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ARHEOLOOGILISED
VÄLITÖÖD EESTIS
ARCHAEOLOGICAL FIELD
WORKS IN ESTONIA IN
1996

Koostanud ja toimetanud Ülle Tamla

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Tartu Ülikooli Raamatukogu

ARCHAEOLOGICAL INVESTIGATIONS IN VILJANDI

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In the centre of Viljandi, on the yard of Laidoneri Square 5, east of the medieval market place, the remains of a medieval town church were found during construction works.¹ The church, dedicated to St. Clara and St. John, was built, probably, in the 14th century. It was destroyed in the Livonian war in 1560 and its ruins were removed in the 18th century. The massive church foundations were revealed at a depth of 30—60 cm from the modern ground level. With the help of a 17th century town plan the location of the two excavation plots within the church was established. For plot A (17.4 m²), the NW inside corner of the longhouse and the, minimum 2.6 m thick, foundation of the church wall were opened (Fig. 1). At the corner of the longhouse, there was a 1.15 m wide doorway which opened to a winding staircase. Plot B (6.2 m²) was located in the western end of the longhouse, at the foot of the tower foundation.

The walls and foundations were made of brick and granite. In both plots, at the same depth (ca. 1.4 m from the modern ground level), a 3 — 4 cm thick layer of white hard mortar, connected with the medieval floor was found. It remained unclear whether the mortar had been covered by gravestones or floor bricks or had no special covering. No floor bricks were found, however, when breaking an old staircase, five fragments of gravestones, made of limestone, were discovered. Under the medieval floor level the width of the foundations gradually increased by steps. Three steps were discovered in plot A and two steps in plot B.

The pottery and other finds date mostly from the 18th—19th century. However, some stray finds of the 16th — 17th centuries were gained (ViM 10532). A medieval brooch probably comes from the disturbed graves.

At Väike-Turu Street in the yards of houses No. 6 and 6^a, archaeological works occurred in connection with laying a water tube (ViM 10533). The thickness of the cultural layer was, in total, 2.3—2.5 m. In its bottom, a well-preserved layer from the 13th century, rich in pottery, iron slag and

¹ The investigations were directed jointly with Ülo Stöör, Viljandi Town Government.

animal bones, was discovered. The finds include both imported and local-made pottery and a large whetstone. The medieval cultural layers, above the 13th century one, were greatly removed. However, in the profile, at least three medieval cobblestone pavements on red sand could be observed. The upper part of the cultural layer consisted of debris of the 16th—18th centuries.



Fig. 1. The NW inside corner of the nave of the town church of Viljandi.

In the trench, the massive granite foundation of a late medieval building was found. The foundation was almost parallel to Väike-Turu Street and belongs to the back wall of a building which probably faced the street. According to the stratigraphy the foundation might date to the late 15th—1st half of the 16th centuries. The foundation was not lying on the natural subsoil but on the medieval cultural layer.

In 1996, data of the cultural layer in the area of the medieval suburbs were gained. In front of the Riga gates, on Vabaduse square,

archaeological observations were made when a water-tube was repaired. At a probable distance of about 15—25 m from the medieval town moat, a cultural layer was observed. At a depth of 0.8—1.05 m, from the modern street level, there was a cobble-stone pavement dating, probably, from the late medieval period. Under the pavement there was a 0.3—0.4 m thick cultural layer which contained an abundance iron slag, including slag-cakes. At the bottom of the cultural layer, a pavement or graveling of small limestones, similar to that found in 1992 near the medieval Tartu gates (Valk, 1994, 93) was found. This pavement was lying on intact natural clean sand; before its construction the probable earlier cultural layer and the natural brownish soil had been removed, probably, in order to diminish the sloping towards the town area.

On Tartu Street (between Lossi Street and Tallinna Road), archaeological observations were made in connection with the replacement of wells of the water supply system.² Under the 19th century cobblestone pavement and the sand filling below it, a medieval and post-medieval cultural layer with an uneven thickness (0.2—0.6/0.8 m) was observed. The layer contained animal bones, iron slag, numerous nails, some brick, roof tile and post-medieval tile fragments. Also, some granite stones, probably connected with the foundations of timber buildings were found. According to the finds, the suburb area had been intensively settled. Medieval finds include a cowrie shell, a small bronze spiral, an iron candlestick and some pieces of 13th — 14th century stoneware. Undated finds include the fragments of a bone item and a chisel, and a calk-nail.

In order to establish the distribution area and nature of the cultural layer of Viljandi, georadar³ and boring with a 10 cm diameter vibrator-bore were used (Fig. 2). Although georadar has been used before for archaeological purposes in Tartu and Pärnu (Vissak, Vunk 1996), it has never been combined with boring in Estonian archaeology. The experience gained in Viljandi indicates the need for the combined use of both methods. Boring enables, on one hand, to interpret the georadar; the radar, on the other hand, greatly assists in extrapolating the boring data.

In the combined work of boring and georadar some shortcomings of the radar method were revealed. For example, if the thickness of the cultural layer exceeded 2 — 2.5 meters and its lower part was moist, it was no longer reflected in the georadar. Thus, the radar data must be checked by boring, and also because different layers may give similar reflections on

² The observation was directed by Krista Sarv, student of archaeology. The finds: ViM 10534.

³ The application of the georadar and the interpretation of the record was made in co-operation with Rünno Vissak and Aldur Vunk.

the radar screen. Only the debris and stone foundations always gave the same images. Thus, if possible, at each radar line, boring hole(s) should be made.



Fig. 2 The application of the GPR in the old town of Viljandi.

As a result of the works, some general conclusions about the nature of the cultural layer of Viljandi can be made. The layer has an average thickness of 1.6 — 2 m. However, in some places it exceeds 3 meter (e.g. in the yard between Munga and Kauba Streets and in the Fire Service yard between Väike-Turu and Kauba Streets). In such thick layers, evidently, the uneven landscape of the town-formation period is reflected. The lower part of the layer was moist and organic material (wood chips, branches, etc.) was well preserved.

In several parts of the town, the upper part of the cultural layer consisted of even black soil, rich in humus. Under this layer, only the lowest part of the medieval deposits had been preserved, as a rule. Probably, the black soil was brought into town as a result of gardening in the 18th—19th centuries. It can be suggested that the medieval and post-medieval

cultural layers were removed from the "gardened" areas for filling the medieval town moat.

With boring, the depth of the filled moat in front of the preserved fragment of the town wall, between Väike-Turu and Tartu Streets, was established. Approximately in the middle of the filled moat its bottom lies 7.0 m below the present ground level. The upper 5 m included filling material — debris and mixed soil; the two lowest meters consisted of moat sediments, i.e. wet mud with a good preservation of organic material. The bottom of the moat was covered by a 20-cm-thick layer of clay. Probably, the clay was meant to make the bottom of the moat waterproof. Under the clay the natural intact red Devonian soil was revealed.

Investigations were carried out, also, in the medieval castle area (Lossimäed). According to georadar and boring data, in the territory of the two outer bailies, between the main castle and the town (1st and 2nd Kirsimägi), the deposited cultural layer seems to have been greatly removed and replaced by mixed filling layers. On the hill of the main castle the cultural layer was 1 m thick. It seems to have been formed mostly during construction works (clean layers of different sands, mortar and gravel). Before the construction of the Order Castle the cultural layers of the former Estonian hill-fort were removed. However, from the preserved bottom-part of the initial natural soil a sherd of fine hand-made pottery, characteristic of the Viking Age, was found.

Likewise in Tartu, the existence of a Late Iron Age Estonian settlement connected with a prehistoric hill-fort has been repeatedly suggested. However, neither during the archaeological excavations nor during the boring works of 1996, from the Viljandi medieval town area, has evidence of an Iron Age settlement been found. In hope to find traces of the settlement, boring was made between the lake and the castle / medieval town area. From the holes made along the present Ranna puistee, between the town stadium and the main castle, no positive indication of an Iron Age settlement was gained.

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ARHEOLOOGILISTEST UURIMISTÖÖDEST VILJANDIS

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Viljandis Kindral Laidoneri plats 5 hoovil avastati tõenäoliselt 14. sajandist pärineva, Liivi sõjas hävinud ja 18. sajandil lõplikult hävitatud linnakiriku müürid. 17. sajandi linnaplaani abil õnnestus leitud müüriosi seostada ka kiriku üldplaneeringuga. Kaevand A sattus pikihoone loodenurka, kus kiriku välissein on olnud vähemalt 2.6 m paksune (joon. 1). Pikihoone nurgast leiti 1.15 m laiune ukseava, millest on alanud müüris paiknev keerdtrepp. Kaevand B sattus pikihoone lääneseina äärde, torni jalami peale ja kõrvale. Kirik on ehitatud tellistest ja maakivist. Mõlemas kaevandis paljandusid samas sügavuses silutud mörtpõranda jäänused. Põrandatasemest allpool laieneb kiriku vundament astmeliselt.

Väike-Turu tänav 6 ja 6a hoovis tuvastati veetrassi panekul 2.3–2.5 m paksune hästisäilinud kultuurkiht. Eriti intensiivne oli kihi 13. sajandist, tõenäoliselt selle keskpaigast pärinev alaosa, mis sisaldas rohkelt loomaluid ning import- ja kohalikku keraamikat. Jälgida võis ka kolme hilisemast keskajast pärinevat munakivisillutist. Kultuurikihi ülaosa koosnes valdavalt 16. sajandi teise poole — 18. sajandi rusudest. Kaevandis satuti kultuurikihile rajatud hiliskeskajast pärineva kivihoone maakivivundamendile. Tõenäoliselt on tegemist Väike-Turu tänava ääres asuva hoone tagaseinaga.

Andmeid saadi ka keskaegsete eeslinnade kultuurikihi kohta. Riia värava ees, kinniaetud vallikraavi servast u. 15–25 m kaugusel, avastati keskaegne kultuurkiht. Maapinnast 0.8–1.15 m sügavusel paikneb liivapadjal olev munakivisillutis, selle all pruunikaskirju rohkelt rauašlakki sisaldav 0.3–0.4 m paksune ladestus. Algse mullapinnaga loodusliku aluspinnase peal (linnaelne looduslik muld, võimalik, et ka kultuurikihi alumine osa olid eemaldatud), paikneb väikestest lubjakividest sillutis. Samasugune sillutis leiti 1992. a. kultuurikihi põhjast ka Tartu värava lähistelt.

Tartu tänaval Lossi ja Tallinna tänava vahelises lõigus toimus järelevalve seoses kanalisatsioonikaevude vahetamisega. Tänaval paikneb 19. sajandi munakivisillutise ja selle liivapadja all ebaühtlase paksusega (0.2–0.6/0.8 m) kesk- ja uusaegne kultuurkiht. Ala on olnud ilmselt puuhoonestusega. Leiti katusekivide tükke, rauašlakki, loomaluid ja mitmesuguseid, sh. 13.—14. sajandi esemeleide.

Viljandi kultuurikihi ulatuse ja iseloomu kindlakstegemiseks kasutati ka georadarit (joon. 2) ja puurimist. Koostöös Tartu Linnamuuseumiga teostatud projekti tellijaks oli Viljandi Linnavalitsus. Georadaruse ja puurimise ühildamine oli Eestis esmakordne. Viljandis saadud kogemus osundab mõlema meetodi kombineeritud kasutamise suurele kasutegurile. Puurimine võimaldab interpreteerida radarinäite, radar aga ekstrapoleerida puurimisandmeid. Kombineeritud meetodi rakendamisel ilmneseid ka georadari võimalikud kitsaskohad. Enam kui 2–2.5 m paksuse ja enamasti niiske alaosaga kultuurikihi korral ei olnud radar seda võimeline looduslikust aluspõhjast eristama. Georadardusandmeid tuleb puurimisega kontrollida ka seetõttu, et kultuurikihi erinevad ladestused võivad radariekraanil anda sarnase kujutise. Üheselt mõistetavaid tulemusi andis radar väga tiheda pinnase, st. kiviruse ja müürijäänuste puhul. Viljandi kogemuse põhjal peaks igal radardusliinil olema vähemalt üks kontrollpuurauk.

Radardus- ja puurimistööd võimaldavad teha Viljandi kultuurikihi kohta ka mõningaid üldisemaid järeldusi. Kiht on keskmiselt 1.6–2 m paksune, kuigi paiguti (keldrite ja looduslike vagumuste korral) võib see ulatuda üle 3 m. Linna eri piirkondades koosnes kultuurikihi ülaosa sageli mustast huumuserohkest aiamullast, mille all keskaegset kihti oli

säilinud vaid õhukese ladestusena. Tõenäoliselt on aiamulla toomine ja keskaegse kihi eemaldamine toimunud 18. saj. lõpul — 19. sajandi algupoolel. Võib arvata, et eemaldatud pinnas on viidud kinniaetava vallikraavi täiteks.

Väike-Turu ja Tartu tänava vahel säilinud linnamüüri lõigu kõrval puuriti ka keskaegset vallikraavi. Selle põhi asub praegusest maapinnast 7.0 m sügavamal. Ülemised 5 m koosnevad täitepinnasest, alumised 2 m vallikraavi põhjasetetest. Vallikraavi põhjas on 0.2 m paksune savilade, tõenäoliselt vee äravoolu takistamiseks. Sellest allpool algab puutumatu devoni liiv. Vallikraavi täitepinnas oli kohati märg ja mudane.

Lossimägedele tehtud puuraukudest hästisäilinud ja intensiivset kultuurikihti ei leitud. Kirsimäel koosneb ligi 1.2 m paksune kiht segatud täitepinnasest. Pealinnuse alal (Kaevumäel) leiti praegugi kasutusel oleva orduaegse sillutise all ligi 1 m paksune kultuurikiht, mis koosneb valdavalt ehitusprahist. Muinasaegne kultuurikiht oli enne ordulinnuse ehitamist täies ulatuses eemaldatud. Loodusliku alusmulla säilinud alaosast leiti siiski üks viikingiaegne käsitsi vormitud peenkeramilise nõu kild.

Kuigi sarnaselt Tartuga on ka Viljandis oletatud muinasaasula olemasolu, pole seda seni müüri piiratud vanalinna alalt õnnestunud leida. Asulakoha otsimiseks tehti puurauke ka Lossimägede, linna ja järve vahelisele alale Ranna puiestee ümbrusse. Pealinnuse ja staadioni vahelt muinasaasulale viitavaid märke ei leitud.