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ESTER ORAS and ERKI RUSSOW

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ARCHAEOLOGICAL EXCAVATIONS AT LOSSI 21, VILJANDI

ANDRES TVAURI
Tartu Ülikool (University of Tartu), Lossi 3, 51003 Tartu, Estonia; andres.tvauri@ut.ee

Archaeological rescue excavations in the town centre of Viljandi, on the plot of Lossi 21, took place in preparation of the construction of the new building of the Viljandi Culture Academy of the University of Tartu. The purpose of the research was to investigate the cultural layer in the area of the planned building and document the remains of the medieval town wall.

The investigated area is situated on the northern edge of the medieval town of Viljandi that is enclosed by the town wall (Fig. 1). The 153.4 m^2 excavation plot was made in front of the building of the cinema (on the eastern side) erected in 1964.

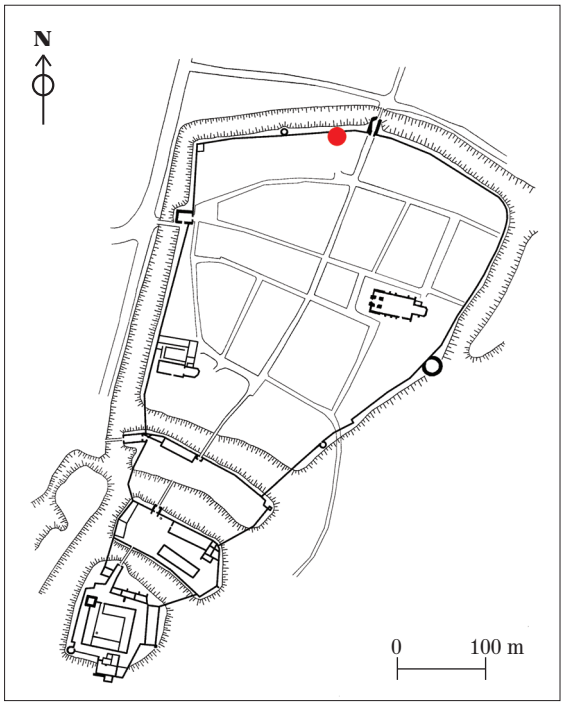

Fig. 1. The location of the excavation plot of Lossi 21 on the reconstruction of a map of Viljandi from the end of the 16th century.
Jn 1. Lossi 21 kaevandi asukoht Viljandi 16. sajandi lõpu plaanirekonstruktsioonil.
Drawing / Joonis: Andres Tvauri

Earlier a number of archaeological investigations have been carried out in this district of the medieval town of Viljandi. First archaeological observations were done in 1911 when the water pipe situated at Lossi street was constructed through the medieval gate of Tartu (Freymann 1918). The remains of gate of Tartu were thoroughly researched in 1991 and 1992, under the supervision of Heiki Valk (Valk 1994). In 1997, archaeological investigations (supervised by Heiki Valk and Andres Tvauri) were carried out on the western side of the cinema building. The aim of those investigations was to ascertain the position of the remains of town wall in the ground (Tvauri 1998). Former archaeological investigations on the plot of Lossi 21 were carried out in 2004 when Aivar Kriiska, Arvi Haak and Mari Lõhmus supervised the installation of heating pipes (Kriiska *et al.* 2007).

The topmost layers in the excavation plot of 2009 at Lossi 21, mostly formed in the 20th century, were removed mechanically to the depth of 1 m

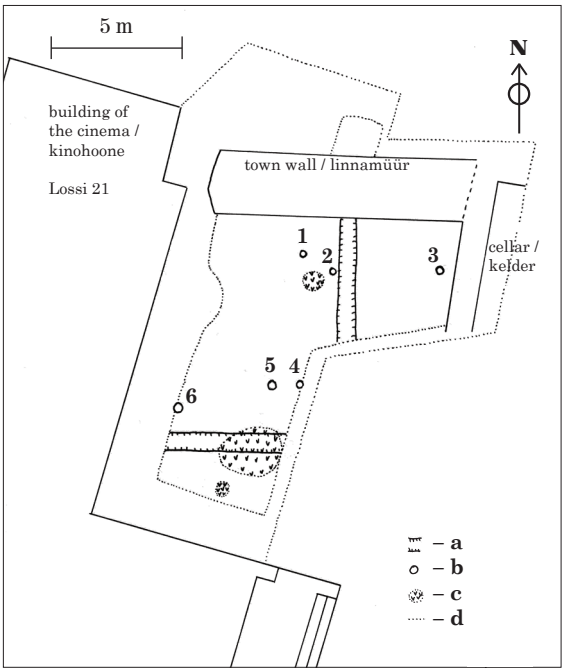

Fig. 2. The general plan of the excavation of Lossi 21. a – drainage trenches; b – post holes; c – fireplaces; d – border of excavation plot.
Jn 2. Lossi 21 kaevandi üldplaan. a – drenaažikraavid; b – postiaugud; c – tuleasemed; d – kaevandi piir.
Drawing / Joonis: Andres Tvauri

on the average. The deeper layers, until the intact natural sandy loam in the depth of about 2.8 m from the present ground level, were reached by manual digging.

TOWN WALL

The most remarkable construction remains were the lower part and foundation of the medieval town wall of Viljandi exposed in the northern area of the excavation (Fig. 2). The wall was in general east–west directed and preserved as a 8.7 m long section (Fig. 3). In its western part it had been destroyed in the course of the construction of the cinema. In the eastern part a cellar had been built through the wall in the 19th or the first half of the 20th century. The thickness of the town wall was 2.25 m measured from the upper rim of the preserved part. The biggest height of the preserved part with the foundation was 1.8 m.

In erecting the wall three layers of big boulders have been laid on the initial ground. The gaps between the boulders had been filled with silt and smaller stones (Fig. 4). At the same time on both sides of the foundation a layer of silt was amassed the thickness of which was up to 90 cm measured directly by the wall. The town wall bound with lime mortar was laid on top of the foundation of boulders fixed with silt. The wall had been laid of big boulders in horizontal rows. Smaller boulders and pieces of limestone had been wedged between the big stones. The wall laid with mortar has preserved in the excavation site up to the height of three stone rows.

No new information about the time of founding the Viljandi town wall was obtained during the present excavations. However, the observation valid so far was confirmed, that the Viljandi town wall has been constructed in the same way in all its extent and thus probably at the same time. As a result of the current archaeological research it may be stated that the Viljandi town wall was entirely established in the end of the 13th or the first half of the 14th century (Tvauri 2001, 107).

13th – 16th CENTURY CULTURAL LAYER

The natural ground on the territory of the whole excavation was yellowish grey silt. On top of it, a 5–10 cm thick similar soil layer where single finds and pieces of bricks could be detected had been preserved in several places. Some particles of lime mortar and

Fig. 3. Town wall. View from the south.
Jn 3. Linnamüür. Vaade lõunast.
Photo / Foto: Andres Tvauri

bricks were noticed on the initial ground. The town wall had been erected and the silt layer covering its foundation amassed directly on the latter stratum. An up to 30 cm thick layer, made of construction lime, was found on top of the silt layer by the southern side of the town wall against its inner wall. This lime layer covered the strata amassed against the foundation and extended 1.8 m south from the wall. The layer has apparently been formed from the lime mortar crumbled down during the laying of the wall.

After establishing the town wall an underground drainage system diverting the rainwater had been established on the southern or inner side of the town wall against its footing inside the amassed silt and the natural clayey ground. In order to found the drainage system 20–30 cm deep and 70–80 cm wide trenches had been dug (Fig. 2: a). An almost east–west directed trench with the slight slanting towards west could be followed in the southern part of the excavation. A similar trench was found from the central part of the excavation. Here the trench ran almost in the north–south direction, starting from the town wall and slanting towards south. The trenches were filled with mortar crumble, fragments and residue of bricks, roof tiles and their pieces. This filling, consisting of construction residue, was efficient in canalising the groundwater. It is remarkable that there were no traces of mortar on the bricks and mission tiles that filled the trenches and some of these had been distorted to the point of being unusable or reburnt (Fig. 5). The production waste of bricks and roof tiles refers to the existence of a medieval brick burning place in the neighbourhood. A similar drainage system, made of trenches filled with sand, brushwood and construction rubble, had been established in the suburb of medieval Tartu, at the flood plain located in the south-eastern edge of Kivi street (Metsallik & Tvauri 2003, 170–171, figs. 3, 5).

More permanent buildings from the Middle Ages could not be detected at the territory of the excavation. The only construction residue was the remains of six wooden beams (Fig. 2: b), with the cross section of 25–30 cm, which had left a cavity containing

Fig. 4. Part of town wall. View from the north.
Jn 4. Linnamüüri detail. Vaade põhjast.
Photo / Foto: Andres Tvauri

Fig. 5. Waster of the medieval roof tile.
Jn 5. Keskaegse katusetellise praak.
(VM 11272: 250.)
Photo / Foto: Andres Tvauri

rotting wood into the ground. The post holes 1–3 were exposed in the upper part of the silt layer amassed against the town wall and extended to the depth of 50 cm. The post holes 4–6 reached into the natural silt layer. In addition to post holes four stakes with the cross section of 5–6 cm and with sharpened ends were found, which had also been rammed into the silt layer. Since neither the post nor stake holes were situated in rows, it is difficult to reconstruct any buildings on the basis of this information. The depth of the post holes suggests that they are contemporary with the above described trenches. This suggestion is supported by a faulty brick in one of the post holes, which had been used as a chock for wedging the post into the hole. The brick is similar to the production waste found in the trenches.

On the average a 1.2 m thick dark grey cultural layer has been deposited on the territory of the excavation during the 14th–16th century. Although there were several layers differentiating by their tone or stoniness in this stratum, it was all in all fairly homogeneous by its content. The deposit of the 14th–16th centuries contained plenty of animal bones, charcoal particles, grind of roof tiles, bricks and lime mortar, pieces of slag and boulders of different size. The absence of buildings is referred to by three fireplaces in the cultural layer (Fig. 2: c), which were found from different layers and at different heights. Thus these must be hearths from different periods.

COBBLE STONE PAVEMENTS

Two cobble stone pavements from different periods were discovered in the southernmost corner of the excavation in an approximately 2 m long and 1.2 m wide area.

The higher pavement was exposed approximately 1.2 m below the present ground level. The pavement was strongly slanting towards east and south (the gradient for 1 m was about 15 cm). The northern and western edge of the pavement was clear-cut,

the southern part had been destroyed by the construction of the cinema, in the east the pavement continued into the profile. The pavement had been laid directly on the dark grey charcoal soil. The finds on the pavement demonstrate that it had been buried in the second half of the 16th century, probably during the Russian-Livonian War when the town was ruled by the authority of Moscow (1560–1582).

Directly under the higher pavement, 10–20 cm below the previous, an older pavement with similar measurements was discovered. This had been laid on the up to 10 cm thick red sand (Fig. 6). A similar pavement laid on the red Devon sand has been exposed in several places of former streets during the archaeological excavations and monitoring in the area surrounded by the town wall in Viljandi (Haak 2003).

Fig. 6. The earlier medieval cobble stone pavement. View from the west.
Jn 6. Keskaegne varasem munakivisillutis. Vaade läänest.
Photo / Foto: Andres Tvauri

Fig. 7. Finds from Lossi 21. 1 – bone stylus; 2 – Artig *(1364(?)–1373) minted during the term of office of the Tartu bishop Johannes I von Vyffhusen.*
Jn 7. Leide Lossi 21 krundilt. 1 – luust stilus; 2 – Tartu piiskop Johannes I von Vyffhuseni ametiajal löödud artig *(1364(?)–1373).*
(VM 11272: 244, 246.)
Photo / Foto: Andres Tvauri

FINDS

The finds gathered during the excavations[1] are typical in the context of the archaeological finds collected from Viljandi so far. Despite the fact that the majority of the medieval cultural layer was excavated by small shovels, carefully removing the soil, the medieval find material is relatively scarce. The most numerous finds are iron nails that were collected selectively. The shards of stoneware were considerably numerous in the medieval layers. The fragments of wheel-thrown pottery were discovered mostly from the lowermost cultural layers.

The most remarkable medieval artefact is the *artig* minted during the term of office of the Tartu bishop Johannes I von Vyffhusen (1346–1373) (Fig. 7: 2)[2]. Smaller medieval commodities include a bone stylus (Fig. 7: 1), a bronze ear pick, iron needles as well as iron padlocks and their keys (Fig. 8: 1–2). Of weapons an iron crossbow arrowhead, a bone arrowhead and two iron caltrops (Fig. 8: 3–5) were found. The typical finds of medieval cultural layer of Viljandi were iron clamps for boat caulking and ice

[1] VM 11272: 1–257.
[2] Identified by Mauri Kiudsoo (AI).

Fig. 8. Finds from Lossi 21. 1 – iron padlock; 2 – key; 3 – crossbow arrowhead; 4 – bone arrowhead; 5 – caltrop.
Jn 8. Lossi 21 leide. 1 – rauast surulukk; 2 – võti; 3 – ammunooleots; 4 – luust nooleots; 5 – jalaõng.
(VM 11272: 2, 231, 25, 41, 175.)
Photo / Foto: Andres Tvauri

nails for a horse. As characteristic to the cultural layer of the town centre of Viljandi, finds from the 17th century are absent in the studied area.

The animal and fish bones obtained from the medieval cultural layer are stored in the osteology collection of the *Kabinet* of Archaeology at the University of Tartu. The majority of the bones are bovine and sheep bones. A skeleton of a small dog was discovered directly north of the town wall, exactly west of a test pit dug in order to study the foundation of the wall, from the upper part of the clay layer amassed against the foundation. Directly south of the town wall a skeleton of a cat was found from the upper part of a trench dug into the silt layer.

SUMMARY

The size of the area archaeologically investigated on the eastern side of the Lossi 21 building in Viljandi in 2009 was 153.4 m^2. The cultural layer here was 2.8 m thick, of which the lower 1.8 m had been deposited since the 13th or the 14th century until the end of the 16th century.

An east–west directed remains of the medieval town wall traversed the northern part of the excavation. The ruins had been preserved as a 8.7 m long section which, together with the foundation, was 1.8 m high. The average thickness of the wall was 2.25 m. In the eastern part of the excavation the medieval town wall had been destroyed in the course of the construction of the Modern Age cellar.

A drainage system for diverting the rainwater as well as several post and stake holes were discovered under the medieval cultural layer south of the town wall. The remains of two cobble stone pavements and three hearths were found from the medieval cultural layer. There have been no stone buildings during the Middle Ages in the observed area. Numerous animal bones demonstrate that at the time there was a waste land by the town wall where trash was deposited. A street or a yard covered with cobble stone pavement has been in the southernmost end of the excavation.

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ARHEOLOOGILISED KAEVAMISED VILJANDIS LOSSI 21 KRUNDIL

Andres Tvauri

Arheoloogilised päästekaevamised Viljandis Lossi 21 krundil toimusid Tartu Ülikooli Viljandi Kultuuriakadeemia uue õppehoone ehituse ettevalmistamise raames. Piirkond asub linnamüüriga piiratud Viljandi keskala põhjaserval (jn 1). 153,4 m² suurune kaevand rajati 1964. a rajatud kinohoone ette.

Märkimisväärseimaks ehitusjäänuseks oli kaevandi põhjaosas paljastunud keskaegse linnamüüri alaosa ja vundament (jn 2). 8,7 m pikkuse lõiguna säilinud müür kulges kaevandis üldjoontes ida–läänesuunaliselt (jn 3). Lääne pool oli see lõhutud kinohoone ehitusega, idaosas 19. saj või 20. saj esimesel poole rajatud keldriga. Linnamüüri paksus oli ülaservast mõõdetuna 2,25 m, säilinud osa suurim kõrgus koos vundamendiga oli 1,8 m. Müüri ehitamiseks on algsele maapinnale laotud kolm kihti suuri maakive, mille vahed täideti saviliiva ja väiksemate kividega (jn 4). Samaaegselt kuhjati vundamendi mõlemale küljele kuni 90 cm paksune saviliivakiht. Vundamendile on laotud horisontaalsete ridadena maakividest ja lubimördiga seotud müür, mis oli kaevandis säilinud kuni kolme kivirea kõrguselt.

Kaevandi alal moodustas loodusliku aluspinnase kollakashall saviliiv. Selle peal oli kohati säilinud 5–10 cm paksune mullakiht, milles esines üksikuid leide ja tellisetükikesi, ka veidi lubimördi ja telliste puru. Mullakihi peale oligi ehitatud linnamüür ja kuhjatud selle vundamenti kattev saviliivakiht.

Pärast linnamüüri rajamist on müüri lõuna- ehk siseküljele taldmiku vastu kuhjatud saviliiva ning loodusliku savika aluspinnase sisse tehtud maa-alune drenaažisüsteem sadevete ärajuhtimiseks. Kaevatud kraavide sügavus on 20–30 cm, laius 70–80 cm (jn 2: a). Kraave täitis mördipuru, tellisekatked, katusekivid ja nende tükid. Selline, ehitusrusust koosnev sõmer täide juhtis tõhusalt pinnasevett.

Väärib märkimist, et kraave täitnud tellistel ja munk-nunn-tüüpi katusekividel ei olnud mördijälgi ja osa neist oli kuumuses kasutuskõlbmatuks väändunud või üle põletatud (jn 5). Tegemist on telliste ja katusekivide valmistuspraagiga, mis viitab lähikonnas asuvale keskaegsele tellisepõletuskohale.

Kapitaalseid hooneid kaevandi alal keskajal ei olnud. Ainsateks ehitusjääneteks olid kuus puitposti jäänust (jn 2: b), 25–30 cm läbimõõduga palgid, millest oli maapinda jäänud kõdupuitu sisaldav tühemik. Postiaugud 1–3 paljandusid vastu linnamüüri kuhjatud saviliivakihi ülaosas ja ulatusid umbes 50 cm sügavusele, postiaugud 4–6 ulatusid looduslikku saviliivakihti. Lisaks postiaukudele leiti neli 5–6 cm läbimõõduga teritatud otsaga vaia, mis olid rammitud saviliiva kihti. Kuna posti- ega vaiaaugud ei paiknenud ridadena, on nende põhjal raske mingit ehitist rekonstrueerida. Postide püstitamissügavuse põhjal võib oletada, et need on samaaegsed eelpoolkirjeldatud kraavidega. Viimasele viitab ühest postiaugust leitud praaktellis, mida oli kasutatud kiiluna.

14.–16. sajandi jooksul on kaevandi alale ladestunud keskmiselt 1,2 m paksune tumehall kultuurkiht, mis sisaldas ohtrasti loomaluid, söetükikesi, katusekivide, tellise- ja lubimördipuru, rauašlakitükke ning erineva suurusega maakive. Hoonete puudumisele viitavad kolm lõkkeaset (jn 2: c), mis on erinevates kihtides paiknemise tõttu eriaegsed.

Kaevandi lõunapoolseimas nurgas avastati u 2 × 1,2 m alal kaks eriaegset munakivisillutist. Neist ülemine paljandus u 1,2 m allpool tänapäevasest maapinnast ning oli tugeva kaldega ida ja lõuna suunas. Sillutise põhja- ja lääneserv oli selgepiiriline, lõuna poolt oli sillutis lõhutud kinohoone ehitusega, ida pool jätkus sillutis profiili sisse. Sillutise pealsed leiud viitavad selle mattumisele 16. saj teisel poolel, tõenäoliselt Vene-Liivi sõja ajal, mil linn oli Moskva võimu all (1560–1582). Ülemisest sillutisest 10–20 cm allpool avastati samades mõõtudes varasem sillutis, mis oli laotud kuni 10 cm paksusele punase liiva kihile (jn 6).

Kaevamistel kogutud leiuaines on Viljandi kontekstis tavapärane. Keskaegne leiuaines oli üpris vähene: arvukamaks leiuks olid raudnaelad ja ka Saksa päritolu kivikeraamiliste nõude killud. Lihtkedrakeraamiliste nõude katkeid leiti peamiselt kultuurkihi kõige alumistest ladestustest. Märkimisväärseteks keskaegseteks esemeleidudeks on Tartu piiskop Johannes I von Vyffhuseni ametiajal (1346–1373) löödud *artig* (jn 7:2). Väiksematest tarbeesemetest tuleb ära mainida luust stilus (jn 7:1), pronksist kõrvalusikas, rauast õmblusnõelad, rauast surulukud ja nende võtmed (jn 8: 1–2). Leiti rauast ammunooleots, luust nooleots ning kaks rauast jalaõnge (jn 8: 3–5). Viljandile tüüpilisteks leidudeks võib pidada rauast paaditihtimisklambreid ja hobuse jäänaelu. Uuritud alalt puuduvad 17. saj leiud.

Keskaja kultuurkihist leitud looma- ja kalaluud anti hoiule Tartu Ülikooli arheoloogia kabineti osteoloogiakogusse. Valdavalt on tegemist veise- ja lambaluudega, kuid kahelt poolt linnamüüri äärest leiti ka koera- ja kassiskelett.