



ARCHAEOLOGICAL SALVAGE EXCAVATIONS AT KUKRUSE: A MODERN AGE ROAD, CREMATION FIELD AND 12TH–13TH CENTURY INHUMATION CEMETERY. PRELIMINARY RESULTS

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INTRODUCTION

In November 2009 during the reconstruction work of the Tallinn–Narva road between Jõhvi and Kohtla-Järve an excavator operator Kuno Kübarsepp found a bronze knife sheath, while peeling off the soil from the old road embankment. The site is located in the Kukruse village (former Jõhvi parish) Kohtla municipality in Ida-Virumaa, under the former Tallinn–Narva road (E20) (Fig. 1). The roadwork was halted by the National Heritage Board and archaeologists started to investigate the site. After OÜ Muinaslabor had conducted preliminary surveys, it was established that there is an inhumation cemetery at the site (Jonuks & Lõhmus 2009). In order to carry on with the road building the part of the cemetery that remained under the road had to be excavated. Therefore, salvage excavations led by OÜ Muinaslabor lasted from the 5th of December 2009 to the 23rd of January 2010 (Jonuks & Lõhmus 2010). Fieldwork was also conducted in April and May 2010 to determine the extent of the cemetery and to survey its surroundings (Jonuks & Lõhmus 2011).

Although the find of the knife sheath led to the discovery of the cemetery, there are already several archive reports that indicate Late Iron Age (11th–12th cc) habitation in the vicinity. In 1848 a neck-ring, fibula and a spearhead were found during the excavations of drainage to the Edise manor (Tender 1924, 7). There were also other items from the Late Iron Age – chain holders, a spiral bracelet and a mould

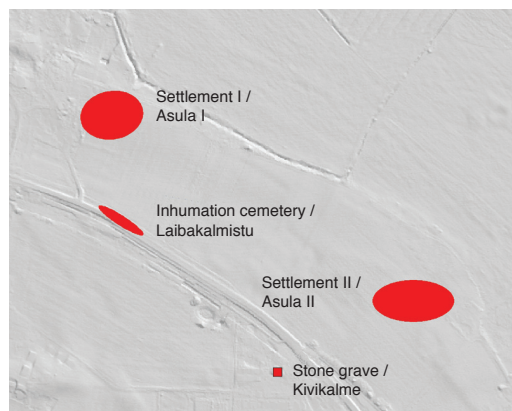


Fig. 1. The location of the Kukruse site on the relief map.

Jn 1. Kukruse leiua asukoht reljefikaardil.

Map / Kaart: Martti Veldi

(AM 13749; AM 110: 96; AM 110: 29; AM 110: 100) – found from the Roman Iron Age *tared*-grave excavated in the vicinity of Kukruse inhumation cemetery in 1895 by Richard Hausmann (Hausmann 1896).

The aim of the salvage excavation was to research the part of the cemetery that was in the way of the road construction. The two main questions were to determine the extent and the characteristics of the cemetery. The fieldwork revealed that the site in Kukruse has been used in different periods: as an inhumation cemetery, a cremation field and an 18th century road. In the present paper only the research methods and preliminary results of the fieldwork are presented as the full analysis of the material is yet to be finished.

RESEARCH METHODS

Altogether an area of ca. 600 m² was excavated. According to the features present on the site different research methods were combined. All the artefacts and features – graves, pits (e.g. post holes), road, and cremation burials – were measured *in situ*. Parts of the fieldwork were also documented in a film by Marge Konsa (TÜ).

Some of the graves were made visible by the excavator (Fig. 2) on the natural soil. Where preserved, the 30–50 cm thick black soil layer above the inhumations was excavated with trowels and burials were located thereafter. Graves were treated as single contexts. In order to distinguish the burials from each other, they were marked with numbers (I–XLIX¹) in the sequence of their finding. Horizontal and frontal excavation methods were used. The borders of the grave, the skeleton and artefacts corresponding to it were fixed separately. A description sheet – filled both by the archaeologist and the anthropologist – was used for each individual case in order to achieve comparability of the data. All graves were photographed and drawn (scale of 1: 10 or 1: 5).

Over 30 blocks were taken from different burials (Fig. 3). Most of them were taken from parts where decorations made of bronze spirals were located in order to preserve the patterns. Among others a whole burial (VI) was taken to laboratory for further analysis.



Fig. 2. Grave pits dug into the natural soil. View from the east.

Jn 2. Looduslikku pinnasesse kaevatud haualahud. Vaade idast.

Photo / Foto: Tõnno Jonuks

¹ In the course of the fieldwork not all the detected depressions appeared as graves, therefore the number refers to features not to graves only.

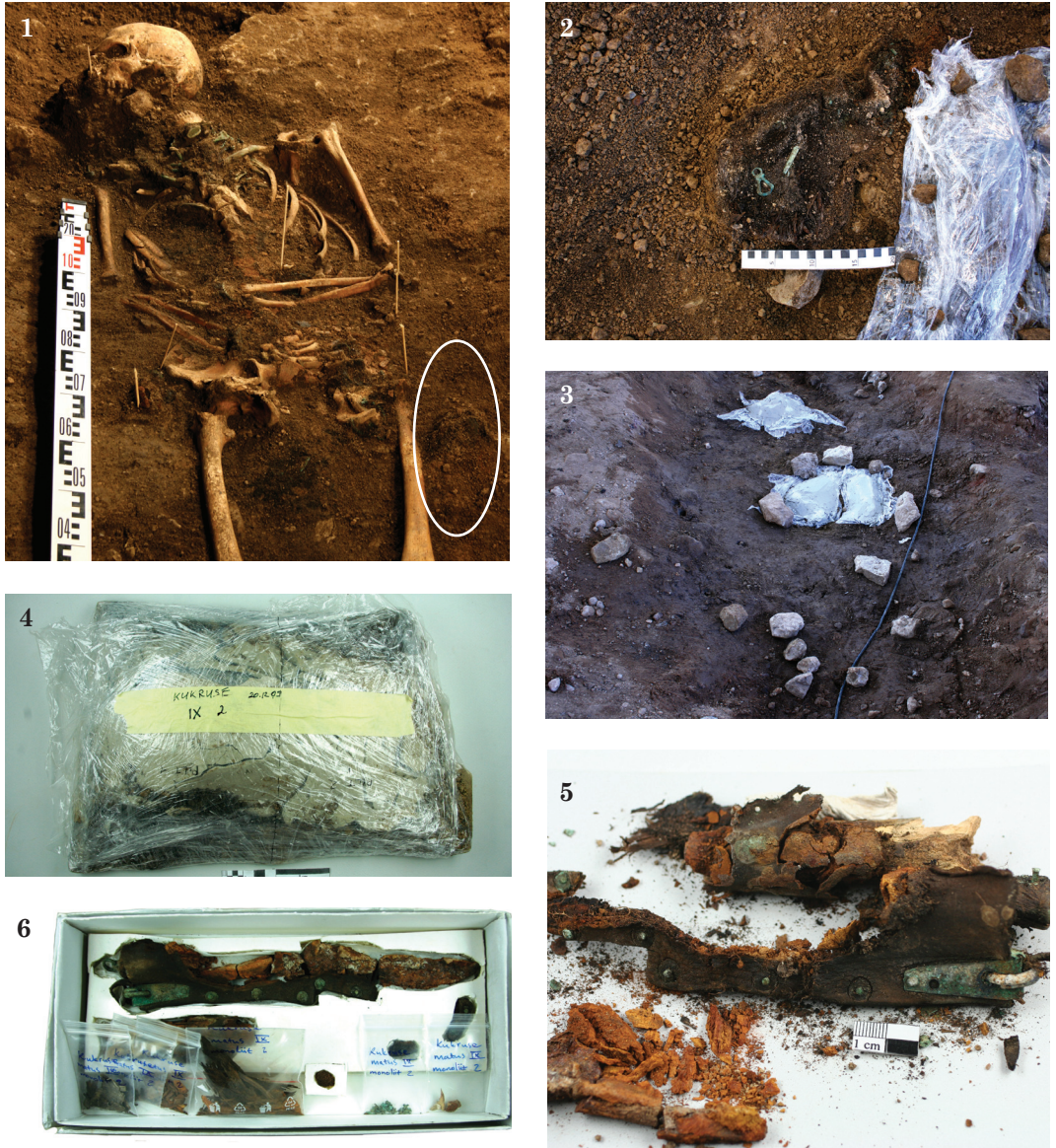


Fig. 3. A block of a knife and its leather sheath of the IX grave and its cleaning in the lab. 1 – organic layer next to the left femur, indicating the spot where to take a block, 2 – covering the organic layer with plastic, 3 – blocks covered with plaster, 4 – the block before opening at the lab, 5 – a knife with its leather sheath uncovered from the block, 6 – the end-product: a knife with a leather sheath of the cleaned block.

Jn 3. Monoliit IX matuse juures olnud nahktupes noast ja selle puhastamine. 1 – orgaanikakiht mehe vasaku reieluu kõrval viitab kohale, millest võtta monoliit, 2 – orgaanilise pinnase katmine plastikuga, 3 – kipsiga kaetud monoliidid, 4 – monoliit enne laboris avamist, 5 – monoliidist väljapuhastatud nuga koos nahast tupega, 6 – lõpp-produkt: nahast tupega nuga pakendatult.

Photos / Fotod: Mari Lõhmus, Päivi Jantunen

The cremation cemetery layer, which was preserved at one half of the excavation plot, was studied with two different methods. In the beginning all bones were measured *in situ*. Later a gridding method with 1 × 1 m squares and 10 cm thick arbitrary layers was used. The road from Modern Age was cleaned, then drawn with a total station and photographed. Different soil, wood and other samples were gathered.

In order to determine the extent of the cemetery a 15 m long and 1.9 m wide trench was excavated to the northern part of the Tallinn–Narva road. Altogether five grave pits were identified (nos XLI–XLIX). They were left unexcavated and were covered with black plastic bags after mapping.

RESULTS OF THE FIELDWORK

A cobblestone road

A map of Kukruse manor shows that there has been a road on the cemetery between Kukruse and Edise manor at least since the 19th century (EAA 2062-1-171). During the excavations part of the road, which was partly covered with cobblestones (Fig. 4) was documented above the inhumation cemetery. According to a Russian 1-kopeyek coin from 1797² the road can be dated to the Modern Age. While digging the trench of the road some graves (XXIII and XXIV) were also disturbed.



Fig. 4. 18th century cobblestone road at Kukruse.
View from the east.

Jn 4. 18. saj munakivisillutisega kaetud tee.
Vaade idast.

Photo / Foto: Tõnno Jonuks

The cremation field

The 20–45 cm thick cultural layer under the cobblestone road contained a considerable amount of cremated bones. In addition to cremated bones also single artefacts, mainly small and burnt, were found. The fragments of artefacts were similar to the items collected from inhumation graves. The only possible earlier item was a needle spiral, which according to Mari-Liis Posti (AI) might be part of a 1st to 11th century fibula. If the assessment is correct the beginning of the cremation field can be several centuries older than the inhumation cemetery. The fact that the cremation field is older than the inhumation cemetery is also supported by the finds of single cremated bones in inhumation graves. Some of the inhumation graves were dug through cremation burials. However, the general stratigraphy tends to hint at probable later dating of the cremation layer on top of earlier inhumation burials. Nevertheless, as there are no AMS-dates from the data yet, the possibility that cremation and inhumation cemeteries were more or less concurrent cannot be excluded. As the osteological analysis of cremated bones is not yet conducted the chronological relationship of two burial practices nor the information about funerary rituals can be revealed here.

² TŪ 1777: 162.

Inhumation cemetery

The excavation of the inhumation cemetery covered only a 10 m wide and 60 m long area, which was necessary for building a new road. The surveys indicated that the cemetery was much bigger and reaches at least to the present day field north to the road. It was considerably well preserved, partly due to the roads from the Modern Age on top of it.

Altogether 40 individuals in 35 graves were excavated in December 2009 and January 2010. The majority of them were single graves and five of them were double burials. Whereas, two graves (nos IV and VIII) were left unexcavated because they were partly under the newly built road. Five additional graves were detected during the fieldwork in May 2010 and one multiple burial (no. XLV) was excavated as well.

Burials in the inhumation cemetery

Osteological material

Men, women as well as children have been buried at Kukruse cemetery. According to the preliminary determinations of osteological material both sexes are equally represented at the cemetery; whereas, the high number of children and infants is remarkable. The sex of the individual was identified according to the sex characteristics on the pelvis and cranium (Buikstra & Ubelaker 1994, 16–20), the age according to the wear of the symphysial face surface (White & Folkens 2005, 374–379).

Various pathologies and traumas were found at several skeletons. The main disease present at child skeletons – three of the children at the age 9–15 years – was scurvy (*Scorbutus*). Adults had diseases connected to physical activities and ageing. For example 11 individuals had Schmorl's nodes or in other words herniations of discs. Schmorl's nodes are caused by a trauma, intensive physical stress, continuous repeated action or congenital feature, that results with a rupture of a disc. In Kukruse material the diseases appeared mainly in male skeletons: 8 males (aged 25–50+) and 3 females (aged 45+). This indicates that men were physically more active.

Bone fractions, for example compression fractures of vertebra, ribs and phalanges, were the main traumas. An exceptional case was a 50+ year old female (no. VII), who had four healed cut marks on her skull (Fig. 5). All the cut marks are thin, which indicates a weapon with a narrow edge. It is highly possible that the marks were caused by a sword. The round edges of the cuts indicate that the wounds were totally cured and the woman did not die because of these wounds.

Many of the deceased had passed away in high age. The numerous presence of infants (altogether 12) and small children (6) show their generally high death rate.



Fig. 5. The skull of the burial no. VII with healed cut marks.

Jn 5. VII luustiku paranenud lõikejälgedega kolju.
Photo / Foto: Marko Usler



Thus, the burial ground has formed in the course of normal demographic development. To conclude – Kukruse was a peacetime cemetery, which is confirmed by the fact that burials with signs of violence were absent among the inhumations.

Grave goods and dress adornments

Both men and women, but fewer children were adorned with grave goods (Fig. 6). Often a clay vessel filled with food had been placed at the foot or the head of the burial. Scythes had been given both to men as well as women. Scissors, needles etc. had been put into the graves of women, knives both to men and women. Ceramic vessels were found in the burials of children as well, whereas sometimes pots had been placed upside down. An exception was found from the female burial no. XV, where a ceramic vessel at the foot of the grave had been broken lengthwise in half. A characteristic feature for many burials was a bronze ring found at the foot of deceased. Usually there was one ring in the burial, but one burial of an exceptionally wealthy male (no. IX), had two rings at the foot. Rings have been attached either to the lower part of the dress or to some kind of footwear. Only one child had a ring around the foot. The same phenomenon has been observed 40 kilometres away of Kukruse, at Pada cemetery from the same period (Tamla 2011).

In addition to regular grave goods separate sets of jewellery had been buried together with two females. These sets were not meant to decorate the deceased, but accompanied the dead as separate grave hoards. One of these, burial no. XXXVIII, had a chain arrangement with pins and a sheet pendant twisted together and placed between the knees of the deceased. The other

Fig. 6. A richly adorned female burial no. VII.

Jn 6. Rikkalike panustega naisematus nr VII.

Photo / Foto: Marko Usler

grave deposit was found next to the left shinbone of the female burial no. XXII. A rolled up chain arrangement had been buried separately, 20 cm away from the dead. A necklace of beads with seven silver sheet pendants and a fang pendant were also rolled into the chain arrangement.

In addition to other grave goods male burials had weapons accompanying the deceased. A spear has been put into 3 out of 12 male burials. The spearheads found during the excavations at Kukruse are relatively modest and small. Since the preserved spearheads were found either from the foot or the head area of the burial, apparently shafted spears had been placed into the grave. The length of the grave thus determined the longest possible length of the spear shaft, which on the example of the burial XLIII was 184 cm. A single male burial (grave no. XII) contained a sword (Fig. 7), which lay on the right side of the dead. A small bronze plaque, probably from the decoration of the sword sheath, was found near the guard. An axe was found in the collection of grave goods buried as the only cenotaph at Kukruse cemetery (grave no. XXIX). Judging by its position in the grave, it could have been hit into the ground by its cutting edge.

Suggestions about the Late Iron Age clothing can be made on the basis of metal adornments and fasteners on clothes – decorative pins, brooches, buckles, bronze spirals and plaques. The aprons of Kukruse women had been decorated by bronze spirals and tiny rings. The headgear of a young woman (grave no. XLIV), probably a kerchief, had also been decorated with little tubes consisting of bronze spirals. The women often had a leather belt decorated with bronze plaques. A knife in a sheath covered with bronze sheet, belt jewellery and smaller utensils had been hung to the belt. Men have worn belts as well, only buckles of which have been preserved. Similarly to women men have kept knives on the belts, although these have had less decorated sheaths. A knife with a wooden handle in a leather sheath that had been riveted together with bronze plaques was found on the area of the left pelvic of the male burial no. IX (see Fig. 3). A bone eight-shaped artefact, apparently the fasteners of a purses hanging on the belt, was obtained from the pelvic area of some burials (e.g. nos X, XIII, XXXVII). Personal and everyday items such as flints and strike-a-lights, etc. were carried in the purse. Remains of leather footwear have been found with several burials (e.g. grave nos IV, XV and some others).

Coffins and wrappings

Several deceased have been placed into coffins. This is indicated by single wooden fibres or dark organic-rich stripes of soil left by decayed wood. On the basis of the material gathered from Estonia so far (e.g. Tiirmaa 1997; Laul & Valk 2007) it is known that both log



Fig. 7. A sword hilt from the male burial no. XII.
Jn 7. Mõõga käepide kaitseraua ja nupuga mehe matusest nr XII.

Photo / Foto: Marko Usler

coffins as well as coffins made of boards have been used for burying. Even though, there is not enough data to describe coffins at Kukruse cemetery, one can conclude that the majority of coffins had been made of boards (e.g. graves nos IV, VI and VIII). Coniferous wood, probably spruce³, was used for the coffins. Only a few nails have been found. Therefore, the coffin boards had apparently not been nailed together but the lid of the coffin had been fastened by a single nail. On the other hand, the possibility of fastening the coffin boards with wooden nails that are not preserved cannot be excluded.

In addition to wooden coffins some of the dead in Kukruse were wrapped into cloth and buried without any container. As the textile cannot preserve in alkaline or neutral environment, this may be concluded by the body positions of the deceased. Taking implications from the archaeoethnatology (see Duday 2009) burial no. XIX was analyzed. The chest of the male had been pressed together and the arms compressed tightly against the body together with the hands 'broken off' under a right angle. This indicates that the deceased might have been placed into a relatively narrow grave within a closely contracted shroud. When the dead body started to decay in the ground, the close-knit shroud drew the skeleton more tightly together, which is why the collarbones, ribs as well as hands were left in unnatural position.

Another example is the burial no. XLIII (Fig. 8) where a male had been placed into the ground without any container. The legs of the dead rested freely, the ribs had evenly collapsed and the arm bones lay flexed by the side of the head. The position of the arms enables to suggest that the dead had been dropped into the grave hand held.



Fig. 8. Burial no. XLIII.

Jn 8. Matus nr XLIII.

Photo / Foto: Tõnno Jonuks

The structure of the cemetery and grave marks

We know very little about the appearance of the Late Iron Age cemeteries at the time of their usage. The underground inhumation cemeteries lacked over-ground stone constructions and barrows, which is why the reconstruction of their appearance at the time of their usage is difficult. These cemeteries were probably not long-lasting and approximately one century can be considered to be their using period (e.g. Tamla 1996, 224). Very rarely traces of burying on top of former inhumations can be seen, which suggests that the graves must have been marked on the ground. Post holes with stone wedges were found from the head or foot of several burials (graves nos XV and XXXIII, XXX) at Kukruse cemetery,

³ Determinations of the wood have been made by Regino Kask (EMU).

which refers to the marks of wooden posts (with the diameter of 15–20 cm) above the graves. Similar postholes have also been found from other Estonian cemeteries e.g. Siksälä (Laul & Valk 2007, 39f). However, post holes were found in Kukruse between the graves as well, from the area, where these could not be associated with any specific burial.

The inhumations at Kukruse cemetery had their heads orientated towards east, west, north and south, while in Estonia in general westward directions are preferred. While different orientations could be observed at the majority of Kukruse cemetery, then a group of burials was clearly distinguished in its eastern part (graves nos I, V, VI, VI, XXII), where the heads of all inhumations had been directed towards west. However, the authors of the present article do not consider the eastern-orientation solely as a sign of Christianity as the religious picture of Late Iron Age Estonia was clearly more complex and the search for ‘Christian’ and ‘pagan’ does not seem appropriate.

Re-opening of the graves

Most of the graves at Kukruse inhumation cemetery were undisturbed. However, there was a peculiar example of the ‘last resting place’ of the dead that had been disturbed: the grave had been re-opened and closed again. Although it might seem an exceptional behaviour, similar cases are known from Late Iron Age cemeteries all over Estonia (e.g. Tamla 1998; Mandel 2003, 147). In Kukruse, from a relatively deep burial of a 40–50 years old man (burial no. XXXIX) three later openings were detected (Fig. 9). Such re-openings indicate that the grave must have been marked on the ground, so that the diggers were able to find the grave. The opening of the grave had happened some time after the funeral, when the soft tissues of the deceased had been decayed. It is possible that the purpose of the dig was to open the chest area of the dead body, but the diggers first unearthed the right pelvis and cut off a piece of the tip of the right pelvis with a shovel. After that the left side of the chest was opened and the left side of the skull was also damaged. However, not a single bone is missing from the skeleton. All the bones had been re-buried into the depression made at the head of the burial.



Fig. 9. Dug-ins (1, 2) to the burial no. XXXIX and reburied bones in the third dug-in (3).
Jn 9. Sissekäevad (1, 2) matusesse XXXIX ning hauda tagasimaetud luud (3).

Photo / Foto: Tõnno Jonuks

Dating of the cemetery

The burials of Kukruse could mostly be dated to the end of the 12th– 13th century. This is indicated by the grave goods, such as ceramics, decorative pins, knife sheaths etc. The dating is confirmed by coin-pendants and an AMS date from the grave no. XXXI (1260–1300

cal. AD; Fig. 10). But as another AMS date from the grave no. XLV shows (1610–1660 cal. AD; Fig. 10) the cemetery has been used occasionally also in considerably later times.

CONCLUSIONS

Salvage excavations at Kukruse have revealed three different sites: a Modern Age cobblestone road, a cremation burial field and a Late Iron Age inhumation cemetery. Studying the rich material of Kukruse cemetery is still in progress, therefore, the results presented in the article are preliminary. In order to put the Kukruse cemetery into wider context not only the cemetery itself needs further investigations, but also more field surveys on the north-east Estonia are requisite. Field surveys are particularly important because the area has not been systematically studied since after the World War II.

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Atmospheric data from Reimer et al (2004); OxCal v3.10 Bronk Ramsey (2005); cub r:5 sd:12 prob us[chron]

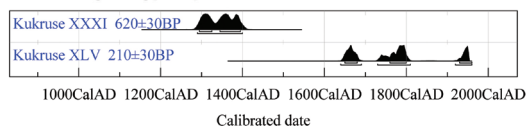


Fig. 10. Dating curve of the grave no. XXXI and XLV.
Jn 10. Matuste nr XXXI ja XLV dateerimiskõver.

KUKRUSE PÄÄSTEKAEVAMISTE ESMASED TULEMUSED: UUSAEGNE TEE, PÕLETUSMATUSTE VÄLI JA 12.–13. SAJANDI LAIBAKALMISTU

Mari Lõhmus, Tõnno Jonuks ja Martin Malve

2009. a novembris avastas Kuno Kübarsepp Kukrusel Tallinn–Narva maantee (E20) tee-ehitusel pinnast koorides pronkspealisega noatupe. Muinuskaitseamet peatas ehituse ning enne teetööde jätkumist toimusid OÜ Muinaslabori arheoloogide juhtimisel Kukruse arheoloogilised päästekaevamised. Päästekaevamiste eesmärgiks oli uurida tee-ehitusele ette jäävat kalmistuala (jn 1) ja selgitada kalmistu suurus ning iseloom. Välitöödega tuvastati, et u 600 m² maa-alal on olnud põletusmatuste väli, laibakalmistu ning uusaegne maantee.

Kolme eriilmelise muistise uurimiseks kasutati erinevaid meetodeid. Esimesed maahaud tulid nähtavale ekskavaatoriga pinnast koorides (jn 2). Sealjuures fikseeriti kogu leiumaterjal *in situ* ning võeti üle 30 monoliidi (jn 3). Iga üksikut hauda käsitleti tervikkontekstina, mida uuriti rakendades nii frontaalset kui ka horisontaalset kaevamismeetodikat.

Endise Tallinn–Narva maantee all paljandus munakivitee (jn 4). Olemasolev kaardimaterjal lubab tee dateerida 19. saj, kuid teelt saadud Vene ühekopikaline münt (1797) lubab selle ajaldada 18. saj lõppu või 19. saj algusesse. Tähelepanuväärne on seegi, et 1848. a kirjeldatud teele kraavi kaevates on tõlised lõhkunud ka mõnda laibamatust (nt XXIII ja XXIV).

Uusaegse tee all asetuses 20–45 cm paksune must kultuurkiht, milles leidus hulga põlenud inimluid. Lisaks saadi üksikuid põlenud esemekatkeid, mis sarnanesid laibamatustest saadud leidudele. Ainus selgelt varasem esemekatke oli spiraaliga nõel, mis Mari-Liis Posti hinnangul võiks kuuluda 1.–11. saj dateeritavale kaarsõlele. Kui see määrang osutub õigeks, on põletusmatused mõned sajandid varasemad laibakalmistust. Kuigi stratigraafiliselt paiknes põletusmatuste kiht laibakalmistu peal, leiti mitmetest laibahaudadest üksikuid põlenud luu katkeid. Kuna hetkel puuduvad AMS-dateeringud siis on laibakalmistu ja põletusmatuste ajaline suhe veel ebaselge. Ühtlasi on hetkel teostamata põletusmatuste osteoloogiline analüüs, mistõttu puudub ülevaade maetute arvust ja matmiskombestikust.

Tee-ehitusel avastatud laibamatustega kalmistu on olnud märgatavalt suurem, mida kinnitavad ka 2010. a mai teetööd. 2009. a detsembris ja 2010. a

jaanuaris tuvastati 35 hauda, millesse oli esialgsel andmetel maetud 40 indiviidi. 2010. a mais lisandus veel viis haua lohku, millest kaevati läbi üks mitmikmatus (XLV). Esemete ning radiosüsinikudateeringute (jn 10) alusel on võimalik kalmistu ajaldada 12. saj lõppu ja 13. sajandisse. Teataval määral kasutati kalmistut hiljemgi, mida kinnitab XLV matusest saadud radiosüsinikudateering (jn 10).

Kukruse laibakalmistule on võrdväärselt maetud mehi ja naisi; eraldi tuleks esile tuua imikute ja väikelaste suurt osakaalu. Sealjuures tuvastati luustikel mitmesuguseid traumasid ja patoloogiasid. Laste peamiseks haiguseks osutus skorbuut ning täiskasvanud kannatasid enamasti füüsilise koormuse ja vananemisega kaasnevate haiguste käes. Peamiste luumurdudena esinesid kompressiooni murrud selgrool, roietel ning sõrmedel. Erandlikuna tuleb esile tuua üks üle 50. a naine (matus VII; jn 5), kelle koljul tuvastati neli paranenud tera-riista löikejälge. Suurem osa maetutest on surnud kõrges vanuses, suur on ka imikute ja väikelaste osakaal. Sellest võib järeldada, et tegemist on normaalse demograafilise olukorraga, osutades et Kukrusel asus rahuaegne kalmistu.

Hauapanuseid esines enamikes matustes (jn 6), sealjuures oli neid nii naiste kui ka meeste haudades, vähem laste matustes. Tihti oli jalutsisse asetatud savinõu, nii meeste kui ka naiste oli kaasa pandud nuga. Mitmete matuste jalutsis oli ka pronksist “käevõru”, mis on ilmselt asetsenud rõivaeseme alaosas või oli kinnitatud jalatsi külge. Lisaks naiste matustest leitud rõivakaunistustele saadi kahest naise hauast ka nn eraldi maetud ehtekomplektid (XXXVIII, XXII). Meeste juurest leiti relvi: valdavalt oli selleks oda, aga ka kirves ning ühel juhul mõõk (jn 7). IX mehematuse vasa-kult puusalt saadi ka nahktupes nuga (jn 3).

Leiumaterjal lubab teha järeldusi toonase rõivastuse kohta. Eriti rikkalikult on Kukrusel kaunistatud naiste põlled allääri, ühel noorel naisel on kaunistatud ka peakatet (XLIV). Naiste nahkvööd on tihti olnud pronksnaastudega kaunistatud. Lisaks vööehetele ja nugadele on mitme surnu vöö olnud ka kott isiklike esemetega, mida tunnistavad vaagnaluude juures olevad luust kaheksakujulised kinnitused (nt X, XIII ja XXXVII).

Mitmete matuste juurest leiti fragmente nahkjalatsitest (nt IV, XV).

Enamik surnutest on hauda asetatud kirstus, millele viitavad kõdunenud puidutükid. Sealjuures on Kukrusel tegemist laudadest kirstudega (IV, VI, VIII), millel on vaid kaanelauad naelaga kinnitatud. Välistada ei saa ka võimalust, et kirstude kinnitamisel on kasutatud puidust naelu, mis aga säilinud ei ole. Kirstupuiduna kasutati okaspuid, võimalik, et kuuske. Samuti on Kukrusel surnuid hauda asetatud surilinalesse mähitult (XIX) aga ka ilma igasuguse ümbriseta (XLIII) (jn 8). Haudu on vahel avatud (nt XXXIX, jn 9). Sarnaseid juhtumeid on teada teistestki hilisrauaaja kalmistutest.

Laibakalmistu algsest välimusest on vähe teada. Kukrusel asetsevad hauad korrapäratute

rühmadena. Sealjuures on enamik kalmistule maetutest orienteeritud peaga põhiilmakaartesse. Tõenäoliselt on tegemist võrdlemisi lühiajalise kalmistuga (paar põlvkonda), millele viitab nii ühetaoline leiumaterjal kui ka tõsiasi, et olemasolevate haudade peale pole maetud. Ühtlasi viitab see võimalusele, et maahauad olid omal ajal maapinnal markeeritud. Kukruse kalmistult leiti jälgi haudade peatsis ja jalutsis olevatest postiaukudest (XVa, XXXIII, XXX). Arvatavasti on neis olnud 15–20 cm läbimõõduga puidust hauatähised.

Kukruse muististe kompleksist koguti äärmiselt rikkalik leiumaterjal, mille analüüsimine on alles pooleli. Sellest johtuvalt on käesolevas artiklis esitatud vaid esialgsed uurimistulemused.