



Archaeological monitoring at Väike-Turu and Kauba streets in the Old Town of Viljandi

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INTRODUCTION

In 2014, archaeological monitoring at Väike-Turu and Kauba streets was carried out in connection with the renovation of water and sewerage pipelines (Fig. 1). The trenches were located in the central part of the present-day street. Earthworks were monitored in the area of approximately 800 m²; the depth of the trench was up to 2.4 m, width 1,5–2,2 m. The thickness of the cultural layer varied from 0.9 m up to at least 2 m. Monitoring was carried out and the report compiled by Andres Tvauri (Tvauri 2014), Arvi Haak helped with data about earlier archaeological research in these streets.

Formerly, only a few small-scale archaeological investigations have been executed in the territories of Väike-Turu and Kauba streets. In 1981, during reconstructing the Kauba 12 building, remains of the medieval Riga Gate were unearthed underneath the floors of the building. Research enabled to determine the exact location of the town gate (Altoa 1982; 1985; Selirand 1982). Archaeological monitoring work in the western part of Väike-Turu street was carried out in 1997 by archaeologist Aare Kodar. The width of the medieval street was measured as 4.6 m, the pavement was convex in the cross section, forming gutters on both sides. It was located 55–80 cm below the present-day street surface (Haak 2003, 82–83).

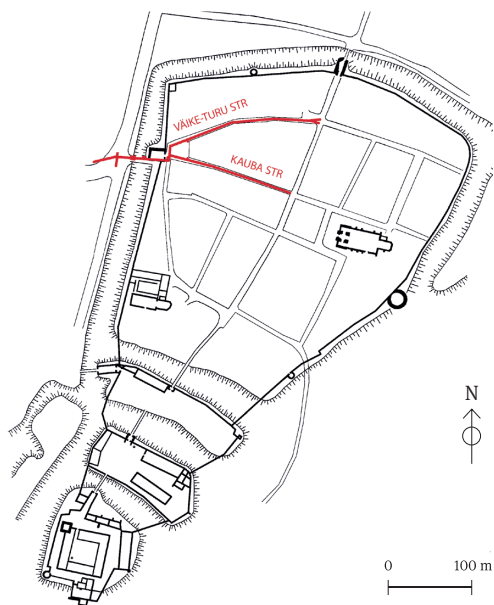


Fig. 1. Trench documented during the monitoring works at Väike-Turu and Kauba streets.

Jn1. Viljandis Väike-Turu ja Kauba tänaval arheoloogilise järelevalve käigus dokumenteeritud kaevis.

Drawing / Joonis: Andres Tvauri

In 1999, Andres Tvauri documented the vertical section of occupation layers revealed in an approximately 2 m² trench on the crossroads of Kauba street and Pikk street. The trench was dug to the same locale where a former water pipeline had been situated (Tvauri 1999). Arvi Haak carried out monitoring works in 2001 when an power cable crossing Väike-Turu street was installed, leading into the courtyard of Väike-Turu Street 8. The cable trench reached the depth of 105 cm from the ground level (Haak 2003). Arvi Haak monitored the installation of the power cables at the entire length of Väike-Turu street also in 2003, two cobblestone pavements were revealed in the central and western part of the street (Haak 2004, 118, fig. 2).

Excavation works demanding archaeological monitoring took place from 8 April to 26 May in 2014. Most new trenches followed former water and sewerage pipeline trenches. As the new trench was somewhat wider and deeper, it was still possible to document preserved occupation layers and constructions.

REMAINS OF THE MEDIEVAL RIGA GATE

In the western part of Kauba street, in a section between buildings at Kauba Street 9 and 12, remains of the medieval Riga gate were unearthed (Fig. 2). According to research conducted in 1981 under the building of Kauba 12, it was expected to find the southern wall of the *zwinger* of the Riga gate in the trench (see Altoa 1982; 1985; Selirand 1982).

The remains of the wall constructed of large granite stones joined with lime mortar was revealed in the depth of 50 cm from the contemporary ground. The former pipeline had been installed inside the wall destroying part of the remains. Because of that, the entrance in the southern wall, depicted on the 17th-century map, could not be located, as it probably started above the preserved wall remains. There was a depression dug inside the wall which was now made wider and deeper to install the new pipeline. The wall reached the depth of 185 cm

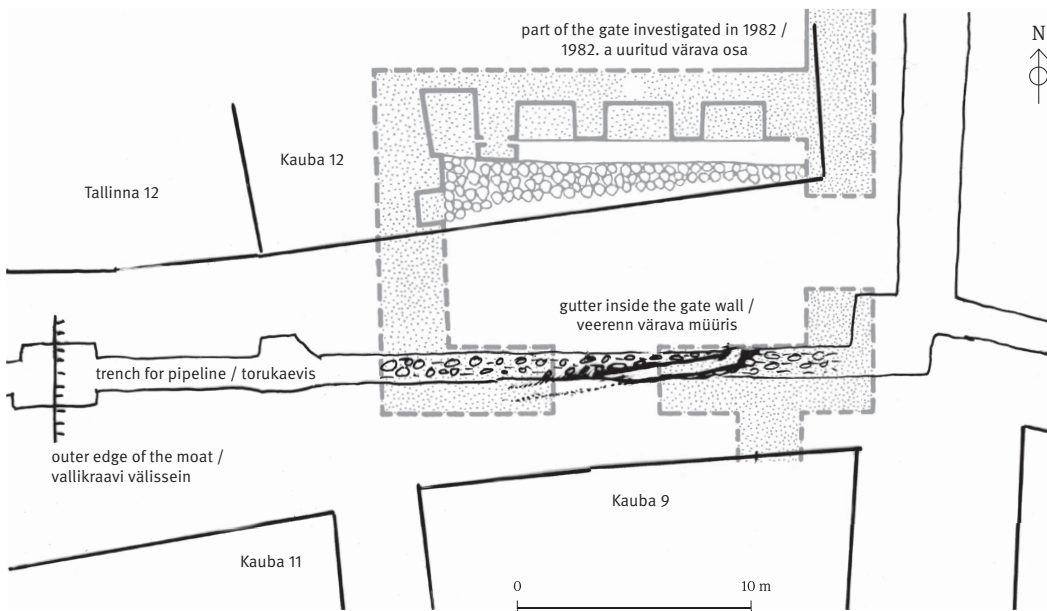


Fig. 2. Location of the Riga Gate.
Jn 2. Riia värava asend.

Drawing / Joonis: Andres Tvauri

from the ground level. It was impossible to determine the width of the wall, its remains extended out of both sides of the trench. Directly underneath the wall virgin soil of sandy loam was revealed.

Inside the remains of the wall, a closed gutter was situated along the wall, i.e. in approximately east-west direction (Fig. 3), declining towards west. The bottom and sides of the gutter were laid of granite stones and pieces of bricks, the top was covered with large flat granite stones. The inner measures of the gutter were 60 cm in height and 50 cm in width. The bottom of the gutter was situated 1.7 m below the current street level, it was covered with a 30 cm thick layer of grainy brown soil containing a few pieces of bricks and animal bones. The gutter was measured with a rod to continue diagonally from the southern trench wall outside the trench towards west (i.e. downstream) at least for 5 m. Towards east the gutter continued for 5 m and then curved roundly to the north, out of the pipeline trench. As the remains of the wall obstructed the installation of the pipeline, the wall was dismantled along with the gutter inside it. The top of the gutter was removed and the location of the gutter documented (Fig. 4). At the curve of the gutter, on top of the soil covering its bottom, a fragment of a redware jug covered with green glazing was found¹, dating from the 16th – 18th centuries. It is possible that the gutter represents a drainage for wastewater, rainwater or surface water that was built inside the southern wall of the *zwinger* of the Riga gate in the same direction with the wall.

MEDIEVAL LAYER ON THE VIRGIN SOIL

Throughout the research area, yellowish grey sandy loam represents virgin soil. On top of virgin soil there is a dark brown, organic-rich occupation layer, with the maximum depth of 90 cm. In some spots in the



Fig. 3. Gutter in the southern wall of the *zwinger* of the Riga Gate. View from the west.

Jn 3. Veekanal Riia värava eelkindlustuse lõunamüüris. Vaade lääne poolt.

Photo / Foto: Andres Tvauri



Fig. 4. Gutter in the southern wall of the *zwinger* of the Riga Gate after the removal of covering stones.

Jn 4. Keskaegse Riia värava eelkindlustuse lõunamüüris avastatud kanal pärast kattedekivide eemaldamist.

Photo / Foto: Andres Tvauri

¹ The finds: VM 11462 / A 562.

western part of the research area, in the inner side of the town wall, this dark brown layer was only 5 cm thick.

The layer contained animal bones, wood chips, leather scraps and pieces of bricks. On the crossroads of Väike-Turu and Kauba streets, in the eastern side of the one-time town gate, it also contained iron slag. In some places, the upper part of that brown organic-rich layer contained brick and lime mortar debris with a few fragments of monk and nun type roof tiles. Remains of buildings were not discovered in that layer.

Although the layer described above had already largely been disturbed by a former trench and it was possible to investigate only a small amount of the layer still preserved *in situ*, some sherds of stoneware and a fragment of a leather shoe (VM 11462: 6, 7, 10–20) were obtained. This confirms the medieval dating of the strata below the cobblestone pavements (cf. Haak 2004, 118).

MEDIEVAL STREET PAVEMENTS

In the trench, in some places on top of the organic rich medieval layer some 1–1.5 m long logs placed loosely and in a sporadic way were discovered (Fig. 5). The diameter of the logs was 10–15 cm. Most logs were placed along the direction of the street, in one section in front of the building at Väike-Turu 2a some logs were crossing the street. Logs were found adjacent to Väike-Turu 2a and Väike-Turu 6 plots, at Kauba street in the sections adjacent to Kauba 2 and Lossi 13 plots. As there was decayed wood on top of the organic-rich medieval layer elsewhere in the trench, it can be assumed that the logs had been placed to the same depth throughout both streets. In Viljandi, similar logs in the same stratigraphic context have earlier been found at Munga street (Valk 1990; Tvauri & Metsoja 2014a, 6). Most likely, it was not a pavement layer in its own right, but a sub-base for the cobblestone pavement. On top of the logs or, where logs are missing, on top of the organic-rich medieval layer lies a sandy bedding of



Fig. 5. Logs situated under the medieval cobblestone pavement in the eastern part of Kauba street. View from the west.
Jn 5. Keskaegse tänavasillutise all paiknevad palgid Kauba tänava idaosas. Vaade lääne poolt.

Photo / Foto: Andres Tvauri

cobblestone pavement. The position of the logs differs from that of the medieval log pavements discovered in the towns Tartu and Pärnu (e.g. Veldi 2006; Tvauri & Bernotas 2007, 172, figs. 9, 10; Tvauri 2011, 182; Heinloo & Vissak 2012, 163) where the logs are laid crosswise the street and tightly next to each other. In Viljandi, the remains of wooden logs situated crosswise the street were documented at Lossi street, where the existence of a wooden pavement was presumed (Heinloo this volume).

The surface of the cobblestone pavement mentioned above was 50–80 cm below the contemporary ground level. It was the closest to the current street level in the western part of Kauba street and laid deepest in the eastern end of Väike-Turu street. Below the pavement there was a bedding of red sand. The thickness of the bedding varied from 5 cm to 1.1 m. It was the thickest in the territory of Väike-Turu street and the thinnest in the western part of Kauba street. It can be assumed that at Kauba Street where the original ground has been higher than elsewhere in the territory under observation, the sandy bedding has already originally been thinner or maybe some of it has been removed later to level the street. There were occasional strips of black earth or charcoal in the sand layer. Whether these were pavement layers of different times or just something that occurred during piling up sand for the bedding remains unclear. According to the find assemblage gathered directly from the surface of the cobblestone pavement (see below), the pavement was buried under debris in the second half of the 16th century or beginning of the 17th century. Cobblestone pavement on red sandy bedding has been discovered during archaeological investigations everywhere under contemporary streets within the territory of medieval Viljandi surrounded by the town wall (e.g. Haak 2003; Kriiska *et al.* 2007, 121, fig. 14; Tvauri & Metsoja 2014b, 114–115).

The medieval cobblestone pavement extends to the current building line of Väike-Turu and Kauba streets. As housing remains were found in the territory of the small square at the intersection of Väike-Turu and Kauba streets in 1997 and 2003, the square is clearly not of medieval origin. The square is depicted in the maps from the late 18th century (EAA 1002-1-1821, page 1). At the southern side of Väike-Turu street and northern side of Kauba street, west from the western façade of the Kauba 10 building, remains of walls (bases of building or garden walls) found in 2014 indicate that the square has been smaller before the current building of Kauba 10 was erected.

DEBRIS LAYER ON THE MEDIEVAL COBBLESTONE PAVEMENT

On top of the cobblestone pavement and its sandy bedding, at both Väike-Turu and Kauba streets, there is an up to 40 cm thick, dark brown layer containing charcoal particles, brick fragments and mortar debris. At the central part of Väike-Turu street, the layer was distinctively rich in charcoal, animal bone, granite stones and brick fragments. A rim sherd of a simple earthenware vessel of northwest Russian style, and a fragment of a glazed redware tripod pot were obtained here. Probably, demolition debris of a building that used to stand right next to the street has deposited here in the second half of the 16th century or beginning of the 17th century. Finds from that period have been collected from the strata above medieval pavements at Väike-Turu street also in 1997 and 2003 (e.g. Haak 2004, fig. 7). A similar layer of demolition debris deriving from the wars of the 16th or 17th centuries has also widely been discovered in the territories of medieval streets of Viljandi (e.g. Kriiska *et al.* 2007, 121, fig. 14; Tvauri & Metsoja 2014b, 115). On top of the above-mentioned debris stratum, there were layers of streets pavements from the 17th to the 20th centuries.

DISCUSSION AND CONCLUSIONS

Archaeological monitoring at Väike-Turu and Kauba streets in the summer of 2014 provided new information about the street network and fortifications of medieval Viljandi. Remains of a southern wall of a *zwinger* of the Riga gate were discovered. Inside the wall there was a closed gutter.

The first archaeological strata that had deposited in the street area contained finds from the medieval period: stoneware, side staves of wooden dishes, leather working residue, a fragment of a glass vessel, etc. The first paving of the area was made of logs, most of which were positioned in the same direction as the street, others were also located crosswise to the street. These street surfaces were followed by a medieval cobblestone pavement on the bedding of red sand. In the middle of Väike-Turu street, the beddings of two medieval pavements have been traced (Haak 2003, 82). In the northern side of Väike-Turu street, also a post-medieval cobblestone pavement placed on a layer of construction debris was unearthed in 2003.

While there were no housing remains predating the medieval street pavements, earlier fieldwork has revealed that in the central and eastern part of Väike-Turu street, medieval housing remains were located under the present street area. The width of the medieval street was measured 4.6 m in its western part, and it was located *ca.* 1 m north of the present street line, based on earlier research results (Haak 2004).

On top of the medieval pavements, a debris layer has deposited in the second half of the 16th and 17th century. The first town plans from the 18th century show a street layout very similar to the present-day situation. The Riga gate was covered with sand bedding for cobbled street pavement, presumably also dating from the 18th century.

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ARHEOLOOGILINE JÄRELEVALVE VIJLANDI VANALINNAS VÄIKE-TURU JA KAUBA TÄNAVAL

Andres Tvauri ja Arvi Haak

Arheoloogiline järelevalve Viljandis Väike-Turu ja Kauba tänaval toimus seoses nende tänavate rekonstrueerimisega, mille käigus vahetati välja tänavate alal olevad vee- ja kanalisatsioonitrassid ning rajati sadeveekanalatsioon (jn 1). Enamikus trasside ulatustes kulges rajatav kaevis tänava keskel, piki olemasolevaid torustikke, kuid oli varasemast veidi sügavam ja laiem. Kaevetöödega avatud ala pindala oli umbes 800 m². Kultuurikihi paksus uuritud alal ulatus 90 sentimeetrist kuni vähemalt 2 meetrini.

Kauba tänava lääneosas leiti keskaegse Riia värava jäänus (jn 2). Suurtest maakividest valge lubimördiga seotud müürijäänus algas maapinnast 50 cm sügavusel, veetorukaevise kohal oli müür varem lõhutud kuni toru paigaldussügavuseni. Müür ulatus asfaldipinnast 185 cm sügavemale. Vahetult müüri all paljandus looduslik saviliiv.

Müürijäänuse sees paiknes piki müüri kulgenud suletud veekanal (jn 3), oletatavasti reo-, sadevee- või kivevenduskanal, mis oli laotud maakividest ja tellisetükkidest. Kanali põhi alanes lääne suunas ning seda kattis 30 cm paksuselt sõre pruun muld. Kanal jätkus kaevise seinast lääne suunas vähemalt 5 m võrra. Müürijäänus koos selles paikneva kanaliga lammutati, mille käigus eemaldati kanali kividest lagi ja dokumenteeriti kanali asend (jn 4). Kanali põhja katva mullakihi pealt leiti punaseks põlenud savist roheline glasuuriga tassi katke, mis pärineb 16.–18. sajandist.

Väike-Turu ja Kauba tänavate alal moodustab kõikjal loodusliku puutumatu pinnase kollakashall saviliiv. Selle peal on tumepruun orgaanikarikas kultuurkiht, mille paksus küündib 5 cm-st kohati 90 cm-ni. Väike-Turu ja Kauba tänava ristmikul, kunagise linnavärava idaküljel, sisaldas kiht ka rauašlakki. Hoonete jäänuseid sellest kihist ei leitud, koguti mõned kivikeraamika killud, väikeste laudkausside küljetükke, nahkjalatsi katke, nahatöötlemisjääke ja klaasanuma kild.

Orgaanikarikka keskaegse kihi peale on mõnedes kohtades kaevise alal hõredalt ja ebakorrapäraselt laotud maha 1–1,5 m pikkusi ning 10–15 cm läbimõduga palgijuppe (jn 5). Enamik palke paiknes praeguste tänavate suunaliselt, Väike-Turu tänava idaosas olid mõned palgid asetatud ka tänavaga risti, lisaks leidis samas kihis ka mujal kõdupuitu. Võib oletada, et palgid olid paigaldatud sellele sügavusele kogu mõlema tänava alal. Samasuguseid puidujäänuseid sarnases stratigraafilises kontekstis on Viljandist varem leitud ka mujalt. Tõenäoliselt on tegemist kõrgemal paikneva tänavasillutise aluse, mitte sillutise endaga, kuid Lossi tänaval on oletatud ka puitsillutist. Palkide või orgaanikarikka kultuurikihi peal lasub punase liiva kiht, millele on laotud munakivisillutis, mis paikneb tänapäevasest teepinnast 50–110 cm sügavusel.

Maakivisillutise all paiknes punasest liivast ebaühtlase paksusega (5–110 cm) tätekiht. Võib arvata, et Kauba tänava lääneosas, kus algne maapind oli kõrgemal kui mujal vaadeldaval alal, on sillutisealused liivakihid olnud õhemad või on neid hiljem maha kaevatud. Liivas leidub mullaseid ja söeseid vahekihte, mis võivad märkida kas eriaegseid sillutisetasandeid või pinnase kuhjamisel kujunenud viirge. Vahetult sillutise pealt kogutud leiuainese põhjal otsustades on sillutis mattunud rusukihtide alla 16. sajandi teisel poolel või 17. sajandi alguses.

Keskaegne munakivisillutis ulatub uuritud kohtades kuni Väike-Turu ja Kauba tänavate praeguse ehitusjoone. Kauba ja Väike-Turu ristmikul olevalt väikeselt väljakult varasematel uuringutel leitud hoonejäänuste põhjal pole see keskaegne, küll kujutatakse seda 1790. a kaardil.

Punasele liivale laotud tänavasillutise peal paikneb Väike-Turu ja Kauba tänavate alal kuni 40 cm paksune, tumepruun rusune kiht, mis sisaldas 16. saj II poole ja 17. saj alguse leide (loodevenepärane keraamika ja punase kolmjalgnõu katked). Keskaegse sillutise peal paiknevat 16. saj II poole ja 17. saj alguse sõdadega seonduvat kihti leidub Viljandi keskaegsete tänavate alal laialdaselt. Tõenäoliselt 18. saj lõpust pärinev sillutis kattis ka Riia värava jäänused, samaaegselt linnaplaanil kujutatud tänavad on tänapäevase olukorraga väga sarnased.