

Ülle TAMLA

2002. aasta arheoloogiliste välitööde tulemused
Results of archaeological fieldwork of 2002

Alvi KRIISKA, Kristiina JOHANSON, Ülle SALUKÄR and Lembi LÕUGAS

The results of research of Estonian Stone Age in 2002
Eesti kiviaja uurimise tulemused 2002. aastal

Valter LANG, Andres IVADIK and Tanel SAIMRE

New results from the hill-fort of Keava
Uued tulemused Keava linnuse kaevamistest

Marek KONTA, Valter LANG and Leire LÕDLAID

Settlement Site III of Linnaste from archaeological complex of Keava
Linnaste III asulakoht Keava arheoloogilises kompleksis

Helvi VÄIK

Excavations in Viljandi: new data about the final period of Iron Age
the beginning of 1223
Kaevamised Viljandis uusi andmeid rauaaja lõppajast ja 1223.

Arvi BÄTZ

Excavations in Viljandi Castle of the Teutonic Order
Arheoloogilised uurimused Viljandi ordulinnusel

Ain LÄVI

The hill-fort of Ripuka-Panamaagi
Ripuka-Panamaagi

Early TEGER

Archaeological excavations in Kaberla and Lagedi villages
Arheoloogilised kaevamised Kaberla ja Lagedi külas

Mare AUN and Arvi KRISTAIA

Archaeological fieldwork in Setumaa
Arheoloogilised välitööd Setumaa

Mati MÄRK

Archaeologische Ausgrabungen im Landkreis Läänemaa
Kaevamised Läänemaal

Eppa VISTAL

Archaeological investigations of the Laiuse castle
Arheoloogilised uurimused Laiuse linnusel

Kristin ILVES

Underwater archaeological fieldwork in southeast Estonia
Allveearheoloogilised välitööd Kagu-Eestis

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**ARCHAEOLOGICAL
FIELDWORK
IN ESTONIA**

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EXCAVATIONS IN VILJANDI: NEW DATA ABOUT THE FINAL PERIOD OF IRON AGE AND THE BESIEGING OF 1223

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In Viljandi excavations were continued in the Castle Hills (Lossimäed) area ca 150–160 m south of the ruins of the Order castle on the present-day ski-jumping hill where early 13th century building remains were discovered in 1999 (Valk 2000a, 41–43). The site is most untypical among Estonian Late Iron Age settlements. The relative height of the hill towards south and east (respectively, towards the valley of Valuoja Stream and the bottom of the valley of Lake Viljandi) is ca 35 m, towards west ca 10–15 m and towards east ca 5–6 m. The hill has a prominent position in the landscape with an open view to the lake valley and to the surroundings. Access to water is most complicated and untypical for Estonian Late Iron Age settlements which are always bound with some natural body of water (relative height to Valuoja stream is some 35 m).¹ The extraordinary location of the site enables to interpret it as a manor from the end of the prehistoric times.

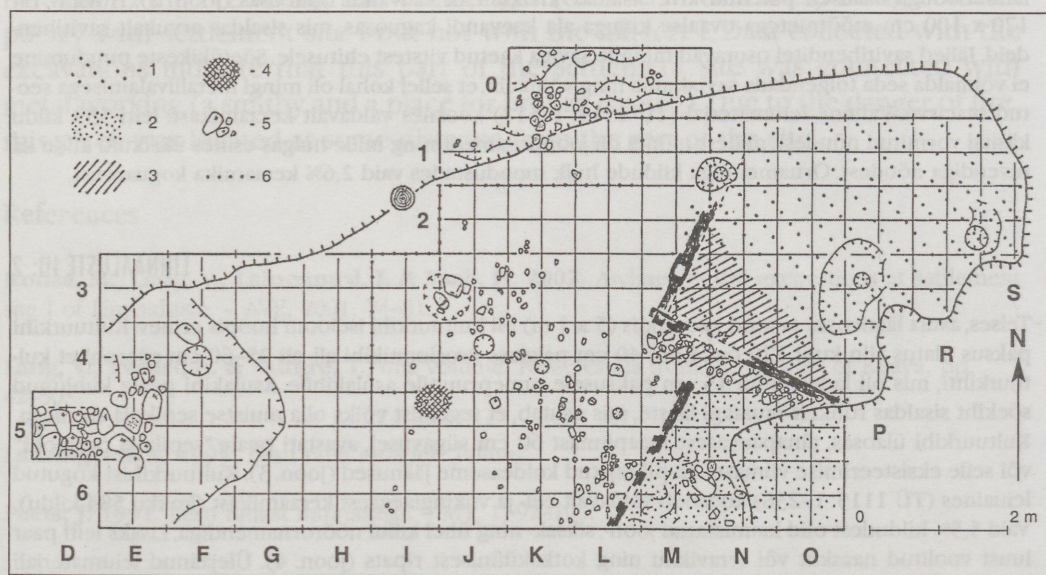


Fig.1. Excavated area on the ski-jumping hill of Viljandi. 1 - disturbed red Devonian sand; 2 - disturbed pink sand; 3 - intensive dark cultural layer; 4 - fireplace; 5 - stones; 6 - border of area excavated before 2002.

Joon. 1. Kaevand Viljandi suusahüppemäel. 1 - segatud punane Devoni liiv; 2 - segatud roosakas liiv; 3 - intensiivselt tume kultuurkiht; 4 - koldekoht; 5 - kivid; 6 - varemuuritud ala piir.

On the hill plateau (its dimensions were ca 22 x 12 m before its eastern part was destroyed by bulldozing when reconstructing the ski-jumping hill in the Soviet Period), in addition to the 15 m² opened in 1999, an area of 52 m² was investigated in 2002 (Fig. 1). The excavation plot of 1999 in the northern part of the plateau was extended in four directions. The main purpose of the expedition was to unearth the house remains from the early 13th century discovered in 1999. The charred logs of a building (Valk 2000a, photo 2; 2000b, Table V) had been left in a conserved situation (covered with synthetic textile, sand, plastic and another layer of sand) in the initial position.

THE DISTURBED LAYER

The cultural layer within the house and on the rest of the hill plateau differed greatly. Outside the house, in most of the excavation plot the investigated ground consisted of disturbed brown sandy soil with a thickness of some 50–60 cm. In the northern part of the hill plateau this soil contained numerous stones (diam. ca 10–12 cm) and animal bones. The finds were from the final centuries of the Iron Age. Most common were fragments of wheel pottery, some of which were decorated with line and wave ornament. Similar pottery has been found in Viljandi also during the previous excavations of Late Iron Age sites (Valk 2000a, Fig. 8, 9; Valk 2001, Fig. 4: 11–12; Vaba & Valk 2002, Fig. 8). As special finds, a big side fragment with wave ornament and a fragment of a vessel with a raised bottom must be noted. Ca 9% of the sherds came, however, from hand-made vessels of the Viking Age.

The brown disturbed soil contained also some fragments of bronze chains, numerous bronze spirals of different shape and size, beads, a cross-headed breast pin (Fig. 2), a fragment of a spinning whorl (Fig. 11: 10), 3 knives and knife fragments, a broken or unfinished Jew's-harp, a bone with a drilled hole (Fig. 11: 1), 2 crossbow bolts from the conquest period (Fig. 4: 1, 5) and a bolt fragment. The massive bolt (Fig. 4: 1), indicating the use of heavy crossbows, is one of the oldest finds of the kind from Europe.² The finds

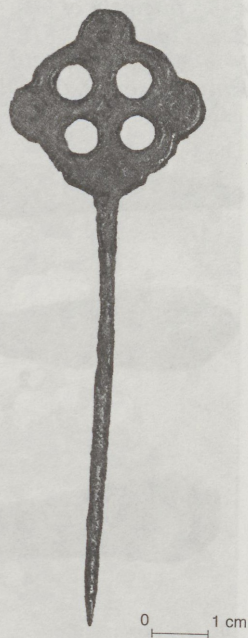


Fig. 2. Breast pin from the ski-jumping hill of Viljandi (VM 10877: 237).

Joon. 2. Rinnanõel Viljandi suusahüppemäelt.

EXCAVATIONS IN VILJANDI: NEW DATA ABOUT THE FINAL PERIOD

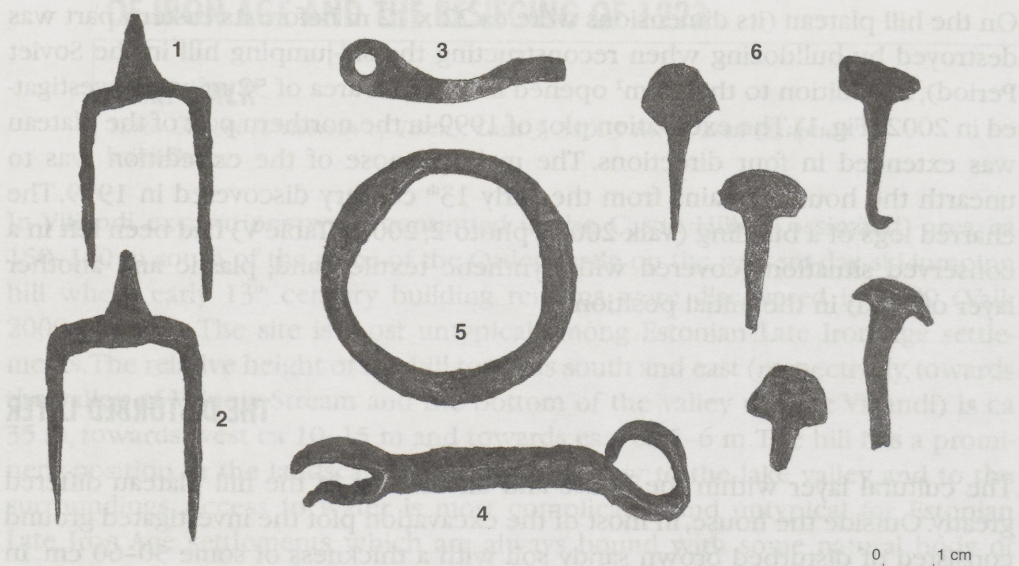


Fig. 3. Iron items from the ski-jumping hill of Viljandi. 1, 2 - ice-nails, 3 - fragment of artefact, 4, 5 - fragment of bits, 6 - horse-shoe nails (VM 10877: 1152, 97, 64, 1031, 999, 929, 136, 151, 924, 1148).

Joon. 3. Raudesemleid Viljandi suusabüppemäelt. 1, 2 - jäänaelad, 3 - eseme katke, 4, 5 - suitsekang ja -rõngas, 6 - kabjanaelad.



Fig. 4. Cross-bow bolts from the ski-jumping hill of Viljandi (VM 10877: 17, 501, 538, 1100a, 853).

Joon. 4. Ammunooleotsad Viljandi suusabüppemäelt.

include also 3 coins minted in Visby between 1140/60–1225³ (a similar coin was found also in 1999) and a fragment of a crossbow-shaped fibula from the 5th–6th centuries (Fig. 5).⁴ In the southern part of the plot the brown disturbed soil included numerous fragments of clay pipes, most likely from the 18th but not from the 19th century, which occurred at different depths.⁵ From the layer also a Russian coin from 1726 was obtained. These finds show that the layer was disturbed in the 18th century. To the disturbance after the 13th century refer also 2 medieval coins – a Tallinn penny from 1426–1465 and a Riga penny of Wolter v. Plettenberg and archbishop Jasper Linde from 1515–1521. In the western end of the excavation plot a rectangular pit measuring at least 2.5 x 2.5 m, extending 25–40 cm into the intact clayish sand was discovered. This pit was also filled with a layer of the brown sandy soil, but there were no traces indicating 18th century disturbances. Within the pit, at the edge of the excavation plot, a heap of stones with diameters of 30–40 cm was partly unearthed (Fig. 6). The top of the heap reached almost the modern ground level. From the pit a cowry shell, a closed ring and some fragments of spinning-whorls (Fig. 11: 7, 9) were found.

The cultural layer on the steep northern slope of the hill (there 5 m² was excavated; see Fig. 1) included many burnt stones (diam. 8–12 cm) and numerous fragments of animal bones. From that layer also a crossbow bolt (Fig. 4: 4) and fragments of a beltfitting of bronze (Fig. 7) were found. Probably, this layer had not been mixed by later human activities but was disturbed only by natural ero-

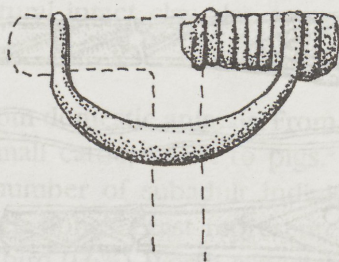


Fig. 5. Fragment of a cross-bow-shaped fibula from the ski-jumping hill of Viljandi (VM 10877: 1139).

Joon. 5. Ambsõle katke Viljandi suusahüppemäelt.



Fig. 6. Suggested trebuchet ammunition from the ski-jumping hill of Viljandi.

Joon. 6. Oletatavad kivibeitemasina beitekiivid.

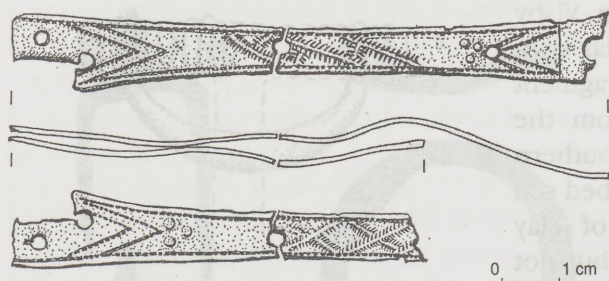


Fig. 7. Fragments of a belt end from the ski-jumping hill of Viljandi (VM 10877: 11, 1089, 1100, 1120).

Joon. 7. Ribmaotsiku katked Viljandi suusahüppemäelt.

THE INTACT CULTURAL LAYER

Under the disturbed soil there was an intensive cultural layer with the thickness of some 2–4 cm. This layer contained numerous sherds of wheel pottery representing Pskov type 3:1 (Tvauri 2000, 100–104), fragments of 3 spinning-whorls of stone (Fig. 11: 3, 4, 8) (in 1999 from the same layer a similar find was obtained), some beads, bronze spirals and fragments of bronze chains. As special finds, fragments of four cross pendants, two of them of tin alloy and the fragment of open-work pendant must be noted (Fig. 10: 1–5). From the layer also 2 crossbow bolts typical for the early 13th century (Fig. 4: 2, 3) were found. Judging by the finds, the



Fig. 8. Fragment of a clay vessel from the ski-jumping hill of Viljandi (VM 10877: 864).

Joon. 8. Kedranõu alaosa Viljandi suusahüppemäelt.

sion. The missing of natural soil between the eroded cultural layer and the intact sandy clay shows that the steepness of the northern slope was formed by digging. From the disturbed layer also a cowry shell, the needle of a small penannular brooch, a humming top (?) of bone (Fig. 11: 5) and ice nail (Fig. 3: 1) were found.

cultural layer is from the final period of the Iron Age and the end of its formation can be connected with the German invasion in the early 13th century. The intensive layer was located directly on the intact natural yellow clayish sand and there were almost no traces of natural topsoil under it. Evidently, the soil had been removed in the course of some earthworks that preceded the formation of the intensive cultural layer. The hill had been inhabited, however, also before the soil removal: in some deeper places remains of a Viking Age cultural layer with fragments of hand-made pottery

were found. Against the background of the natural intact clay also some post-holes were discovered.

The osteological finds from the hill are mostly from domestic animals. From 1221 fragments 26.2% belong to big and 19.6% to small cattle, 11.6% to pigs.⁶ Both among pigs and small cattle there is a large number of subadult individuals. Considerable (39.6%) was the number of chicken bones. Least represented are wild animals (hare 0.6%, squirrel 0.1%, big wild bird 0.6%). Worth especial mentioning are four fragments of human bones, incl. 2 from an infant. Among the fish bones numerous were perch and pike bones (see appendix).

HOUSING REMAINS

The area where house remains were expected was partly disturbed by bulldozer work, but partly still intact. Quite at the top of this area, just under the turf layer of dark brownish soil, fragments of the lower half of an early 13th century clay vessel which had broken into pieces on the spot (Fig. 8) were found. In the surface layer with the thickness of some 10 cm there were also some fragments of early medieval bricks, similar to those found from the excavations of 1999–2001 from



Fig. 9. Remains of houses on the ski-jumping hill of Viljandi.
Joon. 9. Hoonejäänused Viljandi suusahüppemäel.

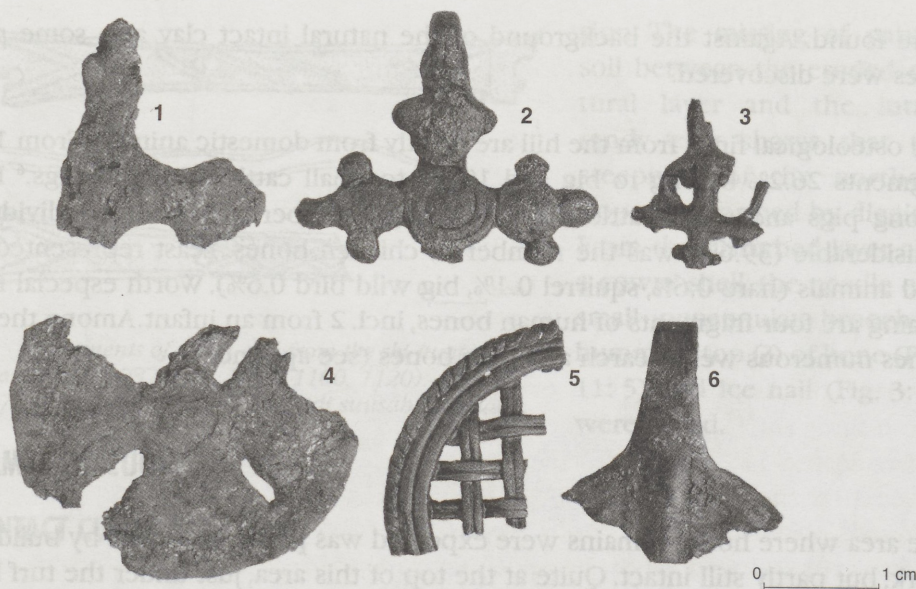


Fig. 10. Pendants from the ski-jumping hill of Viljandi (VM 10877: 590, 925, 529, 589, 759, 1038). Joon. 10. Leiud Viljandi suusabüppemäelt.

the neighbouring hill. At a depth of 10–15 cm the ground became gradually red in colour. In the course of further excavations the ruins of the burnt house turned out to be covered by a layer of red clay and red Devonian sand having a thickness of some 50–60 cm, with no finds in it.

From the building itself, in addition to the western corner unearthed in 1999, foundations of two walls were partly preserved (Figs. 1; 9). The lowest charred log of the northwestern wall could be observed for ca 2 m, that of the southwestern one – for 3.1 m. The logs were not supported by stones but were lying directly on the ground. The good preservation of the charred logs can be explained by the fact that soon after the fire the house remains were covered with red soil. To have the lowest logs in horizontal position, the eastern end of the house had to be raised and, considering the sloping ground, supported on a post. In the suggested area of the eastern corner, the excavations actually did reveal a post-hole with the diameter of 36–37 cm, extending 55 cm into the natural intact clayish ground. If this post really marked the eastern corner and did not originate from some earlier construction, dimensions of the house might have measured ca 3.25 x 3.9 m. Considering the sloping ground, the house had evidently a timber floor which had burnt without leaving any major traces.

The absence of a stove enables interpretation of the house as an economic build-

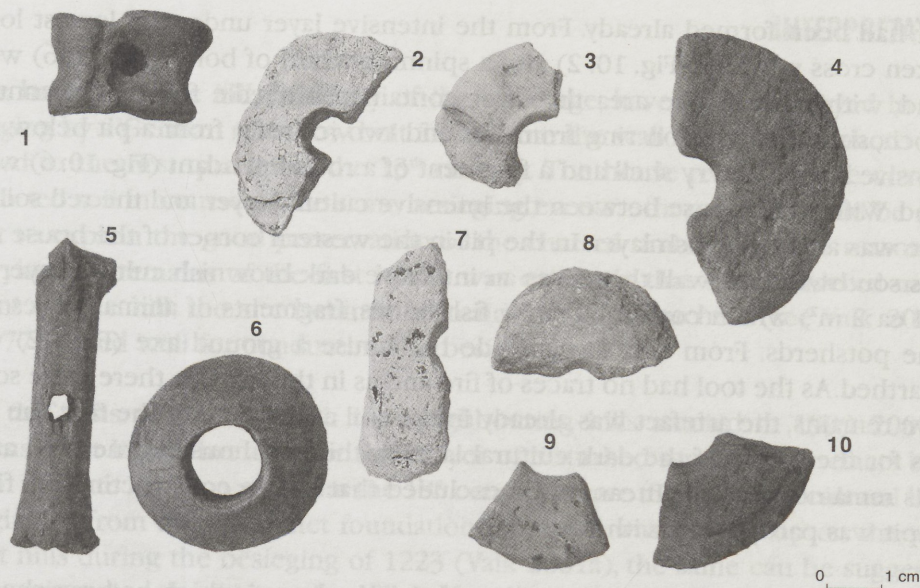


Fig. 11. Finds from the ski-jumping hill of Viljandi (VM 10877: 219, 1138, 640, 950, 1119, 927, 719, 771, 729, 432). 1, 5, 6 - bone, 2, 3, 4, 7-10 - stone.

Joon. 11. Leiud Viljandi suusahüppemäelt. 1, 5, 6 - luu, 2, 3, 4, 7-10 - kivi.

ing, most likely a barn. The suggestion that in 1999 the doorway was unearthed, had to be abandoned in the course of the excavations. Although the rectangular hole in the lowest log seemed to have been cut for a door post, no other post hole could be discovered in its suggested location. Instead, in place of the expected doorway, there were charred remains of a horizontal wall log. Evidently, the post-hole in the lowest charred log can be explained by secondary use of construction timber. The inside of the western corner of the house, located closest to the hill-top, was somewhat deepened into the ground. The northwestern and southwestern edges of the pit were sharp, defined by the logs, but due to the sloping ground the pit had no definite eastern border. As the pit in the western corner of the building cut the thin intensive cultural layer above the intact soil and as the intensive layer in most of the house area was very thin (up to 1-2 cm), the house had existed only for a limited time. By the time when it was constructed, most of the intensive cultural

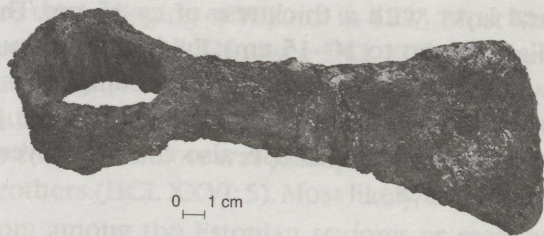


Fig. 12. Axe from under the house on the ski-jumping hill of Viljandi (VM 10877: 948).

Joon. 12. Maakirves Viljandi suusahüppemäelt.

layer had been formed already. From the intensive layer under the lowest log a broken cross pendant (Fig. 10: 2) and a spinning-whorl of bone (Fig. 11: 6) were found; within the house area the layer contained a needle from a penannular brooch, six beads, an iron ring from bits and two ice-nails, from a pit below the intensive layer a cowry shell and a fragment of a round pendant (Fig. 10: 6) were found. Within the house between the intensive cultural layer and the red soil fill there was also a thin ash layer. In the pit in the western corner of the house and at its southwestern wall there was an intensive dark brownish cultural layer (in total ca 2 m²) which contained many fish bones, fragments of animal bones and some potsherds. From that layer inside the house a ground axe (Fig. 12) was unearthed. As the tool had no traces of fire and as in the axe eye there were some helve remains, the artefact was already in the soil at the time of the fire. The reasons for the origin of the dark cultural layer within the house corner and at its walls remained unclear. It cannot be excluded that before constructing the floor the pit was partly filled with waste.

The excavations revealed also remains of another house which had perished in the same fire. The second house was located almost immediately to the south of the first one, the distance between them being only 45–50 cm. As most of its remains had been destroyed by bulldozer and the southern part of the building could not be excavated because of the big oak-tree in the centre of the plateau, data of it remained scanty. From the second house only charred remains of a northwestern foundation log, lying parallel to that of the first house, had preserved. The house had a floor of pink clayish sand which contained some stones. Neither remains of a timber floor, nor of a cultural layer inside the house were discovered. The missing of cultural layer refers, as in case of the first building, to a rather short period of use. ¹⁴C dating from the lowest log gave the result 830±30 BP (cal. 820±40 B.P; 1130±40 AD).⁷

The narrow area between the two houses was filled with an intensively dark cultural layer with a thickness of ca 15 cm. The layer contained numerous stones (diameter up to 10–15 cm). Evidently, the purpose of the stones was to avoid the narrow passage between the buildings from getting muddy in rainy times. The stones refer to intensive use of the passage. Just as the dark layer in the western corner of the first house, also the dark layer in the passage was rich in fish and animal bones.

INTERPRETATION

The houses on the hill, evidently of the same age, have been destroyed in fire, judging by a German crossbow bolt found from the wall (Valk 2000b, photo 3: 2) dated to the first quarter of the 13th century. The house remains were covered with red soil in course of the same besieging events: otherwise it would be difficult to explain the good preservation of the charred timber logs. The reason for burying the remains of the first house was evidently that they hindered movement on the hill: the site behind the main line of trebuchets (see Valk 2001a, 70–77) suited well for conducting the besieging.

On the basis of analogy with the neighbouring hills studied in 1999–2001, it seems most likely that also the thick layer of disturbed sand with artefacts both from the Late Iron Age and from the 18th century above the intensive cultural layer originates from the trebuchet foundation(s). As soil was heaped up on the adjacent hills during the besieging of 1223 (Valk 2001a), the same can be suggested also concerning the ski-jumping hill. Such an interpretation was supported by the supposed trebuchet ammunition in the western end of the plot. Similar stones had been discovered in disturbed ground in a test-pit in the western end of the hill plateau also in 1999. It remains unclear whether the soil for trebuchet foundations was taken from the settlement located somewhere at the foot of the hill or from the edge(s) of the plateau. As the nature of the soil differed much from that used for constructing the trebuchet foundation investigated in 1999–2001, the latter alternative seems more likely. Probably, the soil heap(s) which served as trebuchet foundation(s) in 1223, stood on the present ski-jumping hill up to the 18th century when they were removed, levelled and spread on the hilltop in the course of some earthwork, most likely connected with founding of the manor park.

Evidently, the intensive cultural layer with the thickness of some 2–4 cm had formed during a limited period before the besieging of Viljandi in 1223. Most likely, the formation started only after the besieging of 1211 (see HCL XIV: 11): there is enough reason to suggest that earlier constructions (if existing) were destroyed that year. Thus, the thin intensive cultural layer can mostly be connected with the period of dual power in 1215–1223 when the hillfort was jointly inhabited by the natives and the Order of the Swordbrothers (HCL XXVI: 5). Most likely, the hill has served as the manor of someone from among the Estonian *seniores* or *meliores* during the period of shared power.

The intensive cultural layer from between 1211/15 and 1223 gives also some evi-

dence of everyday life in the manor. Finds from the layer – fragments of bronze chains, bronze spirals, beads and other ornaments – give evidence of female presence. Numerous broken and unfinished spinning-whorls relate to inexperienced handicraft attempts. The ideological situation of the Conquest Period is reflected in pendant finds: in all, from the area of 67 sq. m 5 cross pendants and a pendant made of wolf or dog fang were found. Three fishing hooks, a grinding stone and a ground axe give evidence of a peasantly way of everyday life, bits and bridle remains, ice nails and ordinary horseshoe nails – of horses on the hill. Worth especial mentioning is the large share of chicken bones. Probably, chicken has served as special food, not accessible to everybody: in the settlement layer from the adjacent hill the percentage of chicken bones was only 7% (Saks & Valk 2002). It remains unclear whether the Visby coins from 1140/60–1225 from the disturbed upper layer are connected with the manor or have been lost by the besiegers when carrying soil and heaping up the trebuchet foundations. Judging by the large number of crossbow bolts and their fragments (10 from 67 sq. m), the hill was involved in intensive battle activities. Some of the arrows could have been shot towards the German trebuchets from the main hillfort defended by the Estonians in August 1223, but the bolt found in 1999 from between the charred logs of the house shows that in addition to the hillfort also the manor had resisted the besiegers and was conquered in the course of a battle.

Notes

- ¹ If there once existed springs on the hillslopes, access to them was most complicated due to the steepness of the slope.
- ² Oral comment by Ain Mäesalu (University of Tartu).
- ³ All coins identified by Ivar Leimus (Estonian History Museum).
- ⁴ Dating estimated by Mari-Liis Rohtla (Institute of History).
- ⁵ Estimation by Erki Russow (Institute of History).
- ⁶ Determined by Eha Järv (Estonian Agricultural Academy).
- ⁷ Radiocarbon laboratory of the University of Tartu (Ta-2820).

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APPENDIX. ANALYSES OF THE FISH BONES FROM THE SUUSAMÄGI SITE, VILJANDI

Lembi LÕUGAS

Altogether 719 fish bones and 607 fish scales were analysed. All of them were found during the excavations of Suusamägi Site, Viljandi, in 2002 (see also Lõugas 2001). Eight different fish species were distinguished, and in addition two groups without exact identification to the species were found. The perch (*Perca fluviatilis*) strongly predominates over the others, followed by the pike (*Esox lucius*) and species of cyprinid family. Powan (*Coregonus lavaretus*) is also well represented, meanwhile salmon/trout (*Salmo sp.*), eel (*Anguilla anguilla*) and burbot (*Lota lota*) have only some few fragments in the material. Anatomical representation of bones are seen in the table. The bone fragments and scales are divided between fish species as follows: perch - 415 bones and 577 scales; pike - 106 bones and 1 scale; powan - 34 bones; salmon/trout - 1 bone; eel - 2 bones; burbot - 4 bones; roach - 41 bones; bream - 40 bones; ide - 4 bones; cyprinidae - 74 bones and 29 scales.

Table. Anatomical representation of fish remains from the Suusamägi Site.
Tabel. Suusahüppemäe asulakoha kalaluude määrang.

	Skull and jaws	Fin bones	Vertebrae	Total no of bones	Scales
Perch (<i>Perca fluviatilis</i>)	269	96	50	415	577
Pike (<i>Esox lucius</i>)	33	7	66	106	1
Powan (<i>Coregonus lavaretus</i>)	6	1	27	34	
Salmon/trout (<i>Salmo sp.</i>)			1	1	
Eel (<i>Anguilla anguilla</i>)	1		1	2	
Burbot (<i>Lota lota</i>)			4	4	
Roach (<i>Rutilus rutilus</i>)	40		1	41	
Bream (<i>Abramis brama</i>)	9		31	40	
Ide (<i>Leuciscus idus</i>)			4	4	
Cyprinids indet..	45	6	23	74	29

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KAEVAMISED VILJANDIS: UUSI ANDMEID RAUAJAJA LÖPPJÄRGU JA 1223. AASTA PIIRAMISE KOHTA

Heiki VALK

Viljandi Lossimägedes jätkusid kaevamised suusahüppemäel, 13. sajandi alguses hävinud majapidamise asukohas (Valk 2000b, joon.1: A). Muistis, kus 1999. aastal tehti proovikaevamisi, asub ordulinnuse varematega Kaevumäest 150–160 m lõuna pool, Valuoja oru ja järveoru vahelises nurgas järsunõlvalisel künkal. Mäeplatoo mõõtmed enne idaotsa lõhkumist suusatrampliini ehitamisega Nõukogude ajal olid u. 12 x 22 m. Tavaasulatele ebatüüpiline paiknemine mäetipul, raskendatud ligipääs veele ja sotsiaalset positsiooni manifesteeriv asukoht avara vaatega järveorule lubavad arvata, et tegemist on ülikumajapidamise jäänustega.

Kaevand (52 m²) rajati künkplatoo põhja- ja loodeossa, laiendades 1999. aasta proovikaevandit neljas suunas. Koos varasemate kaevamistega uuriti läbi 67 m² suurune ala (joon. 1). Kaevandi idaosa hõlmas piirkonda, kus võis eeldada 13. sajandi alguses hävinud hoonet, mille läänenurga söestunud aluspalgid proovikaevamistel välja puhastati ja kaevamiste lõppedes konserveerituna taas kinni aeti.

Künkplatool väljaspool majaaset koosnes pinnase ülaosa 50–60 cm paksusest segatud pruuni liivaka mulla kihist, kust saadi nooremast rauaajast pärit kedra- ja käsikeraamikakilde ning muid leide, sh. 2 vallutusperioodi ammunooletsa (joon. 4: 1,5 esimene raskeammu oma). Et kihi eri sügavustelt leiti hollandi saviipiipude tükke ja 1726. a münt, näib tegemist olevat suures osas 18. sajandil segatud pinnasega.

Segatud pruuni mulla all paiknes vahetult looduslikul aluspinnal 2–4 cm paksune intensiivne kirju kultuurkiht, mille leiumaterjal – kedrakeraamika, helmed, pronksspiraalid, pronksketi lülid, 4 ristripatsit (joon. 10: 1–3), 3 kivist värtnakedra katket (joon. 11: 3, 4, 8), luust värtnakeder (joon. 11: 6) ja 2 ammunooletsa (joon. 4: 2, 3) – pärineb hilisrauaaja lõpust. Intensiivse kultuurkihi paiknemine vahetult kollasel liivsavi viitab sellele, et varasemad ladestused, sh. looduslik alusmuld on enne kihi moodustumise algust mäelaelt eemaldatud. Vaid kohati oli sügavamates lohkudes säilinud käsikeraamikat sisaldava viikingiaegse kultuurkihi jäänuseid. Kaevandi lääneotsas avastati looduslikku maapinda ulatuv täisnurkne 25–40 cm sügavune sissekaeve, kust 18. sajandile viitavaid leide ei saadud. Sissekaeve servas algas 30–40 cm läbimõõduga raudkivide hunnik, mille ülaseru ulatus peaaegu maapinnani (joon. 6).

Künka põhjapoolses servas uuriti ka nõlval olevat kultuurkihti. Tumedat värvi pinnas sisaldas rohkesti 8–12 cm läbimõõduga kive, loomaluid ja hilisrauaaegseid esemeleide, saadi ka ammunoolets, vurriluu ja pronksist rihmaotsiku katkeid (joon. 7). Loodusliku alusmulla puudumine künkanõlvale uhitud kultuurkihi all lubab arvata, et mäenõlv on järsemaks kaevatud.

Põlenud hoone jäänuseid kattis pruunika pealismulla all algav 50–60 cm paksune punase segatud devoni liiva ja liivaseguse punase savi lade, kust ei saadud mingeid leide. Kamaraalusest kihist hoonejäänuste kohalt leiti kohapeal kildudeks murenenud 13. sajandi alguse kedrapoti alumine pool (joon. 8), samuti mõni tellisetükk.

Hoonest (vt. joon. 1; 9), mille 1999. aastal avastatud läänenurk taas välja puhastati, olid osalises pikkuses säilinud kaks aluspalki: loodepoolne kokku u. 2 m, edelapoolne 3,1 m ulatuses (esimesel oli üks ots hävinud tules, teisel lõhutud buldooseriga). Palgid toetusid vahetult maapinnale. Arvestades maapinna kumerust ja eeldades palkide horisontaalsust pidi hoone idanurk olema maapinna suhtes tõstetud ja toetuma postile. Idanurga eeldatavast piirkonnast leiti 36–37 cm läbimõõ-

duga, 55 cm võrra looduslikku pinnasesse ulatuv postiauk. Juhul, kui tegemist on hoonenurka kandnud ja mitte mõne varasema postiga, on ehitise mõõtmed olnud u. 3,25 x 3,9 m.

Majal on tõenäoliselt olnud puupõrand. Ahju puudumine lubab arvata, et tegemist oli abihoone ehk aidaga. 1999. aasta oletus loodeseinas paiknenud uksekohast osutus ekslikuks: uksepostiaugule paarilist ei leitud ning eeldatava ukseava kohas tulid nähtavale hoopis söestunud seinapalgi jäänused. Ilmselt on aluspalgiks kasutatud mingi vana ehitise puitu.

Hoone läänenurga sisemuses oli looduslikku liivsavisse kaevatud süvend, kus leidus intensiivset tumedat kultuurkihti (kokku u. 2 m² alal). Kihis oli rohkelt looma- ja kalaluid, aga ka üks põlemisjälgedeta maakirves (joon. 12), mille silmaavas oli varrepuidu jäänuseid. Tumeda kihi moodustumise asjaolud jäid ebaselgeks. Näib, et see on tekkinud hoone põranda alla jäänud süvendi osalisel täitmisel jäätmete ja pühkmetega. Et mäeplatool olevat kirjut kihti leidus ka seinapalkide all, on maja eksisteerimisaeg olnud lühike: hoone rajamise ajal on kirju kiht mäeplatool juba olemas olnud.

Kaevamistel avastati ka teise, samas tulekahjus hävinud ehitise jäänused, mille aluspalgist võetud ¹⁴C proov andis tulemuseks 830±30 BP (cal. 820±40 B.P.; 1130±40 A.D.). Hoone paiknes esimesest vahetult lõuna pool, olles sellest eraldatud 45–50 cm laiuse vahekäiguga. Majast olid säilinud vaid esimese hoone omaga paralleelse loodeseina jäänused ning 10–15 cm paksune roosakast, kive sisaldavast saviliivast põrand. Kitsas vahekäigus oli u. 15 cm paksune palju looma- ja kalaluid sisaldav intensiivselt must kultuurkiht, mida oli täidetud ja tihendatud 10–15 cm läbimõõduga raudkividega. Pinnase poriseks muutumist vähendavate kivide olemasolu viitab vahekäigu intensiivsele kasutamisele.

Mäelage kattev õhuke intensiivne kultuurkiht ning sellega seotud hooned pärinevad muinasaja lõppjärgust; kihi moodustumine lõppes ning eeldatava ülikumõisa hooned hävisid 13. sajandi algusperioodi sõdades. Hoonejäänuste hea säilivus viitab sellele, et nad kaeti liivaga varsti pärast põlengut. Tukkidelle ja tuleasemele punase liiva toomise põhjuseks oli ilmselt asjaolu, et kungas oli seotud Viljandi linnuse piiramisega.

Tõenäoliselt sama piiramise käigus, kuid veidi hiljem, toodi künkale ka intensiivset kultuurkihti kattev noorema rauaaja leide sisaldav segatud pinnas. Võib arvata, et sarnaselt naaberküngastega tassiti seda suusahüppemäele kiviheitemasinate aluste või laskeplatvormide rajamiseks. Kiviheitemasina(te) olemasolu suusahüppemäel lubab oletada ka kivikuihi kaevandi lääneotsas (joon. 6): tõenäoliselt on tegemist kasutamata jäänud heitekividega. Massiline pinnasekuhjumine ning ammunooleotse rohkus viitavad sellele, et sarnaselt naaberküngastega pärinevad ka suusahüppemäel olnud piiramisrajatised 1223. aasta augustist: siis kasutasid linnuses olevad eestlased Läti Henriku teatel (HCL XXVII: 2) piirajate vastu sakslastelt äravõetud ambusid.

Kiviheitemasinate aluseks kuhjatud künkad seisid suusahüppemäel kuni 18. sajandini, mil nad eeldatavasti mõisapargi kujundustööde käigus platoole laiali aeti. Selline asjade käik annab seletuse hollandi savipiibutükkide ja 1726. a Vene mündi leidumisele segatud pinnases eri sügavustel.

Arvatavasti on 2–4 cm paksune intensiivne kultuurkiht mäelaele tekkinud 1211. ja 1223. aasta vahel ning hõlmab ka 1215. aastal alanud kaksikvõimu aega, mil Viljandi linnus oli eestlaste ja sakslaste ühishalduses. Võib oletada, et mäel olnud varasemad rajatised hävisid 1211. a piiramise ajal. Intensiivne kultuurkiht annab teatud ülevaade kaksikvõimuaegse ülikumõisa argielust. Rohked pronksspiiralide, helmeste, ketilülide ning ehete ja ehtekatket leidud annavad tunnistust naiste arvukast ja aktiivsest kohalolekust. Seitse poolikut erinevatest kivimitest värtnaketra lubavad arvata, et keegi on

püüdnud valmistada värtnaketrasid, tõi küll, üsna saamatult. Öngekonksud, jahvekivi ja maakirves annavad tunnistust talupoeglikku laadi argielust. Kabja- ja jäänaelte ning suitsekatkete (joon. 3) põhjal otsustades on järsunõlvalisel mäel liikunud ka hobuseid. Ideoloogilise taustaga leidudest väärivad märkimist kirjust kihist leitud ristripatsid (joon. 10).

Kirjust kihist leitud loomaluud pärinevad valdavalt koduloomadelt (veis, lammas/kits, siga). Eriti väärib märkimist kanaluude rohkus (39,6%): tõenäoliselt on kanaliha kuulunud eeskätt sotsiaalse eliidi toidulauale. Kalajäänuste seas domineerivad ahvena luud ja soomused ning haugi luud (kalaluude määrangu kohta vt. täpsemalt käesoleva artikli lisa, mille koostas osteoloog Lembi Lõugas). Jääb ebaselgeks, kas 1140/60. ja 1225. aasta vahel vermitud Visby hõbemündid, mis leiti ühekaupa segatud täitepinnase eri sügavustest, seostuvad ülikumajapidamisega või on kaotatud kiviheitemasinate alusplatvorme kokku kuhjanud piirajate poolt.

Ammunoolte suur hulk (67 m² alalt koos 1999. aasta leidudega kokku 10) viitab sellele, et kungas oli haaratud aktiivsesse lahingutegevusse. Suur osa nooli võib pärineda 1223. aasta augustipiiramise ajal linnust kaitsnud ja saksa kiviheitemasinaid sihtinud eestlaste ambudest. Samas näitab söestunud seinapalkide vahelt 1999. aastal leitud nooleots, et ka uuritud künkalt on avaldatud ründajatele vastupanu ja et sealed hooned on hävinud võitluste käigus.