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KIRIKUMÄGI AT SIKSÄLÄ: EVIDENCE OF A NEW GRAVE FORM IN SOUTH-EASTERN ESTONIA?

The article discusses the excavation results of Late Iron Age cemetery on Kirikumägi at Siksälä, south-easternmost corner of Estonia. On the basis of analysis of cremated bones and the context of their location the presence of a new grave form – flat-ground cremation burials with unfurnished cremains poured or dispersed on burial plots deepened into the ground and later levelled – is suggested. The article also presents the results of analysis of cremains from Kirikumägi at Siksälä.

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Finding place and context

The archaeological complex of Siksälä (Laul & Valk 2007) is located in the south-easternmost corner of Estonia, 2–3 km south of Misso village, ca. 7 km west of the present-day Estonian–Russian border and 3–4 km north of the Estonian–Latvian border. The complex consists of several monuments, including two cemeteries called Kalmetemägi (Graves' Hill) and Kirikumägi (Church Hill) which are located at the ends of the same oblong ridge.

The cemetery on Kalmetemägi, mainly from the 11th–15th centuries, was investigated in the extent of ca. 80% in 1980–1993, whereby 242 inhumation graves with 253 burials, and 27 cremation burials were studied (Heapost 2007, table 1; Laul & Valk 2007, 29–80). In the further analysis of the scattered material from cremation graves, regarded formerly as stray finds, 11 additional cremations have been distinguished.

The first excavations on Kirikumägi, a hill with the height of ca. 6 m between Lake Hino and Lake Mustjärv (Fig. 1) took place in 2003 (Valk 2004), in order to verify or disprove the former presence of the chapel, reflected in oral tradition, and of the suggested medieval cemetery. In the course of these works a 100 m long and 40 cm wide trench was dug along the hilltop (Fig. 2). The trench was divided into 1-metre long units, the numeration of which started from the west.



Fig. 1. A view of Kirikumägi at Siksälä from the north.

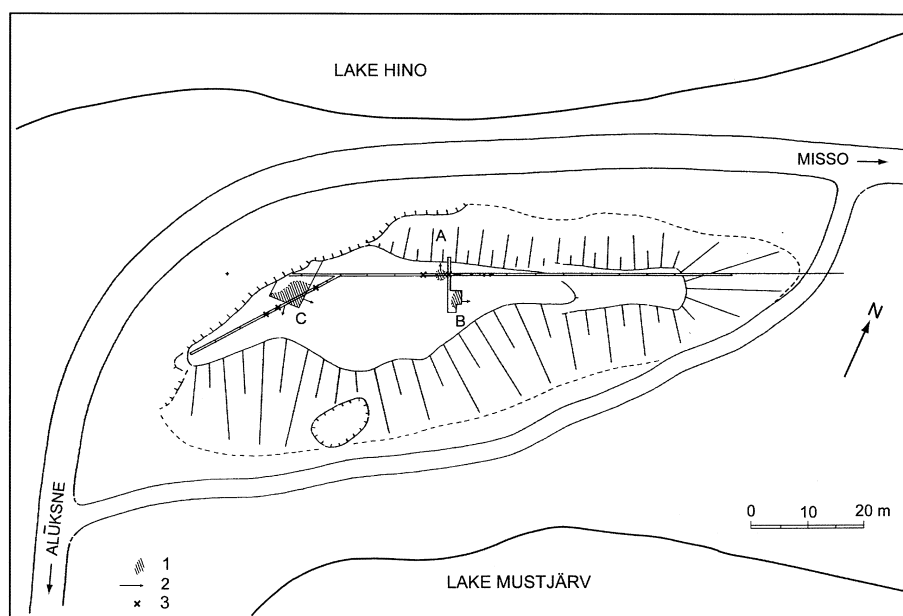


Fig. 2. Cremation graves on Kirikumägi at Siksälä. 1 concentration areas of cremated bones (A, B, C), 2 continuation direction of cremains, 3 single dispersed fragments of cremains.

The investigations were continued in 2004 (Valk 2005) with the aim to study and date the discovered chapel site and cemetery. During these excavations a ca. 35 m² area, cut by the trial trenches, was opened in the southern part of the hill. In both years, especially in 2003, also some fragments of cremated bones were found from three areas, designated as A, B and C – two in the central and one in the south-western part of the hill (Fig. 2). Between these areas, likewise in the north-eastern part of Kirikumägi, almost no cremation remains were discovered.

In 2007 additional excavations were made in area A, in order to study the whole bone assemblage which was cut by the trench in 2003 and which was first interpreted as a pit-grave cremation (Valk 2004, 125). For that purpose, the formerly studied 2 m long part of the trench with cremated bones was extended in both directions for 0.5 m (to get more space for digging, also the filled trench was emptied again). Thus, in all, 2.8 m² was studied at the spot. The earth was dug by 10 cm thick layers. In 2003, the area where bones were found in the trench was regarded as one stratigraphic unit which was dug by horizontal layers. In 2007, the bones were collected by squares of 0.25 m² (the system was based on the general squares' system used in 2003) and by 10 cm layers. To find all the bone fragments, the ground was sieved.

In total 69 different bone assemblages, based mainly on 1 m long parts of the trench or 1 m² squares of the excavation plot of 2004, all of 10 cm thickness, were collected for analysis from Kirikumägi. In reality there existed, however, no distinct borders between the separately analysed assemblages: borders are only conventional, conditioned by the methodology of picking up bones.

Distribution of cremated bones

The first area of cremated bones (Fig. 2, A) where altogether 1184.9 g bone fragments were found (862.9 g in 2003 and 322 g in 2007) formed a 1.7 m long section of the trench. Some dispersed bone fragments which probably belonged together with them were gained also from the neighbouring square in the north-east (C/50; 5.4 g), and from squares located 0.5–1.5 m (G/ 47; 1.5 g) and 3.5–4.5 m (G/44; 0.9 g) to the south-west from the edge of the main concentration area (Fig. 2, A: 3).

The second concentration area (Fig. 2, B) was ca. 5–6 m south-east of area A, in the excavation plot added to the main trench in 2003 (squares H/51 and H/52). Here 70.9 g of bones were found. The finds were from the area with the diameter of 1.5–2 m but their occurrence seemed to continue out of the excavation plot. The bones, partly disturbed by 17th–18th cc. inhumations, were found from disturbed ground in the depth of up to 40 cm.

The third area (Fig. 2, C) lay in the western part of the plateau. Here dispersed fragments of cremated bones were located mainly in an area of 13 m², but the distribution area of bones continued to the east and to the south of the excavation plot. Some rare fragments were found also in the distance of until 2 m towards the north from the main concentration area of bones. Most of the finds came from

the depth of 20–40 cm. The area of their highest concentration was partly disturbed with inhumation burials dating to the 17th–18th centuries. In squares not disturbed by later graves, cremated bones were found mainly in the depth of 40–60 cm from the ground, but in the pits of later graves they occurred also deeper. In peripheral parts of the area with rare cremation remains intact, natural sand appeared already in the depth of 35–40 cm. In all, 75.3 g cremated bones were found in area C. Some rare bone fragments were found also up to 5 m to the north-east and south-west of the excavation plot of 2004, from the trench of 2003 (Fig. 2, C: 3).

Analysis of bones

The total weight of the cremated bones collected from Kirikumägi at Siksälä in 2003, 2004 and 2007 (69 assemblages / analysed units) was 1361.9 g.¹ The weight of these units was from 0.1 g until 632.5 g. The number of these assemblages which contained bone fragments with determinable value was limited. The weight of the bone assemblages where the age and sex of buried people could be determined varied between 5 g and 632.5 g (Table 1). The determinable value of

Table 1. Bone assemblages with remains of determined individuals on Kirikumägi at Siksälä

Area	No. of assemblage	Square	Depth	Colour	Petrous parts of temporal bones	Sex	Age (years)	Weight (g)
A	1	48–49 C/D	–50–55 cm	Light, yellowish-grey shade, occasionally dark grey colours	Left and right	Male	35 or more	632.5
	29	48D	–60 cm	Light, yellowish-grey shade, occasionally dark grey colours	–	?	35 or more	29.6
	38	48D	–65–70 cm	Brownish (non-cremated?)	Left	?	3–4	5.0
	26	49D	–60 cm	Light, yellowish-grey, some brownish and dark grey shades	Left and right	Female?	50–65	199.8
B	11	51–52 B/C	–40–60 cm	Light, mainly white; also fragments with bluish, greyish and brownish shades	Left	Male?	20–30	62.8

¹ The number includes probably uncremated bone fragments from assemblage No. 38 (5 g).

bone assemblages was highest in excavation area A; there the biggest number of buried individuals was identified (Table 1). All the bones appeared to be human; no definite remains of animal bones could be distinguished among them.

The colour and burning stage of bones. The surface colour of cremated bones as an indicator of pyre temperature has been studied by different authors over the years (Baby 1954; Shipman et al. 1984; Holck 1997; Walker & Miller 2005; Walker et al. 2008). The cremated bones of Kirikumägi were mainly light-coloured and with shades varying from light yellow-greyish to light brownish; occasionally there were also dark grey shades (Table 1).

From area A light fragments, mainly with shades of yellowish, but also with greyish and brownish hue were found. Bones from area B resemble those from area A. From area C small fragments of calcined white bone fragments with yellowish shade were found.

McCutcheon (1992) has observed white colour dominating if heat exceeds 650° C and light brownish grey at 600° C; Holck (1997) has noted that at temperatures 600° C to 800° C the colour of bones varies from light gray to white. Walker and co-workers (Walker & Miller 2005; Walker et al. 2008) have noticed that temperature, duration of heat exposure and availability of oxygen and organic compound have highly significant effects on bone colour. At temperature over 600° C in open air the cremains become grey, the same colour occurs at 800° C when bones were burned on topsoil, and there is carbon available in environment, for example organic-rich topsoil.

In Kirikumägi the corpses have been probably cremated at relatively high temperatures, perhaps above 600° C and most probably above 800° C, because most of the bone fragments were pale. When estimating the burning stage of bones from Kirikumägi, it was presumed that cremation occurred in the open air, on a pyre. The occasional dark grey colours on Kirikumägi bone fragments may be related to transient oxygen lack in the pyre. The colour of the bones, especially the yellowish shades, may be caused by the yellowish-brown sand in which these cremains were buried. The colour of burnt bones may change if they are buried, as has been stated by Shipman et al. (1984); they also mentioned the errors in colour determination because of individual differences of researchers to perceive fine colour distinctions.

Although most of the bones were burnt, the teeth and petrous part of the left temporal bone of a child, aged 3–4, found from area A in the depth of 65–70 cm (5 g; assemblage No. 38), were probably unburnt. How these bones are connected with the cremations remains somewhat unclear. Although the skeletons of children buried on Kalmetemägi and Kirikumägi at Siksälä in the 13th–17th centuries were poorly preserved as a rule, and there existed also completely empty grave pits which have been interpreted as belonging to totally decayed burials, in case of infant bones under discussion there were no traces referring to a grave pit of an inhumation grave.

The fragmentation of bones. The fragments of long bones could be measured in 49 assemblages. In order to characterise the preservation of the material, always

the longest fragment in a particular gathered unit was measured. The preservation was estimated in comparison with data from the stone graves of Läänemaa, western Estonia (Table 2) (Allmäe 2003) and the barrow cemetery of Rõsna-Saare I in northern Setomaa, south-eastern Estonia (Allmäe & Maldre 2005).

The size of the bone fragments from Kirikumägi gives evidence of their rather average preservation. The bone fragmentation in Kirikumägi is at the same level with Late Iron Age Kirbla cemetery in Läänemaa. The fragmentation of cremains in Maidla I and Rõsna-Saare I cemeteries which are dated to the Middle Iron Age indicated less fragmentation. Of course the bone material from Kirikumägi is rather limited at the moment, further archaeological research is expected to provide us with much more representative data on the above discussed subject.

Burial areas and the number of buried individuals. Bones which could be related to definite individuals were found in five bone assemblages – nos. 1, 11, 26, 29 and 38 (Table 1). The weight of these assemblages was 929.7 g, i.e. 68.30% of the total weight of analysed bones. The number of buried people was estimated on the basis of petrous parts of left temporal bones. The age and sex determination was made by regular methods described in different osteologic handbooks and standards (Acsádi & Nemeskeri 1970; Ubelaker 1978; WEA 1980; Brothwell 1982; Buikstra & Ubelaker 1994; Bass 2005). In total remains of at least 4 individuals were identified from among the bone fragments from Kirikumägi at Siksälä.

In area A (1186.3 grams of bones) different parts of 3 human skeletons were distinguished: two cremations (individuals I and II) and one inhumation (individual III).

Individual I – male person older than 35 years – was determined mainly from bone assemblage 1 (less from assemblage 26) on the basis of cremated fragments of occipital bone with well-pronounced superior nuchal line, left temporal bone with quite big mandibular fossa, cranial vault indicated suture closing (older adult 35 years and older), and petrous parts of left and right temporal bones (pair).

Table 2. The maximal lengths of bone fragments (presented as % of analysed bones) from cremation cemeteries of Estonia

Length	Cemetery					
	Kirikumägi: 8th(?) – 10th/11th	Ehmja: 5th–7th cc., 11th–13th cc.	Kirbla: 11th–13th cc.	Maidla I: 5th c., 11th–13th cc.	Maidla II: 5th c., 10th–13th cc.	Rõsna-Saare I: 6th–8th cc.
Below 2.0 cm	53.3	69.7	37.3	27.1	23.1	2.3
2.1–3.0 cm	20.0	20.4	31.3	12.5	32.0	18.2
Below 3.0 cm	73.3	90.1	68.6	39.6	55.1	20.5
Above 3.0 cm	26.7	9.9	31.3	60.4	44.9	79.5
3.1–4.0 cm	11.1	7.2	22.3	27.9	27.4	54.5
4.1–5.0 cm	6.7	1.8	9.0	13.6	10.9	
Above 5.1 cm	8.9	0.9	–	18.9	6.6	25.0

Individual II – woman, aged 50–65 –, mainly from assemblage 26 (less assemblages 29, 2 and 1), is determined by fragments of petrous parts of left and right temporal bones (pair), left mastoid, right patella, and symphyseal face of pubic bone. Age was determined on the basis of age-specific peculiarities of the symphyseal face of pubic bone (Acsádi & Nemeskeri 1970) and tooth root.

Also the cremated fragments of other parts of human skeleton(s) – human metacarpals and phalanges, vertebral bodies, os coxae, scapula, mandibula, long bones of upper and lower extremities, tooth roots of older persons, etc. – were found in area A.

Individual III, the burial of a 3–4-year-old child, was determined from bone assemblage 38 on the basis of the development stage of teeth (Ubelaker 1978). Remains of the child were probably not cremated and consisted of four teeth (2 deciduous molars and 2 non-erupted adult teeth) and of petrous part of left temporal bone.

Area B contained 70.9 grams of cremation remains. Individual IV was distinguished on the basis of bone fragments from assemblage 11 – petrous part of left temporal bone (fragments), sternal (medial) end of collar bone and a vertebral body. These bone fragments indicated the presence of a young adult (20–30 years old) male skeleton.

Area C. In squares 15–26 the bone fragments were rare, only 75.3 g grams, and no determinable fragments were found except for two fragments of human cranial vault.

Thus, in the bone concentration area A there were remains of at least 3 individuals: a man, aged over 35 (I), a woman, aged 50–65 (II) and a child, aged 3–4 (III), probably unburnt remains. In area B, located in the distance of 5–6 m from it, the remains of a man aged 20–30 (IV) was buried. Evidently, the number of individuals buried on the hill has been larger, for bone fragments found in area C, located in the distance of 25–30 m from area A, should very likely belong to other individuals. There is no reason to presume secondary, post-funeral changes in the location of cremation remains, for the hilltop is even and flat and bones were almost missing in the layer disturbed by ploughing.

The dates

An AMS-date taken from charcoal particles from the disturbed sand close to the bone assemblage in area A (the SW-part of square G/48) from the depth of –60–70 cm gave the result 975 ± 35 BP; cal. 1010–1050 or 1080–1150 AD (68.2% probability); 990–1160 AD (95.4% probability) (Hela-1857).

To the context of the unfurnished pit-grave cremations might belong also a ^{14}C -sample from area C, from the northern part of the excavation plot of 2004. The sample was taken from squares F/8–9, in the distance of ca. 4.5–5.5 m from the edge of the area with cremated bones. It dates from 1202 ± 56 BP; cal. 723–741 or 773–893 AD (68.3% probability) or from 689–903, 915–963 or 971–975 AD

(95.4% probability) (Tln-2948). The sample was acquired from the depth of ca. 30 cm from a patch of charcoal with the diameter of ca. 1 m in disturbed brown sand; it covered the layer of grey podzol sand. In that area, however, no bone fragments were found.

The burial customs

The small number of major charcoal fragments shows that cremation did not take place on Kirikumägi but somewhere else. The bones which had been picked up from the pyre were not mixed with charcoal pieces, although the main assemblage of bones studied in 2003 contained also patches of disturbed, light grey ashes. Close to these bones there was also some disturbed sand of orange colour, which seemed burnt and might have been taken together with the bones and ashes from the site of the pyre. In such a case the pyre had stood on clean sand – an area from where soil had been removed. Tiny fragments of charcoal were found in the disturbed sand above and around the bones.

In area A where the cremated bones were not disturbed by 17th–18th cc. inhumation graves, the cremains lay in disturbed brownish sand. In the upper layers, probably disturbed by ploughing, they were rare; their occurrence there can probably be explained by the activities of moles or rats. The concentration of bone fragments somewhat increased in the depth of 35–45 cm from the ground. Most of the bones were found in the depth of 50–55/58 cm as a rather compact patch with the diameter of ca. 80 cm, but some of them were located also deeper and were more scattered: the length of the area of their rather compact distribution was ca. 1.7 m (Fig. 3). In some parts of the plot the main layer of bones was immediately on intact natural undisturbed soil, the character of which varied: partly it was clay, partly soft sand. The sand under the lowest bones was partly also disturbed for ca. 5–7 cm – probably by stepping on the soft ground in the course of the funerals or when preparing the site for them.

The fact that intact natural soil started below disturbed sand only at the depth of ca. 60–70 cm from the present-day ground level, shows that original soil and the top part of intact sand under it had been removed from the area chosen for burial before the funerals. Evidently, the plot chosen for burial had been prepared beforehand for the funerary activities by removing soil from it. Since disturbed ground with bone fragments existed everywhere until the depth of 65–70 cm in the plot (2.25 m²) which was studied in area A, the territory prepared for burial was evidently larger. Its extent remains, however, unknown, due to the small size of the excavation area.

A specific feature of the burial rites of Kirikumägi at Siksälä was the lack of grave goods. It should especially be noted regarding the late date of cremation burial in area A, i.e. the 11th century, for on adjacent Kalmetemägi the cremations from that time were furnished with fragments of weapons and jewellery. In case of three burials, also the combination of a hand-moulded and wheel-made vessel

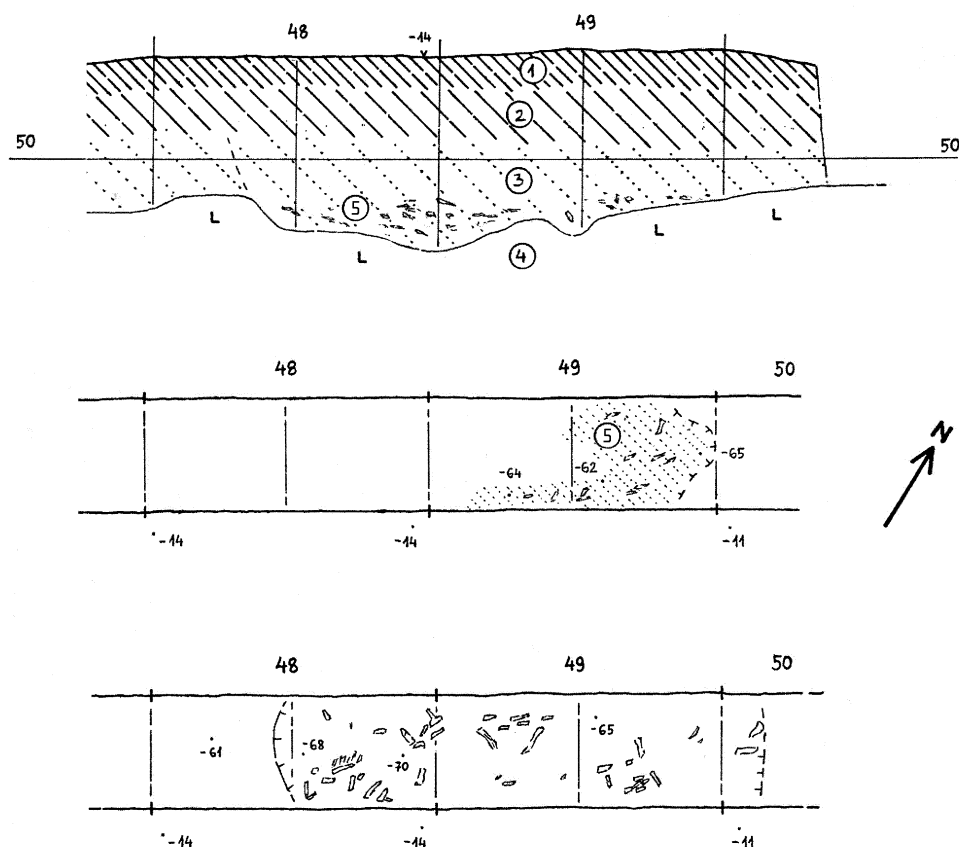


Fig. 3. Kirikumägi at Siksälä. Section of the trench of 2003 with cremains in area A. 1 brown sandy soil, 2 light brown sandy soil, 3 light disturbed sand, 4 intact natural loam, 5 sand mixed with ash.

was found. Transition from hand-moulded to wheel-made pottery occurred on Izborsk hill fort, a big handicraft centre, at the turn of the 10th and 11th centuries or at the beginning of the 11th century (Lopatin 2008). The lack of artefacts at the cremations on Kirikumägi cannot, however, be regarded as finally verified, since the opened area is not big enough to provide comprehensive data.

As the remains of two adult individuals from area A were also not located as separate, clearly distinguishable bone assemblages, the bones might have been buried together, getting mixed during the same funeral process. Due to the small size of the excavation plot, it remains unclear whether all the bones or only a part of them had been taken from the pyre to the cemetery.

It also remains unknown whether the bodies, the remains of which formed assemblage A, were cremated together or at different times. The dispersed and disturbed bones from the Pre-Roman and Roman Iron Age stone graves of northern Estonia (Lang 2007, 154, 179; Jonuks 2009, 219 ff.), as well as broader ethnological parallels (Metcalf & Huntington 1991, 33 ff.) enable to suggest also the

process of multi-phased funerals which included different stages of handling bones, maybe separated from each other by quite long time-spans. In case of different cremations, the bones may have been temporarily stored somewhere and embedded to the cemetery together at a definite time, e.g. in connection with some holiday.

The fact that the burnt bones from area A were not located in a definite grave pit, but in an area of more than 2.25 m², expanding in different directions, enables us to suggest on Kirikumägi at Siksälä flat cremations on prepared areas, conventionally “burial plots” where turf and upper layers of soil or sand have formerly been removed up to the depth of 40–70 cm. Cremated bones were poured or scattered on these plots probably without any grave goods.

Traces of such practices can clearly be observed in burial area A, where after preparing it, i.e. removing the original turf, soil and intact sand/gravel, the main assemblage of bones, consisting of remains of at least 2 cremated adult individuals, and maybe also of an uncremated child, was poured on the prepared ground. When these bones had been covered with soil, some more remains of cremated bones, probably from the same assemblage, were added. It seems that throwing sand on the bones and spreading the last cremation remains, taken to the cemetery maybe in some bag or vessel, occurred simultaneously, parallel to each other. At the end of the ritual, the burial plot which had been deepened into sand, was filled with soil again so that it could not be distinguished as a depression any more.

Discussion: broader context of the rites

These data can be regarded both against the background of the burial customs on Kirikumägi at Siksälä – the cemetery at the other end of the same ridge –, as well as with data from the neighbouring areas from south-eastern Estonia.

On Kirikumägi at Siksälä scattered cremations both from the 1st millennium AD and from the 11th and 12th centuries could be observed in a large area on the hilltop, densely covered by later inhumations. Although here several, often NE–SW-oriented cremation patches dating from the 11th–12th (early 13th cc.), as well as cremations in pit graves were found, the presence of similar burial practices as on Kirikumägi, i.e. burials on larger, formerly prepared plots, can also be suggested. On both cemeteries turf had been removed before burying the cremated bones in a similar way and cremated ashes lay on the border of intact natural ground and light brown disturbed sand above it.² On Kalmetemägi, the cremations were located, however, in a smaller depth – only ca. 20–30 cm from the ground surface.

Areas prepared for cremation burials are known from other parts of south-eastern Estonia from different contexts from the 1st millennium AD.

In the *tarand*-graves from the 2nd–5th centuries, before constructing the *tarands* or rectangular cells of stone rows, the area had been handled in different ways. Thus, before constructing the Jaagupi stone grave (southern Tartumaa), soil had

² Data concerning Kalmetemägi from Silvia Laul.

been removed from its area, to make a horizontal bottom for it (Laul 1962, 14). The original soil had been removed from the grave area also in the stone grave of Ala-Pika (Valk 1997, 124 f.) on the border of historical Võrumaa and Tartumaa districts (Kanepi parish). The area of the stone grave of Sadarametsa (Võrumaa, Rõuge parish) had not been considerably deepened into the ground: the bottoms of the stones lay on the level of ground around the stone grave (Laul 1960, 6). In Virunuka (Võrumaa, Rõuge parish), however, the area of the graves was not deepened into the ground at all but it was cleaned from vegetation by fire (Laul 2001, 45, 65). Above intact natural soil, a layer of clean white sand with the thickness of ca 10 cm had been added in some cases before constructing the *tarands* and before the funerals.

Important observations concerning burial places were made during the archaeological excavations of long and round barrows from the 2nd half of the 1st millennium AD of northern Setomaa, south-eastern Estonia (Aun 1992, 113 f.; 2005). There the barrows were preceded by mainly quadrangular, sometimes oval or round plots,³ bordered by a ditch. These enclosed plots were used for burial and probably also for certain ritual activities before heaping up the sand barrows. From these burial plots, however, no turf and original soil had been removed and the places were distinguishable because of the surrounding ditches which cut the sand of greyish hue. Burial plots, sometimes with a fireplace surrounded by a circle of stones or by ditches, have been found also from the 10–13th cc. barrows with inhumation graves on the Izhorian plateau, Ingermanland. Also there the plots were used for ritual activities before heaping up the barrows (Ryabinin 1985, 72; 2001, 29).

Collective burials of different individuals are characteristic of the Roman Iron Age tarand graves of south-eastern Estonia (Laul 2001, 22–86), likewise for the tarand graves of that time in general. Cremations containing the remains of different individuals have formerly been discovered also in the barrow cemeteries of south-eastern Estonia, e.g. in Rõsna-Saare. In the barrow cemeteries of northern Setomaa the cremated bone assemblages consisting of the remains of more than one individual are quite common (Allmäe et al. 2007). A pit grave cremation burial with remains of at least three individuals was found in 2005 also at Serga Cemetery, ca. 25 km north-east of Siksälä.⁴

The biggest difference between the burial plots of Kirikumägi and those under the barrows is that unlike Siksälä, no turf and soil were removed when preparing the barrow sites. In the barrows all remains of children were cremated (Allmäe et al. 2007) but in Siksälä the question of burying some uncremated remains of bones does not yet have, due to assemblage 38, the final answer. It must be noted here that in the stone graves of Läänemaa from the 5th–13th centuries, uncremated human remains were rather common (Allmäe 2003; 2006). Thus the question of burying together burnt and unburnt bones demands further attention in south-eastern Estonia.

³ In Russian *площадка*.

⁴ Determined by Martin Malve (University of Tartu).

The lack of grave goods on Kirikumägi at Siksälä fits well in the broader context of burial rites in south-eastern Estonia. Also from the largely excavated Kalmetemägi at Siksälä only 2 artefact finds from the 2nd half of the first millennium AD – an iron axe and a penannular brooch of iron – have been discovered. The burials in barrows from the 6th–10th cc. are poor in finds as well (Aun 1992, 120 ff.); the flat cremation graves, dated into the middle of the first millennium AD and found between the stone graves and barrows in the cemeteries of Loosi and Põlgaste also contained no finds (Laul 2001, 188). If secondary burials existed in the *tarand* graves after the end of the Roman Iron Age, also those were without considerable grave goods.

Conclusions

Finds from Kirikumägi at Siksälä have enabled us to raise the question about the presence of a new, formerly unknown grave form in south-eastern Estonia – flat-ground cemeteries of (or with) burial plots deepened into the ground and filled with soil again in the course of the burial rite. Ritual plots have been observed also within the barrows from the 2nd half of the first millennium AD as an interim stage of constructing that grave form – there they were later covered by the mounds. The supposed burial plots may contain either dispersed or rather compactly deposited cremated remains. The size and form of these plots, likewise their possible number in a cemetery, are still unknown. The questions of multi-stage burial rituals of cremains, as well as the parallel burying of cremated and unburnt humans, also remain unsolved.

Most likely, Siksälä is not the only cemetery with flat-ground burial plots for cremation burials. As the upper part of the soil, i.e. layers in the depth of ploughing, contained no or almost no bone fragments, graves of this type are extremely hard to discover. The possibility of the presence of such burial plots should be taken into consideration also not only in other parts of south-eastern Estonia, but also in more extensive areas, including the north-eastern corner of Latvia and lands east and north-east of Lake Pskov and Lake Peipsi. The temporal borders and distribution area of this grave form, as well as its connections with other grave types remain unclear. The small opened area on Kirikumägi at Siksälä only enables to see problems and set up hypotheses, but no definite solutions can be provided.

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Heiki Valk ja Raili Allmäe

SIKSÄLÄ KIRIKUMÄGI: UUS KALMEVORM KAGU-EESTIS?

Resümee

Eesti kagupoolseimas nurgas Hino järve idakaldal asuva Siksälä muististe kompleksi kuuluva Siksälä Kirikumäe (joon 1) uurimisel leiti 2003. ja 2004. aasta proovikaevamistel mäe kolmest eri piirkonnast (joon 2: A, B, C) põlenud luukilde. 2007. aastal uuriti täiendavalt A-piirkonnas leitud põlenud luude kogumit, mis avastati 2003. aastal piki mäeharja kulgeva tranšee kaevamisel ja mis esmapilgul näis maasse kaevatud lohus põletusmatusena (joon 3). Et oletatava põletuslohu servi kätte saada, laiendati uuritud ala tranšeeaga mõlemas suunas 0,5 m võrra. Kokku uuriti läbi 2,8 m² suurune ala ja leiti 1361,9 g põlenud luid, ent selgeid põletuslohu piire ei ilmnenud. Looduslik puutumatu aluspind tuli kõikjal nähtavale maapinnast 60–70 cm sügavusel. See asjaolu lubab arvata, et tegemist on osaga suuremast pinnast, kust ülemised pinnasekihid on enne matmist eemaldatud. B- ja C-piirkonnas oli põlenud luid vähem (70,9 g ning 75,3 g). B-piirkonnas asusid luud segatud liivas maapinnast kuni 40 cm, C-piirkonnas peamiselt 40–60 cm sügavusel. Tranšee teistes piirkondades põlenud luid ei olnud.

Kaevamistel leiti kolmest piirkonnast kokku 1361,9 g põlenud inimluid (sh 5 g kaaluv luudekogum nr 38, kus luud olid väga nõrgalt põlenud või põlemata). Luud olid heledad, kollakashallist kuni helepruunini ulatuva värvivarjundiga. Leidus ka üksikuid tumehalli varjundiga fragmente ja C-piirkonnas oli valgeid kaltsineerunud luukilde. Luude värvus viitab sellele, et põletamine toimus tuleriidal ja kõrgel temperatuuril, tõenäoliselt üle 800 °C. Luude fragmentatsiooniate on teiste kalmistutega (Ehmja, Kirbla, Maidla I ja II Läänemaal, Rõsna-Saare kääpad Setumaal) kõrvutades keskmise suurusega: ligi kolmveerand kildudest olid vähem kui 3 cm pikad. A-piirkonnast leitud luudekogumis oli võimalik eristada 50–65-aastase naise ja vanema kui 35-aastase mehe luid. B-piirkonnast leiti 20–30-aastase mehe luid. Vasaku oimuloo kaljuosa põhjal õnnestus põlenud luude seas eristada kolme indiviidi jäänuseid. Eelmainitud 65–70 cm sügavuselt leitud luudekogum 38 sisaldas 3–4-aastase lapse luid. Viimaste puhul pole siiski võimalik täie kindlusega väita, kas need on põletusmatustega samaaegsed või seostuvad kalmistu hilisema, varauusaegse järguga.

A-piirkonna luudekogumi lähedusest 60–70 cm sügavuselt võetud söeproov andis tulemuseks 975 BP, st 975 ± 35 pKr, kalibreerituna 1010–1050 või 1080–1150 pKr (68,2% tõenäosus) või 990–1160 pKr (95,4% tõenäosus). Põletusmatuste konteksti võiks kuuluda ka C-piirkonna põlenud luude leviala piirist 4,5–5,5 m väljaspool, 2004. aasta kaevandi põhjapoolses osas leeteliiva peal maapinnast umbes 30 cm sügavusel olnud umbes 1 m läbimõõduga söelaik. Sellest võetud ¹⁴C-proov andis tulemuseks 1202 ± 56 BP, st 748 ± 56 pKr, kalibreerituna 723–741 või 773–893 pKr (68,3% tõenäosus) või 689–903, 915–963 või 971–975 AD (95,4% tõenäosus).

Enamik põlenud luudest (1184,9 g) pärineb A-piirkonnast, kus suurima, üsna kompaktse luudekogumi juures leidus veidi söekübemeid ja tuleriidalt pärit tuha-jäänuseid. Söepuru vähesus ja põletusjäänuste esinemine A-piirkonnas vaid väikesel ning väga selgelt piiritletud alal viitab sellele, et surnuid ei põletatud mitte matusekohas, vaid mujal. Söeosakeste väiksus ja tuha rohkus näitab, et tuleriit on peaaegu täiesti ära põlenud.

Künnikihis leidus vaid üksikuid luukilde, luude hulk suurenes märgatavalt umbes 35 cm sügavusel. A-piirkonnas paiknes enamik neist umbes 80 cm läbimõõduga laiguna. 2003. aastal uuritud alal oli luude kontsentratsioon suurim 50–55 cm sügavusel, 2007. aastal uuritud alal 58–63 cm sügavusel. Peamisest luudealasust sügavamal jätkus 10–15 cm paksune segatud liiva kiht, kus leidus üksikuid luukilde, kuni kõva segamata loodusliku aluspinnaseni – puutumatu puhta savi-liivani, mis algas uuritud alal 65–70 cm sügavusel. Et läbiuuritud 2,8 m² suurusel alal ei paljandunud luid sisaldava liivakihi all kusagil kalme-eelse mullakihi jälgi, on algne muld ja loodusliku segamata alusliiva ülaosa enne matmisriitusi eemaldatud. Asjaolu, et luud ja liiv olid läbisegi, viitab sellele, et luude puistamine ning liivaga katmine on toimunud samaaegselt.

Siksälä Kirikumäelt ei saadud mingeid põletusmatustega seonduvaid esemeleide. Arvestades tõsiasja, et Siksälä Kalmetemäel oli 11.–12. sajandi põletusmatustes rohkesti põlenud või purustatud esemete katkeid, on Kirikumäel tegemist

teistsuguse matmiskombestikuga. Samas on ka Kalmetemäe I aastatuhande teise poole matused silmapaistvalt leiuvaesed. Kirikumäel avatud ala on siiski liialt väike, et teha lõplikke järeldusi esemete puudumise kohta. Selgusetuks jäi ka see, kas põletuskohast on kalmesse toodud kõik luud või vaid osa neist ja kas A-piirkonnast leitud luud on põletatud koos või eri aegadel.

Kuna segatud, põlenud luud sisaldav pinnas kattis kogu 2,8 m² suuruse proovi-kaevandi ja et ühtki matmisala serva ei õnnestunud eristada, pole A-piirkonnas ilmselt tegemist selgepiirilises lohus oleva maa-aluse põletusmatusega, vaid suurema, matmiseks ettevalmistatud, st maasse süvendatud platsiga. Samalaadset matmiskombestikku võib I aastatuhandel pKr oletada ka Siksälä Kalmetemäel: sealgi paiknesid põletusmatused looduslikul liivapinnal, mille pealt oli algne mullakiht eemaldatud. Kalmetemäe põletusmatused olid siiski mõnevõrra madalamal, 20–30 cm sügavusel.

Siksälä matmiskombed võimaldavad tõmmata paralleele Kagu-Eesti I aastatuhande teise poole kääbaste alt leitud, kääbaste kuhjamisele eelnenud rituaalsete matuseplatsidega, kuid erinevalt Siksäläst pole seal platsialalt pinnast eemaldatud, vaid platsid on piiritletud kraaviga. Pinnase eemaldamist tuleb vahel ette ka Kagu-Eesti tarandkalmetes. Põlenud luude leidmine kolmest Kirikumäe eri piirkonnast viitab sellele, et mäel on olnud vähemalt kolm erinevat, tõenäoliselt eriaegset matuseplatsi. Ühisjooneks I aastatuhande teise poole kääbastega on leidude puudumine: ka kääbaste põletusmatused on leidudeta või leiuvaesed.

Siksälä Kirikumäe ja Kagu-Eesti kääbaste matmiskombestikku seob samuti asjaolu, et kääbasteski on sageli tegemist mitmikmatustega. Nende suur hulk Kagu-Eesti I aastatuhande II poole kääbastes lubab arvata, et luud ei toodud kalmesse kohe pärast põletamist, vaid et seda tehti suhteliselt harva, teatud tähtpäevade või pühade ajal. Nii osutavad I aastatuhande teise poole mitmikmatused I aastatuhande teise poole Kagu-Eestis mitmeastmelisele matuseriitusele.

Siksälä Kirikumäe leiud võimaldavad tõstatada küsimuse uuest kalmevormist Kagu-Eestis: maa-alustest põletusmatustest maasse kaevatud matuseplatsidel, mille süvendid on pärast matmist taas kinni aetud. Sellised matmisplatsid võisid sisaldada niihästi laialipuistatud luud kui ka suhteliselt kompaktsed põlenud luude lasusid. Niisuguste matmisplatside suurus ja kuju ning nende piiride iseloom ja arv kalmistus pole seni teada.

Tõenäoliselt pole Siksälä kalmistu ainus omataoline. Kuna kalme ülemine pinnasekiht ei sisaldanud peaaegu üldse põlenud luud ja esemeleiud puudusid, on seda tüüpi matuseid äärmiselt raske leida. Samalaadseid maa-aluseid põletusmatuseid võib esineda mujalgi – nii Kagu-Eestis, kuid ehk ka Läti kirdenurgas ja Loode-Venemaa aladel. Uue oletatava kalmevormi ajalised piirid, leviala ulatus ja suhe teiste kalmevormidega nii ajas kui ka ruumis jäävad esialgu ebaselgeks. Siksälä Kirikumäel uuritud väikese ala põhjal saab küll näha probleeme ja püstitada hüpoteese, kuid küsimustele pole võimalik ammendavat vastust anda.