



## ARCHAEOLOGICAL INVESTIGATIONS AT LINNAKSE: STONE GRAVES AND A LATE VIKING AGE SILVER HOARD

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### INTRODUCTION

On the 17th of August 2010 a Late Viking Age hoard (*tpq* 1059), consisting of 1311 silver coins, pieces of silver jewellery, and fragments of a hand-moulded ceramic vessel, was brought to the department of archaeological collections at the Institute of History (Fig. 1; Leimus & Kiudsoo 2010; Tamla 2010a; Kiudsoo & Russow, this volume). A remarkable discovery had been made a day earlier in a recently harvested field in the village of Linnakse (central part of Harjumaa, Anija municipality, former parish of Harju-Jaani) using a metal detector<sup>1</sup> and excavated by Gurly Vedru (MA) and Aive Viljus (AI) (Vedru 2010).



Fig. 1. Silver hoard found from Linnakse.

Jn 1. Linnaksest avastatud hõbeaare.  
(AI 6962.)

Photo / Foto: Jaana Kool, Kersti Siitan

<sup>1</sup> The finder of the hoard prefers to stay anonymous.

The discoverer of the hoard also handed over a number of bronze and iron artefacts from different prehistoric periods to the archaeological collections of the Institute of History.<sup>2</sup> The artefacts, all of them with marks of intentional damaging or fire deformation, had been found from the same field 20–50 m southwards from the finding spot of the hoard. According to G. Vedru (2010) the exact circumstances of finding the bronze and iron artefacts remained unclear due to the urgent need to excavate the silver hoard. Therefore it was decided to conduct investigations, including landscape survey and trial excavations, at the site. The fieldwork was carried out in three days in 2010: August 25, immediately after autumn ploughing on September 21, and finally September 23 (Tamla 2010b).

### AIMS OF THE RESEARCH

The archaeological investigations at Linnakse were above all induced by scientific interest, but the initiative of the National Heritage Board was also decisive. The main aim of the research was to ascertain the possible discovery of an ancient cemetery. No data of any archaeological finds from this site had been previously recorded in the archives of the Institute of History or the National Heritage Board. However, a number of stray finds with uncertain finding places from the Harju-Jaani parish have been assigned to the collection of the Institute of History in different times and may have been found from the same place.<sup>3</sup> Thus, it seemed that some prior information was available about the place, but the location of the site seemed to have been lost. The artefacts could not be definitely connected with the site.

The primary aim of the fieldwork was to ascertain and localize the exact finding places of the artefacts that refer to the cemetery. Already the first artefacts discovered together with the hoard seemed to date back to three different periods: the Roman Iron Age, the Middle Iron Age, and the Late Iron Age. This information led the archaeologists to believe that in Linnakse the burial place had been in use for about a thousand years.

Another purpose of the investigation was to search for dark and sooty soil areas, stony patches and more artefacts of the same character in the ground and in the ploughing layer of the field. The sooty spots in the soil and areas of concentrated small burnt stones (e.g. crumbled in fire) would refer to a stone grave that might have been destroyed by agricultural activities, such

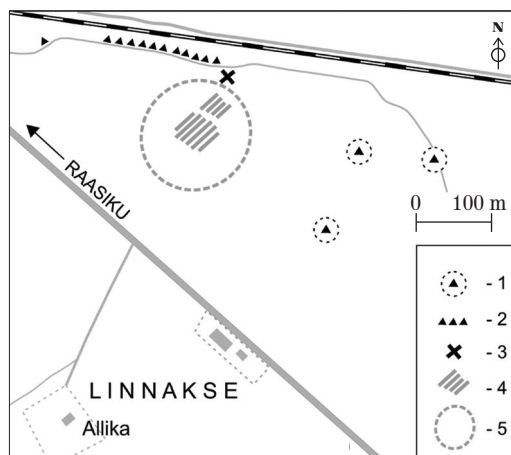


Fig. 2. Research area in Linnakse. 1 – stone heaps from the beginning of the 1960s, 2 – stone heaps with burnt stones, 3 – location of the hoard, 4 – burial zone, 5 – distribution area of artefacts.

Jn 2. Uurimisala Linnaksel. 1 – 1960ndatel tekkinud kivikuhjad, 2 – põlenud kividega raunad, 3 – hõbeaarde leiukoht, 4 – matmispiirkond, 5 – leidude levikuareaal.

Drawing / Joonis: Kersti Siitan

<sup>2</sup> AI 6961.

<sup>3</sup> AI 3442, 3505, 3506, 3602, 3603, 3748, 4503.

as removing stones or ploughing. Furthermore, concentrations of artefacts of the same period would refer to the locations of burial zones of different eras.

The investigation also aimed at an in-depth study of the closest surroundings of the area where the silver hoard was found: firstly, to detect traces of a possible Late Iron Age settlement site, and secondly, to discover a probable connection between the hoard and the cemetery.

### METHODS OF RESEARCH

Different research methods were used at Linnakse. First, a landscape survey was conducted to determine the existence or absence of stone heaps, darker areas and stony patches on the field under discussion and its surroundings (Fig. 2). Second, visual search by the frontal method was carried out to spot artefacts, bones and ceramic fragments on the field. Third, metal finds were sought from the layer disturbed by ploughing with the help of metal detectors (the network method, see Östergren 1989). Fourth, trial pits were dug to ascertain the existence of a cultural layer, if any had preserved at all. Finally, samples were taken to determine the consistence of the soil.

Fieldwork included excavations with three trial pits: the first on the top of a hillock, the second on the lower ground south-west from the hillock, and the third in the finding place of the hoard close to the first pit. A GPS-device was used to map finds and trial pits (Fig. 3). The soil layers revealed in the trial pits were measured, described and photographed.

Historical maps were consulted in order to explore preceding land use and place names. The earliest map of that area dates back to 1691 (Fig. 4). The maps of the 19th century and the topographical maps from 1936–1939 and 1950–1990 (e.g. Verst map and Estonian topographical map of 1936–1939 on the internet based GIS-data base of the Estonian Land Board<sup>4</sup>, soviet period land-use maps from the collective farms in the Harju district in the archives of the National Heritage Board and archives of the Institute of History) were used to compare the land use and place names during different historical periods.

### RESULTS OF THE RESEARCH

Three stone heaps with the height of 1.5–2 m and a diameter of 15–20 m can be seen in the eastern part of the field under investigation (Fig. 2: 1), being the remains of the collectivization process, during which the field attained its present size. Before

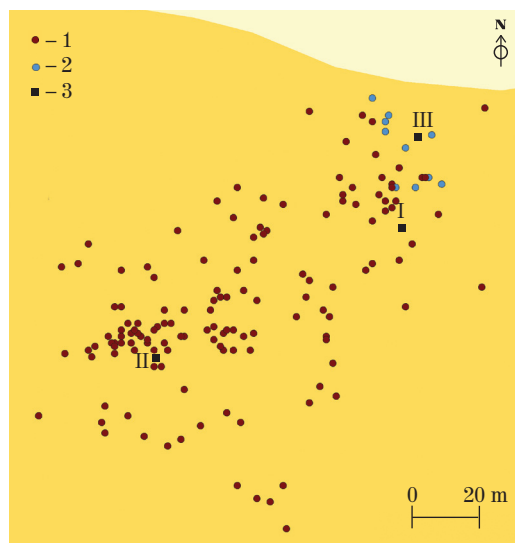


Fig. 3. GPS-map of Linnakse. 1 – artefacts connected with burials, 2 – silver coins and artefacts connected with hoard, 3 – trial pits I–III.

Jn 3. Linnakse GPS-plaan. 1 – matmisalaga seotud leiud, 2 – aardesse kuuluvad hõbemündid ja -esemed, 3 – proovikaevandid I–III.

Drawing / Joonis: Mirja Ots

<sup>4</sup> Estonian Land Board; <http://geoportaal.maaamet.ee/> (14.06.2011.)



Fig. 4. The map from 1691 compiled by J. Gedhardt.  
 Jn 4. J. Gedhardt's poolt 1691. a koostatud plaan.  
 (EAA 1-2-C-III-47.)

that period the area used to be divided into narrow strips of field that belonged to the nearby farmers and were separated by stone fences. The stones from the fences and small clearance cairns were heaped up into the above mentioned three large piles at the beginning of the 1960s.<sup>5</sup> No burnt stones referring to a destroyed stone grave could be noticed among the stones in the heaps or in the rest of the soil of the eastern part of the field.

However, at the northern edge of the field burnt stones could be observed in up to 1 m high elongated stone heaps with various diameters, which had probably been assembled of stones from the surrounding area during past centuries (Fig. 2: 2). A large number of piled burnt stones and about 300 metal artefacts from an area with a diameter of about 140 m (Fig. 2: 5) referred to possible nearby stone grave(s) or a stone-covered cemetery in the western part of the field, and the silver hoard seemed to have been deposited on the edge of the probable burial area (Fig. 2: 3).

A hint to a more precise location of the destroyed burial places was given by two stony patches and a concentration of artefacts in the field (Figs 2: 4, 5; 3: 1). One of the

<sup>5</sup> Data from Ants Miidla (agronomist of Kehra sovkhos in the 1960s). E-mail to Ülle Tamla in August 21, 2010.



patches lied on top of a moraine knoll, which was also the highest place of the field (at the absolute altitude of 45.5 m a.s.l.). The soil of the field was generally of light brown colour, which is typical to that area, but at the place of the possible burial site a darker patch of ca. 20 m in diameter containing a large number of burnt stones could be observed. A disturbed 3–5 cm thick cultural layer, that contained fragments of a skull and a mandible, a charcoal patch and separate pieces of charcoal had preserved under a 25–30 cm thick ploughing layer as was revealed in the trial pit I (1 × 1 m) dug on the top of the knoll (Fig. 3: 3-I). Clayish moraine of light beige colour with no traces of human activity could be seen below the burial layer.

The second day of research provided some supplementary information on the possible location of a stone grave. Ploughing had revealed a row of four bigger granite stones (with a diameter of 30–40 cm) and lumps of intensively sooty soil on top of the knoll close to the first stony patch described above and the trial pit I. A dozen bronze artefacts and some small fragments of uncremated skulls<sup>6</sup> were gathered from that area. The ornaments – spiral finger-rings (Fig. 5: 1, 2), a narrow bracelet with a hollow cross-section (Fig. 5: 3), a small disc fibula (Fig. 5: 4), a cross-bar fibula (Fig. 5: 5), fragments of crossbow fibulae with tendril feet (Fig. 5: 6) and fragments of neck-rings (Fig. 5: 7) – are common grave goods in Estonian, but also in Finnish and Latvian *tarand*-graves and may be dated to the 3rd – 4th centuries based on close parallels and typological grounds. Hence, it is possible that the row of granite stones was a preserved part of a *tarand*-grave (for the grave type and the dating of grave goods see e. g. Lang 2007, 170–216).

Another stony patch was located approximately 15 m to the west-southwest from the first one (Fig. 2: 4). It had a wider range (ca. 40 m in diameter) than the first one, but burnt stones (mainly lime-stone slabs) were lying more sparsely, and the artefacts collected from the area date from the Migration Period (Fig. 6), and from the Late Iron Age (Figs 7, 8). The concentration of the finds from the Migration Period – e.g. a silver sheet ornament decorated with double circles and small bulges (Fig. 6: 1), fragments of silver crossbow fibulae with a ring decoration (Fig. 6: 2, 3), a crossbow fibula with a cast needle case (Fig. 6: 4), a crossbow fibula with star-shaped feet (Fig. 6: 5), a belt buckle with a massive oval frame (Fig. 6: 6), tweezers (Fig. 6: 7) – was bigger at the northern edge of the stony patch which lied closer to the presumable *tarand*-grave, but they were also unearthed from the area between the two patches. It should be noted, though, that the concentration of martial artefacts (two spear-heads, battle axes, sword pommels, cross guards and battle knives) from the Late Iron Age were mainly discovered on the western edge of the stony patch (Fig. 8). Almost all of the Migration Period and Late Iron Age items, weapons as well as jewellery, had been intentionally fragmented, deformed or burnt. Some artefacts that probably date from the Early Modern or Modern Period (a signet ring, a thimble, a bronze lock of a probable casket, and a gilded bronze button<sup>7</sup>) may be traces of later burials. It is more likely, though, that these items have been brought there accidentally in the course of field fertilizing.

<sup>6</sup> AI 6961: 142.

<sup>7</sup> AI 6961: 103, 114, 132, 134.



Fig. 5. Burial place of Linnakse. Artefacts from the Roman Iron Age. 1, 2 – spiral finger-rings, 3 – bracelet, 4 – disc fibula, 5 – cross-bar fibula, 6 – crossbow fibula, 7 – fragment of neck-ring.

Jn 5. Linnakse matmiskoht. Rooma rauaaegsed esemeleidud. 1, 2 – spiraalsõrmused, 3 – käevõru, 4 – ketas-sõlg, 5 – kärbissõlg, 6 – ambsõlg, 7 – kaelavõru fragment.

(AI 6961: 96, 101, 161, 51, 91, 90, 183.)

Photo / Foto: Krista Karro

Drawing / Joonis: Kersti Siitan



Fig. 6. Burial place of Linnakse. Selection of artefacts from the Middle Iron Age. 1 – silver sheet ornament, 2, 3 – fragments of crossbow fibula with ring decoration, 4 – crossbow fibula, 5 – fragment of crossbow fibula with star-shaped feet, 6 – belt buckle, 7 – tweezers. 1–3 silver, 4–7 bronze.

Jn 6. Linnakse matmiskoht. Valik keskmise rauaaja leidudest. 1 – hõbeplekist ehenaast, 2, 3 – rõngas-kaunistustega ambsõle nupp ja nõelapinge, 4 – ambsõlg, 5 – tähekujulise jalaga ambsõle katke, 6 – pannal, 7 – pintsetid. 1–3 hõbe, 4–7 pronks.

(AI 6961: 128, 92, 49, 90, 236, 48, 143.)

Photo / Foto: Krista Karro

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Fig. 7. Burial place of Linnakse. Selection of artefacts from the Late Iron Age. 1–3 – deformed and fragmented penannular brooches, 4–5 – fragmented crossbow fibulae, 6 – fragmented turtle-shaped brooch, 7 – plaque, 8 – fragmented sickle.

Jn 7. Linnakse matmiskoht. Valik noorema rauaaja leidudest. 1–3 – väänatud ja purustatud hoburaudsõled, 4–5 – purustatud ambsõled, 6 – kilpkonnsõle katke, 7 – naast, 8 – purustatud sirp.

(AI 6961: 85b, 85d, 86, 45, 44, 89, 115, 190.)

Photo / Foto: Krista Karro





Fig. 8. Burial place of Linnakse. Swords with silver decoration. 1–2 – pommels, 3–5 – cross guards.

Jn 8. Linnakse matmispaik. Hõbekaunistustega mõõgaosad. 1–2 – mõõga käepideme nupud, 3–5 – kaitserauad. (AI 6961: 35, 41, 4, 40, 6.)

Photo /Foto: Krista Karro

Trial pit II (1.5 × 0.3 m) was dug in the south-western part of the stone patch, on the southern edge of the most intensive artefact concentration area (Fig. 3: 3-II). The horizon of clayish moraine was slightly thicker in that pit than it had been in the first trial pit. Some bone fragments and a piece of a spiral ring<sup>8</sup> were discovered at a depth of 30–35 cm in the undisturbed layer (thickness of the cultural layer was *ca.* 40 cm, while the undisturbed part was 10–15 cm thick). The soil included small particles of charcoal, but they did not form any concentration patches like in the first trial pit.

Ploughing, which had unearthed a row of granite stones mentioned before, had also revealed charcoal-mixed soil, burnt artefacts and unburnt bone fragments around the other stone patch. For example, a set of grave goods that consisted of a bronze buckle, a strap tag, a fragment of a bracelet, an iron needle-like artefact and some bone fragments<sup>9</sup> were found. Potsherds from hand-made ceramic vessels and some fragments of bronze artefacts<sup>10</sup> had been discovered in the same area during the first excavation day.

Trial pit III (1 × 1 m; Fig. 3: 3-III) was dug in the place where the silver hoard, lying deeper than the ploughing layer (30–35 cm), had been discovered. The absence of any cultural layer in the pit should be noted: the upper layer consisted of light brown soil like in the other trial pits, in deeper horizons (25–40 cm) the colour of the soil became lighter and increased in the concentration of clayish moraine. Furthermore, burnt stones were absent at that place. Thus, it may be assumed that the hoard was deposited outside the habitation area, but close to the grave, which is a remarkable difference between Linnakse and other sites where Late Iron Age silver hoards have been formerly discovered in Estonia (Tõnisson 1962, 184–185; Jaanits *et al.* 1982, 366–367). 18 silver coins, a silver bar and a jewellery fragment found within the *ca.* 20 m span of the deposition spot of the hoard (Fig. 3: 2) were evidently part of the hoard and there was no hint to an ancient settlement site in the area nearby. The scattered finds also suggest that the hoard had been already partly destroyed by agricultural activities (Tamla 2010b, 13–14).

### **A BURIAL PLACE AND A SILVER HOARD IN THE LANDSCAPE**

Parts of landscapes are taken into use by giving a meaning, a name, and sometimes a physical construction to its natural features. This process can also be understood as the formation of cultural (physical human-made constructions and artefacts) and mental (cognitive meanings) layers of landscapes, while the natural layer of a landscape provides preconditions for them (for the layers of landscapes and definitions of landscape see Keisteri 1990; Vedru 2009; Karro 2010, 183–185).

The site of Linnakse, which was used as a burial place<sup>11</sup> from the Roman to the Late Iron Age, can be discussed in the context of the layers of a landscape, although it is quite difficult to track the local inhabitants' perception of a landscape, when only few pieces of the landscape of their time have preserved. For the contemporary archaeologists the site may seem static, but it has been in constant change (Gosden & Lock 1998).

<sup>8</sup> AI 6961: 187.

<sup>9</sup> AI 6961: 198a–c.

<sup>10</sup> AI 6961: 194 and AI 6961: 110 accordingly.

<sup>11</sup> Places are meaningful locations (Cresswell 2004, 7, 10 and the literature cited).

As Tim Cresswell (2004, 40) has stated, “Places are events marked by openness and change”. According to Nigel Thrift (1996; 1997) places are always performed in a relationship with the contemporary world. According to this viewpoint, some aspects of the preserved Iron Age landscape of the Linnakse burial place are discussed below.

The natural features of the site comprise a higher moraine knoll in the middle of open landscape. The knoll stands out in the surrounding landscape, while passing roads and surrounding farms can be seen from the top of the hillock.

The cultural layer comprises several physical constructions and artefacts found from the Linnakse site, which date back to different time periods. In the Roman Iron Age a stone grave was built on the top of the knoll, and the site was used for the same purpose also during the Middle and Late Iron Age. Reuse of the same sites for same or different purposes have been detected in case of several archaeological sites<sup>12</sup> (see also e. g. Bradley 2000; Heijne 2007; Vedru 2009, 21–22; Karro 2010, 191; Vedru 2011, 107–134), and Linnakse might be one of those cases.

An interesting aspect concerning the reuse of the burial site of Linnakse is the probable utilisation of the cemetery stones in the historical period. When the place was taken into use as a field, the disturbing stones were piled up in heaps in the northern edge of the field (see above; Fig. 2: 2).

The hoard found from the site is an important part of the cultural layer of the Iron Age Linnakse and can be considered as a part of the burial place (Fig. 2: 3). The reasons for depositing the hoard where it was found are also a part of the mental layer of the landscape, although the landscape’s changing character may cause difficulties in tracking those reasons. The mental layer of a place is connected with the cognitive meanings of a place, which as a burial place can be related with religion. Ancient religion was probably not a uniform set of beliefs, but re-interpreted and with rituals connected to farms and/or families (Jonuks 2009, 85 and the literature cited). Burial sites were probably places where religious practices connected with commemorating the ancestors were conducted. In correlation with the statement that the worldview of the people of the ancient period was probably more sacral than the present people’s (Eliade 1972), such sacred places were sometimes also used as markers for socially and economically important places in the landscape (see e. g. Mägi 2004). Therefore, the hoard was probably a part of the burial place that was regarded as a sacred site. However, the location of the site by the road might suggest an economical manifestation as well.

The mental layer is also connected with place memory, which is closely connected with place names. Place memory forms through place identity, which local inhabitants attach to a certain locale (Hernández *et al.* 2007, 311; for locales see Cresswell 2004, 7 and the literature cited). In Linnakse this most likely resulted in remembering the sacred meaning of the earlier stone grave and conducting new burial customs close to the old ‘place of ancestors’. Furthermore, depositing the hoard at the edge of the Roman Iron Age grave constructions in the Viking Age may also refer to the previously mentioned belief.

<sup>12</sup> According to Andres Tvauri (TÜ) (pers. comm. to Ülle Tamla on 20.03.2011) there are several examples of such nature from different parts of Estonia, e.g. Lagedi XIII and XIV, Lehmja-Loo I and IV, Mõigu-Peetri and Kurna IB in Harjumaa.

It is quite likely that the memory of the importance of the Linnakse burial place lasted throughout the Iron Age and maybe even longer. This may be read on the map of 1691. Namely, a stony patch (*stenyt*) can be observed in the field of the village Keskvere (*Keschfer byy*) (Fig. 4). The village has already been mentioned in *Liber Census Daniae*, according to which a large village of *Saintakæ* with 43 plough lands is said to have existed in the area of the present Raasiku hamlet. According to Paul Johansen the village consisted of three smaller villages: Mägise, Keskvere and Vaaso, Keskvere being the largest of them with 25 plough lands (Johansen 1933, 252–253; Lang 1996, 409). The most important village of the three in the context of the site under discussion is Keskvere, which, according to a topographical map<sup>13</sup> was formed in the last quarter of the 19th century (a place by the name *Keskwere*) and based on Gea Troska's data (1987), existed until the 19th century. The present Linnakse village was formed (and named differently) in the 1920s by distributing the land to farmers (Troska 1987, 104). Traces of the ancient cultural layer were discovered in spring 2011 from the lands of the present Allika, Sidoki and Nurme farms (the present Linnakse village<sup>14</sup>) ca. 800 m south and south-west from the burial site, which correlates with the location of the Keskvere village on the maps of 1691 and the 19th century. That raises a question whether the ancient function of the place as a cemetery was forgotten along with the name Keskvere.

## CONCLUSION

A long utilisation period and burial site with the span of ca. 1.4 ha was discovered on the basis of ca. 300 artefacts found with the help of metal detectors from the upper layer of the soil and located more precisely by two stony patches in the field at the northern border of the Linnakse village. The site has most likely comprised of two stone graves, the stone constructions and burials of which have been damaged by tillage. Beneath the soil, at a depth of 25–30 cm from the present surface, a thin burial layer of archaeological interest is sporadically still preserved. On account of this the whole territory was submitted for further protection to the National Heritage Board.

Earlier burials were localized on the moraine knoll, differing from the rest of the field by the concentration of burnt stones. Some large granite stones, lumps of soil containing charcoal and the artefacts of Roman Iron Age refer to a *tarand*-grave. Furthermore, as a row of granite stones was unearthed during autumn ploughing in 2010, it can be assumed that there might be some preserved stone constructions and burial complexes under the ploughing layer. The artefacts found from the area are typical for *tarand*-graves and originate from the 3rd – 4th centuries. It is also worth mentioning that only fragments of uncremated bones were found from the area of the *tarand*-grave.

The other stony patch with darker soil was located 15 m southwards from the probable *tarand*-grave and can most likely be connected with the Migration Period and Late Iron Age burials. The artefacts dating back to the Migration Period were concentrated at the northern edge of the patch, whereas they were also uncovered from the area between two patches. Therefore the question about the Migration Period

<sup>13</sup> Estonian Land Board; <http://geoportaal.maaamet.ee/> (06.07.2011.)

<sup>14</sup> AI 7021.



remained: whether the dead were buried in the border area of the *tarand*-grave or whether a new burial construction was erected near the earlier grave.

The spread of the artefacts shows that the Late Iron Age burial site must have been the largest. The burial ways of the period were probably diverse; this can be assumed by streaks and larger patches of charcoal containing deliberately fragmented and whole pieces of jewellery, tools, weapons, and also burnt and unburnt fragments of human bones unearthed during the autumn ploughing. The concentration of weapons, especially specimens with silver decoration (Fig. 8), refers to a possibility that a certain part of the cemetery might have been reserved for the elite. It is also quite likely that the cremation of the dead has taken place at the same spot.

It should be noted that during recent years a number of Late Iron Age burial places mostly destroyed by tillage, e. g. in Harmi, Alansi, Kata, Partsaare I–III etc., have been discovered in Central Harjumaa with the help of metal detectors. They all have common features like location on a higher moraine knoll, a sparse stone cover, and mostly rich deposits (Tamla 2002, 139; Kiudsoo 2007, 212–214; Kiudsoo 2011a; Kiudsoo 2011b; Kiudsoo 2011c). The mentioned new discoveries seem to be referring to a fact that burial places with sparse stone cover might not only be characteristic to West-Estonia, as has been assumed so far, but to a much larger area in Estonia.

The Late Viking Age silver hoard of Linnakse (*tpq* 1059) had been deposited definitely beyond the settlement. A ceramic vessel with a small mouth (most probably specially designed as a container for keeping silver) had been dug into the ground in the nearest vicinity of the possible *tarand*-grave, therefore it can be interpreted as a grave hoard related to some ritual act other than burial.

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## ARHEOLOOGILISED UURINGUD LINNAKSEL: KIVIKALMED JA HILIS-VIIKINGIAEGNE HÕBEAARE

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2010. a augustis toodi Ajaloo Instituuti hilis-viikingiaegne hõbeaare (*tpq* 1059; jn 1; vt Kiudsoo ja Russowi artiklit käesolevas kogumikus). Haruldane leid avastati Süda-Harjumaalt Linnakse küla põhjapiirile jäävalt põllult (jn 2: 3) metallidetektori abil ja selle kaevamisid välja Muinsuskaitseameti Harjumaale inspektor Gurly Vedru ning AI konservator Aive Viljus. Lisaks soovis aarde avastaja anda Ajaloo Instituudi arheoloogiakogudele üle paarkümmend raud- ja pronksese fragmenti, mis olid leitud samalt põllult. Need pärinesid rooma rauaajast, rahvasterännuperioodist ning nooremast rauaajast ning osutasid eriaegsetele matmiskohtadele. Kuna MA ja AI arheoloogiaarhiivis puudusid andmed kõnealusel põllul asuvatest/asunud kinnismälestisest või sealt kunagi saadud juhuleidudest, otsustati aarde leiukohas ja selle lähiümbruses korraldada täiendav uuring. Välitööl kasutati kombineeritud uurimismeetodeid: maastiku ja põllupinna vaatlus, pinna- ja künnikihi sisalduvate leidude otsimine visuaalselt frontaalmeetodil ja metallidetektoritega võrgustikmeetodil, leidude kaardistamine GPS-seadme abil (jn 3), proovikaevandite rajamine kultuurkihi olemasolu või selle puudumise tuvastamiseks, pinnaseproovide võtmine erinevate analüüside tegemiseks. Välitööle eelnes tutvumine Linnakse ümbruskonda puudutava kaardimaterjaliga, millest varaseim pärineb aastast 1691 (jn 4).

Aarde leiukohaks olnud avaral põllul ja selle lähiümbruses kivikalmetele iseloomulikke kuhelikke ei leitud. Idapoolses põlluosas on kolm kõrget kivi-hunnikut (jn 2: 1), mis tekkisid sinna talumaade kitsaste põldude servas olnud kiviaedade ja väiksemate põllukivihunnikute kokkulükkamise tulemusel 1960. aastate alguses. Põlenud kive neis ei ole. Samast põlluosast ei avastatud arheoloogiliselt huvipakkuvaid esemeleide ega midagi niisugust, mis viitaks lõhutud kalmetele.

Põllu läänepoolse osa põhjaserva on kantud kuni meetrikõrgustesse vaaludesse kive, sh põlemistunnusega paelahmakaid ja raudkive (jn 2: 2), mille algne asukoht võis olla siinsamas läheduses paiknenud ühes või mitmes kalmes. Matuste täpsemale asukohale osutasid põllumullast mõnevõrra tumedama tooniga kaks kivi-rohket laiku ja samast piirkonnast pinnaleidudena ning künnikihist metallidetektoritega kogutud ligi 300 leidu.

Ühe kivikalme kohta tähistav u 20 m läbimõõduga tihedama kivistikuga ala jäi põllu moreenpõndakule (jn 2: 4). Selle laele rajatud I proovikaevandist (jn 3: 3-I) nähtus, et künnist puutumata jäänud kalmekiht on õhuke ja säilinud vaid laiuguti. Kalmekihi all puudus varasem elutegevuskiht. Pessimistlik arvamus põllutöödega hävitatud matmiskohast osutus ennatlikuks, sest kivise laigu lõunapoolses osas kergitati sügisküniga pinnale mõned ridastikku paiknenud suuremad raudkivid ja söeseguse mulla kamakad koos inimluude fragmentide ja rooma rauaageste spiraalsõrmustega (jn 5: 1, 2). Selle perioodi matmiskohale, kõige tõenäolisemalt tarandkalmele, osutasid ka kivise laigu piiridest metallidetektori abil künnikihist kogutud teised esemeleidud sh lahtiste otstega paeljas käevõru (jn 5: 3), ketassõlg (jn 5: 4), kärbissõlg (jn 5: 5), profileeritud jalaga ambsõlg (jn 5: 6) ja kaelavõru katke (jn 5: 7), mis on iseloomulikud hauapanused Eesti, Läti ja Soome tarandkalmetes. Esemetüpoloogia ja paralleelleidude põhjal pärinevad need 3.–4. sajandist.

Teine kivine ala jäi esimesest u 15 m lääne-edelas (jn 2: 4). Võrreldes eelmisega oli see suurem (läbimõõt u 40 m) ja hõredama kivistikuga. Samast piirkonnast avastatud leiud pärinevad keskmisest ja nooremast rauaajast, kusjuures varasemate leidude kontsentratsioon oli tihedam tarandkalmele lähemale jääval alal. Kuna keskmise rauaaja leide (jn 6) esines hajusalt ka kahe kivise laigu vahelisel alal, jäi lahtiseks küsimus, kas sellel perioodil jätkati matmist tarandkalmesse, maeti selle äärealale või rajati vana kalme vahetusse lähedusse uus kalme.

Noorema rauaaja esemeleide (jn 7; 8) oli kõige rohkem ja nende levikuala hõlmas kõige ulatuslikuma ala. Esindatud olid erinevad esemeliigid (ehet, töö- ja tarberiistad, relvad). Seejuures täheldati relvaleidude (odaotsad, kirved, mõõga käepideme nupud ja kaitserauad, võitlusnoad) koondumist ühte kitsamasse piirkonda kivise ala lääneosas. Mõõkade hõbekaunistustega käepideme nupud ja kaitserauad (jn 8) osutavad elitaarsele matmiskohale. Rahvasterännuaja ja noorema rauaaja hauapanused on valdavalt tahtlikult purustatud ja/või kõrges kuumuses deformeeritud.

Teine proovikaevand (jn 3: 3-II) rajati teise kivise ala edelaossa. Künnist puutumata jäänud kalmekiht oli säilinud ka siin laiguti, kuid oli märksa paksem kui tarandkalme alal. Kalmekihi all varasem asustuskiht puudus. Teise kivise ala lõunapoolses osas sügiskünniga paljandunud söetriibud ja leiukogumid osutavad võimalusele, et künnikihi all on puutumatult säilinud vähemalt mõned matuselohud.

Kolmas proovikaevand (jn 3: 3-III) rajati viikingiaegse aarde leiukohale, mis jäi arvatavast tarandkalmest vahetult põhja poole. Enne kaevandi avamist kontrolliti metallidetektoritega üle selle lähem ümbrus, mille tulemusel leiti künnikihist 18 münti, hõbedakang ja hõbeehte fragment (jn 3: 2). Hõbeda konteineriks olnud kitsa suuavaga savinõu fragmentaarsus ja nn aardejääkide avastamine aarde leiukohast u 20 m eemal lubab oletada, et mingi osa anuma sisust oli välja pudenenud ja põlule laiali küntud enne 2010. a augustis toimunud avastust. Hõbedat sisaldanud nõu oli asetsenud u 30–35 cm sügavusel kultuurkihi tunnusteta

heledas saviseguses moreenis. Eesti noorema rauaaja dokumenteeritud leiukohaga hõbeaaretest on Linnakse aare ainus, mille leiukontekst osutab seotusele kalmega.

Mälestus Linnakse iidsest matmispaigast kadus tõenäoliselt pärast 17. sajandi lõppu, mil selle maapealne osa võis olla veel lõhkumata ja märgiti kivise alana (rootsi k *stenyt*) ka selleaegsele kaardile (jn 4).

Viimastel aastatel on metallidetektorite abil avastatud Süda-Harjumaa põldudelt ridamisi uusi põhiliselt noorema rauaaja leiumaterjaliga matmiskohti (nt Harmi, Alansi, Kata, Partsaare I–III ja viimati Linnakse). Kõiki neid ühendab matmisalaks valitud kõrgem koht (enamasti moreenpõndak), matuseid kattev hõre kivistik ja rikkalik leiumaterjal, milles domineerivad tahtlikult deformeeritud ning fragmenditud esemed. Nende avastuste põhjal on alust arvamuseks, et varem vaid läänepoolsele Eestile iseloomulikuks peetud hõreda kivitattuga matuseväljad olid levinud märksa laiemal alal.