

Investigation of Late Iron Age occupation layers in Viljandi Castle park

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INTRODUCTION

In 1999–2007 archaeological investigations with the aim to get information about the prehistory of Viljandi were carried out in the area of the Castle Hills, south of the ruins of the Castle of the Teutonic Order and the site of the prehistoric hill fort. The work, budgeted by Viljandi town government, revealed traces of the Late Iron Age settlement area, as well as the remains of trebuchet platforms from the siege of 1223.1

The research programme, which stopped due to the economic decline in 2008, was continued in 2014. The purpose of the work was 1) to get information about *in situ* preserved Late Iron Age occupation layers in the close vicinity of the castle and 2) to save archaeological information from perishing because of permanent impact of erosion: in the investigation area most of the occupation layer had been washed down the slopes already.

THE INVESTIGATION AREA

The small-scale research excavations took place on the ridge between the moats immediately south of the High Castle (Fig. 1: 1) which was built to replace the prehistoric hill fort (HCL XXVIII: 9). The distance of the excavation site from the edge of Kaevumägi

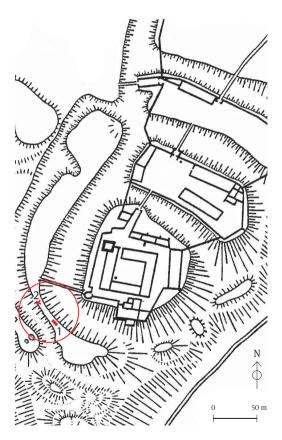


Fig. 1. Excavations of 2014 in the Castle Hills of Viljandi. 1 – excavation area, 2 – test pit.

Jn 1. Kaevamised Viljandi Lossimägedes 2014. aastal. 1 – kaevand, 2 – šurf.

Drawing / Joonis: Maria Smirnova

¹ For bibliography in English see the volumes of Archaeological Fieldwork in Estonia for 1999–2007; for bibliography in Estonian: Valk 2015.



Fig. 2. Excavations on top of the ridge south of the High Castle. Jn 2. Kaevamised seljakul pealinnuse varemetest lõuna pool. Photo / Foto: Heiki Valk

Hill with ruins of the High Castle, was ca. 45 metres. The place was chosen because Iron Age occupation layers could visually be observed there even on ground surface. The territory with the remains of preserved occupation layers, a small oblong hillock, was somewhat higher than the levelled park plateau west of the suspension bridge and the High Castle. In the west it was separated from the castle park plateau by a shallow depression (ca. 15 m wide and until 70 cm deep). East of the investigation area where the ridge slopes down towards the lake valley, the occupation layers had not preserved partly because of human activities, partly because of erosion. As both longer sides of the research area were open for constant natural erosion which washed the ground into deep moats with steep slopes, the top of the ridge had preserved only in the width of ca. 2–2.5 metres (Fig. 2). The maximal measures of the hill top, i.e. the investigation area were 8.5 × 3 m, whereby occupation layers had survived in an area of ca. 19 m², mainly in the southern part of the ridge, south of the path. In the path area they had almost fully been removed. The in situ preserved layers were surrounded in all sides by a ca. 20 cm wide zone of eroded soil. As being located on a hill top, the excavation area did not form a trench, but the top of the hill was dug lower.

Since it was presumed that the occupation layers had deposited on originally flat plateau (the suggestion turned out to be correct), digging was carried out by 10 cm horizontal layers, considering also the stratigraphy. All the soil was sieved. Erosion had carried off most of the soil from the uppermost 20 cm and these layers had preserved only in the form of a small 'hill top'. The bottom layers had preserved to a broader extent. The thickness of the occupation layers (including the original brownish natural soil which contained also finds) from the top until intact mineral loam was ca. 40 cm, in pits and depressions also more.

FINDS, THEIR CONTEXTS AND DATES

During the excavations2 two major chronologically different stratigraphic units could be distinguished. The first of them involved approximately the uppermost 30 cm. The grevish-brownish occupation layer was of even consistence; it contained rare smallsized stones and fragments of both handmade (72%) and wheel-thrown (28%) pottery, among which some sherds with line ornamentation (Fig. 3: 4-7), and a big sherd with wave-and-line ornamentation (Fig. 3: 8), typical for Final Iron Age Viljandi, can especially be noted. From the layer also a spiral ring (Fig. 3: 9) was found. Although rings of that kind have been dated to the 12th - 13th centuries (Selirand 1974, 173-174, table XL: 6), the lack of such finds in medieval village cemeteries determines the first quarter (or half) of the 13th century as the upper limit of their use.



Fig. 3. Finds from the uppermost 30 cm: 1–3 – hand-made pottery, 4–8 – wheel-thrown pottery, 9 – ring.

Jn 3. Leide ülemistest korristest (kuni 30 cm sügavuselt): 1-3 - käsitsikeraamika, 4-8 - kedrakeraamika, 9 - sõrmus.

(VM 11472: 29, 40b, 46, 43, 42, 60, 411, 58, 34.) Photo / Foto: Heiki Valk

The layers below the level of -30 cm from the hill top were rich in finds. Soil in the depth of 30–40 cm contained mainly fragments of hand-made pottery (92.3%), but also some fragments of wheel-thrown vessels (7.7%), thin, well-burnt and decorated with line ornamentation (Fig. 4: 1, 2), were found. In most of the excavation area the lower part of the occupation layer had the thickness of 10–15 cm. It gradually transferred into the original pre-occupation brownish soil the upper part of which also contained finds. The layer had formed on the horizontal plateau above the lake valley.

In the eastern part of the excavation area the lower part of the occupation layer, below the level of -30 cm was especially intensive. As the intensive layer continued also in the depth where intact natural mineral soil had appeared in the directly adjoining area in the west, it had formed in an area which had been deepened for ca. 15-20/25 cm into intact natural loam. Since the depression had a rather straight western edge (the other edges had been destroyed by erosion), the presence of some building cannot be excluded there. Within the depression, in the area with the diameter of at least 1.5 m (the edges were not preserved because of erosion) the soil was intensively black and contained some fragments of burnt stones. In the distance of ca. 1 m from the dark area a fireplace (diam. ca. 0.5-0.75 m) with small fire-cracked stones appeared.

The deepened area yielded numerous fragments of hand-made pottery. Two fragments from its bottom originate from a very large carinated bowl with a smoothed surface and a strongly expressed ridge (Fig. 5: 2); the maximum diameter of the vessel (at the ridge) has been ca. 45 cm. Such large vessels have been discovered also at some other strongholds of south-eastern and southern Estonia (Tvauri 2012, 77). Two fragments come from the rounded base of a big bowl (Fig. 5: 3). However, from the undisturbed bottom layers also some

² Finds in the Museum of Viljandi: VM 11472: 1-453. Later references to finds in the text are made by sub-numbers.

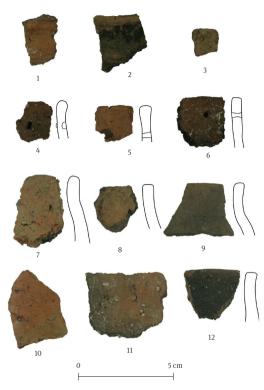


Fig. 4. Late Viking Age pottery from Viljandi. 1–2 – sherds of wheel-thrown vessels, 3 – sherd with dotted ornamentation, 4–6 – sherds with penetrating holes at the rim; 7–9, 12 – rim fragments of hand-made vessels, 10–11 – hand-made pottery.

Jn 4. Hilisviikingiaegne keraamika Viljandist. 1–2 – kedranõude killud; 3 – lohkornamendiga kild, 4–6 – servaaugukestega killud, 7–9, 12 – käsitsikeraamiliste nõude servatükid, 10, 11 – käsitsikeraamika. (VM 11472: 425, 449, 309, 436, 79, 345, 260, 450, 328, 377, 304, 392.)

Photo / Foto: Heiki Valk

fragments of thin and well burnt wheelthrown vessels decorated with line ornamentation (: 361, 362, 385) were found.

Hand-made pottery from the bottom lavers, both on the naturally flat and the deepened area, was similar in character, representing sherds typical for the Viking Age in southern Estonia. Most numerous are small sherds of dark, greyish or brownish vessels with mostly uneven, but in some cases also with smoothed surfaces. The edge fragments come from vessels with straight and simple rim (Fig. 4: 7–9, 12), as well as from carinated vessels (Fig. 5: 2). From the trench, three thin sherds from vessels with penetrating or almost penetrating holes at the rim were found (Fig. 4: 4-6); the finds include also a sherd with dot ornamentation (Fig. 4: 3). Most of pottery had semicoarse or coarse surfaces (Fig. 3: 1-3; 4: 3-7, 11; 5: 1), fragments with smoothed surface (Fig. 4: 9, 12; 5: 2) were not so numerous and polished ware (Fig. 4: 10) was very rare. Several fragments of a bloated and cracked vessel with thick walls (e.g. Fig. 5: 1) should specially be noted. This find may indicate local making of Viking Age pottery somewhere nearby, on the ridge. There were no principal differences in the character of hand-made pottery of the upper and lower part of the occupation layer, but some types of fragments typical for the Viking Age (with smoothed surface, with a ridge) were missing in the top.

Finds from the intensive occupation layer in the deepened area include also two fragments of bronze chains (Fig. 6: 6, 8), a trapezoid bronze pendant (Fig. 6: 7), and two clay beads (Fig. 6: 4, 5). In Latvia, Oliņkalns hill fort such beads have been dated to the 10th – 13th centuries (Mugurēvičs 1977, 38, table X: 1–5). From the lowest, very intensively black layer also two beaver astragalus pendants (Fig. 6: 9, 10), one of them burnt and found from the fireplace, were unearthed. These finds are typical for Estonian Viking Age hill forts and their use has been interpreted as a sign of involvement in beaver fur trade (Leimus & Kiudsoo 2004).

A radiocarbon sample from dispersed charcoal particles in the black layer in the deepened area gave the result 1155±55 BP (95.4% probability; cal. 715–744 (3.5%), 766–996 (91.9%) AD).³

³ Tln-3595. Calibrated with OxCal 4.2 by using the IntCal13 calibration curve (Bronk Ramsey 2009).

Chronological judgements can be made also on the basis of wheel-thrown pottery which does not appear in south Estonia before the 11th century (Tvauri 2005, 39). As fragments of wheel-thrown vessels occur, although represented by single sherds, also in the bottom layers, there exists no reason to date the formation of occupation layers on the ridge to the time before the 11th century (or, considering minor disturbances caused by life activities, e.g. by walking on wet ground, to the late 10th century). It must also be noted that wheel-thrown pottery from the bottom layers is of good quality (thin sherds of wellburnt vessels with line ornamentation), and probably, not locally produced. Since the number of wheel-thrown fragments below the depth of -30 cm is very low, the intensive layer might date from the first half of the 11th century (which does not contradict the radiocarbon date from the black soil - the charcoal may originate from the inner part of logs). It remains unclear whether there is direct continuity between the Late Viking Age layer and the somewhat less intensive layer of the Final Iron Age or not. However, the stratigraphy of pottery indicates the parallel use of wheel-thrown and hand-made vessels in Viljandi both in the Late Viking Age and the post-Viking Age, i.e. 11th and 12th centuries. The parallel use of these two types of pottery has been observed also in the post-Viking Age occupation layer on Musumägi hill where the Viking Age layer contained only hand-made pottery (Rammo & Veldi 2005, 103–106).

Some artefacts were found also from the disturbed context – from the eroded soil on the slopes and from pits dug through the Viking Age layer. From disturbed soil a bronze spiral (Fig. 6: 1), a fragment of a bronze chain (Fig. 6: 2), a clay bead (Fig. 6: 3), a knife fragment (: 235) and a sherd with a dotted ornament (Fig. 4: 3) were unearthed.

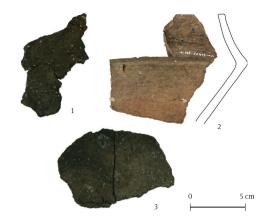


Fig. 5. Late Viking Age pottery from Viljandi. 1 – bloated pottery fragment, 2 – fragment of large carinated bowl, 3 – bottom fragment of a vessel with rounded base.

Jn 5. Hilisviikingiaegne keraamika Viljandist. 1 – porsunud savinõukild, 2 – suure nivendiga kausi kild, 3 – ümarapõhjalise nõu põhjakatke.

(VM 11472:234, 330/396, 286/277.) Photo / Foto: Heiki Valk



Fig. 6. Finds from Viljandi. 1 – bronze spiral tube, 2, 6, 8 – bronze chain fragments, 3–5 – clay beads, 7 – trapezoid pendant, 9, 10 – beaver astragalus pendants. 1–3 – finds from eroded soil, 4–10 – finds from in situ Late Viking Age bottom layer.

Jn 6. Leiud Viljandist. 1 – pronksspiraal, 2, 6, 8 – pronksketi katked, 3–5 savihelmed, 7 – trapetsripats, 9, 10 – kopra kannaluust ripatsid. 1–3 – erodeerunud pinnasest, 4–10 – in situ hilisviikingiaegsest kultuurkihist. (VM 11472: 94, 204, 106, 339, 355, 354, 348, 278, 343, 372.) Photo / Foto: Heiki Valk

Zooarchaeological material (NISP⁴=328; Fig. 7) was poorly preserved and strongly fragmented; over a quarter of the fragments (NISP=88; 27%) were burnt. Because of high fragmentation more than half of the specimens remained undetermined. From the determined mammal and bird remains (NISP=68), approximately a half belonged to domestic species (cattle, sheep/goat, pig and horse), a third to wild species (beaver and polecat), and a few were of birds (including chicken). In addition there were relatively many fish remains (yet undetermined, but the presence of pike can be noted).

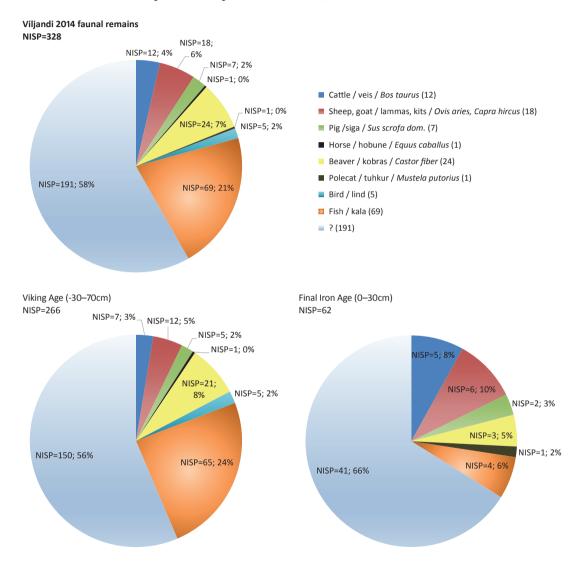


Fig. 7. Number of identified specimens (NISP) and proportion (%) of faunal remains by taxa from Viljandi Castle Hills from 2014. Data from the Viking Age (AD 950/1000–1050) and Final Iron Age (AD 1050–1225) are shown separately.

Jn 7. Loomaluude taksonoomiline jaotumus (luude arv ehk NISP; %) Viljandi Lossimägedest 2014. Eraldi on esitatud andmed viikingiaja (950/1000–1050 pKr) ja hilisrauaaja (1050–1225 pKr) kohta.

Diagrams / Diagrammid: Eve Rannamäe

⁴ NISP = number of identified specimens.

Especially noteworthy is the high share of beaver remains – together with the two astragalus pendants, they (NISP=24) formed more than a third from the 68 determined mammal and bird specimens. The share of beaver was much smaller in the uppermost 30 cm layers dating mainly from the Final Iron Age, than in the lower Viking Age layer. Although the amount of faunal remains is not large and, because of that, the proportion is of somewhat occasional character, the difference is considerable enough to speak about a more significant presence of beaver in the Viking Age layers. Differently from the remains of domesticates, there were no burnt fragments of beaver that seems to indicate different treatment/use of that animal. These facts, as well as the beaver astragalus pendants correlate with previously reported indications of the high importance of beaver hunting and beaver fur trade in Viking Age Viljandi (Rannamäe & Lõugas in print).

REMOVED OCCUPATION LAYERS

A test pit $(1 \times 1 \text{ m})$ to study the preservation and character of occupation layers was made on the south-eastern end of the castle park plateau, south-east of the suspension bridge and 22 m west of the edge of the investigated area (Fig. 1: 2). It appeared that the dark grey top soil, probably added for lawn when making the park, was followed by disturbed yellowish loam, evidently, a later fill, which contained some tiny brick fragments and animal bones. No traces of prehistoric occupation layers, except for some sherds in the dark top soil were discovered there. The disturbed loam stretched until the depth of ca. 55 cm from the present-day ground surface and no remains of original post-glacial humus were unearthed under it.

No traces of occupation layers were discovered on the park plateau also in 2011 when a trench for lightning cable was laid along the path running on the park plateau between the moats. Evidently, all cultural layers together with the original soil have once been removed from the plateau west of the High Castle and the suspension bridge – probably, in connection with some fortification works. Thus, the area investigated in 2014 seems to be the only region where Late Iron Age occupation layers had survived in the immediate surroundings of the prehistoric Viljandi hill fort (on the outer bailey on Second Kirsimägi Hill the trial coring of 1996, as well as the post holes for the swing in 2000 also revealed no traces of prehistoric settlement). The layers in the excavation area of 2014 have preserved intact from later major earthworks because of the peripheral location close to the lake valley slope.

THE CONTEXT AND CONCLUSIONS

The excavation results of 2014 have given new information about the location of Late Iron Age occupation layers in Viljandi. Formerly, occupation traces of that era had been found in the High Castle area (e.g. Haak 2001, 110; 2003, 73–75), on the hills 110–140 m south and south-west of the castle (see e.g. Valk 2000; 2001; 2003; Rammo & Veldi 2005), as well as on lake valley slope close to Huntaugu Hill (Vaba & Valk 2002). In the area of the castle park south and southwest of the High Castle, occupation layers, rich in finds, have been discovered mainly in a disturbed condition – mixed and heaped up into Crusade period trebuchet platforms.

An intact Viking Age occupation layer with intensively black soil and exclusively hand-made pottery had formerly been found and investigated only on Musumägi Hill where it has been buried under the over 3 m thick fill soil, presumably, from a trebuchet

⁵ Oral data from archaeologist Sven Udam.

platform (Rammo & Veldi 2005, 109, 112–113). On the other hills in the area the traces of *in situ* Viking Age layers with hand-made pottery had preserved only in some smaller depressions in intact loam.

In spite of the small size of the occasionally preserved patch of the cultural layer, the work of 2014 gave evidence of intensive occupation in the immediate vicinity of the prehistoric hill fort (Tõnisson *et al.* 2008), followed by the castle of the Teutonic Order. The Late Iron Age occupation area south of the High Castle area was separated from the hill fort in the north, and the settlement area in the south by deep natural valleys which cross-cut the edge of the plateau bordering on the lake valley. The valleys had formed as delta formations of a Late Glacial river, the main course of which formed the valley of present-day Valuoja Stream. They were deepened and broadened in the Middle Ages, when being re-constructed into the moats of the Order Castle whereby these earthworks, as well as later erosion of the slopes, have almost fully destroyed the Late Iron Age occupation layers between them immediately south of the High Castle. The destruction of the Final Iron Age top layers due to erosion is shown also by the fact that the percentage of wheel-thrown pottery in the erosion layer is even higher (35%) than in the preserved layers from the Final Iron Age (the uppermost 30 cm; 28%).

The original width of the prehistoric moats remains unclear, but the occupation area between the natural valleys has evidently been much broader than the presently existing 2–2.5 m wide narrow ridge. The area between the glacial valleys must have been broad enough for being permanently settled in the Late Iron Age. It seems that the occupation layers of the Late Viking Age were more intensive that those of the Final Iron Age which contained no definite remains of fireplaces, but it is difficult to draw final conclusions because of their limited preservation.

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REFERENCES

- **Bronk Ramsey, C. 2009.** Bayesian analysis of radiocarbon dates. Radiocarbon, 51: 1, 337–360.
- Haak, A. 2001. Archaeological investigations of the castle ruins and at Pikk Street in Viljandi. – AVE, 2000, 108–116.
- **Haak, A. 2003.** Excavations at Viljandi castle of the Teutonic Order. AVE, 2002, 71–83.
- **Leimus, I. & Kiudsoo, M. 2004.** Koprad ja hõbe. Tuna, 4, 31–47.
- **Mugurēvičs, E. 1977.** Oliņkalna un Lokstenes pilsnovadi 3.–15. gs. arheoloģiskie pieminekļi. Rīga.
- Rammo, R. & Veldi, M. 2005. Archaeological excavations at Musumägi Hill in Viljandi. AVE, 2004, 103–116.
- Rannamäe, E. & Lõugas, L. in print. Animal exploitation in Karksi and Viljandi during the Late Prehistoric Times and the Middle Ages. – The Ecology of Crusading, Colonisation and Religious Conversion in the Medieval Eastern Baltic: Terra Sacra II. Ed. by A. G. Pluskowski. Leiden.
- Selirand, J. 1974. Eestlaste matmiskombed varafeodaalsete suhete tärkamise perioodil (11.–13. sajand). Tallinn.

- **Tvauri, A. 2005.** Eesti hilisrauaaja savinõud. *Muinasaja teadus, 16.* Tallinn-Tartu.
- **Tvauri, A. 2012.** The Migration Period, Pre-Viking Age, and Viking Age in Estonia. *Estonian Archaeology, 4.* Tartu.
- **Tőnisson, E., Haak, A. & Valk, H. 2008.** Viljandi muinaslinnus. E. Tõnisson. Eesti muinaslinnad. *Muinasaja teadus, 20.* Tartu-Tallinn, 275–277.
- Vaba, A. & Valk, H. 2002. Prehistoric settlements in Viljandi. New evidence. AVE, 2001, 82–90.
- Valk, H. 2000. Archaeological investigations in Late Prehistoric – Early Medieval Viljandi and in Pilistvere churchyard. – AVE, 1999, 39–53.
- Valk, H. 2001. Besieging constructions from 1223 in Viljandi. AVE, 2000, 65–79.
- Valk, H. 2003. Excavations in Viljandi: New data about the final period of Iron Age and the besieging of 1223. – AVE, 2002, 56–70.
- Valk, H. 2015. Viljandi muinasaeg. The prehistory of Viljandi.— Viljandi ordulinnus ja Lossimäed läbi aja. The Teutonic Order's Castle and Castle Hills in Viljandi through Time. Viljandi Muuseumi toimetised, V. Viljandi, 5–23.

NOOREMA RAUAAJA KULTUURKIHI UURINGUD VILJANDI LOSSIMÄGEDES

Heiki Valk ja Eve Rannamäe

2014. aastal jätkusid aastail 1999–2007 toimunud ja vahepeal majandussurutise tõttu katkenud probleemkaevamised Viljandi Lossimägedes. Uurimistöid tehti Kaevumäest vahetult lõuna pool oleval, kahest küljest vallikraaviga piiratud kitsal, 2–2,5 m laiuse pealispinnaga seljakul (jn 1: 1; jn 2), kus muinasaegset kultuurkihti oli säilinud kuni 8 m pikkusel alal. Enamik pinnast oli erosiooni toimel varisenud kahele poole järsunõlvalistesse vallikraavidesse. Kultuurkihti oli säilinud u 19 m² ulatuses, kusjuures vallikraavipoolsetes servades oli kõikjal u 25 cm ulatuses tegemist erodeerunud pinnasega. Uurimisala maapind paiknes rippsilla otsaga külgnevast tasasest platoost veidi kõrgemal ning oli jäänud varasematest pargikujundustöödest puutumata. Tõdeda võis algsele maapinnale ladestunud u 40 cm paksust kultuurkihti, kusjuures kahe ülemise korrise (kokku u 20 cm) raames oli seda erosiooni tõttu säilinud väga vähe.

Uuritud alal võib eristada kaht eriaegset ladestust. Pinnase ülemised 30 cm moodustas ühtlane pruunikashall muld, mis sisaldas käsitsi (jn 3: 1–3; 28%) ja kedral (jn 3: 4–8; 72%) tehtud savinõude kilde ning veidi väiksemaid kive. Sellest pinnasest leiti ka 12. sajandile iseloomulik spiraalsõrmus (jn 3: 9).

Sügavamal paiknevas leiurohkes kultuurkihis domineeris kindlalt Lõuna-Eestis tavaline viikingiaegne käsitsikeraamika (96%) – enamasti väiksed, ilmetud killud. Muuhulgas leiti ka silutud pinnaga nõude ning servades olevate augukestega nõude tükke (jn 4: 4–6), samuti porsunud, ülepõlenud suure savinõu kilde (jn 5: 1), mis viitavad savinõude valmistamisele lähikonnas. Servatükid olid enamasti lihtsa püstise servaga nõudest (jn 4: 7–9, 12). Domineeris ebatasane pinnatöötlus (jn 3: 1–3; 4: 3–7, 11; 5: 1), silutud pinda (jn 4: 9, 12; 5: 2, 3) oli vähem ja kiilapinnalisi kilde (jn 4: 10) väga vähe. Kedrakeraamikat (jn 4: 1, 2) oli väga vähe (4%), valdav osa joonornamendiga. Leide sisaldas ka nõlvadele erodeerunud pinnas. Siit saadi pronksspiraal, ketikatke ja savihelmes (jn 6: 1–3), samuti lohkornamendiga savinõukild (jn 4: 3). Kedrakeraamikat oli selles kihis 35%.

Enamikus kaevandist oli kultuurkiht ladestunud algsele tasasele looduslikule mullapinnale. Kaevandi järvepoolses osas ulatus kultuurkiht sügavamale – siin oli pinnast loodusliku saviliiva paljandumissügavuse suhtes u 15–20/25 cm võrra maha kaevatud. Süvendatud alal eristus intensiivselt tume ja nõgine laik, mille läbimõõt on olnud vähemalt 1,5 m (algne ulatus polnud erosiooni tõttu jälgitav); läheduses paiknes rohkete väikeste tugevalt põlenud kivitükkidega tulease (läbimõõt 0,5–0,75 m). Süvendatud alal leiti mustast kihist peaaegu loodusliku

aluspõhja pealt ka üksikuid õhukeseseinaliste joonornamendiga kedranõude katkeid; mahakaevatud alal oli nivendikohast mõõdetuna u 45 cm läbimõõduga kausi (jn 5: 2) ja suure kumerapõhjalise kausi põhja tükke (jn 5: 3). Süvendatud alalt saadi kaks pronksketi katket, väike trapetsripats, kaks savihelmest ja kaks kopra kannaluust ripatsit, üks neist põlenud (jn 6: 4–10).

Loomaluud (jn 7; kokku 328 leidu) olid väga fragmenteerunud ning määratavad vaid 42% ulatuses. Ligi veerand luukildudest oli põlenud. Määratud imetaja- ning linnuluudest pea pooled kuulusid koduloomadele (veis, lammas/kits, siga, hobune), kolmandik metsloomadele (kobras, tuhkur) ning mõni ka lindudele (sh kana). Lisaks oli hulk kalaluid. Märkimisväärselt suur oli kopraluude osakaal, sealjuures oli neid pealmises, hilisrauaaegses kihis märgatavalt vähem kui alumises, viikingiaegses kihis. Kopraluude suhteliselt suur hulk annab tunnistust kopranahakaubanduse olulisusest viikingiaegses Viljandis.

Nõgises kihis olnud söetükkidest võetud radiosüsinikuproov (tõenäosus 95.4%) andis tulemuseks 1155±55 BP; pärast kalibreerimist aga ebamäärase ja väheütlevalt hajusa tulemuse: 715–744 (3,5%), 766–996 (91,9%) pKr. Alumistes kihtides olev kedrakeraamika ei luba kultuurkihi vanimaid ladestusi siiski paigutada 11. sajandist oluliselt varasemasse aega. Kuigi uurimisala on väike, võib kultuurkihi stratigraafia põhjal oletada, et 11.–12. sajandil kasutati Viljandis samaaegselt nii kedra- kui ka käsitsikeraamikat, kusjuures 11. sajandi algupoolel domineeris ülekaalukalt käsitsikeraamika.

Välitöödel tehti 1 × 1 m šurf ka rippsilla läänepoolse otsaga külgneva platoo järvepoolsesse otsa, kaevamistega hõlmatud künka lääneotsast 22 m lääne poole (jn 1: 2). Pealmise mullakihi all algas segatud saviliiv, mis sisaldas üksikuid loomaluid ja tellisetükikesi ning ulatus maapinnast kuni 55 cm sügavuseni, kus algas puutumata looduslik saviliiv. Algset looduslikku alusmulda ega muinasaegset kultuurkihti ei olnud. Ilmselt on need eemaldatud ja ala segatud pinnasega taas täidetud mingite keskaegsete või varauusaegsete mullatööde käigus. Platoo tasandatud pealispind on tekkinud ilmselt lossipargi rajamisel. Rippsilla otsaga külgnevalt platoolt pole ladestunud kultuurkihti leitud ka varasemal šurfimisel ega pargitee elektrivalgustuse paigaldamisega seotud arheoloogilistel järelevalvetöödel.

Vaatamata säilinud kultuurkihilaigu väiksusele võimaldavad kaevamistulemused tõdeda, et Viljandi muinaslinnuse vahetus läheduses, teisel pool vallikraavina toiminud looduslikku uhtorgu paiknes noorema rauaaja asulakiht. Asustatud ala eraldas lõuna pool olevast samaaegsest elutsoonist teine, samuti looduslik uhtorg. Elutegevus linnuse vahetus läheduses on iseäranis intensiivne olnud hilisviikingiajal. Hilisrauaaja kultuurkiht linnuse vahetus läheduses oli suhteliselt nõrk ega sisaldanud küttekollete jälgi.