The skeleton was fairly well preserved and arranged in anatomical order in an extended supine position, head to the west (azimuth 257°). The skull also was well preserved, but the facial skeleton was destroyed. Judging by the positions of the bones of the forearms, the hands of the buried were crossed in the pelvic area. The individual interred was a male aged 20–25 years at death.

Figure 125.

The button from grave No. 85. Silver. Photo by S. Shapiro.

Burial artefact

Under the left femoral bone, approximately in the centre at a level of 18.07 m, there was a spherical gilded silver button with a loop. The diameter of the sphere was less than 1 cm.

During the excavation of the fill over the skeleton, a rather small fragment of a limestone cross was found in the eastern part of the grave pit.

The maximum length of the grave pit was 2.35 m and its width was 0.65 m. The maximum depth was 0.1 m from the level at which overlying stone structure No. LIV was built and 0.6 m from the modern ground surface.



Grave No. 86

(overlying stone structure No. LII) (Fig. 127)

Overlying stone structure No. LII was located 0.7 m to the north-north-east of the northern wall of overlying stone structure No. LIV, in squares 69-70/215-216 at a level of 18.45 m at the south-western edge and 18.7 m at the north-eastern edge. The structure was composed of ten rather small boulders. Both the structure itself and the buried body were oriented from west to east. The external dimensions of the structure were 1.7×1.5 m and the internal dimensions were 0.75×1 m.

The contours of the grave pit were practically untraceable because of the very stony soil. The outlines of the grave pit could only be approximated by the distribution of the humic fill, judging by which they extended 2.25 m from west to east and 0.55 m from north to south.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the west-south-west (azimuth 259°). The entire upper part of the cranium was broken through, and only the facial bones were preserved fairly well. In addition to this, the pelvic bones, the long bones of the lower extremities (very thin and fragile), and the ribs were preserved in anatomical order. The lower jaw was undoubtedly in a redeposited state about 0.25 m below the skull. The position of the skull was somewhat uncommon, and it is possible that it was not in situ. The interred was a child aged 6–8 years at death.

Assemblage of artefacts related to the burial

1. Near the fragments of the lower jaw and at the same level of 18.26 m as them, a smooth gilded silver bead/button was found.
2. An identical bead was found between the fragments of ribs in the central area of the burial, 0.1 m to the south-east of the first one.

The maximum depth of the grave pit was 5 cm from the level at which overlying stone structure No. LII was built and 0.45 m from the level of the modern surface.

Grave No. 87

(overlying stone structure No. L) (Figs. 126–127)

Overlying stone structure No. L was located 0.2 m to the north of the northern wall of overlying stone structure No. LII, parallel to the previously described structures, in



squares 70-71/214-216. The surface of the south-western marking stone was uncovered at a level of 18.51 m. The structure was composed of thirteen boulders of medium size (with a maximum length of up to 0.4 m). The largest of them was the north-eastern stone, which was nearly square in shape. The oval structure measured 2.7×0.7 m around the external perimeter and 2×0.45 m around the internal perimeter. It extended from south-west to north-east (azimuth 258°). The internal part of the burial, as well as the hollows between the boulders, were filled with smaller stones. In fact, the quantity of small stones in the fill of the internal space was greater than that of the soil.

It turned out that burial No. 87 could be opened completely inside the overlying stone structure without removing the stones of its walls. The structure was narrow inside – only 0.4 m wide, corresponding to the features of the skeleton. The outlines of the grave pit were difficult to define.

The skeleton was well preserved and arranged in anatomical order in an extended supine position, head to the south-west (azimuth 258°). The cranium was uncovered at a level of 18.25 m and the feet bones at a level of 18.24 m. The depth of the skeleton from the modern surface was 0.4 m. The hands of the deceased rested on the belly, the right hand almost at a right angle and the left hand at an angle of 45° . Practically all the larger skeletal remains were preserved. The interred was an adolescent girl aged 14–18 years at death.

Figure 126.
Grave No. 87. A view
from the north-east.
Photo by V. Laakso.

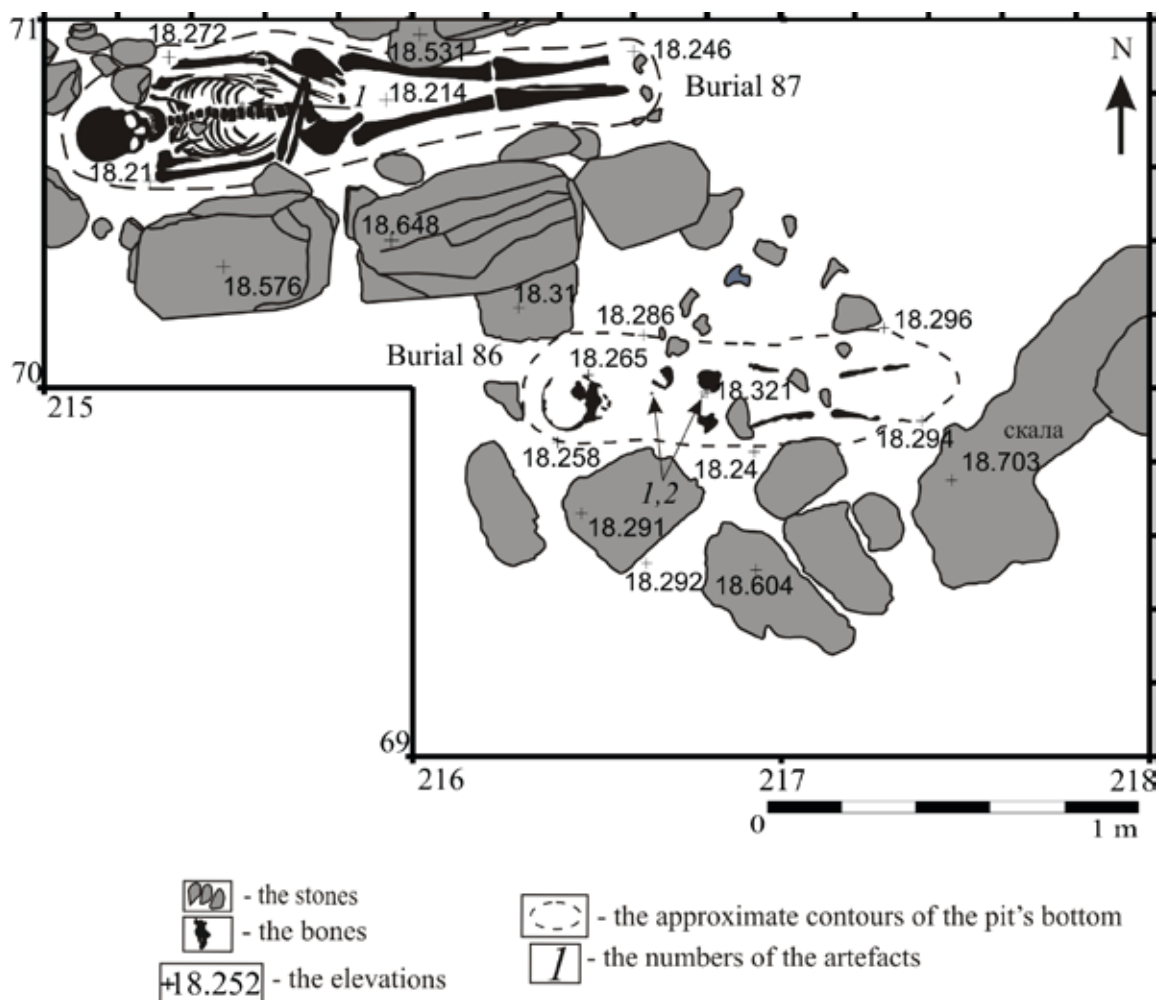


Figure 127.

Graves Nos. 86 and 87.

General plan. Drawing, digitizing, and layout by S. Belskiy

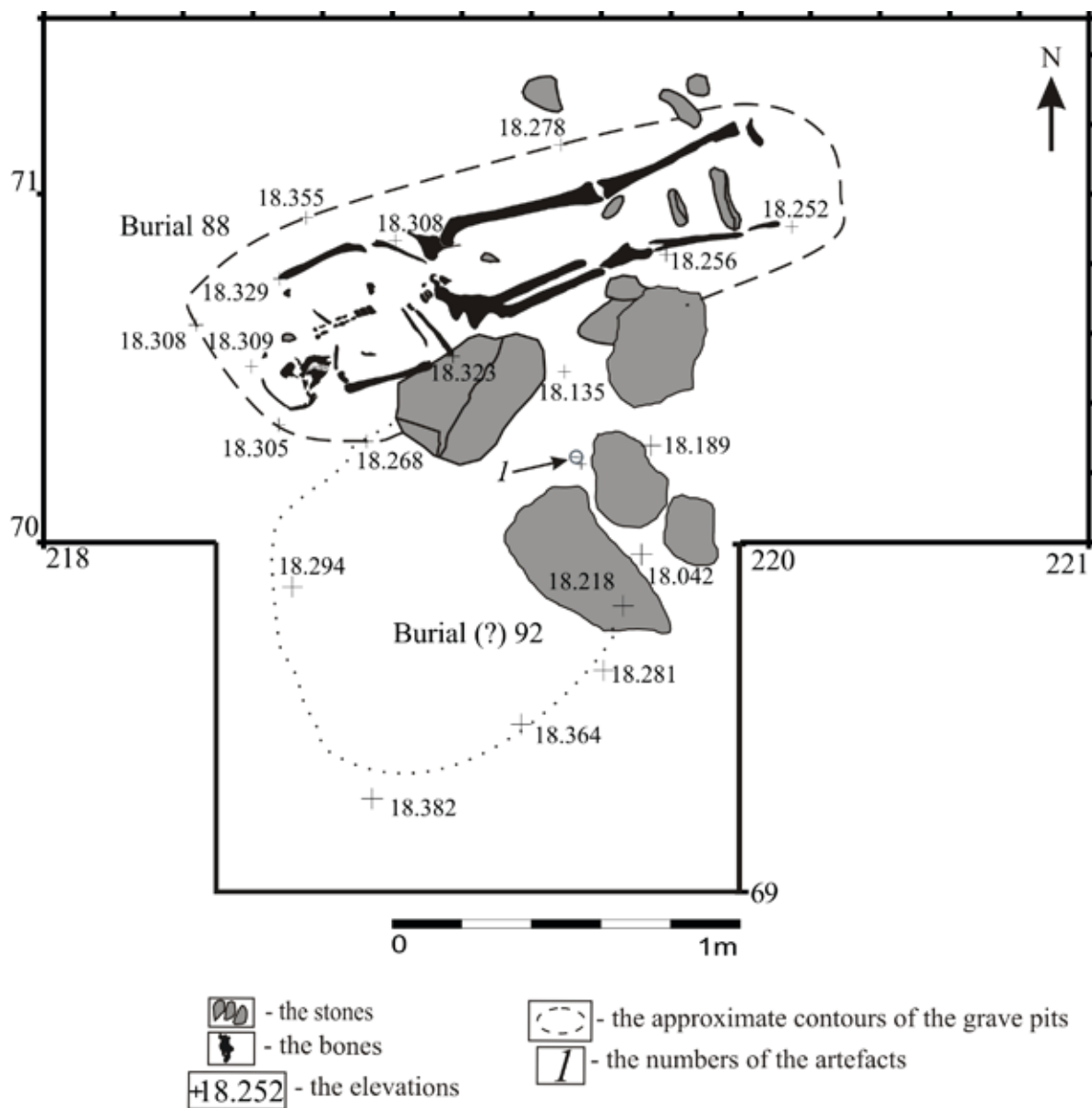
Grave No. 86: 1, 2 – the buttons.

Grave No. 87: 1 – the button.

Burial artefact

The single find in the burial was a gilded silver button uncovered in the thorax area.

The approximate dimensions of the grave pit were 1.65 m from west to east and 0.4 m from north to south. The maximum depth was 5 cm from the level at which overlying stone structure No. L was built and 0.45 m from the level of the modern surface.



Grave No. 88

(overlying stone structure No. LV) (Figs. 128–129)

Overlying stone structure No. LV was located in the north-western area of the cemetery in squares 70-71/218-219 at a depth ranging from 18.69 m at the south-western edge to 18.56 m at the north-eastern edge. The stone masonry over the burial had a configuration uncommon for this cemetery: the boulders did not form an oval structure but were set in two rows adjoining each other directly over the remains of the interred. One large stone block was laid

Figure 128.

Graves Nos. 88 and 92. General plan. Drawing, digitizing, and layout by S. Belskiy.
1 – the ring brooch.

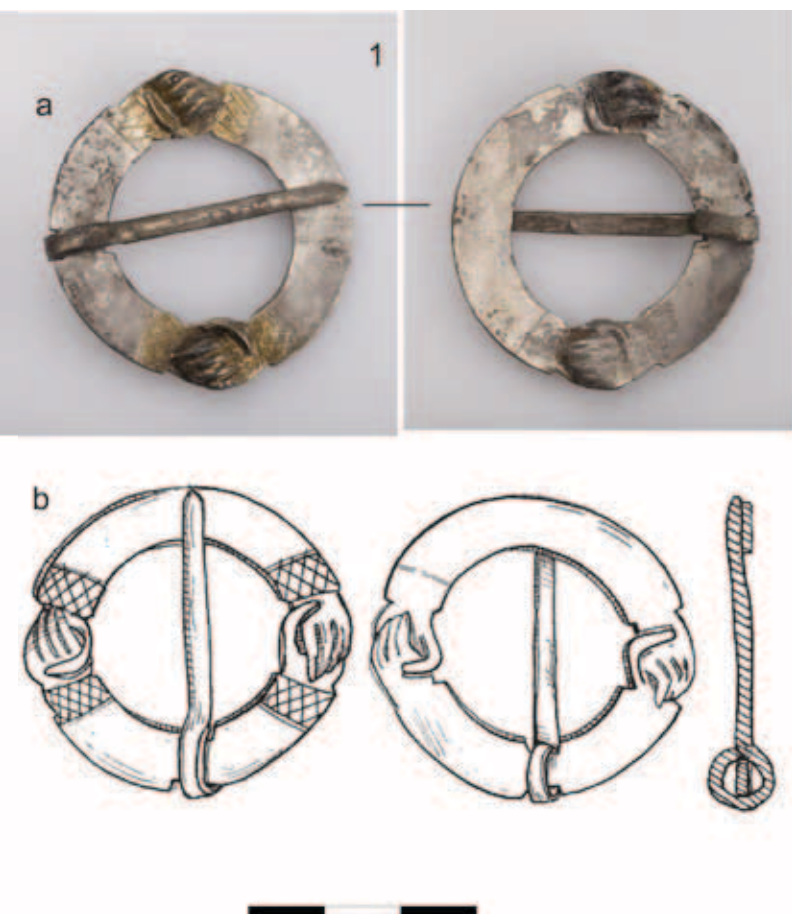


Figure 129.

The ring brooch from the vicinity of the grave No. 88: 1a, 1b – silver.

Photo by S. Shapiro, drawing by A. Mashezerskaya.

in the south-western part of the structure. The total dimensions of the structure were 3.6×0.45 m. It was oriented from south-west to north-east (azimuth 245°).

The outlines of the pit could not be defined because the inner and outer layers (strongly humic dark loam with an admixture of numerous stones) were practically identical in colour.

The skeleton was rather well preserved and arranged in anatomical order in an extended supine position, head to the south-west (azimuth 245°). The cranium was broken through, only the facial bones were relatively well preserved because the head of the deceased was lying on its side (facing east). The right arm was bent at a right angle at the elbow, while the left arm was bent

at an angle under 45° . The long bones of the extremities and part of the vertebral column were preserved. The individual interred was a male aged 16–20 years at death.

No artefacts related to the burial were found. However, in square 70/219 at a level of 18.36 m, 0.7 m to the south-east of the skull but on the outside of the overlying stone structure, a silver

ring brooch with arcs joined in the form of a handclasp was found.

In addition, during the excavation of the burial, several small fragments of handmade pottery were found between the femoral bones and near the left humerus. These finds are most probably linked to the disturbed cultural layer of the settlement or cemetery of the more ancient period at Kalmistomäki.

The approximate dimensions of the grave pit were 1.85 m from south-west to north-east and 0.7 m from north-west to south-east. The maximum depth was 5 cm from the level at

which overlying stone structure No. L was built and 0.45 m from the level of the modern surface.

Grave No. 89

(overlying stone structure No. XLIX)

Overlying stone structure No. XLIX was located in squares 72-73/212-214 at a level of 18.21 m at the south-western edge and 18.4 m at the north-eastern edge. It was an oval structure typical to this cemetery, composed of eleven large stone blocks (with a maximum length of up to 0.4 m). The structure extended from south-west to north-east (azimuth 244°). The outer dimensions of the structure were 2.2 × 1.25 m and the inner dimensions were 1.4 × 0.3 m. In the internal space of the structure there was a large amount of small stones.

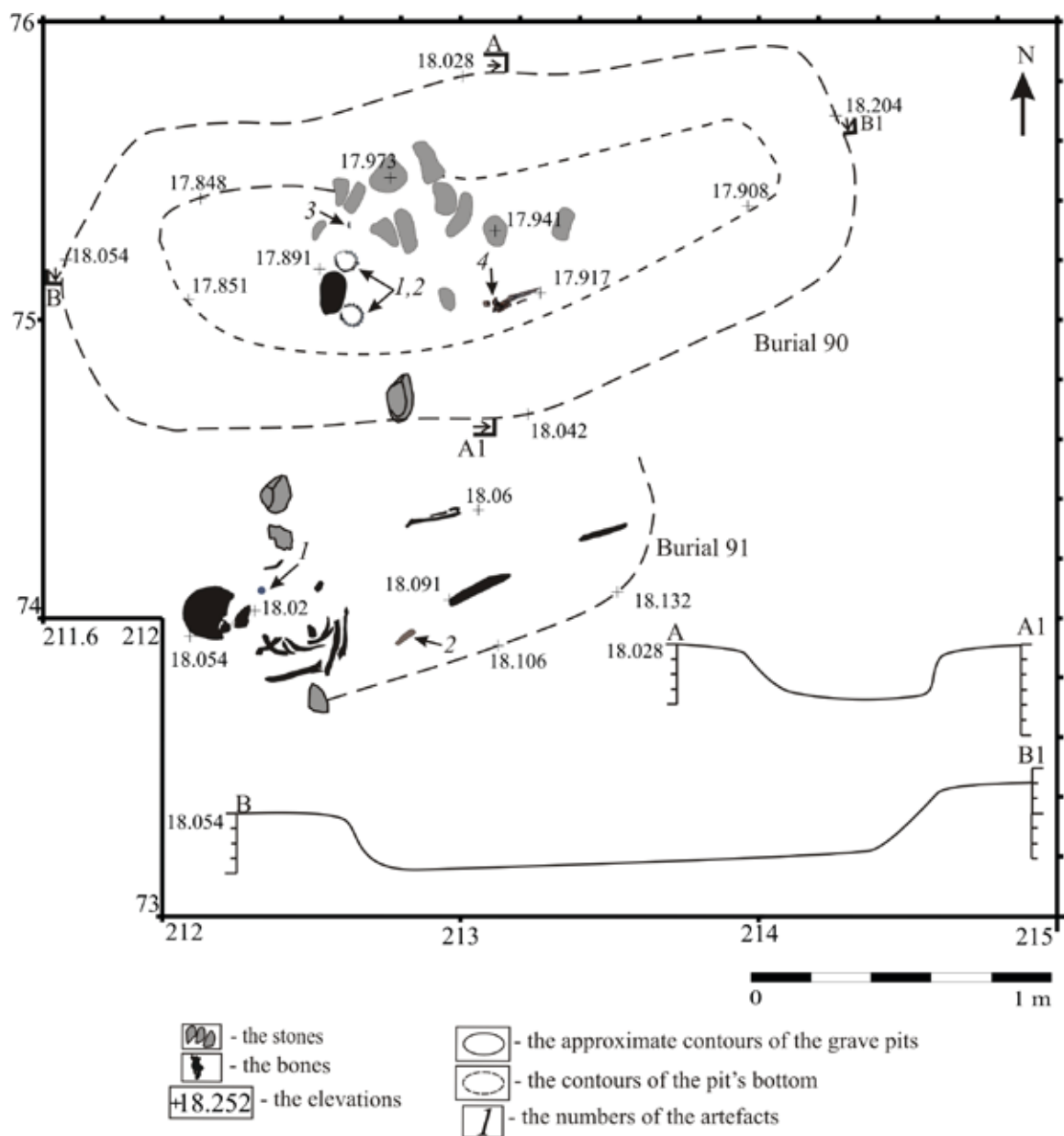
The outlines of the grave pit were extremely indistinct in the very stony soil. They measured approximately 1.9 m from south-west to north-east and 0.7 m from north-west to south-east.

The skeleton was rather well preserved and arranged in anatomical order in an extended supine position, head to the south-west (azimuth 244°). Fragments of the skull were uncovered at a level of 17.9 m. The long bones of the legs were preserved, although without the epiphyses. The positions of the arms of the deceased were impossible to define. The interred was an adult individual aged 40–50 years at death (the sex could not be defined).

Burial artefact

An iron knife was the only artefact in the burial. It was found under the proximal end of the left femoral bone at a level of 17.95 m. The total length of the object was 16 cm, the length of the blade was 10 cm, its maximum width was 2.3 cm, and the thickness of the back was 0.5 cm. No traces of organic substances were noted on the object.

The approximate dimensions of the grave pit were 2.15 m from west to east and 0.8 m from north to south. The maximum depth was 0.1 m from the level at which overlying stone structure No. XLIX was built and 0.45 m from the level of the modern surface.



Grave No. 90

(overlying stone structure No. XLVII) (Figs. 130–131)

Overlying stone structure No. XLVII was located in squares 75–76/211–214 at a level of 18.40 m at the south-western edge and 18.49 m at the north-eastern edge, practically immediately below the topsoil. It was a typical oval structure composed of thirteen large (with a maximum length of up to 0.5 m) stones aligned in a single row. It extended from south-west to north-east (azimuth 244°), parallel to structures Nos. 48 and 49. The structure measured 3.2 × 1.2 m around the external perimeter and 2.1 × 0.3 m around

Figure 130 (on left).

Graves Nos. 90 and 91. General plan. Drawing, digitizing, and layout by S. Belskiy.

Grave No. 90: 1, 2 – the temple rings/earrings, 3 – the finger ring, 4 – the knife and the sheath fragments.

Grave No. 91: 1 – the button, 2 – the needle box (?).

the internal perimeter. A large boulder of elongated shape with a maximum length of 0.8 m was used as the marking stone at the south-western edge. The boulder was oriented with the longer side from north to south and with a slight deviation to the south-west.

The inner space of the structure was filled with a large amount of small fired stones, as well as amorphous

fragments of burnt clay and slag. The grave pit of burial No. 90 intruded into an earlier and deeper structure, the purpose of which remained unclear due to the absolute absence of diagnostic finds.

The grave stain was extremely indistinct in the stony soil, which was the fill of an earlier earthen structure. Its outlines measured approximately 2.2 m in length from south-west to north-east, 0.8 m in width in the south-western section, and 0.55 m in width in the north-eastern section. This grave pit was one of the deepest at the cemetery under study. Its total depth was 0.45 m below the level of the overlying stone structure.

The skeleton was not preserved. Only in the south-western section of the grave pit, at a level of 17.9 m, an amorphous stain of decayed bones, probably the remains of the skull, was recorded. However, it was evident that the burial was oriented to the south-west (azimuth 244°) and the individual interred was a woman, as may be judged by the set of artefacts.

Assemblage of artefacts

1. To the right of the decayed remains of the cranium and at the same level with them, a many-beaded temple ring or earring was found. It consisted of thirteen smooth gilded silver beads, each 1.3 cm in diameter, with the rod/base being 7.8 cm in diameter.

2. An identical ring was uncovered at the same level to the left of the stain of decayed bones.

On each of the rings, dark hairs were preserved. On the left ring they were about 2 cm long. In addition, traces of rotten wood were found under each of the rings, suggesting that the burial was made in a coffin.

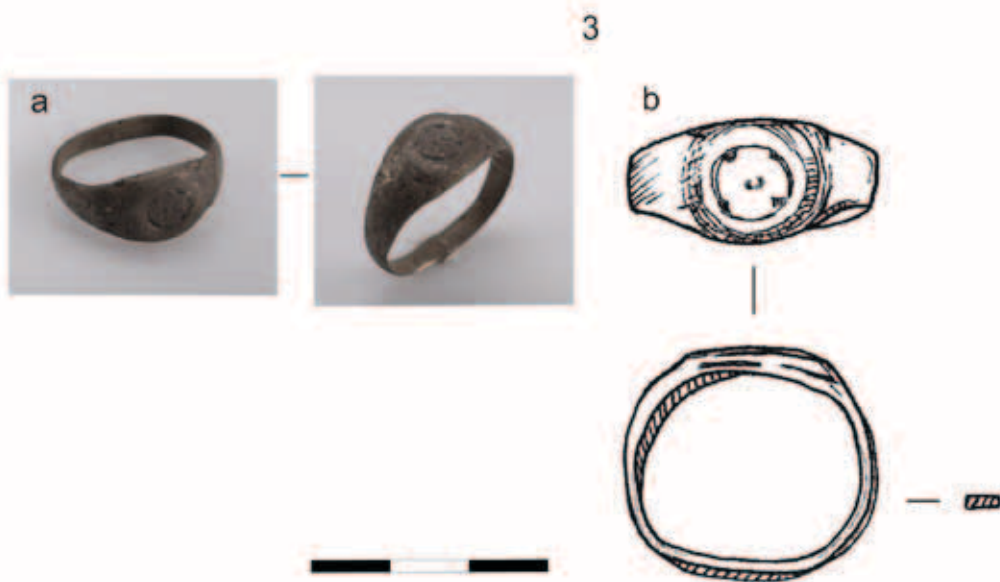


Figure 131.

The finds from grave No. 90:

1, 2 – bronze, silver, gilding,

3 – silver, 4, 5 – iron. Photo

by S. Shapiro, drawing by A.

Mashezerskaya, layout by S.

Belskiy.

3. At a distance of 0.1 m north of the left temple ring/earring, at the same level, was a silver bezelled ring with a round plate, on which there was a cross-like design.

Its position was uncommon, but may well be explained if one hand of the deceased rested on the left shoulder.

4. An iron knife was found in the central area of the grave pit, near its south-eastern edge. The total length of the object was 16 cm, the length of the blade was 9.2 cm, its maximum width was 1.9 cm, and the thickness of the back was 0.5 cm. Fragments of a wooden hilt were preserved only inside its upper and lower iron ferrules. After conservation, a pattern of longitudinal lines was discerned on the lower ferrule, which was 2 cm in diameter. There were two lines at both upper and lower edges of the ferrule. Between these lines, there was a broken line in the central part. A similar pattern was found on the upper ferrule, which was also 2 cm in diameter.

5. Near the blade and closer to the edge of the grave pit, fragments of iron ferrules of the sheath were found. They were triangular tips bent from a single plate each from which two narrow plates extended (5 × 0.8 cm). The latter fixed the seam of the leather sheath along the blade by means of small rivets. One of the plates had a U-shaped terminal. In its upper part there was a hole 2.2 cm in diameter in which a link of a thin iron chain was fixed. The chain was preserved to a length of about 9 cm.

The approximate dimensions of the grave pit were 2.1 m from south-west to north-east and 0.55 m from north-west to south-east. The maximum depth was 0.45 m from the level on which overlying stone structure No. XLIX was built and 0.65 m from the level of the modern surface.

Grave No. 91

(overlying stone structure No. XLVIII) (Figs. 130, 132)

Overlying stone structure No. XLVIII was located in squares 73-74/212-214 at a level of 18.37 m at the south-western edge and 18.41 m at the north-eastern edge, practically immediately beneath the topsoil between overlying stone structures Nos. XLVII and XLIX. The stone masonry around burial No. 91 appeared to have been destroyed, and only a conglomerate of small stones in the western section of the burial had survived. One



Figure 132.
The finds from grave No. 91: 1 – iron, 2 – silver.
Photo by S. Shapiro, layout by S. Belskiy.

large stone (with a maximum length of about 0.45 m) was located at the south-western edge and made up part of the northern wall of overlying stone structure No. XLIX (over burial No. 89).

The stain of the grave pit was very indistinct in the stony soil. Its dimensions were approximately 2 m in length from south-west to north-east and 0.7 m from north-west to south-east. The fill of the grave, like that of nearby burial No. 90, contained large quantities of small fired stones, slag, and burnt clay.

The poorly preserved skeleton was arranged in anatomical order in an extended supine position, head to the south-west (azimuth 243°). Fragments of the skull were uncovered at a level of 18.02 m. Although not completely crushed, it was strongly deformed, particularly the facial and temporal bones. The long bones of the right arm and fragmented bones of the lower extremities were preserved. The right humerus was positioned parallel to the spinal column, the forearm was bent at an angle of 45° (the hand was in the pelvic area). It was impossible to establish the position of the left arm. The individual interred was a woman aged 18–20 years at death.



Assemblage of artefacts

1. To the right of the skeleton, in the pelvic area, a strongly corroded iron object of trapezoidal shape was found. It was oriented with the broader side towards the head of the interred woman, that is, to the south-west. Its length was 6.8 cm, the maximum width of the upper side was 1.8 cm, the width of the lower side was 3.4 cm, and the thickness was 1.6 cm. On the upper part, strongly mineralized fragments of a textile were preserved. The iron object was probably a needle case suspended on the belt along the right thigh.

2. At a distance of 5 cm to the south of the lower jaw, a hollow silver button, 1.1 cm in diameter, was found.

The approximate dimensions of the grave pit were 1.8 m from south-west to north-east and 0.6 m from north-west to south-east. The maximum depth was 0.15 m from the level at which overlying stone structure No. XLIX was built and 0.5 m from the level of the modern surface.

*Figure 133.
Grave (?) No. 92. The profile.
A view from the south-east.
Photo by S. Belskiy.*

Burial (?) No. 92

(Figs. 128, 133–135)

In squares 69-70/218-219 at a depth of 0.4 m from the modern surface, a charcoal-containing stain was uncovered. The stain was under the surface layer of dark humic loam, about 0.2 m thick, with abundant admixtures of small and medium-sized stones

deposited immediately beneath the topsoil. The stain was nearly oval in plan (0.65 × 0.7 m) and extended from east to west. At the same time, separate burnt fragments of bones and small pieces of charcoal were encountered throughout a more extensive area of approximately 1 × 0.5 m in squares 71-72/220-

221. On the surface of the distinctly traceable stain, numerous fine inclusions of charcoal, bones, and reddish fragments of burnt clay were discernible. In the course of the excavation, it was revealed that the structure in question was composed of dark humus with abundant contents of shapeless lumps of clay plaster and fragments of handmade pottery in squares 70-72/220-221 at the depth of 0.3–0.4 m from the modern surface. In the stain, a rich concentration of burnt bones was recorded.

During the excavation of the stain to a depth of 18.39 m in square 69/218, a fragment of an unidentifiable iron object, possibly a chisel arrowhead, was found.

The composition of the soil was fairly homogeneous without any discernible separate intercalations. The thickness of the horizon was up to

0.33 m in its deepest section. This structure was apparently the remains of a burial performed according to the cremation rite. This burial was possibly disturbed during the time when the cemetery was used for inhumations.



Figure 134 (on top).
The arrowhead from the fill of the grave (?) No. 92. Iron. Photo by S. Shapiro.



Figure 135 (on bottom).
The handmade ceramics from the fill of the grave (?) No. 92. Photo by S. Belskiy.

2.3. Stone structures older than the inhumation cemetery and finds related to them

The investigation of the inhumation cemetery revealed peculiar stone structures that presumably dated from an older period.

In 2007, in the course of excavating the overlying stone structures located in the northern section of the investigated area bounded by lines 96-100/198-203, parts of a stone pavement composed of small (less than 0.15 m) stones were uncovered at a depth ranging from 18.55 m to 18.65 m. Some of the stones showed traces of fire. However, no charcoal, ash lenses, or calcined sand was noted between them. The stones were packed densely against each other. The thickness of this continuous horizon of stones varied from 0.2 m to 0.65 m (in certain deeper crevices of the rock).

Under this horizon or inside it, several burials were uncovered (Nos. 23, 35, 36, and 39), indicating that this large structure (or possibly several structures) was in a redeposited state. The burial pits were dug into the structure, and afterwards the graves were filled with the same small stones with practically no admixture of looser soil.

An area of surface paved with stone in the north-western section of the excavation, in square 94-97/193-197, was preserved considerably better. It was uncovered at a level of 18.3 m. Here, a continuous layer of small stones in one or two, occasionally three, horizons was recorded. The surface was elongated in shape, approximately 2.5 m long and 1.6 m wide. However, it was evident that its original outlines were disturbed by the interments. Burial No. 45 extended partly over this pavement. In this area, lenses of dark soil rich in charcoal, occasionally with separate pieces of charcoal, were uncovered between the stones. The AMS date of 1055 ± 32 BP (Ua-44163) was obtained from organic crust attached to a sherd of handmade ceramics, which was found in this context in the north-eastern part of square 94/194. In calibrated form, the date falls into the period AD 900–1020 (68.2% probability) or AD 890–1030 (95.4% probability).

Throughout the entire area of the paving, as well as generally in the northern and north-western parts of the excavation, pieces of calcined bones were recorded, but they formed no distinct accumulations. Under this pavement of small stones at a level of 18.18–18.2 m, a thin (5–7 cm) horizon of dark loam with inclusions of separate pieces of charcoal was found. Under the latter, a horizon of coarse-grained yellow sand abundant in stones formed the virgin soil.

A third area with similar paving was located in squares 98-100/192-194 at a level of 17.55–17.65 m, 2 m to the north-west of the first one. Between these two areas, the space was practically free of stones. The second pavement was also elongated in plan, directed approximately from west to east, 3 m long, and 2 m wide. It was also laid with small stones, some bearing traces of fire.

The area excavated in 2008 included several high rock ribs. Around the central



*Figure 136 (on top).
The stone structures in the
eastern part of the main
excavation area. A view
from the east. Photo by S.
Belskiy.*

one, about 1.5 m high and located practically in the centre of an open area in squares 82-84/210-213, a structure was found consisting of two horizons of small stones. This structure is undoubtedly of artificial origin.

Some of these stones were also affected by fire. The first horizon of stones was uncovered immediately beneath the topsoil at a level of 18.65–18.55 m. It was impossible to recognize any definite shape to this masonry. It occupied the entire space between the rocks in the western, northern, and eastern directions. To the east, it continued as far as the limits of the excavation. The southern area was approximately 8 m² in size. Further on, it was disturbed by grave pits.

After the first horizon was recorded, the second horizon of the masonry was uncovered, although it was often difficult to distinguish between the two levels because there were no intercalations between them. The level of the second horizon was recorded from 18.35 m to 18.45 m. Below this level, in the southern part of the masonry, an intercalation rich in charcoal and ash was found between the stones. It had no definite shape but was limited almost exactly by the perimeter of the

*Figure 137 (on right).
The finds from the 10th to the 12th
century discovered in the excavation
area out of context.
1–9: glass, 10: crystal, 11–13: bronze,
14–17: iron, 18: iron, wood, bronze.*



masonry on its southern and western sides. In the fill between the stones, separate calcined bones were encountered.

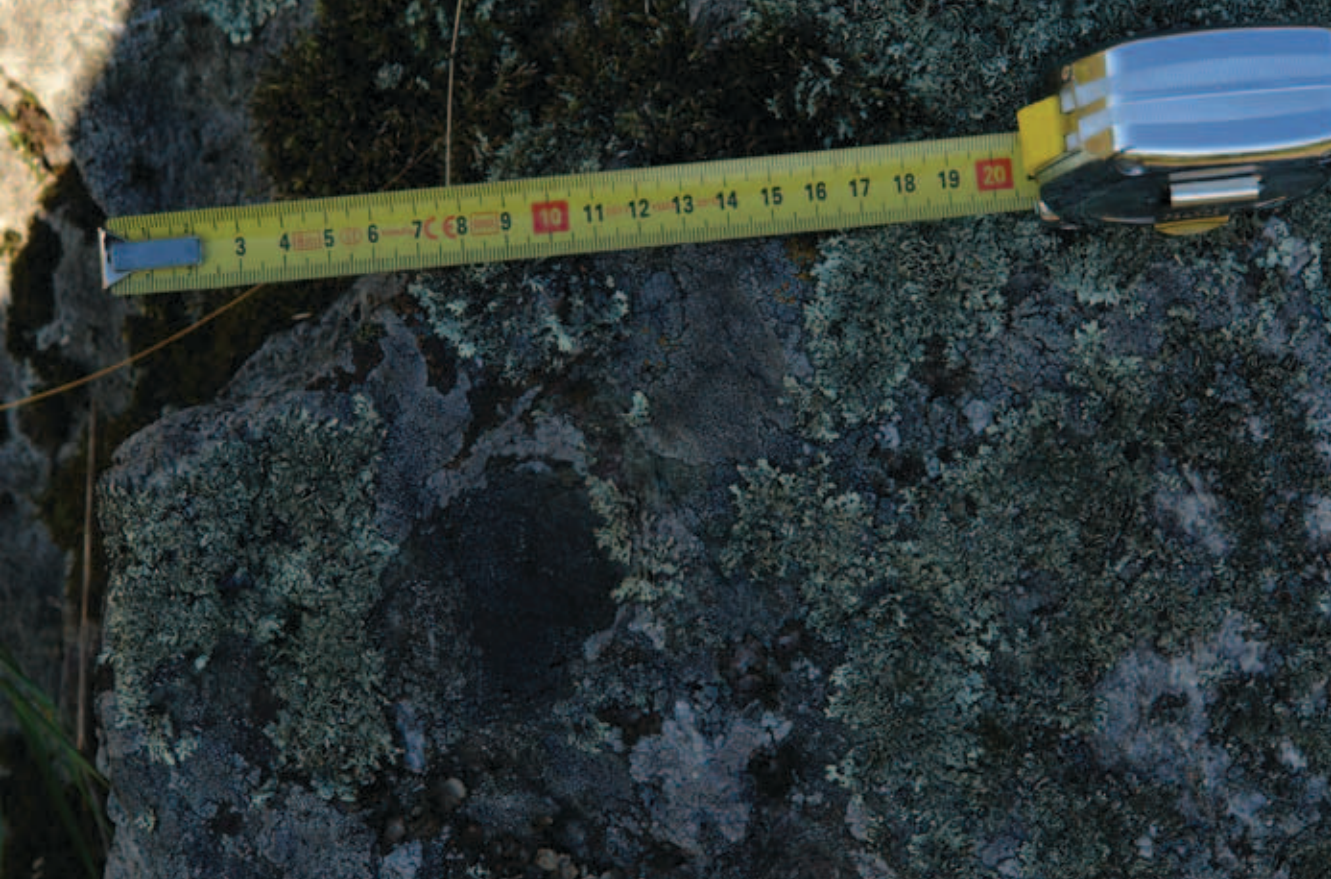
In the interval between the two-layer masonries of small stones in square 81/211 at a level of 18.42 m and square 80/212 at a level of 18.44 m, there were two handmade pots crushed into numerous small ceramic fragments. The vessels were probably shaped as straight jars, almost without complicated profiles. The thickness of their walls was 0.6–0.8 cm, and the clay contained large admixtures of *grus*. At a level of 18.43 m, an iron belt buckle was retrieved from the narrow interstice between the central and eastern rock formations (the latter was located partly beyond the limits of the excavation pit), in square 82/212.

The second layer of stones was laid immediately over the virgin soil, which had a distinct moraine surface consisting of rocky outcrops and boulders with the hollows filled by light-coloured coarse-grained sand with inclusions of gravel. The surface of the virgin layer was uncovered at a level of 18.2–18.3 m.

It is rather difficult to explain the origin of these structures. It is clear, however, that they are the remains of either a single large work of stonemasonry or a number of separate constructions built in the north-western area of the Kalmistomäki hill during a period preceding the period of use of the cemetery with inhumations, that is, earlier than the 14th century. When interments took place at the inhumation cemetery, these structures were completely or almost completely redeposited. They were most probably the remains of mortuary structures of the *polttokenttäkalmisto* type, that is, burials of several individuals in the cremation rite under and/or inside continuous stone horizons, known in English as cremation cemeteries under level ground (for more information on this type of sites and the problems of recognizing them, see, e.g., Taavitsainen 1991; Uino 1997: 44–54; Wessman 2010). The nearest site of this type is a well-known burial near the hill fort of Linnamäki at Lopotti in Kurkijoki, excavated by Hjalmar Appelgren (Appelgren 1891: 148–151, 153–158).

This hypothesis is based on the presence of numerous objects dated to the Viking Age and the Crusade Period that have been found throughout the area of the excavation in redeposited layers or in the fills of graves, but that did not form any compact accumulations or closed associations. These finds include a round, ornamented cast pendant with a suspension loop, an iron horseshoe brooch, a chisel arrowhead, an oval fire steel, a series of beads of the 10th to 13th centuries, and numerous fragments of handmade pottery.

These finds are an addition to the series of artefacts of this period found in 2006. The latter included a bronze balance weight, a multi-coloured glass bead, a bronze belt plaque decorated with a pattern, and a knife with a hilt braided around with a bronze wire (Fig. 137).



Small fragments of handmade pottery were encountered throughout almost the entire excavation area. However, accumulations of broken walls of vessels were uncovered only after the continuous horizon of rocks was removed. The largest single concentration (nine fragments of walls) of this pottery was found in the fill of the grave pit of (possible) burial No. 92. The vessel is poorly profiled and was probably of a jar-like type without ornamentation. The walls are reddish-grey or dark. In the cross-section, the firing is fairly regular. The clay was tempered with grit and organic admixtures. The thickness of the walls was 0.6–0.8 cm.

These fairly numerous artefacts of the 10th–13th centuries suggest that a burial ground with cremations had existed on the side of the hill and was later disturbed by the interments made during the 14th and 15th centuries. It should also be noted that some of the above-mentioned stone structures might originate from other features than a cremation cemetery under level ground.

*Figure 138.
The possible cup-marked
stone on the southern slope
of the Kalmistomäki hill.*

2.4. Possible cup-marked stone on the south-western slope of the Kalmistomäki hill

During investigations at the cemetery, Mikko Helminen, then a student of archaeology at the University of Turku, discovered a rocky outcrop or large boulder on the surface of which a cup-like depression was discernible on the south-western slope of the Kalmistomäki hill. It was a reddish-brown granite boulder with the maximum dimensions of 1.1×0.8 m and a height of 0.25 m above the modern surface.

The oval cup-mark depression, which measured 8.5×5 cm and was 2.5 cm deep, was on the surface of the block slightly towards its southern edge. The northern half of the cup-mark was smoothly ground, while the southern section had natural holes and fissures. In addition to this depression, there was another depression on the block 0.1 m south-east of the first. The second depression measured 4×3.5 cm and was 1.5 cm deep, but its anthropogenic origin was not as evident as in the first case.

Unfortunately, the coexistence of natural and seemingly man-made depressions on the same stone makes it very difficult to discern whether this is an archaeological object, namely a cup-marked stone. If it is, this is the first object of this type found in the north-western Ladoga region.

Chapter III:

Types of artefacts from the cemetery in the European typological and chronological systems of the medieval period

3.1. Background

The extent of typological studies of particular groups and categories of artefacts dating to the late medieval period varies quite a bit for different cultural and historical regions of Europe. The researchers who undertook such analyses followed their own principles of distinguishing artefact types in particular spheres. For this reason, the problem of attributing artefacts in the frame of different regional typologies cannot be resolved in all cases, since these typologies often either do not match each other at all or match only in a very approximate and vague manner.

Nevertheless, this does not imply that such a study is impossible in principle. Karelia was not culturally isolated from the rest of Europe. During the Middle Ages, the material culture of different regions surrounding the Baltic Sea, including Novgorod, acquired common traits due to active trade and political links. Identical types of objects, in particular ceremonial weaponry or jewellery, may be encountered at sites that are geographically very remote from each other. In our opinion, the abundance of imported objects among the graves of Kylälahti allows us to identify many of them on the basis of already developed typological and chronological systems.

The analysis presented here follows regional principles. The description of the finds corresponds to the following broader cultural and historical regions: Northern and Central Europe, Eastern Europe, Novgorod as part of Eastern Europe,¹³ and finally the Eastern Baltic regions.

3.2. Temple rings/earrings

In addition to a stray find from the region of Sortavala (KM 2647: 1: Kivikoski 1973: 135, Abb. 1078), fourteen rings of this type (type IV according to V. A. Kol'chatov) have been

¹³ *The types of jewellery and their datings are presented mainly according to publications by Yuri M. Lesman (Лесман 1989; 1990a, b; 1996) and the manuscript of his monograph "Khronologiya yuvvelirnykh izdeliy Novgoroda X–XV vekov" (Chronology of Novgorod jewellery of the 10th–15th centuries). The authors are especially grateful to the researcher for the opportunity to use this text.*

encountered in seven burials at the Kylälahti cemetery: burials Nos. 1 (in fragments), 3, 13, 30, 34, 54, and 90. These objects are identical in terms of their construction, differing only in the diameter, number, and sizes of the beads. These artefacts belong to the classic type with a core of varying cross-section, rectangular in the main part and spirally coiled at the end. At $\frac{1}{4}$ of the length, the core-rod has a widening functioning as a stopper, beyond which the cross-section is round. At this end, the rod is hammered into a quadrangular eye with a hole in the centre. Onto the main length of the rod, smooth spherical silver (occasionally gilded) beads are densely threaded without stoppers between them.

The following variants of multiple-bead temple rings have been found at the cemetery of Kylälahti:

- Variant A – with seven (?), eight, or nine beads 1.4–1.7 cm in diameter (burials Nos. 1, 34, and 54; Figs. 14:1–2, 34:1–2, 87:1–2). The rings are 4.5–6 cm in diameter. This type was encountered only in burials of children or adolescents.
- Variant B – with 11 or 12 beads 1.6–1.7 cm in diameter (burials Nos. 3, 30, and 90; Figs. 18:1–2, 48–, 49:1–2, 131:1–2).
- Variant C – with ten beads 2.1 cm in diameter (burial No. 13; Fig. 34:1–2).

However, it is probable that not all of these objects were temple rings. Human hairs were found under the right ring in burial No. 54, and under the hairs were the remains of the coffin. Therefore we may quite confidently suppose that these objects were earrings rather than temple rings. The hypothesis that many ornaments that have earlier been considered as temple rings attached to leather or textile ribbons were really earrings has already been published (Saracheva 2002: 351–356).

Central Europe. Finds of multiple-bead temple rings were reported as part of a hoard from the monastery of Barthe in Eastern Friesland (north-western Germany), where also coins of the 16th century were present. However, Stefan Krabath proposed a date two centuries earlier for the ring and some other artefacts from this hoard, since they have direct parallels among a series of other German hoards of the 14th century, including that from Pritzwalk (Krabath 2001: 125, Abb. 24–25; Krabath & Lambacher 2006: Abb. 48–49).

Eastern Europe. Here the objects under consideration have been established as an artefact type indicating ethnicity (Седов 1953: 190–229). At present, if the geography and chronology of the finds are taken into account, this opinion may be considered as only historiographic heritage (Кольчатov 1984: 175; Лесман 1990b: 100; Конечский 1990: 104). Multiple-bead temple rings have been recorded both in north-western Russia, where they were, in fact, very popular during a certain period, and in Eastern Estonia, Latvia, and the Pskov, Neman, and Moscow regions as far as Komi (Кунцене 1979: 76–100; Савельева

1987: Figs. 33, 40, 45, 37, 134, 144; Ligi 1993: 50–52; 160; Ligi & Valk 1993: 189, 213). In Ukraine, these finds come from hoards, which in a number of cases are reliably dated by coins of the 15th century (Панченко 2002).

In graves of the Izhora Plateau, multiple-bead temple rings are dated to a period not earlier than the late 13th century (Кольчатov 1984: 173; Рябинин 2001: 244, 245, табл. XXVIII: 6–10, XXIX: 1–8).

Novgorod. According to information from M. V. Sedova, ten multiple-bead rings have been retrieved from Novgorod layers of the late 13th to early 15th centuries. Yu. M. Lesman's calculations suggest that in several excavation areas in Novgorod, 20 specimens of rings of this type were found. They are dated to a period not earlier than 1281 AD (beginning with the 12th horizon and higher) (Лесман 1990a: 70; 1990b: 99–100). It is noteworthy that all the rings from Kylälahti have a stopper in the form of a cast salient fillet. A structural element of this type is found on Novgorod objects dated to after 1299 (beginning with the 11th horizon) (Лесман, in print).

3.3. Earrings

Earrings were found in burials Nos. 9, 50, and 82. All of them were single specimens representing different types.

1. Earring shaped like a question mark (“?”)

In burial No. 50, a fragmentary silver earring shaped like a question mark (“?”) was found to the left of the skull (Fig. 80).

Izhora Plateau. A great number of objects of the same type have been retrieved from graves of the 14th–15th centuries on the Izhora Plateau (Спицын 1896: 20, Pl. I: 3, 4, 8, 9; Pl. XII: 7, 8).

Novgorod. According to M. V. Sedova's calculations, 15 earrings of this type have been found in Novgorod in layers of the 14th–15th centuries (Седова 1981: 16). According to Yu. M. Lesman's studies, in Novgorod these objects are dated to the period after 1313 AD (10th horizon and higher) (Лесман 1990b: 70–71).

2. Wire earring with an openwork terminal

In burial No. 82 there was an earring manufactured from silver wire with an openwork ornament at one of the terminals (Fig. 121). The diameter of the earring was 2.8 cm.

Novgorod. This object belongs to the abundant and variegated series of wire-braided earrings found in the archaeological layers of Novgorod dated to the period

from 1060–70 AD to the 15th century (Седова 1981: 13, Fig. 3–7, 8, 11). A series of chronologically diagnostic traits of these rings allows us to narrow down the time span of their use: the plain specimens (with straight obtuse or pointed ends) of penannular wire rings are dated in Novgorod to the period before 1382 AD (up to the 8th horizon) (Лесман, in print).

3. Fragment of an earring (?) in burial No. 9

To the right of the lower jaw was a fragment of a miniature silver earring in the shape of a semiring (Fig. 27). The diameter of the complete object was about 1 cm.

3.4. Ring brooches

Annular brooches are among the most distinctive categories of artefacts in complexes of both male and female inhumation graves. Most of them were imported from Northern and/or Central Europe due to active trade relations, meaning that the period of their distribution in Karelia may be defined in accordance with corresponding European scales.

Finds of annular, in particular ring-shaped, brooches were widely distributed throughout Europe. Correspondingly, numerous publications are dedicated to them. In terms of the Karelian finds, the most interesting parallels undoubtedly come from Northern and Central Europe, as well as from the Baltic region and the neighbouring Novgorod Land. In Western and Northern Europe, finds of these objects are dated from the second half to the end of the 12th century and the early 13th century (Blomquist 1947: 132–139; Platt & Coleman-Smith 1975: 258 Fig. 241: 1756; Kirme 1986: 24–25).

In north-western Russia, brooches of this type found in Novgorod, on the Izhora Plateau, and in the Gdov kurgans are dated to the 12th century (Седова 1981: Fig. 31: 1, 3, 16, Fig. 33: 1, 2; Спицын 1896: Pl. X: 9, 10; Спицын 1903: Pl. XIV: 14, 21, 27). However, it must be noted that dates presented by Spitsyn are rather antiquated and have been considerably corrected by Yu. M. Lesman (Лесман 1984a: 134–140, Pl. 1, Type 34; Лесман 1990b: 77–78).

As for finds from Finland, Carl Axel Nordman explained their wide distribution by the leading position of Gotland in Baltic trade (Nordman 1924: 176–178). Pekka Sarvas accepted this opinion and some time later presented more exact dates for the appearance of ring brooches in Finnish burials, attributing them to a period not earlier than the 13th–14th centuries AD and assuming that their appearance was in general caused by the increasing influence of the Hansa (Sarvas 1971: 59; on the dating, see also Taavitsainen 1990: 208–209). According to Paula Purhonen's calculations, more than 40 finds of ring brooches are now known in Finland in cemeteries dated to the Crusade Period or Middle Ages (Purhonen 1998: 134–135, 260–261).

Nordman dated the ring brooches from the burial grounds in Karelia to the 13th to early 14th centuries based on a find from grave No. 9 in the cemetery of Tuukkala, where an object of this type was found together with two oval tortoise brooches and a round silver brooch. Ring brooches were also found in burials Nos. 2 and 3 at the cemetery of Kekomäki in common association with penannular silver brooches (Type II:2, according to A. I. Saksa). Moreover, burial No. 3 at this cemetery, in terms of grave goods, resembles the burial in Tuukkala (Nordman 1924: 9–10, 177–178).

Due to the wide distribution and diversity of ring brooches, their typology is fairly comprehensively established for different regions of Northern and Eastern Europe. For instance, a detailed typology of Danish brooches is published in the work of Morten Søvsø (Søvsø 2009: 183–210, Fig. 2). Swedish finds, mostly from Lund, are analysed in a small article by Ragnar Blomquist (Blomquist 1947: 120–155). Irish specimens are considered in a monograph by Mary B. Deevy (Deevy 1998) and Baltic objects (Estonia and Latvia) by Kaalu Kirme (Kirme 1986: 24–25) and Heiki Valk (Valk 1999: 85–100).

Finally, Finnish brooches are discussed in the work by Visa Immonen (Immonen 2009: 255–267; see also Taavitsainen 1990: 208–209). Finds from Novgorod cultural deposits are analysed by Mariya V. Sedova and Yuriy M. Lesman (Седова 1981: 89–92; Лесман 1990b: 78; Лесман, in print) and those from Eastern Europe by Valentina A. Malm, who dated them generally to the 13th–15th centuries (Мальм 1967: 168–173).

At Karelian inhumation cemeteries, only plated examples of ring brooches have been found, with the exception of a brooch of flattened triangular cross-section from burial No. 31 at the cemetery of Kylälahti and a small bronze clasp from burial No. 80 at the same cemetery. In historiography, the opinion has been established that this brooch type is generally somewhat younger than the type with a relief cross-section. It is thought to have appeared no earlier than the late 12th century and become most popular by the 14th century in different regions of Western and Northern Europe (Immonen 2009: 258–259). During the 15th century, these brooches were considerably less often used in costume, although occasional finds dated to the later period are known as the so-called “peasant” or “folksy” brooches (Deevy 1998: 10–11; Tamla & Kuidsoo 2005: 76–77).

The following types of ring brooches have been encountered at the cemetery of Kylälahti:

1. Plated annular brooches with a nearly triangular or flat cross-section of the ring

The brooch from burial No. 31 (Fig. 31:1). A series of brooches of this type were recovered from burials or as stray finds at the cemeteries of Tuukkala and Visulahti in Mikkeli (Purhonen 1998: 260–261, No. 6, 9, 22, 26, 30).

Northern Europe. This is the plainest type of ring brooch (Type 1.1) dated by M. Søvsø M. to the 12th–15th centuries (Søvsø 2009: 187, fig. 8).

Novgorod. In Novgorod, unornamented annular single-piece brooches are dated to the period from 1177 to 1369 AD (from the 17th to the 10th horizon (Лесман, in print)).

Finland. Brooches of the type in question (Type “B” according to Immonen) seem to have been used for a long period beginning in the late 13th century and lasting until recently (Immonen 2009: 259).

Baltic region. The annular brooches in question (Group 6 according to H. Valk’s classification) had a similarly long period of use in Estonia (Valk 1999: 86, 95).

2. Plated ring brooches with the arcs connected in a handclasp motif

This type of brooches include the objects found in the complexes of burials Nos. 7, 64, and 88 (Figs. 22:1, 107:1, 129).

Western Europe. Objects of the type in question are widely distributed throughout Europe, including Ireland. Irish finds are dated to the 13th–14th centuries on the basis of English and French parallels (Deevy 1998: 23–24).

Central and Northern Europe. In Germany, no brooches of this type are dated to before the second half of the 13th century (Heindel 1986: 74). Dates in the 14th century are confirmed by finds among the hoard of jewellery from Pritzwalk (northern Brandenburg) dated to 1392 AD (Krabath & Lambacher 2006: 71–72). The finds from Sweden, including Gotland, and Denmark also are dated precisely through hoards that were buried no earlier than the 14th century (Edgren 1999: 16; Søvsø 2009: 195). It is thus unlikely that such brooches could have been widely distributed in Northern Europe in the second half of the 13th century. They became popular later.

Novgorod. The type of brooch under consideration is also known from Novgorod layers of the 1360s–1390s, which does not run contrary to the period of their use in the rest of Europe (Седова 1981: 91, Fig. 33–1). In addition, according to Yu. M. Lesman, representations of hands are found on Novgorod artefacts dated to after 1299 AD (after the 11th horizon) (Лесман 1989: 84). It is also worth noting that on the objects from burials Nos. 64 and 88 at Kylälahti, near the “wrists” of the handclasp motif there is a pattern in the form of a quadrangle with crossed oblique lines inside. This design can represent a stylistic imitation of the cuffs, or at least such an impression arises when the objects are carefully examined. An incised or relief pattern of zones covered with a plain grid is dated to the period after 1161 AD in Novgorod materials (from the 18th horizon and higher) (Лесман 1989: 84).

Finland. On the basis of finds from the stratified deposits in Turku, V. Immonen dates the Finnish finds (Type “H”) to the period after the 14th century (Immonen 2009: 262).

3. Plated ring brooches with the arcs connected in a handclasp motif and bearing inscriptions

The example from burial No. 7 at Kylälahti combines features of two types of brooches: in addition to the handclasp representation, this object bears an inscription consisting of the letters “MM MVA or AVE MA” on the external side of the bow, obviously short for the inscription “AVE MARIA” (Fig. 22:1). Except for this find from Kylälahti, no other finds of ring brooches combining a handclasp and an inscription are known in Karelia.

Central Europe. In Germany, brooches of this type are dated no earlier than the second half of the 13th century (Heindel 1986: 67, 74–75).

Northern Europe. In Northern Europe, brooches of the type under consideration (Type 3.2 according to M. Søvsvø) are dated no earlier than the 14th century (Søvsvø 2009: 188, fig. 8).

Novgorod. In the layers of the 1360s–1390s in Novgorod, a brooch was found with the arcs meeting in a handclasp motif and the inscription “IAIVIANRXI” (Седова 1981: 91, Fig. 33–1). As noted above, representations of hands are encountered on Novgorod artefacts since 1299 AD (higher than the 11th horizon) (Лесман 1989a: 84).

4. Plated brooches with cones of filigree

In burial No. 8 at the cemetery of Kylälahti, in the cervical area of the buried woman, a ring brooch of gilded silver was found with 21 cones of filigree and granulation between them (Fig. 24:1). This object is of Central European manufacture, and no parallels are known in north-western Russia or Eastern Europe in general.

Central and Northern Europe. Brooches resembling the one found at Kylälahti in the manner of manufacture, although differing in the shape of the arcs, are known among the hoard from the city of Pritzwalk in northern Germany (north-western Brandenburg) dated to 1392 AD, as well as in a hoard from Szczecin (in what is now Poland) (Krabath & Lambacher 2006: Kat-Nr 36, 42, Abb. 16). The example from Kylälahti looks somewhat more modestly made than the objects mentioned here.

This artefact belongs to a wide group of annular brooches with bulges. On the basis of Danish materials, H. Søvsvø dates this type (Type 2.7 in his typology) to 1200–1300 AD (Søvsvø 2009: 188, Fig. 8). Apparently a brooch of this type is represented on a sculpture of the English Queen Berengaria (d. 1230), the wife of Richard the Lionheart. The sculpture is dated to 1235. A drawing of the brooch was published by R. Blomquist (Blomquist 1947: Bild. 2).

Novgorod. No parallels to the object in question are known throughout the territory of Rus in general and Novgorod in particular. Nevertheless, this artefact possesses certain chronologically distinctive features within the Novgorod typology: plated one-

piece annular brooches are dated in Novgorod to 1177–1382 AD (17th–8th horizons); one-piece annular brooches with an even outer edge (with the exception of the catch for the pin) are dated to 1177–1369 AD (horizons 17–9) (Лесман 1990b: 78; Лесман, in print).

5. Small (about 20 mm in diameter) undecorated bronze ring clasp

This object was found in burial No. 80 (Fig. 119). It also has a plated bow, but in contrast to the other brooches from the Kylälahti cemetery, its arc is extended not in the horizontal but in the vertical plane.

3.5. Finger rings

Among European publications, mostly those focusing on art history, there are many summarizing works dedicated to medieval finger rings (Scarisbrick 1993, 2007; Campbell 2009 etc.), including discussion of their types in particular regions, such as England (Oman 1974). These publications embrace huge amounts of material. Nevertheless, the development of general typological schemes for finger rings of the late Middle Ages is still far from completion. Therefore, in the case of finger rings found in Karelian cemeteries, typological and correspondingly chronological studies based on Ancient Russian materials are better applicable.

Typological studies of ancient Russian finger rings were started by Alexander A. Spitsyn (Спицын 1896, 1903) and continued by Artemiy V. Artsikhovskiy (Арциховский 1930: 9–25). Further on, the results of these studies were used for publications of materials from Novgorod excavations (Седова 1981: 93–121) and sites (mostly funerary) in rural regions of ancient Rus (Недошивина 1967: 253–274; Сарычева 1994: 85–97). For the Novgorod finds, Yuriy M. Lesman revised the traditional approach to the typology of finger rings based on a hierarchical arrangement of the types and developed a “diagnostic typology” (in his own terms), which aimed to identify diagnostic, in particular chronologically distinctive, types (Лесман 2004: 138–156; Лесман, in print).

Yuriy Lesman has distinguished four large structural groups of finger rings: plated, massive, bezelled (rings with only a bezel, rings with a signet, and rings with inserts), and made of wires: twisted and braided, pseudo-wire, and twisted of rods (single-turned and spiral). He defined their morphological and structural variants and classified them into types according to their entire complex of parameters. Some of the types include finger rings of different structural groups (Лесман 1984: 135, Pl. 1, 1990b: 46–55; in print).¹⁴

¹⁴ *Each of the finger rings consists of a considerable number of chronologically diagnostic types (10 or even more). Here, however, we indicate only those that date particular artefacts within the scale of the Novgorod chronology.*

1. Finger rings braided of many wires

Quite a few finger rings braided of many silver wires were found in burials Nos. 3, 13, 38, and 55 (Figs. 18:3, 34:5, 67:1, 89). One chance find also seems to have originated from a disturbed burial.

Novgorod. Braided finger rings are known among kurgan antiquities from north-western Russia and the cultural deposits of Novgorod (Недошивина 1967: 263–264, Fig. 33:9; Седова 1981: 125, Fig. 45–11, 16, 17; Лесман 1990b: 51; Лесман, in print). Sedova published a gold finger ring of the early 14th century, identical in its type to those found at the cemetery of Kylälahti (Седова 1981: 127, Fig. 48). The braided finger rings from Novgorod are dated hypothetically to 1161–1382 AD (presumably horizons 18–8) (Лесман 1990b: 51).

2. Bezelled finger rings

a) Finger ring with a lens-like bezel from burial No. 30 (Fig. 49:3). In the central area of the burial, a bronze finger ring with a silver (?) bezel with a representation of a beast of prey was found. Rings with lens-shaped bezels are dated within the Novgorod chronological system to the period after 1299 (Лесман 1990b: 53). We were able to find no close parallels for the depiction of the beast of prey on the rings.

b) Finger ring with a flat round bezel. This ring was part of the complex of artefacts in burial No. 90 (Fig. 131:3). On the bezel there is an engraved cross-like representation. This object combines a series of chronologically diagnostic types: rings with a flat round bezel dated to after 1238 AD and rings with a cross or cross-like design in the centre of the bezel dated to after 1238 (Лесман 1990b: 52; Лесман, in print).

c) Finger rings with a rhomboid bezel

1) Plate-bezel penannular finger ring

In burial No. 57b at the cemetery of Kylälahti Kalmistomäki, a bronze plate-bezel ring with a rhomboid widening in the central part was found (Fig. 93:1).

Novgorod. In the Novgorod chronological system, this object combines a number of chronologically diagnostic types: plated and plate-bezel cast finger rings or massive narrow and medium-sized specimens with a widening in the middle (maximum width from 5 to 17 mm) dated to before 1340 AD (below horizon 10), finger rings of triangular section, both plain annular and penannular and pseudo-twisted, with a bezel or a signet, dated to after 1224 AD (above horizon 15) (Лесман 1990b: 48–49; Лесман, in print).

Thus, according to the aggregate of chronologically diagnostic traits, this ring can be dated within the Novgorod chronological system to 1224–1340 (horizons 15–10).

2) Finger ring with a relief ornament

In the central part of burial No. 33 at the cemetery of Kylälahti Kalmistomäki, in the thoracic area of the interred, there was a bronze finger ring with a rhomboid bezel (Fig. 57:1, see Бельский & Лааксо 2009: 157).

Novgorod. In the Novgorod chronological system, this object combines a number of chronologically diagnostic types: rings with a bezel (with the exclusion of signet rings and rings with mountings) of considerable width (at least 17 mm) dated to 1116–1396 (horizons 20–7), decorated with false granulation over a relief fillet running along the edge of the bezel, dated to 1313–1409 AD (horizon 10–6) (Лесман 1990b: 52–54; Лесман, in print).

Thus, according to the aggregate of chronologically distinctive types, this finger ring is datable in the Novgorod chronology to 1313–1396 AD (horizons 10–7).

d) Finger ring with an openwork bezel

A finger ring was retrieved from burial No. 59 (Fig. 99:1). It was manufactured using a technique in which a silver openwork mount of conical section was soldered onto a plated bronze hoop.

Central Europe. A finger ring similar in its mount is known among the already mentioned hoard from Pritzwalk, but that ring was ornamented along the hoop and had a rosette inside the signet itself (Krabath & Lambacher 2006: Kat-Nr 418).

Novgorod. In the Novgorod chronological system, the object in question represents a chronologically significant type of ring with a hoop made separately of the bezel and then fixed to the latter. This type is dated to after 1116 AD (over horizon 20) (Лесман, in print).

e) Plated narrow annular finger rings (with a maximum width of 5 mm)

Finger rings of this type were found in two burials: No. 31 and 63 (Figs. 54:3, 105:1b).

Novgorod. According to M. V. Sedova, finger rings of this type constitute a particular narrow chronological group dated to within the 14th–15th centuries (Седова 1981: 132–133). As calculated by Yu. M. Lesman, in Novgorod, 14 specimens have been found, all dated no earlier than 1340 (Лесман, in print).

3.6. Composite sets of pendants

This category of artefacts and their classification has attracted the attention of researchers both in generalizing monographs and articles (Спицын 1896, 1903; Седова 1981: 23–71) and special studies dedicated to particular categories: medallions, amulets, pectoral and belt pendants, and zoomorphic ornaments of Ancient Rus and the Finno-Ugrians (e.g. Седов 1968: 156–157; Журжалина 1961; Успенская 1967; Голубева & Варенов 1978; Рябинин 1981; Покровская 1990; Покровская 2005: 161–174). The chronologically diagnostic types from the Novgorod excavations were specially analysed by Yu. M. Lesman (Лесман 1990b: 55–68; Лесман, in print).

1. Pectoral scalloped pendant from burial No. 1 (Fig. 14:3)

This object is a flat (about 3 mm thick) plate of almost discoid shape with two rows of rings in the lower part and three rows of holes, smaller in diameter, in the main part. There are 16 of these latter holes, and they are aligned in three almost parallel rows – 6 in the upper row and 5 in each of the middle and lower rows. The two rows of large rings in the lower section of the plate also are parallel to each other, arranged in such a manner that each ring of the lower row, which has four rings, is located between two rings of the upper row, which consists of five rings.

The construction of the object is such that the lower rows of large rings protrude beyond the limits of the main part of the plate so that the object seems to consist of two parts where the main part of the plate is decorated with the lower festoon rings. In the upper part of the plate there was a long oval aperture through which the entire object was suspended by means of flaxen threads. Remains of these threads were preserved on the right and left sides of the plaque, as was noticed during the conservation of the object. When the object was cleaned in the laboratory, it was found that a leather strap of 0.5 cm was tied to one of the rings and that a fragment of bronze wire was preserved on the other end of the strap.

Finland. No direct parallels are known for this object. However, there is one category of artefacts which bears some resemblance to the ornament from burial No. 1 at Kylälahti. At Lautamäki in Teuva, a similar object was found, presumably a brooch consisting of a wide ornamented bronze ring with a row of four rings in the lower part (Kivikoski 1973: Taf. 123, Abb. 1112). In Ella Kivikoski's opinion, the shape of this artefact resembled that of a find of the Merovingian Age from Lukkarinmäki (Kivikoski 1973: 64, abb. 423). The artefact in question may possibly continue the line of the evolution of such objects. However, it is undoubtedly a pendant, which, in our opinion, places it in the same series with the so-called arc pendants widely distributed in the Baltic region.

Novgorod. This object may be attributed to the type of pendants with a row of two or more cast or soldered-on rings for hanging additional pendants: chains and small bells. These pendants are dated in Novgorod to 1161–1382 AD, or perhaps also to a later period (horizons 18–8, or higher) (Лесман, in print).

2. Pendant from burial No. 13 (Fig. 34:3)

A peculiar pendant was found in the complex of burial No. 13 near the left side of the lower jaw of the interred woman. This is a hollow spherical bead, about 1 cm in diameter, ornamented with pseudo-granulation and provided with two suspension eyes. A cord was probably threaded through the upper eye, and a flat “heart-shaped” pendant, 1.2 cm long, was attached to the lower eye. The object is made of gold or silver of a very high quality.

Central and Western Europe. Similar objects are known here through a hoard from Szczecin dating to the 15th century and in the deposits of medieval London (Krabath & Lambacher 2006: abb. 16; Egan & Pritchard 1991: 322).

The appearance of leaf-shaped pendants on objects of various types (temple rings, earrings, buttons, etc.) is characteristic of the 14th–15th centuries. These pendants had a very wide geographical distribution from Bulgaria to as far as Poland, Ukraine, and Central Europe (Петрунова 2006: 189–203).

3. Zoomorphic pendants

Zoomorphic pendants, hollow little “horses” (group VI, type XX, according to Evgeniy A. Ryabinin – see РЯБИНИН 1981: 35, Fig. 10, Pl. 4), terminated composite belt pendants from burials Nos. 54 and 59 (Figs. 87:5f, 100:2).

Eastern Europe. The area of distribution of type XX pendants consists of the huge territories of Rus and adjoining regions. Ryabinin noted that a remarkable number of hollow small horses were spread in Novgorod the Great, the largest centre of north-western Rus. In his opinion, these objects are dated to the 12th–13th centuries (РЯБИНИН 1981: 39, 43).

Novgorod. Throughout the period from 1953 to 1973, according to M. V. Sedova's calculations, 48 complete and 22 fragmentary objects of this type have been found in the medieval city (Седова 1981: 31, Fig. 9). This concentration of zoomorphic ornaments distinguishes Novgorod among all the settlements in Eastern Europe. The most ancient specimens were found in a stratum of the late 12th century, the youngest are dated to the late 14th to early 15th centuries. The period of their distribution in Novgorod is from 1250 to 1350 AD (Седова 1981: 31–34). Both one-headed and double-headed representations were distributed simultaneously (Покровская 1993: 146–147, Fig. 1–4, 6). Neither continuity nor evolution in the series of three-dimensional pendants have been identified through the Novgorod materials (РЯБИНИН 1981: 42).

Chronological studies of Yu. M. Lesman date the Novgorod horses to 1161–1382 (horizons 18–8) (Лесман 1990b: 58), suggesting a marked increase in their numbers in the 13th century (Покровская 1993: 147; Покровская 2005: 165). The object from burial No. 54 is characterized by an additional type, the pseudo-granulation (the “mane” of the pendant). Its date is after 1224 AD (above horizon 15) (Лесман, in print).

3.7. Belt fittings

This section presents parts of different objects made of iron or non-ferrous metals and attached mostly to a leather foundation.

Due to the typological diversity and semantic importance in the structure

of costume (Плетнева 1967: 161–166), belt sets repeatedly attracted the attention of researchers, but publications often discussed only particular categories of finds or particular types used during a limited period. As for the belt fittings of the Ancient Russian period, the first publications preliminarily summarizing the archaeological materials were written in the late 19th to early 20th centuries (Спицын 1896; Спицын 1903). In these publications, parts of belts were considered along with other kurgan finds. It was not until the end of the 20th century that a monograph by Veronika V. Murashova analysed details of the belts (Мырашева 2000). In her publication of Novgorod jewellery, Mariya V. Sedova presents a classification of various parts of belt sets and notes some of their analogues based on previous studies, mostly of the late 19th and early 20th centuries (Седова 1981: 144–153).

A detailed typology and chronology of parts of belt sets from the Novgorod collection was proposed by Yu. M. Lesman (Лесман 1984: 137–138, Pl. 1; Лесман 1990b: 72–73, 78–79; Лесман, in print). The Novgorod collection of fittings belonging to belt sets is fairly diverse both in terms of function and form. Correspondingly, the number of chronologically diagnostic types is relatively small. The majority of them comprise objects of a single category, although some unite different belt fittings representing individual stylistic or technological/morphological groups.

Certain publications dedicated to belts are also worth noting. However, in these publications, only a single group is discussed in each article (Фоняков 1986: 62–65; Михайлов & Соболев 2000: 222–228).

Western European belt sets of the 13th–15th centuries (primarily buckles) have been analysed in monographs by E. Fingerlin, R. Whitehead, and S. Krabath (Fingerlin 1971; Whitehead 1996; Krabath 2001).

At Kylälahti, elements of belt sets have been encountered in burials Nos. 16, 33, 39, 46, 64, and 84 (male) and Nos. 8, 30, 54, 59, and 61 (female).

Burials Nos. 16, 39, and 84 have yielded only iron belt buckles of quadrangular (burials Nos. 16 and 39; Figs. 40:1, 68:1) and, possibly, round or oval shape (No. 84; Fig. 124:2). These artefacts were rather poorly preserved. In burial No. 16, in addition to a buckle, two ring-shaped, unornamented iron belt dividers of quadrangular section were found (Fig. 40:2–3). In burial No. 39, a single divider of this kind was uncovered (Fig. 68:2). Ring-shaped bronze dividers were also found in burials Nos. 30, 54, 59, and 61 (Figs. 52:1, 54:5a, 99:3, 103:1).

1. Belt dividers

In burial No. 33, a divider typical to Karelian inhumation cemeteries was found (Fig. 57:2). This artefact was uncovered near fragments of the right femoral bone. It was a large (5 cm in diameter) bronze (possibly gilded) belt divider with an incised geometrized plant pattern. On one side of the object (the northern side in the grave), a fragment of a 0.8-cm-wide leather object, probably the belt, was preserved.

Belt dividers of this type are known throughout Karelian inhumation cemeteries excavated by Theodor Schwindt in the 1880s. They made up a part of the complex of accompanying goods of burial No. 2 at the burial ground of Suotniemi (two specimens) and No. 1:1 at Kekomäki (four specimens) (KM 2487: 20, 21; 2489: 21a–d; Schwindt 1893: 83, 417, 418; Kivikoski 1973: Abb. 1205).

In burial No. 30, a belt pendant set was attached to a bronze belt ring of chronologically diagnostic type in the Novgorod typology: round closed rings of large size (diameter at least 34 mm). This type is dated to after 1096–1369, possibly also later (horizons 21–9 and possibly higher).

2. Belt set from burial No. 46 (Fig. 73)

This belt set comprised the following objects: a belt buckle with two protrusions at the ends of the frame, three mounts with a figured edge, and two belt rings of round section. The buckle was fixed to a trapezoidal mount with the figured edge on the side opposite to the frame. A belt tip identical to that from burial No. 46 of the Kylälahti cemetery is known among the finds from the Tiversk (Fi. Tiurinlinna) excavations conducted by Svetlana I. Kochkurkina (Кочкуркина 2010: 179, Pl. 3, 6).

Central Europe. The object in question has parallels among the “profiled” buckles of group No. 5 distinguished by E. Fingerlin (Fingerlin 1971: 73, No. 83, Kat. Nr. 101, No. 85, Kat. Nr. 461). These objects are dated to a period from before the 13th century to possibly the early 14th century (Fingerlin 1971: 72–74). The belt tips with a figured edge, however, yield us additional possibilities for dating the belt in general. Similar objects from Domburg, although with more elongated proportions, are dated by E. Fingerlin to the first half of the 14th century (Fingerlin 1971: 98–99, No. 136, Kat. Nr. 333).

Novgorod. Certain chronologically diagnostic forms among Novgorod materials allow us a further possibility for dating. The first such form consists of belt mounts with the pins cast not in one piece with the mount but soldered on to it or inserted into holes made in it. These mounts are dated to after 1238 (over horizon 14). The second diagnostic form consists of unornamented belt mounts dated to 1134–1382 (horizons 19–8) (Лесман, in print).

3. Belt set from burial No. 8 (Fig. 25)

A unique belt set was found in burial No. 8 at Kylälahti. The belt was not put on the deceased (this was a female burial containing, along with the belt fittings, a ring brooch, a bronze button, and a knife), but extended along the right side with the tip towards the skull. At the moment of discovery, the entire object consisted of several accumulations of poorly identifiable, strongly corroded iron artefacts located near the right humerus, forearm, and pelvis. After it was cleaned in the laboratory, it was revealed to be an almost

complete, fairly well preserved belt set. Unpreserved parts may include some small plaques, as well as the buckle.

This belt set consisted of the tip, three large figured plaques, and 11 small plaques. These elements were made of iron and decorated with a pattern manufactured of a thin silver wire applied using the technique of surface incisions (Флеров 2001: 156–157).

Tip. The tip was nearly rectangular with a triangular protrusion at one end and a triangular segment cut off at the other. The pattern of silver wire consisted of paired parallel straight lines following the contour of the object. Paired parallel lines were also applied nearer the centre. Inside them, eight triangles were inscribed, composed of a geometrized spiral and alternately pointing downwards and upwards.

Large plaques. These include three specimens. These plaques were in the shape of a scalloped rosette with holes. The scallops form petals shaped like a poleaxe. One of the plaques has eight petals, the other two have six each. In the centre of each plaque there is a spherical bronze rivet. On the back side is an iron clamp for fixing the plaques on the leather foundation. It is not entirely clear why two types of fixation –rivets and clamps – were used simultaneously on the object. The ornamental pattern was also applied in silver wire: paired straight lines extend out from the centre forming eight or six sectors. A spiral volute is inscribed between them, turning counter-clockwise. The contour shaped like a poleaxe extends into the scallop. Inside each of the sectors there is a spiral volute with a zigzag motif below it.

Arrow-shaped plaques. Six specimens of slightly varying dimensions. They have two “lily-shaped” protrusions near the pointed end and one on each of the lateral sides. The ornamentation is also applied with silver wire and consists of two types. In the first type, lines run inside the contour following the outlines of the plaque with an arc-like figure near the base. The pattern of the second type is formed by the central axis of symmetry and two zigzag lines, one on each side of the central axis.

Quadrangular plaques. The quadrangular plaques differ in their dimensions. The largest specimen has an iron ring attached to its edge. The same plaque is ornamented with a pattern of paired parallel lines following the contour of the object in the form of a quadrangle. Inside the quadrangle there is a row of rhombuses joining each other at obtuse angles. Another, smaller plaque has a pattern also consisting of paired parallel lines following the contour and a zigzag inside.

Oblong rhomboid plaques. Three specimens (two fragmentary). The shape is a central rhombus with two roundly broadened terminals at the edges. The ornamentation consists of an inscribed rhombus with a vertical zigzag inside it.

Thus, the belt set in question included fragments of a presumably leather belt with several (three?) composite belt pendants. The parts of the belt itself included a tip, three large scalloped plaques, and quadrangular buckles (a ring attached to the edge of one

of them suggests that something was suspended on it). The arrow plaques evidently served as the tips of the pendants.

Central and Western Europe. Rosette-like plaques of diverse shapes, which served to ornament waist belts or shoulder belts, became very popular in Europe since the early 14th century (Fingerlin 1971: 103–104, No. 157, Kat. Nr. 324; Egan & Pitchard 1991: 26).

3.8. Metal beads/buttons

A characteristic element of funerary costume recorded at the cemetery of Kylälahti consisted of silver (often gilded) beads or buttons of different types. These were encountered as single examples in the burials. However, their position in the grave varied, indicating that they may have served as buttons that were sewn on different pieces of clothing, sometimes on the collar. They also could have been used as a wrist ornament or been clutched in a fist.

1. Bronze cast beads decorated with small relief rings

A bead of this type was part of a composite belt pendant in burial No. 13 (Fig. 34:6).

Novgorod. In the Novgorod chronological system, bronze beads combine chronologically diagnostic types: cast beads (after 1076, horizon 22 and higher) and salient rings decorating jewellery (1161–1382 AD, horizons 18–8) (Лесман 1989a: 82–87; Лесман 1990b: 81; Лесман, in print).

2. Large globular beads or buttons ornamented with filigree rings and a smooth border

Beads of this type were found in burials Nos. 19, 30 (2 specimens), and 34 (Figs. 41:1, 49:4, 60:4). These objects may have served as a single button or a pendant, an ornament sewn onto clothing, or an ornament fixed on some other organic substratum that has not been preserved. Some may have been clutched in a fist or put, for instance, in a purse: in burial No. 19, the bead was found near the left femur, and in burial No. 13, it was among the hand bones near a finger ring.

It seems that objects of this type derived in the 14th–15th centuries from more ancient examples of the pre-Mongolian period.¹⁵

3. Biconical beads/buttons ornamented with a grooved-surface band around the central body

Two beads of this type were recovered from burials Nos. 53 and 71 (Figs. 84:1, 114).

¹⁵ The authors are grateful to Svetlana S. Ryabtseva for her valuable consultation.

Eastern Europe. The prototypes of these objects were probably biconical beads decorated with oblong triangles of granulation like those from the Gnezdovo hoard found in 1868 (Гущин 1936: 56, Pl. IV–1, 7). Objects identical to the beads from Kylälahti are known among the Vladimir hoard found in 1865, the Spassko-Bulgarian hoard of 1888, and the hoard from the village of Seltsy found in 1892 (Гущин 1936: 72, 81–82, Pls. XVII–9, XXXII–3, 8, 9, XXXIV–8–10).

Beads of this type were probably part of ceremonial shoulder decorations – *barmas* – consisting of medallions alternating with beads (Корзухина 1954: 56; Макарова 1986: 100). However, in Karelian burials, only individual specimens of beads have been encountered in each burial, and therefore they probably served as buttons. Gali F. Korzukhina dated the hoards mentioned here to her chronological period IV (1170–1240s AD) (Корзухина 1954: 145, 149).

Novgorod. A similar bead from Novgorod deposits of the second half of the 13th century was published by M. V. Sedova (Седова 1981: 155, Fig. 61, 9), but this bead has a zigzag grooved-surface pattern. The examples from Kylälahti appear to be decorated only with pseudo-granulation. According to the chronologically diagnostic types of ornamentation proposed by Yu. M. Lesman for jewellery from Novgorod, the pattern of parallel rows of relief fillets filling an oblong decorative zone bounded on both sides by crosswise relief fillets dates from 1096–1382 AD (Лесман 1989a: 84).

4. Openwork biconical bead/button

This object was recovered from burial No. 32 (Fig. 56). It was an openwork hollow gilded silver bead of oblong shape made in fine filigree.

Eastern and Southern Europe. In the composition of a hoard found in the Moscow Kremlin and dated to the pre-Mongolian period, there were two beads similar to the one from the Kylälahti cemetery in style and manufacturing technique (Панова 1986: 39–40, Fig. 7). In the Carpathian-Balkan region, openwork is known to have been used on various ornaments, including temple rings.¹⁶ In that area, this style evidently originated from the east, since a similar type of pattern is encountered on Iranian objects of the 11th century.

5. Spherical smooth buttons with a suspension loop

These artefacts were found in burials Nos. 8 (bronze), 19, 31, 57a, 58, 85, 87, and 91 (Figs. 24:2, 41:2, 54:2, 92:3, 95:4, 125, 132:2).

Central Europe. Spherical embossed buttons with an eye became widespread in Central Europe in the 13th–14th centuries (Krabath 2001: 210–212, Abb. 42–5).

Novgorod. Objects of this type are commonly represented in Novgorod layers beginning with the 21st horizon (after 1096 AD) (Седова 1981: 155, Fig. 61, 3–7; Лесман 1984a: 137).

¹⁶ Private consultation by S. S. Ryabtseva.

6. Gilded silver spherical beads with a smooth surface

These are objects up to 1 cm in diameter, identical to those threaded onto temple rings. They were found in burials No. 3 (in the area of the thorax; Fig. 3:4), No. 7 (near the proximal end of the left femur; Fig. 22:2), No. 12 (among the bones of the left hand, possibly clutched in the fist; Fig. 31:3), No. 37 (in the thoracic area; Fig. 65:2), No. 39 (under the sacral bones; Fig. 68:3), No. 46 (on pelvic bones), No. 63 (2 specimens; Figs. 105:2–3), No. 67 (presumably a male burial, in which 2 specimens were found: one near the lower jaw, the other between the proximal ends of the femoral bones, nearer to the left bone; Fig. 111:5–6), and No. 86 (in the thoracic area).

The beads found in burials Nos. 57a and 67 probably served as buttons, but the positions of the other finds suggest that they were either clutched in the fist (burial No. 12 and, possibly, No. 46) or used as wrist ornaments (peculiar bracelets?). In addition, it cannot be ruled out that some of these artefacts may have been displaced due to some natural causes.

Thus, finds of beads/buttons (?) of this type are not accidental but are a characteristic feature of funerary costume. In this connection, it is worth noting that in the 1880s, on Esko Hannukainen's land on Kilpolansaari Island, an iron sword was found by the residents in the place they called "the cemetery" (*Kalmisto*). This sword was then transferred to the Vyborg Museum. For this reason, in 1885, T. Schwindt carried out excavations here and revealed three graves, evidently of adolescents (Schwindt 1893: 103–104; Кочкуркина 1981: 104; Uino 1997: 217–219). On the necks of each of the interred, a silver bead with a smooth surface was found (KM 2486: 4, 6). These beads, which were apparently used as buttons, are identical to many specimens from burials at the cemetery of Kylälahti.

It seems that, thus far, several finds from the cemeteries of the north-western Ladoga region demonstrate a certain rather stable local tradition in funerary costume with silver buttons evidently fastening the collar of a dress resembling a long shirt. Moreover, in many cases no other metal artefacts were found in these graves. In addition, considering that these beads are identical to those threaded onto temple rings, we may suggest that they date from the same period as that in which these temple rings were used, that is, after 1299.

7. Spherical ribbed silver wire bead with a loop

This artefact is represented by a single specimen found in burial No. 37 (Fig. 65:1).

1. A bead of red opaque glass, smooth, decorated with polychrome eyes with “eyelashes”

A bead of this type was found in the set of a composite belt pendant in burial No. 13 (Fig. 34:6).

On the Karelian Isthmus and in the Ladoga region, numerous beads made of many-coloured glass (mostly yellow or green) have been found both in burials and at settlement sites: Lopotti in Kurkijoki, Hernemäki at Helylä in Sortavala, the settlement sites of Hämeenlahti and Paaso, the fortress of Korela (Fi. Käkisalmi), and Nehvola in Hiitola (a stray find). These are smooth beads decorated with polychrome eyes with “eyelashes” (Appelgren 1891: 125–143, picture 147; Schwindt 1893: picture 512; Кочкуркина 1981: 20, No. 15; Кочкуркина 2010: 221, Pl. 58–7, 8; Кирпичников 1979: 60–61).

Scandinavia. J. Callmer dates beads of this type (Type B090) to after 960 AD (Callmer 1977: 46, 77, 221, Pl. 6, 7, Colour pl. 1).

North-western Russia. In deposits of Staraya Ladoga and kurgans of south-eastern Ladoga, finds of such beads are dated to the first half of the 10th century (Щапова 1956: 177–178; Pl. II: 19–24; Кочкуркина 1990: 39).

Novgorod. According to Yu. L. Shchapova, beads of this type in Novgorod are concentrated in horizons 20–28 dated to the 10th–11th centuries (Щапова 1956: 178). Yu. M. Lesman revised this dating, supposing that cylindrical eye-beads of multicoloured glass survived in Novgorod until 1310 (up to horizon 11) (Платонова *et al.* 2007: 183).

2. Smooth beads of opaque black glass with wavy white or yellow bands inlaid lengthwise

Beads of this type were parts of composite belt pendants from two burials at the Kylälahti cemetery: No. 54 and 58 (Figs. 87:5b, 95:3).

Novgorod. Smooth beads of this type (Type II according to Yu. L. Shchapova) are distributed throughout Novgorod horizons from 22 to 16 (1076–1197 AD) (Щапова 1956: Pl. 16). At the same time, this author notes that beads of this type disappear in Novgorod considerably earlier than in rural kurgans (Щапова 1956: 177). This observation is confirmed by the studies of Yu. M. Lesman, who widened the period of occurrence of these beads in rural burials in the Novgorod Land up to horizon 12 inclusive, that is, until 1299 AD (Лесман 1984a: 140, Pl. 1–105).

3. Globular beads

These beads were parts of a composite belt pendant from burial No. 59 (Fig. 100:2–3). In Novgorod, they are dated to 1096–1369 AD (horizons 21–9) (Лесман 1984a: 139).

3.10. Clasps

Peculiar clasps fixing the collars of overclothes, borders of shawls (?), or bands were found in two burials at Kylälahti, burials No. 34 and 67. A typologically similar object, although considerably plainer in shape, was among the complex of artefacts in burial 1:4 at Kekomäki (Schwindt 1893: 194; Kivikoski 1973: Abb. 1101).

Clasp from burial No. 67 at the cemetery of Kylälahti (Fig. 110)

In the burial specified, in the thoracic area, a silver (possibly gilded) clasp was found with a devotional representation. The object consists of two parts. The first is a small round icon, about 1 cm in diameter, on which there is an openwork representation of an archangel (?). The eye for fixation is not at the top like on pendants but on the right side. The second detail was a silver hook decorated with a rosette-like design in pseudo-granulation. This hook was inserted into the loop of the icon. In other words, this object served as a clasp of some kind for fixing the collar or lapels. No parallels to this representation are known, and it may have been created by local craftsmen.¹⁷

Central Europe. It is very significant that the unusual object under consideration was composed of a silver clasp of Central European manufacture. Almost direct analogues to the hook composing the second element of this clasp are known among hoards dated to the 14th century and later found in Central Europe and Northern Europe, including the hoard from Pritzwalk dated to 1392 (Krabath 2001: 199–200, Abb. 37–3, 14; 38–6–8; Krabath & Lambacher 2006: 60–61).

Clasp from burial No. 34 at the cemetery of Kylälahti (Fig. 60:3)

This is a two-part clasp made of silver with gilding and decorated in the embossing technique. It has two functional elements: a hook and a loop. The hook is soldered to the rear side of one of the halves, and the loop is soldered to the other half.

Scandinavia. Similar artefacts were found in the hoard from Tøre in Sweden, which is dated to the 14th century (Krabath, Lambacher 2006: Abb. 30).

Central Europe. Typologically similar objects are known among the composition of the hoards from Pritzwalk and Szczecin, already mentioned several times earlier (Krabath & Lambacher 2006: 38, 60–61, Abb. 16, 42–43).

3.11. Weights/Spindle whorls

In four burials of the cemetery (Nos. 13, 33, 54, and 59), discoid artefacts were found. They were made of different materials: tin (burials Nos. 13 and 59; Figs. 34:8, 99:6), slate (burial No. 33; Fig. 57:3), and bone epiphysis (burial No. 54; Fig. 87:5c). These objects were

¹⁷ Private consultation by Alexander E. Musin, to whom the authors are highly grateful.

probably also attached to the belt by means of a separate rope or cord and were suspended along the thigh like pendants. What the origin of this tradition was and why the objects were used in such an unusual manner is a problem that still has to be solved. According to parallels in neighbouring areas, these objects were spindle whorls (see, e.g., Uino 1997: 391).

Novgorod. Undecorated discoid lead weights (according to Lesman's terminology) are dated in Novgorod after 1340 AD (above horizon 9) (Лесман 1990b: 84).

3.12. Knives

Knives were the commonest finds in the complexes of Kylälahti. They were encountered both in male and female graves.

The following male grave complexes included knives: Nos. 7, 31, 44, 46, 49, 53, 57a, 64, 65, 67, 84, and 89 (male hypothetically). Female complexes with knives were Nos. 3, 8, 13, 30, 33 (probably female), 38, 39, 59, 61, 83 (find possibly unrelated to the burial), and 90.

With the exception of the specimen from burial No. 67, which was slightly different in shape, and the unique item from burial No. 13, all the knives from both male and female complexes represent a standard shape and manufacturing technology and show little diversity. They all are long and narrow specimens with a straight back, divided from the tang by two fairly sharply expressed protrusions symmetrical to each other. The tangs are wedge-shaped and quadrangular in section. Their axis coincides with that of the blade.

The differences in the size of the knives are due to their state of preservation and the extent of use at the moment of the interment. In some graves, for instance No. 49, the deceased was provided with a very strongly worn knife, only 9.3 cm in length, which was the only artefact retrieved from this burial. The best-preserved specimens were evidently new or almost new at the moment of the interment. The typical dimensions of the knives were as follows: the total length was 15–16 cm, the length of the blade was 9–10 cm, the maximum width was about 2 cm, and thickness of the back was about 0.5 cm.

Hilts

All but one of the preserved knife hilts at the cemetery of Kylälahti were made of wood and cylindrical in shape with diameter slightly less than 2 cm and a length of about 10 cm. They were hafted on the tang through a lengthwise channel.

In burial No. 59, a knife with an ornamented cast bronze hilt was found. Ornamented cast bronze knife hilts are common finds at Karelian inhumation cemeteries known primarily through the excavations of T. Schvindt in the 1880s: Kekomäki 1:3, Kekomäki 3:2, Leppäsenmäki 4, Patja 1/1917, and Pajamäki 21 (KM 2489: 169, 294;

2494: 11; 7291: 27a; 10817: 9a; Schwindt 1893: pictures 2, 12, 4; Kivikoski 1942: picture 6). As a rule, they were encountered together with ornamented bronze sheath bindings, but at Kylälahti no such complexes have been revealed. Twenty-six knives with bronze hilts ornamented with an interlaced pattern are known altogether on the Karelian Isthmus and in the Ladoga region and Savo (28 specimens together with those from Kylälahti, since another similar knife was collected as a stray find 100 m from the cemetery).

Eastern Europe. In addition to Karelia, these knives are known on the Izhora Plateau in Korela (Käkisalmi), Tiversky Gorodok (Tiurinlinna), Oreshek, Kопorye, and Novgorod, and as far as the Kostroma Volga region (Кирпичников 1979: 69–70, Кирпичников & Овсянников 1979: Fig. 2:12; Варенов 1997: 94–103; Рябинин 1989: 31–32, Fig. 3). In Korela, Tiversk, Oreshek, and Kопorye these finds are dated to the 14th century.

Novgorod. Finds of similar hilts are known also in Novgorod, the earliest having been encountered in horizons 13 and 12 (1268–1299 AD), but they are not numerous and do not constitute a series. Nevertheless, a number of chronologically diagnostic types of ornaments is combined in these objects. A design composed of a single plain broken line following the edge of the object or occupying the entire ornamental field (facet) is dated after 1161 AD (horizon 18 and higher). A guilloche, gently bent, broad (not below 1.5 mm), fluted lengthwise or smooth is dated to 1177–1369 AD and possibly even later (horizons 17–9 and possibly higher). A stylized creeping branch or its elements in crosses through which vegetable sprouts grow or S-shaped volutes in other motifs are dated to 1161–1369 AD (horizons 18–9). Geometrized plant patterns (branch, lily, tree) are dated to 1177–1382 AD (horizons 17–8) (Лесман 1989a: 83–84; Лесман, in print).

Ferrules for knife hilts demonstrated an expressive feature of this category of objects from Kylälahti. They served to attach the wooden hilt to the tang of the knife. The upper ferrule was made in the following technique: a sufficiently thick iron plate (1.5–1.8 cm wide, thickness up to 0.4 cm) was bent around the circumference of the hilt, and the two edges were fixed by soldering. Another plate was soldered to it from above. In this way, a hollow cylindrical article was obtained, which was then fitted onto the upper butt end of the hilt and fixed on it with small rivets on two opposite sides.

The lower ferrule was made in a slightly different way: the plate also was bent around the hilt, but on the lower butt end, that is, from the side of the blade, another plate was soldered on with an aperture through which the tang could be pushed. On two sides of the aperture, two flaps were bent out and soldered to the blade. Thus, the lower ferrule was fixed on the blade itself, strengthening the hilt.

A unique knife from burial No. 13 (Fig. 35)

The total length of this object after conservation is 19.5 cm. The hilt of the knife, 10 cm long, was made from a piece of a tree root or a thin trunk or branch. A fragment of the surface of the hilt was preserved and could be used to reconstruct the total length of the knife. The blade is narrow and thin with a straight back. The object is unique in that it has two silver ferrules on the hilt, one at the end and the other at the transition to the blade. The end ferrule was uncovered in the field in three fragments: two halves of the hilt ferrule itself and a third fragment of a coin-like detail, which ornamented the butt end, having been soldered to the ferrule from above.

As reconstructed, the ferrule was of cylindrical shape and was fitted onto the butt end of the hilt of the knife. After conservation, a representation of an indented crown and the Gothic letters “D” and “L” were distinctly visible in the butt end of the object. On the ferrule itself, there are also carved-through Gothic letters repeating thrice the combination “DEO LAUS” (*Latin* “Glory to the Lord”).

The lower edge of the entire object is ornamented with a row of eight carved-through three-pointed crowns (three crowns not preserved) turned with the points down towards the blade of the knife. This decorative pattern resembles the Gothic poppy head or *fleuron*. The closest analogue to this ornament throughout the territory of Rus is the silver binding of the sword sheath of the Pskov Prince Dovmont (Daumantas) (Артемьев 1992: 66–74).

On the lower ferrule encircling the part of the hilt adjoining the blade, an engraved design in the form of a creeping branch and S-shaped volutes was discerned after the conservation was carried out. In Novgorod, such designs are dated after 1116 AD (Лесман 1989: 84).

Scandinavia. In terms of style, an almost complete parallel to the object in question is represented by a knife found during an excavation headed by P. Höysniemi at the medieval marketplace in Högholmen in the Kemiönsaari parish, western Finland (KM 76090:59, 63; Edgren 1977: 420–423; Immonen 2009, vol. 2: 102). A close analogue of the upper ferrule of the hilt in question can be found among the composition of the Gotland hoard from Amunde, deposited in 1361 (Krabath & Lambacher 2006: 31, abb. 12).

Knives with hilts decorated with ornamented silver ferrules are known from a series of Karelian inhumations, although dated a hundred years earlier than burial No. 13 at Kylälahti. For instance, on the knife from female burial 1:2 at the cemetery of Kekomäki, there are two silver ferrules – the upper and lower ones – decorated with a plant pattern (Schwindt 1893: picture 10). On the knife from burial No. 1 at Suotniemi, the lower silver ferrule was preserved with a plant pattern resembling the pattern on the knife from burial No. 13 at Kylälahti (Schwindt 1893: picture 15).

3.13. Sheaths

Iron sheath bindings

It seems that knives were mostly worn in sheaths. However, these sheaths did not always have metal bindings (bronze bindings were found only in burial No. 30, in which the bronze oxides conserved the organic materials; Fig. 52:4). Well-preserved iron sheath bindings were found in burials Nos. 38 and 90 (Figs. 67:3, 131:5).

Conservation work on fragments of sheaths from these burials allowed additional possibilities for reconstructing the shape of the sheaths, which turned to be typical for most burials at the cemetery where these objects were found. The sheaths were leather, sewn from a single piece. They were fixed by means of an iron binding (except for the sheath from burial No. 30) made of two U-shaped plates with edges 0.5–0.8 cm wide.

The lower plate widened towards the lower part. It was bent so that the two edges joined from opposite sides the seam line of the sheath along the blade. In this way, the sheath chape was formed. In turn, one of the edges of the upper plate was bent so that another U-shaped edge was formed. Here, a hole was made into which a link of an iron chain was inserted in order to attach the sheath to the belt. Approximately in the middle of the seam of the sheath, the butt ends of the plates joined each other. These peculiarities of the technological solution could be discerned only on the binding of the sheath from burial No. 59, but it seems that this was a standard technology.

Bronze sheath binding

The single example of the sheath with an ornamented bronze binding is the object from burial No. 30 (Fig. 52:4). Due to the metal, the sheath itself and the wooden hilt of the knife were preserved. The bronze binding of this sheath resembles other objects of this type in general but is considerably less richly and ornately decorated.

In the case in question, the bronze chape embraces the entire lower half of the sheath, and two lengthwise bronze bands extend from it parallel to each other fixing the seam of the sheath with rivets. This technique of fixation was also applied to other surviving sheaths from the cemetery of Kylälahti, although the others were made of iron (burials Nos. 38 and 90 discussed above). They were attached with rivets to the main plate of the sheath binding. In the upper part of each narrow plate there is an aperture through which a link of a thin iron chain was inserted. This chain was also partly preserved. It was used to attach the sheath to the belt. The bronze plates extended over the two ring ferrules fixing the upper part of the sheath. Thus, the ferrules in question may be attributed to type III according to the typology proposed for these objects by Alexander I. Saksa (Cakca 2010: 124).

The four specimens known earlier (Suotniemi, burial No. 3 (KM 2487: 53), Kekomäki, burial No. 1 (KM 2489: 169, 170), Ivaskanmäki (disturbed burial (KM 1922: 423, 424)) and Tuukkala, burial No. 9 (KM 2481: 167)) are identical to each other, differing

in nothing as far as their ornamentation is concerned. The bindings of these sheaths were richly decorated with openwork and engraved ornamentation in the form of interwoven bands with volutes at the ends; the crosswise ferrules in the upper part are decorated with a relief “pearl” pattern with the edges ornamented with a row of triangular carvings (Schwindt 1893: picture 2).

The specimen from burial No. 30 at Kylälahti was considerably more modestly ornamented, and for that reason it was distinguished as a separate variant of this type. The entire lower part of this sheath was encompassed in a bronze binding made of a single bent sheet riveted along the edges through the seam of the leather sheet of the sheath. On both sides of the binding there are two holes of semicircular section turned with the straight sides toward each other.

Nearer the lower end of the sheath, also on both sides, a more elongated hole of nearly triangular shape is located. Its upper part is decorated with a pattern of parallel broken lines, as well as a row of isosceles triangles turned with the points toward each other. There are also rows of broken lines between the holes on the binding. The pattern was applied with an indented stamp.

3.14. Belt pendants

This category of diverse artefacts is united by the nature of their use in the structure of costume: these objects were suspended on belts, constituting a peculiar set of ornaments.

These objects were found in burials Nos. 12, 13, 30, 33, 54, 58, 59, and 63. Each has its own characteristics, which is why each of them is discussed separately here.

1. In grave No. 12, near the distal end of the left femur and knee, two bronze “bell-shaped” pendants were found (Fig. 31:1–2). Inside one of them, the remains of a braided cord were preserved.

2. In burial No. 13, near the pelvis and the proximal end of the right femur, two parallel thin leather cords, about 2 mm thick, were uncovered (Fig. 34:6–7).¹⁸ Each was braided with thin bronze wire. These cords were threaded through the holes of beads of different types so that it was possible to divide them into separate lengths. This set began with a smooth bead of opaque red glass with bluish “eyes”, which was found near the area where the belt would presumably have been. It seems that both cords were threaded through the hole of the bead and attached in some manner to the belt. However, the belt itself was not preserved, and there were not even any traces of a metal belt divider characteristic of some other burials at the cemetery.

Further on beyond a length of about 2 cm, the cords were again threaded through

¹⁸ The conservation of this funeral complex, as well as the complexes of burials nos. 30 and 59, was carried out by Restorer of the Upper Category S. G. Bursheva, to whom the authors are especially grateful.

the hole of another bead of glass of very poor quality, of which only some loose powdered mass survived. A total of four beads of this type were threaded onto the cords. The intervals between the beads were of nearly equal length.

In the last section, the cords were threaded through the hole of a barrel-shaped bronze bead ornamented with two rows of small rings soldered onto it. At the end, the cords were attached in some way to a trapezoidal iron object (a needle box?). The structure of the attachment remained unidentified. Thus, the composite artefact under consideration was the iron object (needle box) fixed on the belt by means of two leather cords threaded through the holes of at least six beads and probably suspended along the inner side of the thigh. Near the iron object, a discoid lead or tin spindle whorl was uncovered. Its relation with the needle box set described above is not quite clear. This object may have been separately attached to the belt.

2. In burial No. 30, a similar, although better preserved, composite object was found (Fig. 52).

Near the proximal end of the left femoral bone, a bronze belt ring was uncovered. It was 4 cm in diameter, of round section, smooth, and unornamented. The following objects were attached to it:

- 1) A composite belt pendant by means of which a small leather bag was fixed on the belt.
- 2) An iron ear spoon attached to the belt with a thin iron chain.
- 3) A knife in a leather sheath decorated with bronze bindings and attached to the belt ring also by means of a thin iron chain.

The artefact set under consideration was also unique in the fact that here the technique of fixing belt ornaments could be seen.

A belt pendant with a complicated structure consisting, like in the case depicted above, of two leather cords braided with bronze wire and threaded through bronze beads and an eared tube, was tied (the knot was well preserved) by means of a leather strap threaded through two bronze beads. Further, the two leather cords braided with bronze wire continued for a length of about 2 cm toward a spiral divider of larger diameter and were threaded through the latter. Further, at an interval of similar length, they were threaded through another spiral divider. Yet further on, at another interval of about 2 cm, the straps were put through a bronze eared tube.

At the other end of the eared tube, the cords continued at another interval of 2 cm and were threaded through the hole of a two-part bronze bead. Beyond the two-part bead, the cords continued for the same length and were terminated with a round bronze bead. Beyond this bead, the assemblage was preserved only in fragments. This part consisted of two segments of leather cords, 1.5–2 cm long and braided with bronze wire. These were threaded through a spiral of thicker wire with a greater diameter.

The entire composite object was terminated with a trapezoidal iron artefact about 13 cm long. Imprints of a textile were preserved on this object. Thus the leather cords braided with bronze wire and threaded through bronze beads, the spiral and the eared tube served to attach a leather bag to the belt. The bag was sewn from two pieces (or from one large folded piece) of leather. Along its edge, two rows of small holes were ranged, evidently left from the stitched fixation.

After the conservation was carried out, it was revealed that on the back side of the leather object, under the sheath, there were remains of embroidery threads. In addition, also on the back side of the leather object and below it, there were remains of a grey powder. The fragment discovered after the leather object was cleaned suggested that it was embroidered with seed beads or bugles or with a braided cord, although the latter material seems to be less probable. Along its lower edge, an ornament was cleared out in the form of a double-threaded cord sewn onto it. Under the cord, an edge of a twill-weave textile was discernible.

After the leather object, which evidently served as a case of some kind, was unfolded, a small bag of a twill-weave textile was found inside it, repeating the shape of the case. The bag was seamed with threads knitted over the edge at the sides and on the underside. It was not sewn onto the leather case.

3. In burial No. 33, a plainer belt pendant was found (Fig. 57:2–5). Near the fragments of the right femur, a large, round bronze belt divider, 5 cm in diameter, was found. On a part of this artefact (the northern part in the grave), a 0.8-cm-wide fragment of a leather object, apparently the belt, was preserved. Near it, a bronze eared tube with two pairs of suspension eyes was found. An iron artefact (needle box?) of trapezoidal shape (6.2 × 2.5 cm) was attached to this bead by means a thin cord (which was preserved inside the bronze tube, as revealed during the conservation). The iron artefact was similar in shape to the specimen found in burial No. 13.

These objects were apparently attached to the belt divider through the thin cord that was fragmentarily preserved inside the eared tube. This cord probably also held beads, since near the iron artefact there was a stain of whitish powdered substance, about 1 cm in diameter – probably the remains of a tin bead. In addition, the same grave yielded a separately lying spindle whorl made of pinkish slate. This fact shows additional resemblance to the assemblage from burial No. 13, which included a spindle whorl found near the iron needle box.

4. Another peculiar complex of artefacts was investigated in burial No. 54 (Fig. 87:5). In the central area of the grave, a belt divider was uncovered. It was separated inside into three sectors. On the divider, a fragment of a leather strap (about 1 cm wide) tied into a knot and two red threads were preserved. These fragments were relatively short (less than 1.5 cm). It seems that they originally continued from the divider to under the right arm of

the deceased woman, and the set of ornaments uncovered afterwards was attached to them.

These ornaments included two leather cords braided with bronze spirals and threaded through the hole of a bead of black opaque glass decorated with three wavy white lines. Further on, the cords were tied to a cast bronze chain holder. Also the following artefacts were found: an ornamented bronze binding and a bronze buckle, immediately under which there was a hollow zoomorphic “horse” pendant of bronze. The relationships between these artefacts are not wholly clear, particularly the relationship between the belt buckle and the set attached to the chain holder. Nevertheless, it is worth noting that a thin cord was preserved inside the bronze ornamented binding.

Keeping in mind that the nearby burial No. 59 contained two belt pendants parallel to each other, one of which terminated in a bi-spiral chain holder and the other in a similar zoomorphic ornament (see below), we have grounds to suppose that in burial No. 54 we are dealing with a similar situation. In other words, it is quite possible that in the burial under consideration there had also been two belt pendants attached to the belt divider and suspended down the right thigh. The first survived in fragments of two leather cords braided with bronze wire. The second could have been composed of a thin cord threaded through the ornamented binding and terminated with a zoomorphic representation.

In addition, the assemblage in question included a peculiar spherical spindle whorl made from the epiphysis of an animal bone, which also makes it similar to assemblages from burials Nos. 13 and 33.

5. In disturbed burial No. 58, also several fragments of a belt pendant typologically similar to those described above were preserved (Fig. 95:1–3). In this complex, near the proximal end of the right femoral bone, a ∞-shaped bronze artefact was uncovered, apparently a belt divider. Immediately under it, in a stain of organics (traces of clothing?), a bronze eared tube was uncovered with a leather cord inside its hole. At the western ear of the eared tube, fragments of textile were preserved.

Farther nearby, a brown ceramic bead was found. Near the bead there was a second bronze eared tube. At the opposite butt end of the second eared tube there was a black glass bead decorated with three white wavy lines identical to the bead from burial No. 54.

All these artefacts appear to constitute a common set of personal ornaments where a composite ornament consisting of a strap (straps) braided around with bronze wire was attached to a belt divider. The straps were threaded through bronze beads and eared tubes, which thus subdivided them into separate segments.

6. The best preserved composite belt pendant is that from burial No. 59 (Figs. 98, 99:2–3, 100). Here, in the pelvic area, a ring-shaped belt divider of round section, 3.8 cm in diameter, was found. Two sets of artefacts were fixed on it parallel to each other and correspondingly hanging down the right thigh. They included double leather straps braided with bronze wire and divided into segments (each about 2 cm long) by glass or

metal beads (some preserved only as small heaps of powdered white substance). On the left pendant positioned closer to the right femur, there had been nine such segments, but some of them did not survive. On the parallel pendant there were seven segments. The first pendant terminated in a cast bronze chain holder with the sides decorated not with spirals but with engraved concentric circles (Type I:2 according to A. I. Saksa). The second pendant ended with a hollow horse pendant.

In addition, near the proximal end of the right femoral bone, under the left composite pendant, another bronze (belt?) ring, about 2 cm in diameter, was found. Inside this ring there was a trapezoidal iron needle box (Fig. 99:2–3). It may have been attached to this belt ring. Judging by the arrangement of the artefacts relative to the skeletal remains, the composite pendant under consideration was fixed on the side opposite to the belt pendants (on the back).

In terms of its composition, the complex of belt pendants from the burial in question resembles the set from burial No. 54. It also includes belt pendants terminated with a chain holder and a hollow horse pendant. At the same time, the given assemblage is supplemented by a knife with an ornamented bronze hilt typical to the Karelian cemeteries.

3.15. Belt bags

In two burials (No. 46 and 65), small bags or purses with artefacts inside were found. Purses of this type were attached to belts.

In burial No. 46, a small leather bag with an embossed pattern was uncovered under the pelvic bones. Inside the purse there was a large flint flake – probably a fire striker (Fig. 74:3–4). The bag was attached to the belt by means of a flaxen cord, of which fragments were uncovered near the purse.

In burial No. 65, near the left femur there was a leather purse measuring 6 × 5 cm. It was lying open, so that the isolated tooth of an adult human could be cleared from inside it already in the field. On the tooth, greenish oxides from another object – a small bronze vessel – were discernible. The vessel presumably served for storing sulphur, which was preserved in the form of a yellow powder. Finds of this kind are always especially interesting, since they indicate not only the features of the burial rite, but also the individual traits of the deceased. It seems that the tooth was of some special importance for the person interred.

Finds of leather purses in male burials containing a fire steel, a flint stone, and pieces of sulphur are known also in earlier inhumation graves in Karelia, for instance in the male burial in grave No. 3 at the cemetery of Kekomäki in Kaukola and in grave 11 at the Kappelinmäki cemetery in Lappeenranta (Schwindt 1893: 39; Laakso 2011: 78, 88).

Belt purses were also found in female burials.

In burial No. 63 at Kylälahti, near the bones of the right forearm, a long (5.5 cm), ornamented eared tube of bronze was found, about 1 cm in diameter. Short bronze pendants were attached to the loops at each of the ears of the artefact: on the right side there was a ∞-shaped pendant with each of its rings turned perpendicularly to each other, and on the left side was a similar pendant, but with a claw-shaped terminal.

During the conservation, it was noted that the eared tube was encased in a textile bag. A leather cord was threaded through the hole of the bead, probably for attaching it to the belt or (less probably) to some unpreserved element of outerwear. A plated bronze finger ring was tied to the other end of the cord with a clearly discernible knot. This entire set was completely or partly put into a textile purse, which was well preserved under the bronze eared tube (Fig. 105:1).

This is the first time that a composite object of this type was encountered in a Karelian inhumation cemetery. If other specimens are found, it may be attributed to a new type (Type III, if one expands A. I. Saksa's typology). In general, the unusual set under consideration is among a peculiar category of grave goods indicating individual traits of the interred.

In burial No. 30, an ornamented leather case, also suspended from the belt, was found (Fig. 51). Inside the case there was a textile bag, inside which a quadrangular object was sewn up. The presence of belt purses in female burials Nos. 39 and 61 may be supposed from the fact that compact accumulations of small objects were found in the pelvic areas. These objects were most probably kept in small bags.

In burial No. 39, two iron needles were found under the pelvic bones. They were probably also kept in a case or a purse on the belt, but the case itself was not preserved. Two bronze needles, as well as a fire steel and a heart-shaped bronze pendant, were uncovered in the central area of burial No. 61. These objects could also have been held in a similar small belt bag. The presence of belts in the two latter cases is suggested by finds of belt divider rings and a buckle (in burial No. 39). The heart-shaped pendant in burial No. 61 seems especially noteworthy. Normally, objects of this kind were suspended on the ears of bronze eared tubes as parts of composite female ornaments. It is known from Crusade-Period Karelian graves that miscellaneous small items were often kept in purses, possibly even for magical purposes (Schwindt 1893: 146–148).

3.16. Fire steels

Fire strikers are a widespread category of finds both at cemeteries and in the deposits of settlements. Based on the Novgorod materials, Boris A. Kolchin has distinguished

five chronologically diagnostic groups of fire strikers (Колчин 1982: 161, 163, Fig. 4). At the cemetery of Kylälahti, only oval fire strikers (with straight butt edges) have been encountered, except for the find from burial No. 23.

Fire strikers of this type were found in the artefact assemblages from burials Nos. 57, 61, and 65 (Figs. 92:2, 109:2).

Finland. In Finland, oval fire steels are traditionally dated to the Viking Age and Crusade Period (Kivikoski 1973: 88, 148, Abb. 642, 1247).

Novgorod. B. A. Kolchin dated this type of fire strikers to the early 13th to mid-15th centuries (Колчин 1982: 161, 163, Fig. 4). Yu. M. Lesman proposed a more exact date for the appearance of these objects in the Novgorod deposits, beginning with horizon 21 (after 1116 AD) (Лесман 1984а: 138, Pl. 1).

Fire steel of individual form

The finds from burial No. 23 included a fire steel that has parallels in Novgorod among the objects defined by Kolchin as “fire steels of individual form” (Fig. 44:2). In Novgorod, an artefact of this type was found in the deposits of the 15th century (Колчин 1959: 102–103, Fig. 87). A similar artefact was found during excavations in Tiversk (Tiurinlinna) (Кочкуркина 2010: 182, Pl. 7–1). This object cannot be attributed to serial manufacture and therefore cannot be used for reliable dating.

3.17. Needle boxes

Bronze needle box

In burial No. 53 (adolescent), a needle box with a length of 7.2 cm was found (Fig. 84:2). The closest parallel is an object from grave 2 at the fort of Tiuri Linnasaari (excavations by S. I. Kochkurkina, excavation area VI). The cemetery is dated to the 15th century (Кочкуркина 2010: 48, 49, табл. 1, 14). A similar object was revealed in 1987 during the excavation of the cemetery of Kurkijoki Kuuppala in burial No. 6 and interpreted by Alexander I. Saksa as a bronze knife hilt (Сакса 2010: Fig. 89: 4). Numerous analogues of such objects are known in the urban layers of Pskov as well. One of these objects contained an almost completely preserved tassel. They have been interpreted as cases for tassels that were worn on belts as ornaments.¹⁹

In Finnish archaeological and ethnographical materials, artefacts of this kind are well known and documented as needle boxes. Cords onto which needles were threaded were kept safe inside these tubular artefacts. They were commonly worn by women as ornaments hanging from the belt. There are no finds from datable archaeological contexts,

¹⁹ Personal information by Sergey A. Salmin, Senior researcher, Pskov Archaeological center.

but this exact type has been used in parts of Finland until late historical times (Sirelius 1915: 151–156).

Iron needle boxes

Elements of belt assemblages also included possible needle boxes, which were standard objects about 7 cm long and soldered from iron plates (e.g. Figs. 34:7, 99:2, 132:1). They were about 1.5–1.7 cm wide at the top and 3.5 cm wide at the bottom with a thickness of about 1.5 cm. This shape could be called trapezoid, but the longer sides are slightly bent inwards, especially near the lower part, which gives the cases a rather axe-like appearance.

These cases were probably attached to the belt by means of a thin cord threaded through an aperture in the upper, narrower side. This is rather well confirmed by the find of such a cord preserved inside a needle case and a bronze eared tube in burial No. 33. The iron objects in question were hollow inside. Their purpose is not quite clear, but when such an object was cleared from burial No. 59, a piece of textile was found inside it, as well as possible fragments of thin iron ware (needles?). The object of this type from the burial in question has some additional peculiarities: on each of its sides, a small iron ring was fixed at the edges of the underside through apertures.

In summary, in the majority of cases, the object types from the burials at the cemetery of Kylälahti Kalmistomäki discussed in Chapter III can be reliably dated within the chronological schemes developed to various extents for medieval Northern, Central and Eastern Europe, particularly for Novgorod. The attribution of the finds and chronologically diagnostic types identified allow us to attempt to build the chronology of the burial site under study.

3.18. Coins

In burial No. 36 there was a Novgorod silver coin (*denga*) minted in the period from 1447 to the 1470s (Fig. 63; Гришин & Храменков 2016: 17, type 26.1). Avers: Sitting figure of Sofia without gifts. Revers: Four-line inscription (in modern transcription):

«ВЕЛИ
КОГОНО
ВГОР
ОДА»

Chapter IV:

Chronology of the cemetery

4.1. Background

In the archaeology of Crusade Period and medieval Karelia, the problem of the dating and periodization of funerary complexes remains fairly controversial in spite of numerous studies by different researchers. The reason for this situation is the condition of the archaeological sources themselves, which, with rare exceptions, contain no exact fixed points for absolute chronology, such as coins.

A detailed study of the chronology of Karelian inhumation cemeteries was undertaken by Alexander I. Saksa in a series of publications and in his doctoral thesis in which this subject was a key focus (Cakca 1984; Saksa 1998: 21–68; Cakca 2010: 142–160). Saksa based his development of exact chronology on a series of methodical approaches of great importance. He proposed a multistage classification procedure for features of the burial rite and the types of grave goods in order to study their mutual occurrence and the reasons for their deposition.

An undoubted achievement of Saksa's work was in the foundation of a narrower periodization for the use of Karelian inhumation cemeteries excavated by T. Schvindt in the 1880s. Instead of the period of use lasting from the 12th to the 14th century in general, as proposed in earlier studies, Saksa defined this period as lasting from the late 12th to the early 14th century. Moreover, within the time span specified, three separate chronological groups were also distinguished. The boundaries of these chronological groups are, however, rather blurred (Cakca 2010: 141).

At the turn of the millennium, in a large number of his publications (Лесман 1996: 52–65; Лесман 2002: 122–124; Лесман 2004: 138–156), Mikhail Yu. Lesman criticized the possibility of developing a chronological scheme by means of the correlation method based on the systematization of complexes with mutual occurrence of different types. He was particularly critical of the so-called lens-chronological approach, based on an ordering of the two-dimensional matrix “complexes–types”, which provides the maximum saturation of its diagonal series. This is precisely the approach applied in Saksa's studies. The essence of this criticism is that really this method of developing a chronology is based on the hypothesis that time is a factor of primary or even overwhelming significance in cultural variability. At the very least it is based on the possibility of distinguishing cultural aspects for which time is such a factor without even having knowledge of the chronology

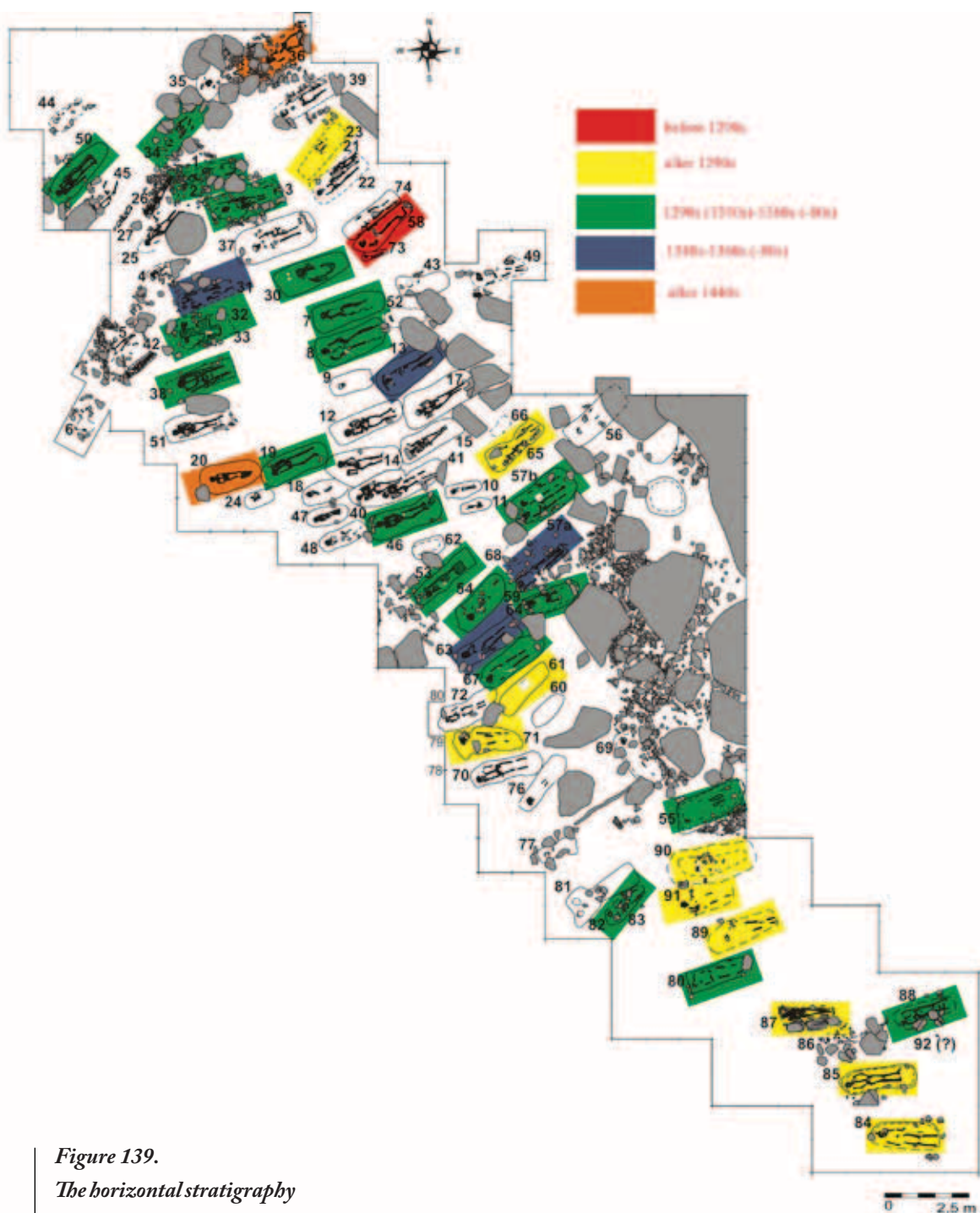


Figure 139.

*The horizontal stratigraphy
of the Kylälahti cemetery.
Chronological groups of
graves.*

of the culture in question.

Proceeding from the points stated above, Lesman attempted to date the Karelian complexes based on the one strict and fairly reliable chronological system that is known for antiquities of the 11th–14th centuries – the Novgorod chronology of artefacts. The applicability of this system for rural sites of the Novgorod Land was proved in neighbouring territories: the Izhora Plateau, the area of Lake Chudskoye, and south-eastern Ladoga (Лесман 1982; Лесман 1996).

However, as the researcher states, although Karelia was under the political and cultural influence of Novgorod, a specific archaeological culture was established in this area, so that the problem of the applicability of the Novgorod chronological system to Karelia still awaits resolution. Lesman proposed an internally consistent chronological system for Karelian sites based on complexes where the mutual occurrence of asynchronous types was noted. As a result, the author came to the conclusion, generally consistent with Saksa, that the majority of the complexes can be dated much more narrowly than from the late 12th to the early 14th century, and even synchronized to within a single horizon of the Novgorod stratigraphy (Лесман 2012).

Undoubtedly, as often noted by researchers, Karelia was a specific cultural region, but it was in no way an isolated area. During a certain phase, this region was under the economic and cultural influence of Novgorod, and also under its direct administrative control since the 14th century. On the other hand, the cultural influence of Sweden was also manifest here, as well as, at certain times, that of the Hansa and Baltic regions. We must therefore assume for the local culture some kind of synthesis of diverse traditions in the assemblage of artefacts.

As chronological studies are reaching a new level today, it seems meaningful to analyse the results of the two general external connections mentioned above and to consider the chronology of Karelian complexes in relation with the Novgorod and European chronological systems, which are the best developed of such systems. Thus, it seems helpful to attempt to synchronize the Karelian complexes with each of the systems specified and to compare the results obtained. This would enable us to identify the extent of the connections with different cultures. In this way, if not too many inconsistencies are found, we can obtain the most probable dates for the closed associations.

The proposed procedure of dating is based on a number of hypotheses requiring confirmation:

1. The possibility of synchronizing the finds of Northern and Central European imports with associations at corresponding chronological scales.
2. The possibility of synchronizing the finds of Ancient Russian (Novgorodian) imports with the Novgorod chronological scale.

Furthermore, the dates obtained must be compared for their consistence with

each other. The chronological system to be proposed will be accepted as effective if the inconsistencies are at a minimum and, most importantly, if they are explainable.

To perform the task put forward, that is, to develop the chronology of the associations on the basis of synchronization of the artefacts with chronological scales external to Karelia, we must first focus our attention on the presence of serial imported objects among the associations dated in corresponding chronologies. Individual, non-serial finds that have well-dated parallels present no grounds for synchronization, but indicate a certain moment in the use of the object and thus additionally confirm or dispute the dates for the entire association.

In building the chronology of the cemetery of Kylälahti, we have applied the basic concept of *chronologically diagnostic type* (as introduced by Yu. M. Lesman), implying a combination of similar indicative features of objects from a reference series that are dated to a fairly compact time span. A chronologically diagnostic type is defined either by a single sign (in which case it is identical to a chronologically diagnostic sign) or a group of chronologically diagnostic signs that cannot be reduced to their simple assemblage nor to a combination of other chronologically diagnostic types (Лесман 2004: 138–156). A dating type in this system is a chronologically diagnostic type for which a sufficiently reliable time span of use in a culture or a segment of a culture is defined, as well as the limits of that segment of culture.

According to this approach, every artefact can belong to several types, or, in other words, it is a closed association with the date defined by the intersection of the dates of these types. The date of the cemetery is defined as the date of the association of a *continuous formation*, or the period between the upper date of the most ancient burial and the lower date of the latest burial.

In synchronization with the dated horizons in Novgorod, the date of an object is accepted as that of the chronological interval of its continuous occurrence in a cultural layer (mostly at the Nerevsky Excavation) (Лесман 1984: 124). In contrast to Novgorod, there is no common Northern European and Central European chronological scale of antiquities for the period under study. Therefore the term “scale” is applied here rather arbitrarily. In this case, we must use the dates for different categories of artefacts reliably determined by one researcher or another (see Chapter 3).

The chronology of the graves of Kylälahti is presented below based on the identified chronologically diagnostic types.

Burial No. 1 (female)

Chronologically diagnostic types:

1. Multi-beaded temple rings/earrings
2. Scalloped pectoral pendant

Based on the parallels from Eastern Europe, burial No. 1 is datable to a period not earlier than the turn of the 13th/14th centuries; in Central Europe, not earlier than the 14th century and later. Based on the Novgorod chronological scale, the date is 1299–1382 AD.

Burial No. 3 (female)

Chronologically diagnostic types:

1. Multi-beaded temple rings/earrings
2. Braided finger ring
3. Knife

Based on parallels from Eastern Europe, burial No. 3 is datable to the period before the turn of the 13th/14th centuries or later; in Central Europe, not earlier than the 14th century or later. Based on the Novgorod chronological scale, the date is 1299–1382 AD.

Burial No. 7 (male)

Chronologically diagnostic types:

1. Ring-shaped plated brooch with an inscription and a depiction of hands
2. Knife

Based on parallels from Central and Northern Europe, burial No. 7 is dated after the second half of the 13th century (more probably not earlier than the 14th century); according to the Novgorod chronological scale, the burial is dated to 1299–1382 AD.

Burial No. 8 (female)

Chronologically diagnostic types:

1. Plated ring-shaped brooch with protruding cones of filigree
2. Spherical button with an ear
3. Belt fittings

Based on parallels from Central and Northern Europe, burial No. 8 is dated not earlier than the second half of the 14th century (brooch, belt set); according to the Novgorod chronological scale, it is dated to 1177–1369 AD.

An AMS date of 730±31 BP (Ua-44162) was obtained from a vertebra of the deceased. In calibrated form, it falls into the period AD 1260–1290 (68.2% probability);

AD 1220–1300 (95.4% probability).

Burial No. 13 (female)

Chronologically diagnostic types:

1. Multi-beaded temple rings/earrings
2. Braided finger ring
3. Pectoral pendant
4. Cast bronze beads ornamented with soldered small rings
5. Knife with silver ferrules
6. Discoid lead weight
7. Bead of red glass, smooth, ornamented with polychromatic eyes with “eyelashes”

Based on parallels from Central and Northern Europe, burial No. 13 is dated from the second half of the 14th century to the 15th century; according to the Novgorod chronological scale, it is dated to 1340–1382 AD. However, among the assemblage under consideration, there is a chronologically diagnostic type represented by a smooth eyed bead whose period of distribution somewhat contradicts the general dating of the complex based on jewellery from nonferrous metals. This controversy, however, may be solved if we reasonably expand the period of use of such beads in the peripheral lands of Novgorod, as confirmed by finds from Peredolsky Pogost (see above). Otherwise, it is possible that in the burial under consideration, like in the burial Tontinmäki 1888/5:1 (Schwindt 1893: 68, 21, k. 200), beads of a similar type were used as rarities.

Burial No. 19 (male)

Chronologically diagnostic types:

1. Silver bead ornamented with soldered small rings²⁰
2. Spherical button, smooth, with a suspension ear

Based on parallels from Central Europe, burial No. 19 can be dated to the 13th–14th centuries; according to the Novgorod chronological scale, it is dated to 1161–1382 AD.

Burial No. 23 (hypothetically male)

Chronologically diagnostic types:

1. Fire striker of individual shape
2. Knife

The burial in question is presumably dated to the period from 1134 AD to the 15th century.

²⁰ This type consists mostly of cast bronze beads. However, the decorations of small rings in relief are really an independent chronologically diagnostic type (cf. Лесман 1989a: 83).

Burial No. 30 (female)

Chronologically diagnostic types:

1. Multi-beaded temple rings
2. Silver bead ornamented with soldered rings
3. Finger ring with a lens-shaped bezel

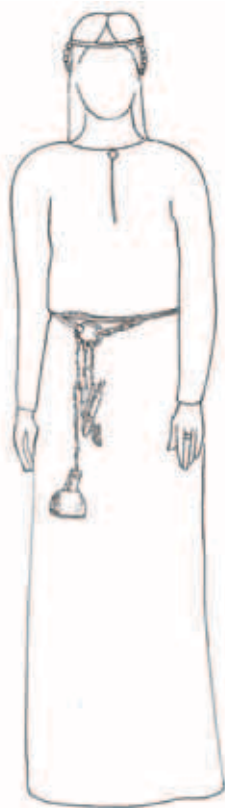
4. Round annular ring of large size (diameter over 34 mm)

5. Knife

Based on parallels from Eastern Europe, burial No. 30 is datable to a period not earlier than the turn of the 13th/14th centuries and later; in Central Europe, not earlier than the 14th century and later. Based on the Novgorod chronological scale, it is dated to 1299–1369 AD.

Figure 140.

The reconstruction of the female dress from grave No. 30. Drawing by A. Masbezerskaya.



Burial No. 31 (male)

Chronologically diagnostic types:

1. Annular unornamented brooch
2. Plated annular narrow finger ring
3. Spherical button with an ear
4. Knife

Based on parallels from Northern Europe, burial No. 31 is datable to the 12th–15th centuries; in Central Europe, to the 13th–14th centuries. Based on the Novgorod chronological scale, its date is 1340–1369 AD.

Burial No. 32 (hypothetically female)

Chronologically diagnostic type:

- Silver biconical openwork bead or button

Based on parallels from Eastern Europe, burial No. 32 is datable to first half of the 13th century and later. This grave is synchronous with burial No. 33 (see below).

Burial No. 33 (hypothetically male)

Chronologically diagnostic types:

1. Finger ring with a rhomboid bezel
2. Round belt divider with three inner radial bridges
3. Knife

Burial No. 33, based on the Novgorod artefact scale, is datable to 1313–1396 AD.



Burial No. 34 (female)

Chronologically diagnostic types:

1. Multi-beaded temple rings/earrings
2. Silver bead ornamented with soldered small rings
3. Openwork clasp

Based on parallels from Eastern Europe, burial No. 34 is datable to the turn of the 13th/14th centuries (and later); in Central Europe, to the 13th–14th centuries (and later). Based on the Novgorod chronological scale, its date is 1299–1382 AD.

Burial No. 36 (male)

Chronologically diagnostic type:

- *Denga* (coin). Minted in 1447–1470s

This was the only artefact in the grave. Thus, the grave cannot be dated earlier than AD 1447.

Burial No. 38 (female)

Chronologically diagnostic types:

1. Braided finger ring
2. Knife

Based on the Novgorod scale of artefacts, burial No. 38 is datable to 1161–1382 AD.

Burial No. 46 (male)

Chronologically diagnostic types:

1. Belt fittings
2. Knife

Based on parallels from Central Europe, burial No. 46 is datable to the 13th–14th centuries. Based on the Novgorod chronological scale, the date is after 1238 AD.

Burial No. 50 (female)

Chronologically diagnostic type:

- Earring of silver in the form of the question mark

Based on parallels from Eastern Europe, burial No. 50 is datable to the 14th–15th centuries. Based on the Novgorod chronological scale, the date is after 1313.

Burial No. 53 (adolescent)

Chronologically diagnostic types:

1. Silver biconical bead or button

2. Knife

Based on parallels from Eastern Europe, burial No. 53 is datable to the second half of the 12th century or to the 13th century. According to the Novgorod chronology of artefacts, its date is 1134–1382 AD, but most probably not earlier than the beginning of the 13th century.

Burial No. 54 (adolescent girl)

Chronologically diagnostic types:

1. Multi-beaded temple rings/earrings
2. Pendant in the form of a hollow “horse”
3. Bead of black opaque glass, smooth, inlaid with lengthwise wavy bands of white colour

Based on parallels from Eastern Europe, burial No. 34 is datable to the turn of the 13th/14th centuries (and later); in Central Europe, to the 13th–14th centuries (and later). Based on the Novgorod chronological scale, its date is 1299–1340 AD.

Burial No. 55 (hypothetically male)

Chronologically diagnostic type:

- Braided finger ring

This was the only artefact in the burial, dating it according to the Novgorod chronological scale to 1161–1382 AD.

Burial No. 57a (hypothetically male)

Chronologically diagnostic types:

1. Spherical button
2. Knife
3. Fire striker of oval shape

Based on parallels from Central Europe, burial No. 34 is datable to the 13th–14th centuries (and later). Based on the Novgorod chronological scale, its date is after 1134 AD.

Burial No. 57b (female)

Chronologically diagnostic types:

- Penannular finger ring with plate bezel and relief cast decoration

According to the Novgorod chronology of artefacts, burial No. 57b is datable to 1224–1340 AD.

Burial No. 58 (female)

Chronologically diagnostic types:

1. Bead of black opaque glass, smooth, inlaid with lengthwise white wavy bands
2. Spherical button with an ear

Based on parallels from Central Europe, burial No. 58 is datable to the 13th–14th centuries (and later). Based on the Novgorod chronological scale, it is dated to 1096–1299 AD.

Burial No. 59 (adolescent girl)

Chronologically diagnostic types:

1. Finger ring with a high conical bezel
2. Globular glass beads
3. Hollow horse pendant
4. Ornamented cast bronze knife hilt
5. Discoid lead weight/spindle whorl

Based on parallels from Central Europe, burial No. 59 is datable to the 14th century and later; in Eastern Europe, to the 12th–13th centuries and later. Based on the Novgorod chronological scale, it is dated to 1340–1369 AD.

Burial No. 61 (hypothetically female)

Chronologically diagnostic type:

- Knife

This was the only artefact in the burial, dating it to after 1134 AD according to the Novgorod chronological scale.

Burial No. 63 (female)

Chronologically diagnostic type:

- Plated annular narrow finger ring

This was the only chronologically diagnostic artefact in the burial, thus dating it to after 1340 AD according to the Novgorod chronological scale.

Burial No. 64 (female)

Chronologically diagnostic types:

1. Plated ring brooch with clasped hands
2. Knife

On the basis of parallels from Central Europe, burial No. 64 is datable to a period not earlier than the second half of the 13th century and later; in Northern Europe, to the 14th century and later. Based on the Novgorod chronological scale, it is dated to 1299–1382 AD.

Burial No. 65 (male)

Chronologically diagnostic types:

1. Knife
2. Fire steel of oval shape

Based on the Novgorod chronological scale, the burial is dated to after 1134.

Figure 142.

The reconstruction of the female dress from grave No. 59. Drawing by A. Masbezerskaya.



Burial No. 67 (male)

Chronologically diagnostic types:

1. Clasp-agraffe
2. Knife

Based on parallels from Central Europe, burial No. 67 is datable to the 14th–15th centuries. Based on the Novgorod chronological scale, it is dated to after 1134 AD.

Burial No. 71 (sex unidentifiable)

Chronologically diagnostic type:

- Silver biconical bead or button

Based on the Novgorod chronological scale, burial No. 71 is dated to 1096–1382 (horizons 21–8), but most probably not earlier than the early 13th century.

Burial No. 80 (hypothetically male)

Chronologically diagnostic type:

- Ring-shaped clasp with a smooth outer edge

This was the only chronologically diagnostic artefact in the burial, dating it to 1177–1369 AD according to the Novgorod chronological scale.

Burial No. 82 (sex unidentifiable)

Chronologically diagnostic type:

- Earring of silver wire of round section with one edge decorated in openwork

This was the only chronologically diagnostic artefact in the burial, dating it to before 1382 AD according to the Novgorod chronological scale.

Burial No. 84 (male)

Chronologically diagnostic type:

- Knife

This was the only artefact in the burial, dating it to after 1134 AD according to the Novgorod chronological scale.



Burial No. 85 (male)

Chronologically diagnostic type:

- Spherical button

Based on parallels from Central Europe, burial No. 85 is datable to the 13th–14th centuries (and later). Based on the Novgorod chronological scale, it is dated to 1096–1299 AD.

Burial No. 87 (adolescent)

Chronologically diagnostic type:

- Spherical button

Based on parallels from Central Europe, burial No. 87 is datable to the 13th–14th centuries (and later). Based on the Novgorod chronological scale, its date is after 1096 AD.

Burial No. 88 (hypothetically male)

Chronologically diagnostic type:

- Plated ring brooch with clasped hands

This was the only chronologically diagnostic artefact in the burial, dating it on the basis of parallels from Central Europe to not earlier than the second half of the 13th century and the 14th century (and later). Based on the Novgorod chronological scale, the date is after 1299 AD.

Burial No. 89 (male)

Chronologically diagnostic type:

- Knife

This was the only artefact in the burial, dating it to after 1134 AD according to the Novgorod chronological scale.

Burial No. 90 (female)

Chronologically diagnostic types:

1. Multi-beaded temple rings
2. Silver finger ring with a round bezel
3. Knife

Based on parallels from Eastern Europe, burial No. 90 is datable to a period not earlier than the turn of the 13th/14th centuries and later; in Central Europe, not earlier than the 14th century and later. Based on the Novgorod chronological scale, its date is after 1299.

Burial No. 91 (female)

Chronologically diagnostic type:

- Spherical button

Based on parallels from Central Europe, burial No. 87 is datable to the 13th–14th centuries (and later). Based on the Novgorod chronological scale, its date is after 1096 AD.

4.3. Time of use of the cemetery and palaeodemographic aspects

In summary, the dates presented suggest that the inhumation cemetery of Kylälahti Kalmistomäki was taken into use at the earliest in the late 13th century (according to the AMS dating of grave No. 8, during the latter half of the 13th century, and according to artefact chronology, roughly in the 1290s). The cemetery was used for approximately 250 years, until the first quarter of the 16th century (dated by the leather finds from grave No. 20, see Appendix). Some of the burials located at the periphery may be even younger.

The burials poor in grave goods (mostly knives or spherical buttons with an ear), which are dated rather broadly according to the Novgorod scale, are also datable to a period not earlier than the appearance of the cemetery, that is, the late 13th century. The same is true for all burials with a lower date below 1299.²¹

Analysis of the horizontal stratigraphy of the burials demonstrates that there was no unidirectional evolution of the cemetery, such as from the centre towards the periphery, although the youngest graves do tend to be in the peripheral areas of the cemetery. It seems that the excavated part of the burial ground was used by a small number of families,

²¹ In 2010, radiocarbon dates were obtained for some of the human bones from the Kalmistomäki cemetery by the Herzen University in St Petersburg. Most results obtained were plausible, but since at least one of them (from grave No. 8), for a reason that has not been recognized, totally contradicts the archaeological evidence, none of the results have been used as evidence in the present publication. The results were: grave No. 70: 688±25 BP (SPb-145); grave No. 13: 290±25 BP (SPb-146); grave No. 38: 554±25 BP (SPb-153); grave No. 8: 1344±80 BP (SPb-154), grave No. 46: 696±25 BP (SPb-164), and grave No. 50: 288±25 BP (SPb-165). Two datings of charcoal samples were also made in the same laboratory: SPb-136 (820±25 BP) and SPb-137 (730±25 BP).

probably just one or two.²² On the basis of written sources, it is known that there were almost 20 houses in the village at the end of the 15th century (see Chapter VI), so it seems obvious that not all the members of the local community, but rather representatives of one or two wealthy families, were buried in this part of the cemetery.

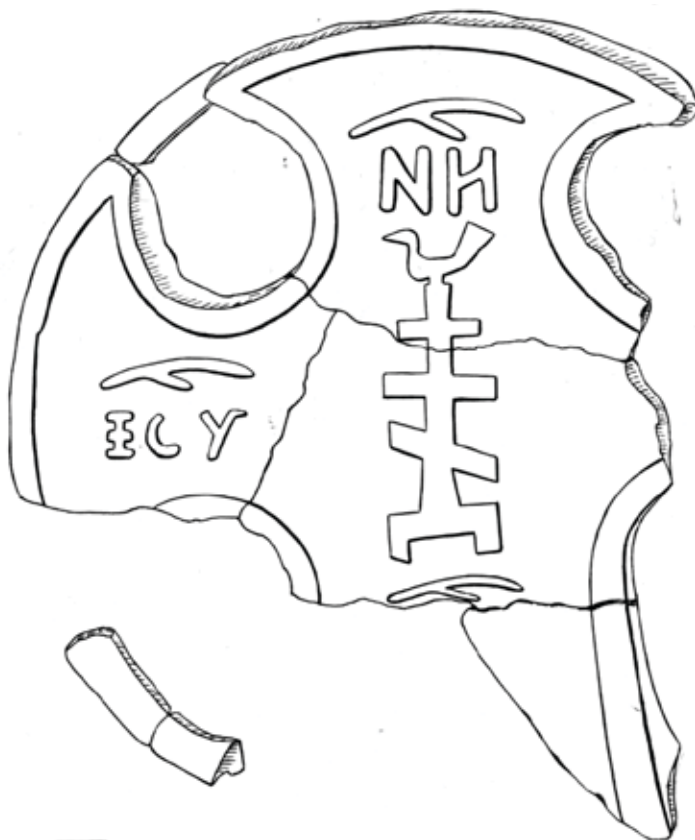


Figure 143.

Pieces of the Kylälahti limestone cross. Altogether 14 fragments of the central part of the cross and its three arms were found dispersed into an area of 5.5 square meters. The object belongs to the type of 'Novgorodian' zhalnik-grave crosses. The form is 'cross-in-a-circle' i.e. a sign amalgamating two Christian symbols – circle-nimbus and cross. It is not known whether the cross was originally connected to a certain grave, or if it was some kind of a common marker of the whole cemetery. The exact date of the cross is also unknown. The diameter of the circle is c. 0.7 m. Drawing by M. Shakhnovich.

²² For example, using the formula $P = \frac{D \times e_0}{t} P = \frac{D \times e_0}{t}$ (P = population, D = number of buried individuals, e_0 = life expectancy at birth in years, t = duration of use of the cemetery in years), we can estimate the population at 9.1 persons (at values $D = 91$, $e_0 = 25$, and $t = 250$). A life expectancy of 25 years may be slightly underestimated, since the society was obviously wealthier than average, but using an estimate of 30 years, for instance, does not significantly change the result (10.9 persons).

The burial rite at the cemetery of Kylälahti

5.1. Overlying structures of the graves

The discovery of numerous (55 in total) overlying stone structures of the graves at the cemetery of Kylälahti was very important for the study of the burial rite. These structures are elongated oval fences constructed of boulders arranged in a single row around the perimeter of the grave pit (Figs. 7–9).

At the edges (most commonly the south-western and north-eastern edges) of the fences, larger blocks were installed marking the place of interment and giving it a finished shape. Occasionally, these “butt” stones were formed by natural rock outcrops, which are found in abundance in the area of the cemetery and to which the grave structures were attached. The overwhelming majority of the fences were of uniform dimensions, measuring about 2 m in length and 1–1.3 m in width along the outer perimeter. The boulders of which they were composed lay immediately beneath the turf at such a shallow depth that the edges of many could be seen on the modern surface.

As already mentioned above, prior to the excavation at Kylälahti, similar stone fences were known at Karelian cemeteries. For example, T. Schwindt excavated four burials with stone fences at the cemetery of Säässynäkummut in Tenhola, although these burials were devoid of grave artefacts (Schwindt 1893: 107–108; Кочкуркина 1981: 105). This cemetery is only 4 km directly east of Kylälahti and undoubtedly demonstrates the presence of a common funerary tradition in the region. Another overlying stone structure was found also in 2001 over burial No. 1 at the cemetery of Uukuniemi Papinniemi in Finland, near the modern state border (Laakso 2003: 148; Laakso 2014).

Taking into account the results of the excavations at Kylälahti, it may be stated that this burial rite was peculiar to the late medieval population of Ladoga Karelia. On the Karelian Isthmus, similar structures are not known to date. On the other hand, it should be kept in mind that most of the cemeteries in the area are located in later agricultural lands, and possible stone structures may have been cleared out during the centuries following medieval times.

In quantitative terms, overlying stone structures at the cemetery of Kylälahti have been recorded in over more than half of the excavated burials. They were found above both male and female burials, as well as children’s graves. Nevertheless, there were also unfenced burials of both adults and children.

In essence, this funerary rite corresponds completely to the so-called “*zhalnik graves*” widely distributed throughout the Novgorod Land and in a number of contiguous territories.

5.2. Burials

As mentioned above, 91 of the 93 burials at the cemetery of Kylälahti were inhumations. Cremations were found only in burials No. 2 and No. 92. It is important to note that these burials can only hypothetically be recognized as separate associations because of the relative compactness of the deposits of calcined bones.

In burial No. 2, the compact humusized spot was located between burials Nos. 1 and 3 and had been partly disturbed by them. In this aggregate there were two (one fragmentary) thin bronze staples whose purpose is not wholly clear. In burial No. 92, the burnt bones were compactly deposited within a very dark spot of humus with a considerable admixture of small pieces of stone, ceramics, and sinter. During the excavation of this object, an iron arrowhead was found.

In both cases, the archaeological context does not allow us to state for certain that we are dealing with burials rather than the remains of a settlement of a previous period. It must also be noted that the total amount of burnt bones is small and that the bones have not been analysed from an osteological point of view.

Moreover, the remains of stone structures preserved in the form of a continuous horizon of small stones throughout the entire excavated area included many stones with traces of fire, suggesting that before the inhumation cemetery was taken into use, there had been a cremation cemetery here. Therefore, one cannot rule out the possibility that burials Nos. 2 and 92 date from an earlier period.

5.3. Depth of grave pits

The depth of the grave pits is an important indication for the character of the funerary rite at the cemetery of Kylälahti. In most cases, the depth does not exceed 0.5 m from the modern surface, which has not altered during the past several centuries. This is due to natural causes, namely the shallow level of the underlying solid bedrock. In fact, the graves were found immediately under the turf, especially in cases where overlying structures were absent.

In this connection, it is natural to ask why the people who lived here in the

late Iron Age chose this hill for their ancestral cemetery. The landscape seems to play an important role here: the hill dominated over the neighbouring valley and provided a view onto a bay of Lake Ladoga. In the course of excavations at the cemetery, along with finds of burials using the cremation rite, quite a few artefacts were retrieved: beads and metal objects dating from an older period. It seems unlikely that people in the 14th century and later would not have noticed finds of this kind when they used this area for their cemetery. We are therefore of the opinion that it is impossible to think that the choice of the Kalmistomäki hill was dictated only by its favourable location in the landscape. On the contrary, because it is very difficult to dig a sufficiently deep grave pit here, it is precisely the knowledge of the presence of an earlier cemetery that was the decisive factor in selecting this place.

It is also beyond doubt that the cemetery of Kylälahti was no ordinary rural burial ground (or *kyläkalmisto* in Finnish) but an important central cemetery. In this connection, it is important to note that the shallow depth of grave pits was a typical feature of the Karelian inhumation cemeteries of the Crusade Period known primarily through the excavations of T. Schvindt (Schvindt 1893: 51); their depth varied from 0.2 to 1 m. Deeper grave pits became common at cemeteries of the 16th–17th centuries when the influence of the Church and its control over funerary rites became established, as recorded through the recent excavations in south-eastern Finland at Uukuniemi and Kauskila.

5.4. Peculiarities of the burial rite at Kylälahti

Of the 91 inhumation burials, 47 were placed in coffins and 4 (children's burials) in hollowed wooden blocks gouged in individual logs. The number may be even greater, but the possible presence of coffins is difficult to discern due to their very poor state of preservation, as well as the very hard rocky ground.

The coffins were made of boards, evidently up to 2 cm thick with a length and breadth corresponding to the body of the deceased. In a number of cases, for instance in burial No. 3, it proved possible to define that the coffin was of trapezoidal plan with a broadening in the area of the head of the interred.

In the overwhelming majority of cases, it could be ascertained that the coffin had a cover. Its traces are usually discernible over the bones or artefacts in the grave. The coffins also had a bottom, the remains of which could be found correspondingly under the bones and artefacts.

All of the coffins were made without the use of nails. Their corners were fixed by tenons or tied with birch bark bands. This feature is typical of the Orthodox population of eastern Karelia, as has been archaeologically recorded during excavations of the cemetery

of Alozero dating to the 18th–19th centuries AD (Хартанович & Шахнович 2009: 104–109). This technique of fixing the corners and covers of coffins is also known in Karelia through ethnographic evidence (Paulaharju 1924: 84; Konkka 1895: 54).

5.5. Use of birch bark

Another characteristic feature of the burial rite at Kylälahti was in lining the bottom of the coffin with birch bark, as well as covering the body of the deceased and even the outside of the coffin with birch bark, as recorded in several graves. In burial No. 1, a piece of birch bark was found upon a pectoral pendant. It was established that in burial No. 30, the body of the interred woman was covered with birch bark preserved upon the artefacts. The same was stated for burials Nos. 61 and 63, where it was also recorded that birch bark lay on the bottom of the coffins.

It seems that we are dealing with a fairly widespread funeral practice at this cemetery. Unfortunately, in the majority of cases, it was impossible to trace the possible presence of birch bark because of the poor preservation of the organic materials.

The use of birch bark in Karelian inhumation graves has been recorded also at some classical sites of the Crusade Period. In some of the richest graves (Nos. 1 and 3) at the cemetery of Kekomäki, Schwindt uncovered large fragments of birch bark on red-dyed artefacts (Schwindt 1893: 187). Pieces of birch bark were also found in a number of burials both in eastern and western Finland (Cleve 1978: 82; Lehtosalo-Hilander 1982: 35). Generally, the tradition in question is well known at medieval burial sites in Fennoscandia and Eastern Europe (see even Konkka 1985: 66; Karjalainen 1918: 110; Zachrisson 1985: 187).

The Karelian custom of using birch bark for interment has also been noted by ethnographers. For instance, A. Konkka presents the following information from the southern part of White Sea Karelia: “The coffins were formerly made of boards, and they were neither painted nor sewn round with cloth; on the right side, level with the head, a small window was made into which a glass was inserted. Now, as a rule, the coffin is painted, lined with cloth on the inside, and no window is made. Formerly the bottom of a coffin was covered with leaves torn from dry brooms, a pillow was put under the head, and the legs were packed with leaves. Now, leaves also are used, but upon the layer of leaves, a wadding is spread. The bedding is covered with white cloth.” (Конкка & Конкка 1980: 25).

Furthermore, a reference is available from another region in White Sea Karelia, namely Panozero on the Kem River: “Then, when the coffin is ready, the wood chippings that are left after the planing of boards (for the coffin) are put there. Birch leaves are put

there; the bases are cut from brooms and (the branches) are spread (on the bottom). The pillow for the head is made from white cloth. And into the pillow, only leaves are packed, but no branches” (Кошкка 2003: 421).

In the course of the cleaning and conservation of a composite belt pendant from burial No. 30 in laboratory conditions, well-preserved birch leaves were found. The pendant was uncovered between the skeleton, the grave artefacts, and the bottom of the coffin. Evidently the latter was also lined with freshly cut birch branches. Their fragments were preserved only near bronze objects, particularly sheath plates. It seems unlikely that this was a singular case among the burials of the cemetery under study. The tradition of lining the coffin bottoms with birch branches is well known from ethnographic materials, and occasionally from burials.

5.6. Possible use of shrouds

In some cases, mostly in female burials, traces of textiles were recorded on bronze and silver ornaments or large iron objects (in burial No. 1, on a bronze pectoral mount; in burials Nos. 3, 13, and 30, on the beaded temple/earrings and, in the latter case, also on an iron ear spoon). It seems that the bodies of the deceased were wrapped in cloth, of which only small fragments or imprints upon artefacts were preserved.

5.7. Arrangement of the body of the deceased

In all burials, even where very poorly preserved skeletal remains were uncovered, it proved possible to reconstruct the pose of the interred. At Kylälahti, all the deceased were buried in an extended supine position. In cases where the shoulder and forearm bones were preserved, it could be seen that the hands were usually crossed either on the chest or at the pelvis. In two cases (burials Nos. 36 and 90), a situation was recorded where the right hand was near the skull, meaning that the arm must have been bent at the elbow.

It is possible that in some cases displacement of the bones took place as the body decayed. An exception was burial No. 4 (child) where the arms were extended along the body, but here the child was literally squeezed into a short and narrow pit so that the pelvic bones and the spinal column were turned towards the chest. In this case, the position of the arms may have been accidental rather than intended.

In burial No. 19, the bones of the right arm were also extended along the body and those of the left arm were lying in the area of the pelvis. Here, the arm may also have

been displaced by decay. The same situation was recorded in burial No. 25 and, possibly, No. 78. The single exception is the well-preserved male burial No. 70, where the arms were undoubtedly extended along the body. However, this grave contained no grave artefacts and was located at the periphery of the cemetery.

5.8. Orientation of the burials

The orientation of inhumations relative to the cardinal points is traditionally considered to be an identifying element for a culture, and great attention is paid to it during the analysis of materials of funerary sites. There is widespread opinion among researchers that at the burial sites of Karelia, in particular in the eastern Baltic region, the change in the orientation of the interred is generally related to the process of Christianization.

The overwhelming majority of inhumations at the cemetery under study had a south-western orientation (azimuth from 240° to 260°). A western direction, or close to it (azimuth from 260° to 280°), was recorded in burials Nos. 1, 3, 79, 84, 85, and 86. Naturally, the boundaries between the presented values of orientation are extremely arbitrary. The single exception at the entire cemetery is burial No. 69, which was oriented with the head to the north-west (azimuth c. 302°). However, this burial was evidently disturbed sometime during the period of use of the cemetery, and some of the bones may have been displaced.

Thus, the orientations of the buried at Kylälahti are standardized: all the directions are western with a strong deviation to the south-west. This fact suggests a stable burial tradition here. The orientation of the graves is in accordance with the traditional Christian burial rite. It also separates the burial rite at the site from the majority of furnished Karelian Crusade Period graves, in which the prevailing orientation is north or north-north-west (see Uino 1997: 67–68).

Chapter VI:

The Kylälahti village and *pogost* in written sources of the 14th–16th centuries

The complex of Kylälahti is the only one among the presently known rural burial and settlement sites of Karelia in the 14th–15th centuries about which information is known in the written sources of the period in question – the Novgorod First Chronicle and birch bark letters. This information is the basis for studies of the history of this territory and the reconstruction of the system of its relations with Novgorod. In the context of the revealed archaeological materials, these documents take on a great deal of new significance. In this connection, when archaeological complexes are published, it is necessary to propose an analysis of the written sources concerned with the site under study.

After the text of the Treaty of Nöteborg (Ru. Orekhovo, Fi. Pähkinäsaari, Ge. Schlüsselburg) of 1323, Karelian pogosts are next mentioned in the First Novgorodian Chronicle under the year 1396:

In the same year, Nemtsy came to Karelia and attacked two pogosts: Kyur'esky and Kyulolasky, and burned the church; and Prince Konstantin with the Korela troops pursued them and captured a prisoner whom he sent to Novgorod (НПЛ младшего извода: 387; Софийская первая старшего извода: 250)

The evidence on the attack of the “*Nemtsy*” (in this context: Swedes and/or Finns) on the Western Ladoga area provided very important information. Firstly, this is the first time that the Kyur'esky (Kurkijoki) pogost and the Kyulolasky pogost (Kylälahti) are mentioned. Secondly, this text mentions the burning of a church.

The term “*pogost*” is fundamental for our understanding of the territorial and administrative system of the Novgorod Land during the entire medieval period. Therefore, clarifying its meaning in the context of a particular chronological period is a traditional subject of studies in Russian historiography. Researchers are usually focused on a certain dualism in the meaning of the word “*pogost*”, as there is a difference between *pogost* as a site and *pogost* as a district. While the term pogost-settlement implies a particular settled point, the term pogost-district means a certain territorial and administrative formation and simultaneously a church parish where the main church is situated in the pogost-settlement, lending, in turn, its name to the entire *okrug* (district). To a considerable extent, our knowledge of pogosts of the Novgorod period is based on a retrospective extrapolation of the realities of the late 15th century and later times, as provided in documents of the

Moscow period (from 1478 onwards).

It is evident that, given all the regional differences, the term *pogost* in chronicles means a certain formation – a district with a central settlement that was the lowest unit of the territorial and administrative division. For the region under study, investigating the origins and establishment of this territorial and administrative division is a key issue.

In the annalistic record considered here, the burning of a church is mentioned, but it is not specified in which of the two pogosts this happened. We would like to agree with the opinion already proposed that the church was burned in the Kylälahti pogost (e.g. Kirkinen 1963: 190; Пулькин *et al.* 1999: 26; Korpela 2004: 272; cf. Kuujo 1958a: 53).

In the *Pistsovaya Kniga* (census book) of Vodskaya Pyatina of 1500, the Kir'yazhskiy Bogoroditskiy pogost is described as having a Church of the Nativity of the Virgin. In Kylälahti, no pogost or church is mentioned. This has been interpreted as indicating that the church that was destroyed in 1396 was in Kylälahti.

In the census book, only the existence of a Kyulyalasskaya *perevara* (a district for collecting taxes) is mentioned, including the settlements of “Kyulolaksha, at the Kyulolaksha bay” and “Kharitonov in Kyulolaksha at the bay”, as well as “Kulolaksha” (ВИМОИДР 1852: 122–123, 136). Altogether, there were 19 farmsteads in the village, and it was one of the largest in the area.

Hence, in the 15th century, the church no longer existed in Kylälahti. Moreover, excavations at Kalmistomäki have revealed no building remains that could be interpreted as a church at the cemetery or in its vicinity. The cemetery is situated on the most elevated part of the hill on a relatively even surface. The rocky Kalmistoniemi promontory does not seem a plausible location for the construction of even a small building. In theory, this is still possible, because small orthodox churches are known to have been built even on small rocky hills. In Kylälahti, no church is known so far as an archaeological object, but its existence cannot be ruled out.

The chronicle record discussed above is supplemented by the text of birch bark document No. 248, which is of key importance for the study of events in Karelia at the turn of the 14th and 15th centuries:

Pogoskaya, Kyulolaskaya, and Kyurieskaya Korela are humbly appealing to Lord Novgorod the Great. We are much harmed by the actions of the Nemtsy. The father's and grandfather's (property-?). ... had been taken from Vymola lords, Lops (-Lapps) robbed the gyrfalcons and fishing traps...and we are...

This record was found in 1956 by the expedition led by Artemiy V. Artsikhovskiy at the Nerevsky Excavation in horizon 5 or 6 (Арциховский & Борковский 1963: 72–73). The horizon of the find was dated to 1396–1422. Already in his first publication,

Artsikhovskiy noted that this birch bark letter is the beginning of a document of no minor importance addressed to “Lord Novgorod the Great”, which is the first time that this phrase was found in a birch bark letter (Арциховский 1958: 234). Practically immediately after its publication, the text of this document attracted the attention of Igor P. Shaskol'skiy (Шаскольский 1963: 71–75). Later, many authors employed this document for studies of the history both of Karelia itself and of the relations of Novgorod with its peripheral lands.

The letter contains several points of principal importance. Firstly, it is evident that it tells us about exactly the same events that are recorded in the chronicle under the year 1396 (Шаскольский 1963: 74–75). Secondly, the text is composed by the “Pogorskaya, Kyulolaskaya, and Kyurieskaya” *Korela*, that is, representatives of certain Karelian territorial formations.

There is no doubt as to the localities of residence of the *Kyulolaskaya* and *Kyurieskaya Korela* (Kylälahti and Kurkijoki Karelians). Many authors, including I. P. Shaskol'skiy, were more hesitant to define the location of the *Pogorskaya Korela*. He proposed a hypothesis that the term of “*Korila pogorskaya*” or *pogostskaya Korela* (i.e. *Korela* from the Pogosts) implies the population of that part of Karelia which made up part of Novgorod's own territory to the same extent as the Russian localities of the Novgorod Land and the Vodian and Izhorian districts. This territory was divided into pogosts. Thus, the term of “*Korela Pogostskaya*” is used for the Karelian population occupying Novgorod's own territory (territory of Novgorod pogosts) as opposed to the Karelians living at the northern periphery of the Novgorod domains in the area between the White Sea and the Gulf of Bothnia, where the division into pogosts was absent (Шаскольский 1963: 72).

This view has not been contested later, but many scholars continued to write that the text of the birch bark document contained information about only the two pogosts of Kylälahti and Kurkijoki. This problem is of principal importance. Shaskol'skiy's hypothesis that the term of “*pogostskaya*” is a common definition for the two following proper names is at the very least strange. No written sources define the population of the north-western Ladoga region as “of pogost division” in the sense of its belonging to Great Novgorod possessions. Other definitions were used to indicate this: for instance, in the 14th century, the term “*Korela Land*” (*Korel'skaya zemlya*) was used. Besides, the document in question is an official complaint about pillage by foreign armed bands and an enumeration of damages incurred from them.

This subject is reasonable and understandable from the common point of view. Therefore, it seems quite unclear why a contraposition should exist here between the plaintiffs and the population of the remote White Sea littoral. It cannot be ruled out that this represents some kind of legal tradition in medieval document composition, but we know no other examples of such a tradition. Thus, Shaskol'skiy's hypothesis now looks rather farfetched.

In our opinion, the document under consideration is addressed by the residents of particular administrative districts. If true, the term “*Korela Pogostskaya*” (*Korela* of the Pogosts) must be considered as the population of one of these districts. There was probably an established practice of naming different groups of the Karelian population, similar to the names “*Korela Kobylitskaya*” or “*Korela Semidesyatskaya*” in some sources.

It is worth noting that localities are listed in the document from west to east, or rather from south-west to north-east, whereas the “*Kyulolaskaya*” *Korela* lived between the “*Pogost*” and “*Kyurieskaya*” (Kurkijoki) populations, in other words south-west of Kylälahti, near the town of *Korela* (Käkisalmi) – the centre of the future Voskresenskiy Gorodenskiy Pogost. Until the late 15th century, the latter settlement was called not *Korela* but “*Korelsky Gorodok*” (Town of Karelia) in Russian sources (Кирпичников 1979: 127). The “*Gorodok*” was the central settlement of the Gorodenskiy Pogost (Räisälä) – the locality lying both inside (*gorod*) and outside of the town walls. This name, due to an established rule, was extended onto the entire locality. We can suppose that birch bark letter No. 248 deals with the population of the future Gorodenskiy Pogost of the 16th century, the locality around the Korelsky Gorodok with three rather than two pogosts that existed at Ladoga at the turn of 14th and 15th centuries.

Another important point in the text of letter No. 248 is the appeal to “Lord Novgorod” by “Lords Vymoltsy”. As early as in his article of 1963, Shaskol’skiy noted that this document directly confirms the existence of the “five clans of *Karelian children* (descendants)”, known from sources of the 15th century in the White Sea region, but in the 14th century and in the main Karelian tribal territory, namely the Ladoga region. In his opinion, the “*Karelian children*”, or the Karelian population of the western Pomorye, appeared in this area due to migration (evidently during the 13th and 14th centuries) from the main Karelian tribal territory, the Karelian *pogosts* of the western Ladoga region. The Karelian migrants would have brought with them the division into five family clans; in the 15th century, the existence of these clans was probably a remnant of the more ancient centuries-long division into these clans (Шаскольский 1963: 73–74).

Later, A. A. Zaliznyak proposed reading this document as written by “*Vymoltsy gospoda*” (Lords Vymoltsy), that is, not by the entire population of the territory in question, but by the tribal nobility, which, in his opinion, is evidence of the inclusion of the local tribal elite into the system of the administrative and political rule of Novgorod in the Karelian Land (Янин & Зализняк 1986: 197). Thus, the text of birch bark letter No. 248 explicitly indicates in terms of the Russian language (the title of “lords”) the presence of Karelian tribal nobility in the late 14th century possessing considerable (on the regional scale) property in the north-western Ladoga region.

There is every reason to assume that the *Vymoltsy* are connected with the village by the name of *Viimola* (e.g. ВИМОИДР 1852: 122, “*Vymolskoi navolok*”), which is present

in written sources until the late 16th century but then disappears from them. Its exact location is not known, but according to Swedish tax registers, it was situated in the Tiurala chapelry (Immonen 1958: 89, 93, 97, 100). This means it was somewhere reasonably close to the village of Kylälahti.

In this connection, information contained in another “Karelian” birch bark document seems to be of particular significance. This is document No. 130, found in horizon 6 at the Nerevsky Excavation in Novgorod (1396–1409 AD):

From Vigar – 20 cubits of kher’ less one cubit. From Valit in Kyulolaksha – 14 cubits of kher’. From Vaivas Vayakshin – 12 cubits of vodmol and 12 and a half cubits of kher’.
From Melit in Kurola – 4 cubits of kher’. (Арциховский & Борковский 1958: 66)

Normally, the text of this document is discussed in relation with the problem of tribute relations between Novgorod and Karelia, since, as translated by Andrey A. Zaliznyak, it enumerates the tributes which must be paid in definite numbers of cubits of *kher’* or, according to A. Zaliznyak, *ser’* – grey undyed broadcloth (Янин & Зализняк 1986: 112).

The Karelian names of the tributaries are of particular interest here, as commented by E. A. Khelimskiy (Хелимский 1986: 256–258). Within the context of the present study, the most noteworthy name is “*Valit*” and the locality where this individual lived, namely “*Kyulolaksha*”. It is particularly important that the name Valit is mentioned in different sources not only as the proper name of several individuals (e.g. *Valit the Karelian*, *Ivan Feodorovich Valit*, or the *Valit* in document No. 130), but possibly also as a title indicating high social rank (see even Kuujo 1961; cf. Saarikivi 2007: 212).

Among the most ancient records mentioning rulers of Karelia is the well-known saga *Hálfðanar saga Eysteinnssonar*, the text of which has frequently been discussed due to its unique historical and geographical evidence on Northern Rus.²³ (Кочкуркина *et al.* 1996). As a source, this document is difficult to analyse and full of contradictions, since the most ancient manuscript of this saga is dated to the turn of the 14th and 15th centuries, whereas the information it contains probably relates to the 11th century and is to a great extent semilegendary.

Notwithstanding the differences in the interpretation of the saga, most researchers are united in the opinion that the toponym “*Kirjalabotnir*” (literally “Karelian

23 *Val had killed Svidi, and taken control of Kirjalabotnar. He had gotten so much gold, that it could not be counted, and he took it from the giant Svadi, who lived in the mountain called Blesanerg. That is north of Dumbshaf. Svadi was the son of the god, Thor. Val owned the sword which was called Hornhjalti; it was ornamented with gold and always hit a vulnerable spot (cit. after: Кочкуркина, Спиридонов, Джаксон 1996, English translation by George L. Hardman).*

bays”) mentioned in this text, as well as in some other old Scandinavian sources, must be considered as the original territory settled by the medieval Karelians from the coasts of the Gulf of Vyborg as far as the northern banks of Lake Ladoga indented by skerries and, probably, further eastwards as far as Lake Onega. The saga *Hálfðanar saga Eysteinnssonar* mentions a Karelian ruler or the Ruler of “Kirjalabotnir” with the characteristic name of *Val*. This personage, although possibly of a semilegendary nature, possessing considerable riches and (notably) a sword, may be ascribed to the series of records on the Karelian Valits as representatives of the local social elite.

The fact that Valits as representatives of medieval *Korela* had a special social status is confirmed by information from Novgorod chronicles. Perhaps the best known and most often cited subject concerning their activities is the relation of the events of 1337–1338 in *Korela* (Шаскольский 1987: 142).²⁴ The main participant of those events, Valit Korelyanin (Valit Karelian), had the Novgorodian title of “Voivoda” – literally “leader of military troops”.

In this connection, it seems very important to consider the tradition related to Valit recorded circa 1592 by Moscow ambassadors.²⁵ Svetlana I. Kochkurkina has noted that in the Russian State Archives of Ancient Deeds, in the collection of documents of 1614 concerned with the Russian-Danish negotiations on Lapland, there is a complete text of the legend about Valit: “Information of tribute collectors, those who visited Lapland with them, and other people who happened to visit Lapland and knew its borders, presented to the ambassador Prince Semeon of Zvenigorod and his assistants” (Кочкуркина *et al.* 1996). Especially noteworthy are the relations and energetic activities of Valit in the White Sea region, the very same area where documents of the 15th century mention the “five

24 *In the year of 6845. To Karelsky Gorodok, Nemtsy (Swedes) came with great power; in the city Valit of Korela was the voivode then, and Valit defected to the Nemtsy and yielded the city to the Nemtsy; and the Nemtsy began to rule the city. When the Novgorodians learned of this, they, with all their powers, besieged the city on June 3, and on June 8 began the assault; Valit defected to the Novgorodians and opened the city to them, On June 8, by noon, the Novgorodians seized their city and killed the Nemtsy or hanged some of them (Софийская первая летопись: 220).*

25 *Once upon a time, in Korela or Keksholm, there lived a renowned Lord named Valit, or Varent, a tributary of Novgorod the Great. He was a warrior of unusual valour and strength: he waged war, vanquished and intended to rule the Lapps or the Murman land. The Lapps applied for protection to the neighbouring Norwegian Nemtsy; but Valit defeated the Nemtsy too in the place where, even now, the summer Varengsky Pogost is situated and where he, with his own hands, placed a huge stone, over a sazhen high; he built a strong fence around it consisting of twelve walls and named it Babylon. This stone, even now, is called Valit's Stone. A similar fence existed in the place of the Kola Ostrog (fortress). There are known yet the Valitova Guba (Valit's Bay) in the Murman Land and Gorodishche Valitovo (Valit's Hillfort) in the middle of an island or high rock where the Korela Knight took rest with safety. Finally, the vanquished Nemtsy made peace with him yielding him the entire Lapland as far as the Iygey River. Glorious and blessed, Valit lived long under the Christian name of Vasili, he died and was buried in Keksholm in the Church of the Saviour; the Lapps since that time paid tributes to Novgorod and to the Moscow Tsars.*

clans of the Karelian *Children*” (ГВНП 1949, № 297, 298, 318). For the present study, it is of interest that representatives of one of these clans – the Vymoltsy – were recorded in birch bark document No. 248 several decades before the deeds of purchase of the Solovets Monastery in north-western Ladoga, and already at that time they were referred to as “*Gospoda*” (the Lords).

The name *Valit* has usually been considered Finnic (Kirkinen 1963: 153; Saarikivi 2007; cf. Korpela 2008: 152, 233). It is not clear whether the original form was *Valittu* (meaning “a chosen one”) or *Vallittu* (“one that is reigned over”), but the latter seems more probable (Saarikivi 2007:212). In any case, it seems that it was used as a proper name without any connection to the original meaning of the name.

Returning to the text of birch bark document No. 130, another interesting point is worth noting: the word “*vodmol*”, 12 cubits of which a certain *Vaivas Vayakshin* was bound to pay. According to Paul A. Ariste, the word “*vodmol*” is of Lower German origin and refers to a homespun woollen textile (see Арциховский & Борковский 1958: 67). It is tempting to interpret the existence of this rare term as another indication of relations between Kylälahti and the Hanseatic world. We do not know where *Vaivas* lived, but *Valit* was a resident of Kyulalaksha, while a certain *Melit*, mentioned last in the text, lived in Kurola – which undoubtedly refers to the village by the same name on the Kilpolansaari Island (on the location of Kurola, see Laakso 2004: 55).²⁶ According to old maps, the village was situated around eight kilometres south-east of Kylälahti. It is reasonable to suppose that *Vaivas* lived somewhere nearby.

Although it would be an extremely uncommon occurrence in the archaeology of the medieval Novgorod Land, it may well be that the male burials at the cemetery of Kylälahti also include the grave of the *Valit* mentioned in birch bark document No. 130. Indeed, the date of the document, the chronology of the cemetery, and the historical context are overlapping.

We know the name of yet another person who may have lived in Kylälahti at the end of the 14th century. It is the official scribe Filip mentioned in birch bark document No. 278:

*From Ikagal Krivets – 3 martens. From Igolay – two and in Laidikola – half a rouble and 2 martens. From Leinuy in **Laidikola** 6 squirrels. From Filip the scribe – 30 squirrels. From Zakhbaryi in **Kalinina** – twenty and 5 plus 5 squirrels. From Siduy Avinits – 4 martens. From Mikita Ivanov in **Noyja** debt principal without interest – 6 martens. From Munomel in **Kurola**, brother of Igalin, 2 and a half martens. From Leg <...> (Text after Арциховский & Борковский 1963: 104)*

26 *Melit* is another Finnic personal name (see Saarikivi 2007: 222–223).

This document was recovered from horizon 8 (1369–1382 AD). Valentin L. Yanin noted that its handwriting is identical to that of birch bark No. 286; hence this record must have been put down by Grigoriy, who was occupied with collecting tribute in Karelia (Янин 1975: 67). Kylälahti is not directly specified in the document, but three toponyms are found in this text: Landikola, Noya, and Kurola. Kurola is mentioned in document No. 130 discussed above – it was a hamlet on Kilpolansaari Island. It is probable that document No. 278, like No. 130, is a list of tribute from a number of villages of the Kurkijoki and Kylälahti Pogosts. In this case, the mention of an official scribe – a church clerk – would suggest the presence of a church.

Thus, birch bark records Nos. 130 and 278 mention not only the village of Kylälahti (directly in the first case and very possibly in the second), but also the names of particular individuals who lived there in the late 14th century when the inhumation cemetery there was in use, as well as a tributary district that is specified with the central pogost and a church. It seems that this locality included settlements on the banks of Tiurulanselkä Bay and on the nearby Kilpolansaari Island.

Thus, the complex of the written sources considered above suggests the following conclusions:

1. In the second half of the 14th century, there was a large settlement with a church in Kylälahti. A house or several houses of the village were probably located in the central part of the Kalmistomäki hill, where test trenches revealed a thick cultural layer, although the site has not yet been comprehensively excavated.

2. According to the chronicle record under the year 1396, this pogost-settlement was the central one of a tributary district.

3. Among the residents of Kylälahti of that period, a certain Valit is mentioned. The importance of the area is additionally confirmed by birch bark document No. 248, which was composed by the “Lords Vymoltsy” complaining to Lord Novgorod the Great of the plunder of the Kylälahti and Kurkijoki pogosts, suggesting that they possessed property there. A century later, the Vymoltsy are mentioned as one of “the five family clans of the Karelian children”, possessing large properties in the White Sea region (Грамоты Великого Новгорода и Пскова: № 296–298, 300–304).

In connection with the subject of the “five clans of the Karelian *children*” (ГВНИП 1949, № 297, 298, 318), a slight digression is necessary. It seems very important to locate them within the indigenous territory of Karelia. These clans were Rokultsy, Vymoltsy, Valdoltsy, Tivrultsy, and Kurotsy. The location of Rokultsy’s properties is well known – it is in the middle reaches of the Vuoksa River, in the vicinity of Räisälä (now the village of Mel’nikovo) and Hovinsaari (modern Krotovo) where the country estate of the landowner Grigoriy Rokul’skiy was located (Kuujo 1958b: 18–19; Kirkinen 1970: 69).

This settlement was investigated by A. I. Saksa in 1987–1988 (Saksa 1998: 103–

105). In the region in question, the largest concentration of archaeological sites of the Iron Age to medieval period in Karelia was recorded. One of these sites was the cemetery of Tontinmäki, the largest of its kind since recent discoveries, which has provided reference material for the study of Karelian antiquities of the corresponding period.

However, it is of considerable importance that the other four “clans” are located in the north-western Ladoga region, where the settlements of Viimola (Vymoltskiy Navolok in Kullasskaya *perevara* (ВИМОИДР 1852: 122)), Valtola (near Lake Veijalanjärvi, where in 1564 the first church was built in Hiitola), Tiurula (on the bay shore opposite Kylälahti; the church was probably built in Tiurula after its destruction in 1396 and it survived there until July of 1941), and, finally, Kurola on Kilpolansaari Island, which has been mentioned already several times above.

4. Finally, the presence of a church in the second half of the 14th century is clear evidence of control over the funerary rituals among the local residents. The burial ground of Kylälahti is a cemetery attached to the pogost and the central one in this district. Representatives of the local social elite were undoubtedly buried in the central area of the cemetery. The features of the funeral rite at the site demonstrate the features of the Christian funerary rite in this region of the Novgorod Land in the given period.

A particularly important conclusion of this study is the necessity of raising the upper chronological boundary of the period when burials were made at this site. The use of the cemetery was not limited to the 15th century, but continued to the later period. This seems very important in the context of written sources mentioning the Kylälahti parish. It is significant that it was only in the late 16th century that the centre of the parish, and, correspondingly, the location of the church seem to have been located on the opposite shore of Tiurulanselkä Bay (see even Fig. 4). The census book of the Käkisalmi Province of 1590 mentions the ‘Diurala Cappell geld’ (Tiurala chapelry, see AKH 1987: 265). However, also the census book of 1500 and the ‘Census’ of 1571 mention *Tivrola* or Tiurula as a village (in 1571, it is called ‘volasatka’ or a main village) of the Kylälahti *perevara* (ВИМОИДР 1852: 123; AM 1909: 91).

Archaeological evidence suggests that the cemetery under study continued to be used also after the church was burned, that is, during the 15th and 16th centuries. When the local administrative centre was recreated, it was located in the village of Tiurula, but this did not take place until the 16th century.

Kalmistomäki in Kylälahti may be described as a cemetery attached to a Karelian pogost centre at the north-western periphery of the Novgorod Land in the 14th century. Throughout the area in question, extremely few sites of this type are known and thoroughly investigated. Before the research of Kylälahti started, the largest site in terms of the number of burials recorded had been the cemetery of Kappelinmäki at Kauskila in Lappeenranta (SE Finland), where 143 inhumations have been documented. Of these burials, around ten can be defined as furnished (Laakso 2011: 78).

At Patja in Lapinlahti (now Ol'khovka) in the centre of the Karelian Isthmus, Ella Kivikoski excavated altogether 23 burials, including disturbed graves, in 1938. However, only four of these burials yielded artefacts. According to her calculations, by the time of the excavations a total of about 50 burials had been demolished (Kivikoski 1942; Uino 1997:310–310). The cemeteries of Kylälahti and Patja appear to be of a similar type and contemporary to each other. They were central and regularly used burial grounds intended for relatively large districts. They were in use for a period of two to three centuries. Kappelinmäki, however, is of a somewhat different character, as it was first a local cemetery and was taken into use as a Roman Catholic churchyard in the early 14th century.

The largest cemetery in terms of the number of burials recorded with various artefacts had been the burial ground of Tontinmäki at Hovinsaari in Räisälä (in the vicinity of what is now the village of Krotovo in the Priozersky District of Leningrad oblast) on the Karelian Isthmus. In 1886–1888, Theodor Schwindt excavated twenty furnished burials at this site, one of which was a cremation (Schwindt 1893: 51–81, 98, 99).

During the four seasons of archaeological fieldwork carried out in Kylälahti, 93 burials were excavated (91 inhumations and two presumed cremations). In 51 cases, diverse artefacts were found accompanying the burials: personal ornaments and costume parts. Thus, the cemetery under study is not only the largest in the given region in terms of number of burials excavated, but also the richest in terms of number of burials with artefacts.

Moreover, the site under study is exceptional also in other ways than quantitative measurements. For the first time in the funerary archaeology of Karelia, materials of the 14th and 15th centuries are so distinctly represented that they allow us to arrive at several highly significant conclusions concerning the evolution of burial rites in the region.

The funeral complexes of the previous period, the Viking Age, were open areas in which the remains from cremations – burnt bones and artefacts – were dumped for a long time, meaning that no closed associations were formed. These areas were typically covered with one or several horizons of stones. We suppose that a burial ground of exactly this type functioned on the Kalmistomäki hill during the period preceding the cemetery of the 13th to 16th centuries.

At the north-eastern edge of the area under study, the top surface of a peculiar continuous stone structure composed of small stones with traces of fire was uncovered. The excavations showed that considerable areas of this structure had been redeposited after later interments here. Many of the inhumation grave pits were dug for inhumations on the Kalmistomäki hill by means of the extraction of small stones throughout an area and depth sufficient for the grave. After the burial, the grave pit was filled with these same stones. This practice was typical to almost all the burials located in the northern section of the excavated area.

Throughout the entire excavated area of the burial ground, the characteristic overlying stone structures constructed of large boulders have been uncovered. These are closed oval structures, in most cases oriented from south-west to north-east. Along their sides, that is, along the western and eastern edges of these structures, larger stone blocks were used as grave markers. In some cases, instead of bringing marking boulders, local natural bedrock outcrops or huge boulders found in situ were employed. Before the archaeological studies at the complex in question, only individual structures of this kind had been known at some sites (Schwindt 1893: 107–108; Uino 1997: 225).

The features of the burial rite can be seen distinctly in the cemetery and have parallels in more southern regions of the Novgorod Land. These are the so-called *zhalniks* – inhumations under a small mound or, later, without a mound and with stone fences of circular, oval, or rectangular plan marking the perimeter. Burial grounds of this kind are most typical to the western regions of the Novgorod Land, Izhora Plateau, Lake Chudskoye, and the area of the Luga River (Спицын 1896). The rite recorded at Kylälahti is at least contemporary with that of the overwhelming majority of *zhalniks* in the north-western part of the Novgorod Land.

No common view has yet been established in historiography concerning the funerary tradition of this type. Four leading hypotheses can be noted. The first hypothesis links the origin of *zhalniks* to the internal evolution of the kurgan rite and the gradual rejection of the mounds with the intensification of the influence of Christianity. The second hypothesis treats *zhalniks* as the funeral rite of the local population.

The third explains their appearance by the migration of peoples from Mazovia, and according to the fourth theory, *zhalniks* were not connected to any ethnos but were the funerary sites of the Christian population (Спицын 1903: 14, 16; Третьяков 1970:

151; Седов 2000: 7–22; Valk 2012). In any case, it seems that this tradition had no single source and that, in different parts of the Novgorod Land, it had specific features that were established under the influence of the local cultural situation.

As for Karelia, the appearance of sites of this type in the 14th century was quite natural. This rite did not differ significantly from that of the previous period, as manifested by the inhumation cemeteries excavated mostly in the 1880s by T. Schvindt. It was not a radical innovation, but instead seemed to have evolved directly from the preceding tradition. In Kylälahti in the 14th century and later, the funerary rite was under the control of the church administration, the existence of which is known from the chronicle record under the year 1396 about the burning of the church and from birch bark document No. 248 – possibly also No. 278. For that reason, such a distinct standardization of the rite is found at this cemetery in contrast to more ancient sites, which manifested a striking diversity.

Unlike a considerable number of burials from the late 12th to the early 14th century, which were made (although not simultaneously) in a single pit, at the cemetery of Kylälahti, all the burials are individual except for two cases in which two deceased were possibly laid in a single pit (burials Nos. 32/33 and 57a/57b). In the overwhelming number of cases here, the remains of coffins were traced in the form of streaks or stains of decayed wood above and beneath the skeletons and along the walls of the grave pits. The interred all were positioned in an extended supine position. The hands were most commonly crossed in the thoracic or pelvic area, and the corpses were oriented from south-west to north-east with their heads to the south-west.

Furthermore, the presence of personal or clothing ornaments does not in any way indicate the “unchristian” nature of the population who made the burials. However, it is worth noting that no breast crosses or wearable icons were found in any of the graves. This seems rather strange, taking into account the general character of the site.

Two explanations for this fact can be proposed. Either the objects of personal devotion were wooden and therefore not preserved – although this is unlikely, since it is clear from the artefacts found that these people could afford objects of non-ferrous metals – or in this society there was no tradition of burying the deceased with objects of personal devotion on them. This problem remains open so far. In any case, it seems evident that we are dealing with a Christian population, the material culture of which manifests a local peculiarity derived from traditions of the previous period.

The origin of the *zhalnik* tradition should be sought outside the boundaries of Karelia. In this connection, burial grounds on the Izhora Plateau should be noted. In addition to the burial rite, an important parallel is found in this region in the peculiarities of elements of the female costume similar to those recorded in some of the burials at Kylälahti. The similarity is primarily in the presence of many-beaded temple rings and earrings.

Many-beaded temple rings are among the later objects found in burials predominantly of the *zhalnik* type. This phenomenon is due to the spread of “urban” fashion in rural districts at a time when these ornaments became very popular and commonly used in female attire. Meanwhile, although it is doubtful that many-beaded temple rings were an ethnic feature of the Votians, it should be remembered that their concentration is clearly the highest in the kurgan-zhalnik cemeteries in the central area of the Izhora Plateau.

It must be noted that temple ornaments – temple rings or earrings – were not typical to the female costume of Crusade Period Karelia known from inhumation cemeteries datable generally to the 13th century. This fact essentially distinguishes the aesthetic preferences of the population of this region from those of the more southern areas, even in the case of ethnically related peoples. The situation changes in the 14th century. In Kylälahti burials of that period, the entire set of pectoral ornaments of the earlier period is absent among the female funerary decorations (paired oval-convex brooches, a third round brooch, and smaller objects attached to them, such as chain holders and eared tubes). This complex is replaced by a culturally levelled set where temple ornaments hold a particular place. So far, we can create only a hypothetical reconstruction of the mechanism by which such a change in fashion took place.

Nonetheless, the continually increasing scope of finds of ornaments of “Karelian” types throughout the region of the Neva River and the Izhora Plateau (Kirstino, Ratchino) induces us to contemplate the problem of archaeological studies of marriage connections between the populations of these regions and Karelia. We are not dealing here with an abstract “influence of Karelian material culture”, as suggested by Alexander I. Saksa (Сакса 2008: 131), but with quite a definite manifestation of a very ancient and seemingly very stable tradition of familial-conjugal relations between the cultural regions specified. The possibilities of studies of marriage relations inside particular collectives have been convincingly demonstrated by Saksa’s investigations of the materials from the cemeteries of Kekomäki and Tontinmäki on the Karelian Isthmus (Сакса 2010: 294–295).

It is possible that the distribution of the “common Novgorodian” female attire throughout Karelia took place not as much through trade contacts or other similar connections, but mostly directly via its bearers – women from more southern regions who were married to local men. We can state the hypothesis that they were buried here in their own attire characteristic of their native locality. This social phenomenon is confirmed to some extent by finds of typical Karelian ornaments in burials outside the limits of the old Karelian territory proper: Mishkino in the southern Ladoga region, the Izhora Plateau, and even P’yan’kovo in the Kostroma Volga area (Третьяков 1931: 20; Рябинин 1997: 188–190, Fig. 50/1–3).

Another distinctive feature of the materials from the cemetery of Kylälahti is manifested in finds of Central or Northern European imports: silver ring brooches of

various types, composite pendants, a knife with silver ferrules, and clasps and finger rings of certain types. Their presence among the Karelian complexes indicates the continuation of stable tendencies in material culture that had appeared in a more ancient period, as well as the direction of external connections. The dating of a series of assemblages from the cemetery revealed no controversy in the dates compared to either Central European or Novgorod chronological scales. This fact suggests that trade in these objects was dynamic and continuous notwithstanding the political collisions in the 14th and 15th centuries.

Already in the Crusade Period, the material culture of Karelia was characterized by a certain eclecticism as artefacts or, for instance, ornamental motifs of distinctly imported origins, both western and eastern, were organically mixed with the complex of the local ornaments. Occasionally the imported forms or motifs were creatively transformed, defining the peculiarity of the local culture. The same eclecticism continued in the 14th and 15th centuries, although at this time the culture became more uniform, acquiring a common Northern European character. In this period, Karelia remained a peripheral but organic part of the Baltic world united by the Hansa.

Finally, materials from the cemetery of Kylälahti, notwithstanding the innovations in the female funerary attire and the presence of numerous imports, very distinctly demonstrate continuity from the culture of the previous period. Moreover, we can now trace its evolution dynamics. The main indication here is that of the female funerary attire.

Both in male and female burials, the collar of the funerary clothing was fixed with only a single ring-shaped brooch or a single button. Other artefacts characteristic of medieval Karelia were represented in the burials of Kylälahti. These include bispiral chain holders (burials Nos. 54 and 59), eared tubes of different types, including those unknown before (burials Nos. 30, 33, 58, and 63), a bronze ornamented knife hilt (burial No. 59), belt dividers (burials No. 33 and 59), a “heart-shaped” pendant (burial No. 61), ornamented sheath bindings, and an ear spoon (burial No. 30). The costume also retained characteristic ornaments, such as diverse metal beads and small, sewn-on bronze spirals.

The most surprising feature of the female funerary costume was the use of the above-mentioned objects not in sets of pectoral decorations, as in the previous period, but in peculiar composite belt pendants. This phenomenon is first encountered among the materials from inhumation graves of the Crusade Period to medieval times in Karelia. The transformation of the ancient Karelian costume, which took place in the 14th century, included, among other things, transferring the set of pectoral ornaments to the belt, where they were fixed by means of belt rings hanging down along the thigh parallel to the knives. In addition, objects that earlier served a practical purpose (chain holders) now became purely ornamental, terminating the set of composite belt pendants (burials Nos. 54 and 59).

The reasons for this “transference” of the sets of ornaments on the ancient Karelian

costume is a question for separate and serious future studies.

In summary, the finds from the cemetery of Kylälahti suggest that the peculiar material culture of Crusade Period Karelia was not in the least abandoned in the early 14th century. In past historiography, the burial grounds mostly excavated by T. Schvindt in the 1880s were considered as particularly Karelian. However, according to the most recent data as well as advances in dating techniques, they appear to represent a narrowly defined local and chronological phenomenon that is related only to a single stage of the evolution of the culture in question.

The evidence obtained at the cemetery of Kylälahti, considered in the context of what little data is previously known, allows us to distinguish yet another period in the existence of the distinctive material culture of Karelia from the 14th to the 15th century. However, it is quite possible that the Kylälahti material cannot be considered as representative of medieval Karelia as a whole, since the site was a *pogost* cemetery and was used by a population that was obviously very wealthy and had lively contacts with outside areas in different directions. Due to the small amounts of comparative materials from other cemeteries of the same period, it is hard to evaluate the situation in more detail. The only method that will enable us to trace in detail the processes and problems discussed above is the intensification of archaeological excavations in this region.

Hiitolan Kylälahden Kalmistomäki – vuosien 2006–2009 arkeologisten tutkimusten tuloksia

Kylälahden Kalmistomäkeä voi luonnehtia keskiaikaisen Novgorodinmaan luoteisella rajamaalla sijainneen karjalaisen pogostan keskuksen hautapaikaksi. Vastaavan tyyppisiä kohteita on päästy tutkimaan hyvin harvoin.

Laajimmin tutkittu karjalainen kalmisto on Lappeenrannan Kauskilan Kappelinmäki, josta on dokumentoitu 143 hautaa. Niistä noin kymmenessä oli esineitä. Lukuisimmin esineellisiä hautoja on tutkittu Räisälän Hovinsaaren Tontinmäellä Karjalankannaksella. Arkeologi Theodor Schvindt kaivoi siellä vuosina 1886–1888 parikymmentä esineellistä hautaa, joista yksi oli polttohauta.

Kylälähdessä tutkittiin neljän kesän aikana 93 hautaa, joista kaksi oli polttohautoja. Kaikkiaan 51 haudassa todettiin puvunomia tai muita esineitä. Käsillä oleva tutkimus käsittelee siis kalmistoa, joka on luovutetun Karjalan laajimmin tutkittu ja jossa on eniten esineellisiä hautoja.

Lukumäärien lisäksi kohteessa on merkittävää se, että ensimmäistä kertaa on päästy arkeologisesti tutkimaan tämän tyyppisiä Karjalan 1300–1400-lukujen aineistoja ja tekemään niiden pohjalta perustavanlaatuisia uusia päätelmiä muun muassa alueen hautaustapojen kehityksestä.

Kalmistomäen ruumiskalmiston käyttöä edeltävän ajanjakson, viikinkiajan, vallitseva hautatyyppi Suomessa oli polttokenntäkalmisto, jossa poltetut luut ja esineet siroteltiin maahan niin, etteivät ne useinkaan muodostaneet erotettavissa olevia yksittäisiä hautauksia. Usein tämän tyyppisissä hautapaikoissa oli myös yksi tai useampia kivikerroksia, joiden lomaan tai alle vainajien jäännökset sijoitettiin. Kaivaustutkimusten perusteella tämän tyyppinen muinaisjäännös on ollut myös Kalmistomäellä ennen 1200–1500-lukujen ruumiskalmistoa.

Tutkimusalueen koillisosasta paljastui laaja-alainen, pienehköistä palaneista kivistä muodostunut kivirakenne. Suuri osa siitä oli vaurioitunut myöhemmin ruumishautojen kuoppia kaivettaessa. Kaivausalueen pohjoisosalle oli leimallista, että ruumishaudat oli kaivettu tähän kivikkoon ja kivet muodostivat hautakuoppien täytemaan.

Koko kaivausalueella oli hautojen päällä lähellä maanpintaa suurehkoista kivistä koottuja soikeita kehämäisiä kivirakenteita, jotka noudattelivat hautakuopan ääriviivoja. Joihinkin hautoihin näytti liittyvän myös isompia pystykiviä, joilla haudan sijainti oli merkitty. Vastaavia rakenteita tunnettiin Karjalasta aiemmin vain yksittäisiä.

Kalmistomäen hautaustavat ovat Karjalassa omaleimaisia ja poikkeuksellisia, mutta niille tunnetaan vastineita Novgorodinmaan eteläisemmistä osista. Samankaltaisia zhalnik-tyyppisiä kivirakenteita tunnetaan muun muassa Inkerinmaalta. Ne ovat myös olleet käytössä samaan aikaan kuin Kalmistomäen hautapaikka.

Tämän tyyppisten hautarakenteiden alkuperästä on useita teorioita, jotka liittyvät muun muassa kristinuskon leviämiseen tai väestön tulomuuttoon. Näyttää siltä, että ilmiölle ei ole yhtä ainoaa selitystä, vaan se on omaksuttu eri alueilla eri syistä. Karjalassa se voidaan nähdä aiempien hautaustapojen kehittymisenä. Kylälahden kohdalla hautaustapaa sääteli 1300-luvulta lähtien ortodoksinen kirkko. Kirkollinen vaikutus alueella ilmenee vuoden 1396 asiakirjalähteestä sekä Novgorodin tuohikirjeestä numero 248. Siihen saattaa liittyä myös tuohikirje 278. Kylälahden hautaustapa oli tiukemman uskonnollisen kontrollin alaisena kuin syrjäisemmät kalmistot, joissa hautaustapa vaihteli enemmän.

Kahta poikkeusta (haudat 32/33 ja 57) lukuun ottamatta Kalmistomäestä puuttuvat joillekin Karjalan ristiretkiajan kalmistoille leimalliset kollektiiviset hautaukset, joissa samaan hautakuoppaan on asetettu useita vainajia. Kalmistomäen haudat oli kaivettu erillisiin kuoppiin, ja vainajat oli pantu erillisiin arkkuihin, jotka erottuivat kaivauksissa ohuina puujäännöksinä hautakuoppien sisällä. Vainajat oli laskettu selälleen lounas-koillinen-suuntaisiin hautakuoppiin siten, että pää oli kuopan lounaisosassa.

Vaikka suurin osa vainajista oli esinelöydöistä päätellen haudattu juhlapuvuissaan, hautaustapaa ei voida pitää epäkristillisenä. Samalla on huomionarvoista, että yhdessäkään haudassa ei ollut kasteritejä tai metalli-ikoneja. Tämän tyyppiset esineet ovat voineet olla puisia, jolloin ne ovat lahonneet jäljettömiin, mutta yhtä lailla on mahdollista, että tämänkaltaiset uskonnolliset esineet eivät ole kuuluneet paikalliseen hautausperinteeseen. Jälkimmäinen selitys vaikuttaa todennäköisemmältä. Kaiken kaikkiaan hautaustapa viittaa siihen, että paikalla asui kristinuskon omaksunut väestö, jonka aineellinen kulttuuri kuvastaa paikallisten perinteiden jatkuvuutta aiemmilta ajanjaksoilta.

Zhalnik-tyyppiset kivirakenteet on omaksuttu Karjalan ulkopuolelta. Tässä suhteessa erityisen merkittävä alue on Inkerinmaa. Sinne viittaavat myös muutamat Kylälahdesta tunnetut naisenpuvun elementit – erityisesti monihelmiset korva- tai ohimorenkaat. Kyse näyttää olevan muoti-ilmiön leviämisestä keskuseseuduilta kohti syrjäisempiä seutuja.

On huomionarvoista, että korva- tai ohimorenkaat eivät ole kuuluneet siihen karjalaisten naisten pukuun, joka tunnetaan aiempien ristiretkiajan hautalöytöjen perusteella. Tämä erotti Karjalan muodin eteläisempien sukulaiskansojen muodista. Nyt esille tulleen aineiston perusteella tilanne on muuttunut 1300-luvulla. Aiemmin käytössä olleet ketjulaitteet soikeine kupurasolkineen ovat Kylälahden aineistossa vaihtuneet uudenlaiseen muotiin, johon kuuluvat myös korva- tai ohimorenkaat.

Uusien vaikutteiden tulomekanismi ei ole varmasti tiedossa, mutta arkeologinen

aineisto viittaa siihen, että kyse voisi olla pitkään jatkuneista avioliittosuhteista Karjalan ja Inkerinmaan väestöjen välillä. Ajatukseen sopii myös se, että Karjalan alueelle tyypillisiä esineitä on löytynyt Inkerinmaalta ja kauempaakin Venäjältä.

Toinen Kalmistomäen erityispiirre on se, että paikalta löytyi varsin runsaasti keskiaikaisia pohjoiseurooppalaisia tuontiesineitä, esimerkiksi useita hopeisia kehäsolkia, sormuksia sekä hopeahelainen veitsi. Löydöt heijastavat alueen aiemmilta ajanjaksoilta periytyviä yhteyksiä, jotka jatkuivat vakaina 1300–1400-lukujen levottomista ajoista huolimatta.

Sekä ristiretkiajan että keskiajan Karjalan aineellista kulttuuria luonnehtii tietty monenkirjavuus. Idästä ja lännestä tuotuja esineitä ja niiden elementtejä yhdistettiin paikallista tuotantoa olleisiin perinteisiin muotoihin. 1300- ja 1400-luvuilla kulttuurin voi sanoa tiettyssä mielessä pohjoiseurooppalaistuneen, kun Itämeren piirin Hansakulttuuri ulotti vaikutuksensa myös Karjalaan.

Pohjimmiltaan Kylälahden aineisto kuitenkin kuvastaa kulttuurin selvää jatkumista ristiretkialta keskiajalle. Sen kehittyminen heijastuu ennen kaikkea naisten puvuissa.

Kylälahden aineistossa sekä miehen että naisen vaatteissa kauluksia kiinnitti kehäsolkki tai nappi. Muita kaivauksissa löytyneitä pukuun kuuluneita koruja ovat kaksoisspiraalin muotoiset ketjunktajat (haudat 54 ja 59) erityyppiset korvakeputket (haudat 30, 33, 58 ja 63), pronssikoristeinen veitsentuppi (hauta 59), hihnanjakajat (haudat 33 ja 59), sydämenmuotoinen riipushely (hauta 61), tupenhelat ja korvalusikka (hauta 30). Lisäksi pukuun kuului usein erilaisia helmiä ja pronssispiraaleja.

Yllätyksellisin piirre naisenpuvussa on se, että keskiajalla korusto ei enää muodostanut rinnalla kannettua ketjulaitetta, kuten ristiretkiajalla, vaan niin sanotut vyölliset eli vyötäröltä riippuvan kokonaisuuden. Tätä muutosta, joka tapahtui 1300-luvulla, ei aiemmin ole tutkimuksessa havaittu.

Naisen vyöllisiin kuului rengas, josta riippui erilaisia koristeita ja tarvekaluja, kuten veitsi. Aiemmin käytännön tarkoitusta palvelleet ketjunktajat muuttuivat puhtaiksi vyöllisten päätekoristeiksi (haudat 54 ja 59).

Kaiken kaikkiaan Kylälahden Kalmistomäen löydöt osoittavat, ettei ristiretkiajan karjalaisen kulttuurin omaleimaisuus hävinnyt keskiajalle tultaessa. Aineiston valossa näyttää siltä, että erityisesti 1800-luvun kalmistotutkimuksissa hahmottunut ristiretkiajan karjalainen kulttuuri edustaa pitkän kehityksen yhtä vaihetta, joka oli ajallisesti ja paikallisesti rajallisempi kuin aiemmin on ajateltu.

Kylälahden aineiston avulla on pystytty erottamaan Karjalan aineellisessa kulttuurissa ennen hahmottamaton omaleimainen vaihe, joka ajoittuu 1300- ja 1400-luvuille. On kuitenkin mahdollista, että Kylälahden aineisto ei edusta kovin laajan alueen keskiaikaista kulttuuria, sillä kyseessä oli pogostan keskuksen hautapaikka – ja sitä käytti väestö, joka selkeästi oli hyvin vauras ja jolla oli vilkkaat yhteydet eri suuntiin.

Koska samana ajanjaksona käytössä olleita kalmistoja on tutkittu vähän, hankaloittaa vertailuaineiston puute toistaiseksi asian tarkempaa pohtimista. Tämä ja monet muut Karjalan esi- ja varhaishistorian ongelmat vaativat ratketakseen lisää arkeologisia kaivauksia Laatokan Karjalassa.

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Abbreviations

AMAF – Archaeologia Medii Aevi Finlandiae

FA – Fennoscandia Archaeologica

FM – Finskt Museum

HTutk – Historiallisia Tutkimuksia

SM – Suomen museo

SMYA – Suomen Muinaismuistoyhdistyksen Aikakauskirja

MT – Muinasaja teadus

ZfA – Zeitschrift für Archäologie

ИГАИМК – Известия Государственной Академии истории материальной культуры

КСИА – Краткие сообщения Института археологии

МАР – Материалы по археологии России

МИА – Материалы и исследования по археологии

РА – Российская археология

СА – Советская археология

САИ – Свод археологических источников

ТГИМ – Труды Государственного Исторического музея

Appendix 1:

List of artefacts

MAE (Kunstkamera) RAS

Collection No.7426

Collection number	Artefact	Grave number/ context	Figure
MAE No. 7426-1	Temple ring/earring	1	14:1
MAE No. 7426-2	Bow of temple ring/earring	1	14:2
MAE No. 7426-3	Pendant	1	14:3
MAE No. 7426-4	Wire	2	16:1
MAE No. 7426-5	Wire	2	16:2
MAE No. 7426-6	Temple ring/earring	3	18:1
MAE No. 7426-7	Temple ring/earring	3	18:2
MAE No. 7426-8	Bead	3	18:4
MAE No. 7426-9	Finger ring	3	18:3
MAE No. 7426-10	Knife	3	18:5
MAE No. 7426-11	Brooch	7	22:1
MAE No. 7426-12	Bead	7	22:2
MAE No. 7426-13/1-2	Knife, blade	7	22:3
MAE No. 7426-14	Spirals with textile	7	22:4
MAE No. 7426-15	Brooch	8	24:1
MAE No. 7426-16	Button	8	24:2
MAE No. 7426-17/1-3	Knife	8	24:6
MAE No. 7426-18	Spirals with textile	8	24:3
MAE No. 7426-19	Spirals with textile	8	24:4
MAE No. 7426-20/1-16	Belt set	8	25
MAE No. 7426-21	Small rivet	8	24:5
MAE No. 7426-22	Fragment of earring (?)	9	27
MAE No. 7426-23	Pendant	12	31:1
MAE No. 7426-24	Pendant	12	31:2
MAE No. 7426-25	Bead	12	31:3

Collection number	Artefact	Grave number/ context	Figure
MAE No. 7426-26	Temple ring/earring	13	34:1
MAE No. 7426-27	Temple ring/earring	13	34:2
MAE No. 7426-28	Pendant	13	34:3
MAE No. 7426-29	Finger ring	13	34:5
MAE No. 7426-30	Button	13	34:4
MAE No. 7426-31	Belt pendant	13	34:6
MAE No. 7426-32	Needle box (?)	13	34:7
MAE No. 7426-33	Knife	13	35
MAE No. 7426-34/1-3	Fragment of sheath	13	-
MAE No. 7426-35	Weight	13	34:8
MAE No. 7426-36	Spirals with textile	13	-
MAE No. 7426-37	Spirals with textile	13	-
MAE No. 7426-38	Belt buckle	16	40:1
MAE No. 7426-39	Belt ring	16	40:2
MAE No. 7426-40	Belt ring	16	40:3
MAE No. 7426-41	Button	19	41:1
MAE No. 7426-42	Button	19	41:2
MAE No. 7426-43	Fire steel	23	44:2
MAE No. 7426-44	Fragment of knife blade	23	44:1
MAE No. 7426-45	Wire	23	44:3
MAE No. 7426-46	Fragment of button	29 (fill)	-
MAE No. 7426-47	Belt ring	29 (fill)	-
MAE No. 7426-48	Temple ring/earring	30	49:1
MAE No. 7426-49	Temple ring/earring	30	49:2
MAE No. 7426-50	Button	30	49:4
MAE No. 7426-51	Finger ring	30	49:3
MAE No. 7426-52	Button	30	-
MAE No. 7426-53	Belt pendant	30	52:1, 2
MAE No. 7426-54	Knife	30	52:3
MAE No. 7426-55	Sheath	30	52:4
MAE No. 7426-56/1, 2	Ear spoon	30	52:5
MAE No. 7426-57/1	Bag	30	51:1
MAE No. 7426-57/2	Case	30	51:2
MAE No. 7426-58	Brooch	31	54:1
MAE No. 7426-59	Button	31	54:2
MAE No. 7426-60	Finger ring	31	54:3

Collection number	Artefact	Grave number/ context	Figure
MAE No. 7426-61	Knife	31	54:4
MAE No. 7426-62	Spirals with textile	31	54:5
MAE No. 7426-63	Bead	32	56
MAE No. 7426-64	Finger ring	33	57:1
MAE No. 7426-65	Strap divider	33	57:2
MAE No. 7426-66	Weight or spindle wheel	33	57:3
MAE No. 7426-67/1	Eared tube	33	57:4
MAE No. 7426-67/2	Needle box	33	57:5
MAE No. 7426-68/1, 2	Knife	33	57:6
MAE No. 7426-69	Temple ring/earring	34	60:1
MAE No. 7426-70	Temple ring/earring	34	60:2
MAE No. 7426-71	Button	34	60:4
MAE No. 7426-72/1	Buckle, loop	34	60:3
MAE No. 7426-72/2	Buckle, hook	34	60:3
MAE No. 7426-73	Novgorod coin	36	63
MAE No. 7426-74	Button	37	65:1
MAE No. 7426-75	Fragment of bead	37	65:2
MAE No. 7426-76	Finger ring	38	67:1
MAE No. 7426-77	Knife	38	67:2
MAE No. 7426-78	Sheath fittings	38	67:3
MAE No. 7426-79	Belt buckle	39	68:1
MAE No. 7426-80	Button	39	68:3
MAE No. 7426-81	Knife	39	68:4
MAE No. 7426-82	Belt ring	39	68:2
MAE No. 7426-83	Needle	39	68:5
MAE No. 7426-84	Needle	39	68:6
MAE No. 7426-85	Knife	44	-
MAE No. 7426-86/1-5	Belt set	46	73
MAE No. 7426-87	Knife with fragments of handle and sheath	46	74:1, 2
MAE No. 7426-88	Bag	46	74:3
MAE No. 7426-89	Flint flake	46	74:4
MAE No. 7426-90	Knife	49	77
MAE No. 7426-91	Earring	50	80
MAE No. 7426-92	Knife	53	84:4
MAE No. 7426-93/1	Case for brush (belt decoration)	53	84:2

Collection number	Artefact	Grave number/ context	Figure
MAE No. 7426-93/2	Rope with needle	53	84:3
MAE No. 7426-94	Bead (button-?)	53	84:1
MAE No. 7426-95	Temple ring/earring	54	87:1
MAE No. 7426-96	Temple ring/earring	54	87:2
MAE No. 7426-97	Bead	54	87:3
MAE No. 7426-98	Strap divider	54	87:5a
MAE No. 7426-99	Point of a wooden object	54	87:4
MAE No. 7426-100/1-3	Belt pendants	54	87:5b, c
MAE No. 7426-101	Belt fitting	54	87:5d
MAE No. 7426-102	Zoomorphic pendant	54	87:5f
MAE No. 7426-103	Belt loop	54	87:5e
MAE No. 7426-104	Finger ring	55	89
MAE No. 7426-105	Knife	57a	92:1
MAE No. 7426-106	Fire steel	57a	92:2
MAE No. 7426-107	Button	57a	92:3
MAE No. 7426-108	Finger ring	57b	93:1
MAE No. 7426-109	Spirals with textile	57b	93:2
MAE No. 7426-110	Spirals with textile	57b	93:3
MAE No. 7426-111	Strap divider (?)	58	95:1
MAE No. 7426-112/1	Eared tube	58	95:2
MAE No. 7426-112/2	Eared tube	58	95:3
MAE No. 7426-112/3	Bead	58	95:3
MAE No. 7426-112/4	Bead	58	95:3
MAE No. 7426-113	Button	58	95:4
MAE No. 7426-114	Finger ring	59	99:1
MAE No. 7426-115	Bead	59	99:4
MAE No. 7426-116	Strap divider	59	100:1
MAE No. 7426-117	Belt pendant	59	100:2
MAE No. 7426-118	Belt pendant	59	100:3
MAE No. 7426-119	Strap divider	59	99:3
MAE No. 7426-120	Needle box	59	99:2
MAE No. 7426-121	Knife with bronze handle	59	101
MAE No. 7426-122	Sheath fittings	59	101:1
MAE No. 7426-123	Spirals with textile	59	99:5
MAE No. 7426-124	Weight	59	99:6
MAE No. 7426-125	Strap divider	61	103:1

Collection number	Artefact	Grave number/ context	Figure
MAE No. 7426-126	Needle	61	103:2
MAE No. 7426-127	Needle	61	103:3
MAE No. 7426-128	Spirals with textile	61	103:4
MAE No. 7426-129	Spirals with textile	61	103:5
MAE No. 7426-130	"Heart-shaped" pendant	61	103:6
MAE No. 7426-131	Knife	61	103:7
MAE No. 7426-132/1	Eared tube	63	105:1a
MAE No. 7426-132/2	Finger ring	63	105:1b
MAE No. 7426-133	Bead	63	105:2
MAE No. 7426-134	Bead	63	105:3
MAE No. 7426-135	Brooch	64	107:1
MAE No. 7426-136	Strap divider	64	107:2
MAE No. 7426-137	Spirals with textile	64	107:3
MAE No. 7426-138	Spirals with textile	64	107:4
MAE No. 7426-139	Knife	64	107:5
MAE No. 7426-140	Knife	65	109:1
MAE No. 7426-141	Fire steel	65	109:2
MAE No. 7426-142	Pocket	65	109:3
MAE No. 7426-143/1	Icon	67	110:1, 2
MAE No. 7426-143/2	Hook	67	110:1, 3
MAE No. 7426-144	Knife	67	111:1
MAE No. 7426-145	Spirals with textile	67	111:2
MAE No. 7426-146	Spirals with textile	67	111:3
MAE No. 7426-147	Belt fitting (?)	67	111:4
MAE No. 7426-148	Bead	67	111:5
MAE No. 7426-149	Bead	67	111:6
MAE No. 7426-150	Bead	68	-
MAE No. 7426-151	Button	71	114
MAE No. 7426-152	Brooch	80	119
MAE No. 7426-153	Earring	82	121
MAE No. 7426-154	Bead	83	-
MAE No. 7426-155	Spirals with textile	83	-
MAE No. 7426-156	Knife	84	124:1
MAE No. 7426-157	Belt buckle	84	124:2
MAE No. 7426-158	Button	85	125
MAE No. 7426-159	Button	86	-

Collection number	Artefact	Grave number/ context	Figure
MAE No. 7426-160	Brooch	88	129
MAE No. 7426-161	Knife	89	-
MAE No. 7426-162	Temple ring/earring	90	131:1
MAE No. 7426-163	Temple ring/earring	90	131:2
MAE No. 7426-164	Finger ring	90	131:3
MAE No. 7426-165/1	Knife	90	131:4
MAE No. 7426-166/1-6	Sheath	90	131:5
MAE No. 7426-167	Button	91	132:2
MAE No. 7426-168	Needle box	91	132:1
MAE No. 7426-169	Weight	Mixed layer or fill	137:13
MAE No. 7426-170	Glass bead	Mixed layer or fill	137:1
MAE No. 7426-171	Glass bead	Mixed layer or fill	137:2
MAE No. 7426-172	Glass bead	Mixed layer or fill	137:3
MAE No. 7426-173	Glass bead	Mixed layer or fill	137:4
MAE No. 7426-174	Brooch	Mixed layer or fill	137:14
MAE No. 7426-175	Pendant	Mixed layer or fill	137:11
MAE No. 7426-176	Pendant	Mixed layer or fill	-
MAE No. 7426-177	Finger ring	Mixed layer or fill	-
MAE No. 7426-178	Bow of temple ring/earring	Mixed layer or fill	-
MAE No. 7426-179	Fire steel	Mixed layer or fill	137:16
MAE No. 7426-180	Arrowhead	Mixed layer or fill	137:17
MAE No. 7426-181	Glass bead	Mixed layer or fill	137:5
MAE No. 7426-182	Glass bead	Mixed layer or fill	137:6
MAE No. 7426-183	Glass bead	Mixed layer or fill	137:7
MAE No. 7426-184	Glass bead	Mixed layer or fill	137:8
MAE No. 7426-185	Glass bead	Mixed layer or fill	137:9
MAE No. 7426-186	Crystal bead	Mixed layer or fill	137:10
MAE No. 7426-187	Button	Mixed layer or fill	-
MAE No. 7426-188	Belt buckle	Mixed layer or fill	137:15
MAE No. 7426-189	Pin	Mixed layer or fill	-
MAE No. 7426-190	Belt buckle	Mixed layer or fill	137:12
MAE No. 7426-191	Eared tube	Mixed layer or fill	-
MAE No. 7426-192	Knife with handle	Mixed layer or fill	137:18
MAE No. 7426-189	Pin	Mixed layer or fill	-
MAE No. 7426-190	Belt buckle	Mixed layer or fill	137:12
MAE No. 7426-191	Eared tube	Mixed layer or fill	-
MAE No. 7426-192	Knife with handle	Mixed layer or fill	137:18

Appendix 2:

The leather finds of Kylälahti (by Aleksandr Kurbatov)

Description of the finds

During the excavations of 2007, graves were uncovered at the cemetery containing organic remains near the lower extremities of the skeletons. These remains were most completely preserved in burials No. 13 and No. 20.

The organic remains mentioned above were extracted in one piece and examined later in the laboratories of the MAE. During the cleaning of the bones of the lower extremities on which the remains of leather objects (presumably footwear) were preserved, considerable amounts of plant roots were noted. They pierced the thickness of the partly decayed leather. During the cleaning of the leather parts, some pieces of the leather were separated from the main parts, as they had been completely decayed. In this process, care was taken to ensure the maximum preservation of the original form and edges with the seams. Following this principle, parts of assemblages from burials No. 13 and No. 20 were washed out. In burial No. 20, the leather parts were best preserved, enabling us to provide a description of the artefacts. Moreover, the manufacture of these objects can be tentatively dated on the basis of our present-day knowledge about the products of leather tanning found in archaeological complexes of Russian medieval cities (see Курбатов 2012a).

It appears that all of the objects

Figure 1.
Burial No. 20.
Fragment of a
boot top.





Figure 2.
Burial No. 20.
Back half of a
boot top.

retrieved by washing out the lower extremities of the bodies interred in flat-grave burials in the cemetery of Kylälahti Kalmistomäki were parts of footwear. Moreover, all of them represent the same kind of footwear, namely high boots.

Material

The hides of domestic animals were used as raw materials for making leather for boots. The hides of small and large horned cattle (SHC and LHC) have been identified in the outer leather surface finish. The method of visually identifying leather finds from excavations by animal species has been practised through a series of archaeological collections (Курбатов 2004: 35–37; Осипов 2006: 34). The hides of SHC (sheep and goats) were used to make two fragments of boot tops from burial No. 13, a small fragment of a boot top from burial No. 20 (Fig. 1), and a pad for a boot back. All other parts of the footwear were cut from the hides of LHC. As a significant example, we can note the back half of a boot top from burial No. 20 (Fig. 2). There, the finish of the face surface of an LHC hide is distinctly seen. The thickness of all the fragments found here varies from 1.0 mm to 1.5 mm.

All these leather parts were tanned using organic infusions, as suggested by

the dark brown colour both of the surfaces (inner and outer) of the leather and its core layers. It seems that the tanning was of high quality, reaching all the layers of the leather. In addition, on the larger fragments of boot tops, secondary treating of the leather by impression (threaded leather) is distinctly visible (Fig. 2).

Design

All the leather parts belong to the so-called 'rigid' design of high boots, which is marked with: 1) fixation of the sole to the top by a concealed seam, 2) the presence of additional inner parts that make the footwear more compact and rigid by protecting the foot reliably against external tensions. A schematic construction, its assembly, and an outer view of the footwear can be demonstrated by reconstructions of the artefacts from the Ivangorod fortress dated from the 15th century to the first half of the 16th century (Курбатов 1991, Fig. 1; 2004, Fig. 152). In burial No. 20, fragments of the top of a shoe vamp are preserved with the complete two-part underlining. On the vamp, which had relatively short lateral ledges (flaps), there is a distinctly discernible tip

Figure 3.
Burial No. 20. Upper
edge of the back half of
a boot top.



on the edge of the instep. The surface of the vamp is thickly covered with cross-hatching (with a step of 1.5 mm), which was a popular type of decorative finish for high boots at the time.

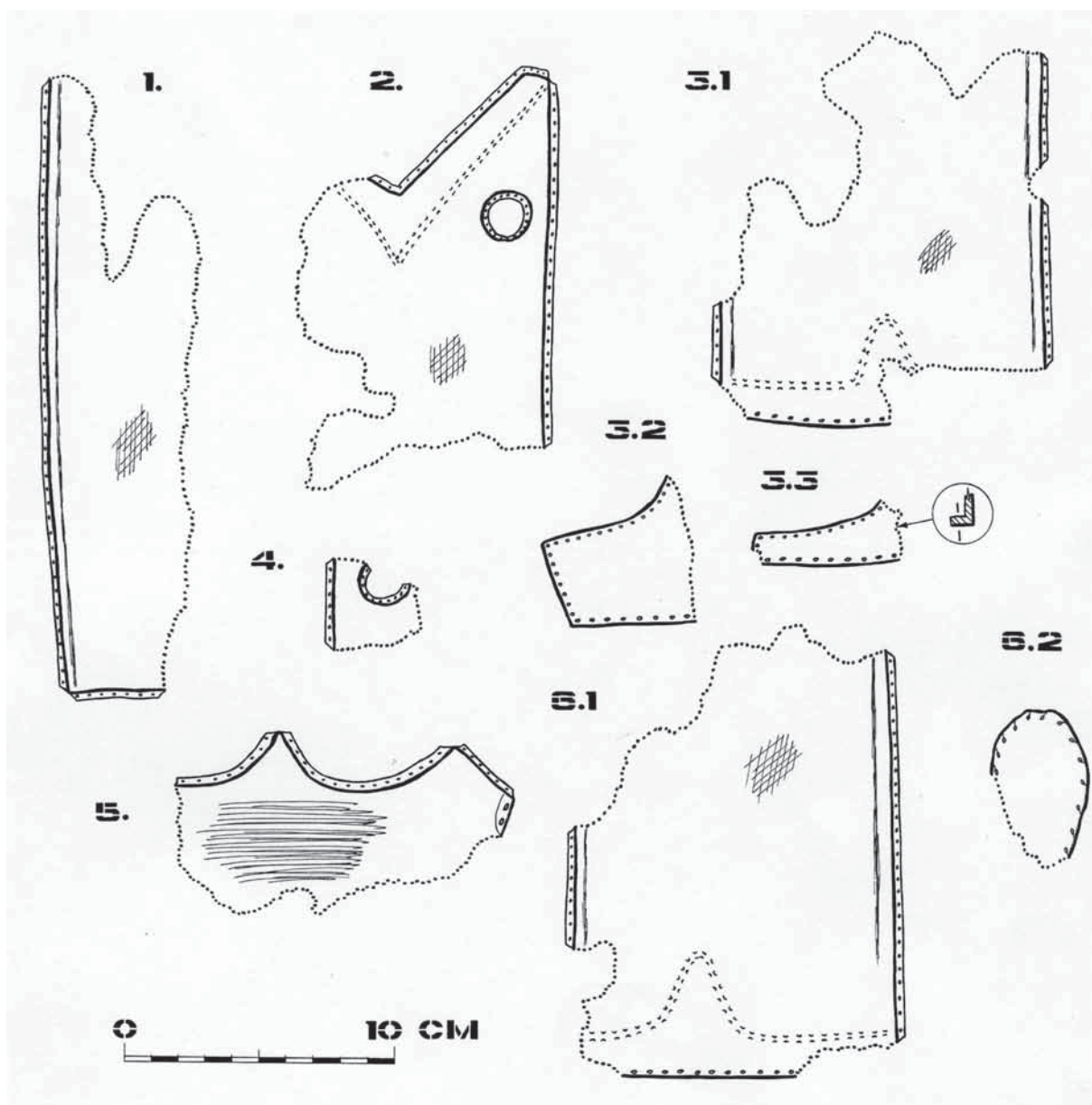
The tops of the boots were relatively low, apparently not reaching the knees. In contrast to the majority of known designs of high boots at the time in question, the objects from the cemetery of Kylälahti had no separately cut parts at the back. The back parts of the boot tops preserved in burial No. 20 appear to have been cut as a single part with the boot back. Externally it looked like a peculiar feature on the outside of the boot top (Fig. 2). On the inside of these boot tops were inner parts sewn onto them (pockets). They had a distinctive tip in the middle of the upper edge and narrow inserts in them. On one of the boot tops, an additional compacting strap was sewn to the pocket (Fig. 4: 6.2). The pockets are peculiar in their low proportions.

Another characteristic feature of these boot tops is the considerable slant of their upper part from the shin towards the calf. This edge was bordered with a narrow strip of leather. It was sometimes partly preserved, but in other cases its presence was indicated by an overstitched seam on the upper edge of the boot top and a 'blind' seam running on the outer leather surface along this edge, 1–1.5 cm below it. In addition, near the upper edge of the back half of a boot top were preserved round cuts about 1.5 cm in diameter with a narrow strip of leather sewn into them (Fig. 3). According to recent studies (Курбатов 2012b: 164), these cuts on the boot tops served for purely utilitarian purposes, namely to make it easier to pull the narrow boots on the owner's legs. On the boot tops, another peculiar decoration has been noted in the form of a narrow (1.5–2 mm) band stamped with a blunt hot steel tool 4–5 mm from the lateral edge (Fig. 4: 1, 3.1, 6.1).

The soles of the footwear from the burials were not preserved, but their original presence is marked by finds of small iron nails that were driven into the soles in the area of the heel along the edge of the footwear.

Analogue and dating

The fragments of high boots described above belong to a peculiar type of footwear in terms of their characteristic structural features. This type was taken into use in Russian towns at the turn of the 15th and 16th centuries. The most representative assemblages of this type have been discovered in the Ivangorod Fortress and Pskov (Курбатов 1997; 2008). These collections are characterized by an important advantage as compared to others, namely the fact that they enable dating the boots to a fairly narrow chronological span within the first half of the 16th century. The combination of such features as the low pocket at the back, the rounded cuts in the upper part of the boot tops, the decorative hatching of the vamps, and



the presence of a complete two-part underlining indicate that burial No. 20 dates from an even more closely defined period, the first quarter of the 16th century.

The date proposed here is based on interdisciplinary studies of a series of collections of archaeological finds from excavations of Russian medieval towns, primarily in north-western Russia. The archaeological evidence was compared with written sources and artistic and ethnographic material. However, some explanations and additional background for the aforementioned conclusions are needed, as in a number of archaeological studies, high boots with a similar cut and assembling technique are dated to the 14th, 15th, or 16th century. For instance, in recent works, a child's high boot from

Figure 4.
Burials No. 13 and
20. Fragments of
the boots.

excavations at the Ivanovskaya Square in the Moscow Kremlin was dated by the 15th-century layer in which it was found (Осипов 2006: 46, Fig. 68). During investigations of the rural settlement of Veozhi (Vezhi) on the Volga near Kostroma, where organic materials were remarkably well preserved, high boots with transversal impression and hatching on the leather were dated to the 14th century (Кабатов 2006: 75–76). Among the earlier research, of note is a study by S.A. Izyumova concerned with tanning manufacture in medieval Novgorod. This work may now be quite justifiably called a classic, since it has constituted almost in full the corresponding chapters in the volumes of the series ‘Археология СССР’ (*Archaeology of USSR*) dedicated to studies of Old Russian towns (Колчин 1985: 269–270; Рыбина 1997: 46–47; Сабурова 1997: 103–106) and is frequently cited in works of other scholars. In S.A. Izyumova’s article, high boots with a transversal impression on the vamp are dated to the 15th–16th centuries, while the rigid soles of high boots fixed with iron nails and tips appeared already as early as the 14th century (Изыумова 1959: 210, 214). In the work by E.I. Oyateva on the footwear of medieval Pskov, high boots with impressions are also dated to the 15th–16th centuries (Оятева 1962: 87). Footwear from Moscow, Ryazan and other towns was similarly dated (Рабинович 1964, рис. 45: 8, 9; Оятева 1974: 189–192).

For an independent confirmation of the dating of the archaeological finds of high boots from the cemetery of Kylälahti Kalmistomäki, we can look to the representation of high boots on the bronze relief figure of Master Abraham fixed to the Korsun gate of the Novgorod Saint Sophia temple. Studying the history of the gate itself, as well as stylistic, compositional and other features of the figures represented on it, in combination with palaeographic peculiarities of the inscriptions, led scholars in the first half of the 20th century to the conclusion that the figure of ‘Master Abraham’ was installed in the second quarter of the 15th century (Анисимов 1928: 173–186; Бочаров 1996: 116–117).

Examination of the gate, in the process of its restoration in 1980, enabled researchers to confirm the date proposed for the figure of ‘Master Abraham’. Thus, A.V. Ryndina concluded that ‘*Master Abraham* worked in Novgorod in the second third of the 15th century’. She based her opinion on documentary reports about the building activities of the Novgorod archbishop Evfimiy II in the second quarter of the 15th century. She also noted that the designs on the figure of Abraham (the shape of his cross, his clothes and footwear) cannot be considered as precise dating indications because, judging by archaeological and artistic materials, they ‘were traditional, occurring in Novgorod in the 14th and 15th centuries and even in later periods’. She based this statement on the opinion of E.K. Kublo, the curator of the archaeological collection at the Novgorod museum. The latter held that the ‘high boots with impression, in which Abraham was represented, were popular in Novgorod from the second half of the 14th to the 15th century’ (Рындина 1996: 258–266).

Subsequently, a careful analysis of the data obtained during studies of the restorers

in 1980, in combination with new assemblages of archaeological finds, have enabled A.V. Kurbatov to propose a later date of execution for the figure of 'Master Abraham', namely the first quarter of the 16th century (Курбатов 2004: 170–173). Recently, this hypothesis has been confirmed to some extent, although not reliably enough (Осипов 2014: 65).

Another piece of evidence in favour of the presented dating of the high boots from the cemetery of Kylälahti is demonstrated by leather objects from the excavation areas of Petrovskoye VIII and Petrovskoye IX in Pskov (Курбатов 2008: 210 ff.). Here, high boots with transversally hatched vamps were found in the complex of a footwear and glove workshop functioning at the very turn of the 15th and 16th centuries and in the first quarter of the 16th century. This dating was based on the combined comparison of these finds with the characteristics of footwear in Russian towns of the 15th to 16th centuries and the specific footwear of northern peoples. These artefacts were considered against the background of political events in Pskov, as reconstructed through written sources.

According to our identifications, the types of high boots from the burials of Kylälahti reflect new trends in leatherworking in medieval Russia during the period of establishing the centralized Muscovite state in the last quarter of the 15th century. These trends were related both to the making of the leather itself and changes in the construction and appearance of the footwear. At the turn of the 15th and 16th centuries, new models of high boots appeared. They represented an advanced type of the 'rigid' construction of footwear (Курбатов 2012: 25–26). Along with the main parts, this type of high boot construction included certain additional features (inner and intermediate). Three independent parts of the construction are worth noting: 1) vamps with underlining; 2) the set of the boot back including an outer detail (which is called the 'back' proper) and a number of inner leather pads (one or several), birch bark or wooden inserts and the pocket of the back attaching them to the outer part; 3) the sole with a set of under-heel linings; 4) the top of the boot sewn together from two halves. All the parts of this footwear are assembled independently before the model is finally sewn together.

The construction of high boots of this kind and their assembly sequence (Figure 1) are described in a number of works (Курбатов 1991: 71–77; 2008: 219–223). They have been identified in a number of collections of footwear from the first half of the 16th century from different towns in the European part of Russia (Осипов 2006; 2014; Андрианова, Фёдоров 2012: 82–91).

Leather case from burial No. 30

Burial No. 30, one of the richest burials in the cemetery under study, contained an assemblage consisting of a composite belt pendant with a leather case on its end (Бельский 2012: 61–63, 158–159). Inside the case there was a small bag made of a twill textile conforming



Figure 5.
Burial No. 30.
The case.

to the shape of the case. The bag was sewn with a thread in a loop stitch through the edge on the sides and the bottom. It was not attached to the leather case. The case was nearly triangular in shape and had a high, elongated throat (Fig. 5: 1–2). It is of note that neither the upper nor the lower openings of the case were sewn through. It remains unclear how the case was attached to the leather cord of the belt pendant. On the surface of this artefact, an impressed ornamentation can be discerned, possibly indicating the West European origin of the leather itself.

Along the edges of the case run two rows of small open-ended holes, seemingly the remains of a sewn fastening. After restoration, it became clear that on the rear side of this leather artefact, threads of embroidery and traces of a grey powdered material were preserved. The details found during the cleaning of the leather case suggest that it was embroidered with seed beads or bugle beads. Its lower edge was decorated with a double-threaded cord sewn onto the leather. No complete parallels of this artefact have been discovered. In terms of its shape, it most closely resembles cases for spoons and scissors from Novgorod and Tver (Варфоломеева 1999: 3–5; Матехина 2009a: 156 ff; 2009b: 17; Курбатов 2004: 54, рис. 125: 4).

Finds of leather footwear in the in-ground burials of the cemetery of Kylälahti Kalmistomäki expand the circle of archaeological sources on burial rites throughout the territory of medieval Russia.

1. Parts of leather footwear demonstrate a peculiar design of high boots used in Russian towns since the turn of 15th and 16th centuries and during the entire first half of the 16th century. The combination of a number of construction features enables us to date the boots from burial No. 20 to an even narrower period, namely the first quarter of the 16th century.

2. The cemetery burials, characterized by a set of peculiar funerary traditions, suggest that we are dealing here with the place of eternal repose of the residents of a rural settlement (or settlements) who were bearers of the old Karelian culture. This culture preserved its ethno-cultural features until the epoch of the Muscovite Tsardom. Here we can see the tradition of providing the interred with high-quality footwear for everyday use – possibly the very boots that they had worn in life.

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