



# Archaeological research at Estonia Avenue 6, in the medieval and early modern Karja Gate suburb of Tallinn

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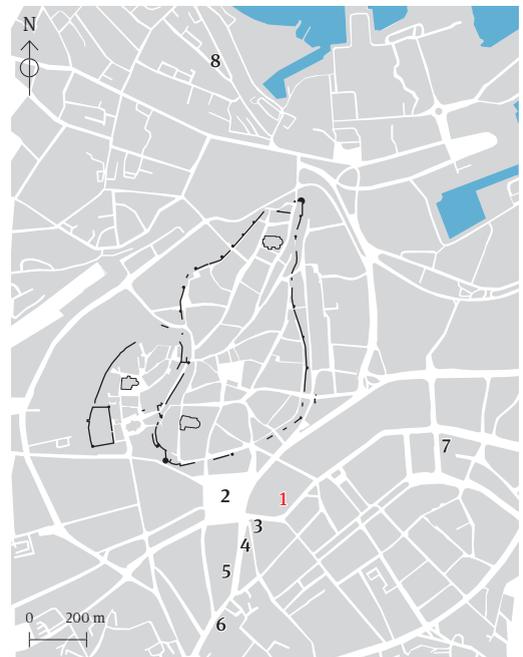
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## INTRODUCTION

Archaeological fieldwork took place in the historical Karja Gate suburb of Tallinn in relation to planned extension works to the Tallinn Secondary School of Science at Estonia Ave. 6 (Fig. 1: 1). OÜ Arheox carried out archaeological research in collaboration with MTÜ Arheoloogia ja Ehitusajaloo Grupp AEG from July to October 2023. An area of 1468 m<sup>2</sup> was investigated and as a result, a plethora of archaeologically significant deposits and structures from the 3rd to the 18th century AD was uncovered. Excavations recommenced in May 2024, where an area of 207 m<sup>2</sup> was investigated, and in August 2024, an 84 m<sup>2</sup> was investigated. The present paper focuses on the results of the fieldwork in 2023.

## HISTORICAL BACKGROUND AND PREVIOUS INVESTIGATIONS

The earliest indication of human activity in the Karja Gate area comes in the shape of radiocarbon dates. Charcoal samples from the Karja Gate barbican have been dated to the 1st century BC – 2nd century AD and samples from the earliest archaeological layer uncovered in the test pits of a preliminary investigation at Estonia Ave. 6 in 2009 to the 5th–6th century AD (Nurk *et al.* 2009, fig. 1; Nurk *et al.* 2011). This layer was transitional



**Fig. 1.** Medieval walled town and its surroundings with investigations described in the text. 1 – Estonia Ave. 6 (2023–2024), 2 – Vabaduse Square (2008–2009), 3 – Tatarsi 1 (2020–2021), 4 – Tatarsi 2 (1997), 5 – Pärnu Rd 22, 22a and 24 (2016), 6 – Pärnu Rd 31–33 (2016), 7 – Tartu Rd 1 (2011), 8 – Jahu 6 (2018–2019).

**Jn 1.** Tallinna keskaegne linnatuumik ning ümbruskond ühes artiklis mainitud uuringutega. 1 – Estonia pst 6 (2023–2024), 2 – Vabaduse väljak (2008–2009), 3 – Tatarsi 1 (2020–2021), 4 – Tatarsi 2 (1997), 5 – Pärnu mnt 22, 22a ja 24 (2016), 6 – Pärnu mnt 31–33 (2016), 7 – Tartu mnt 1 (2011), 8 – Jahu 6 (2018–2019).

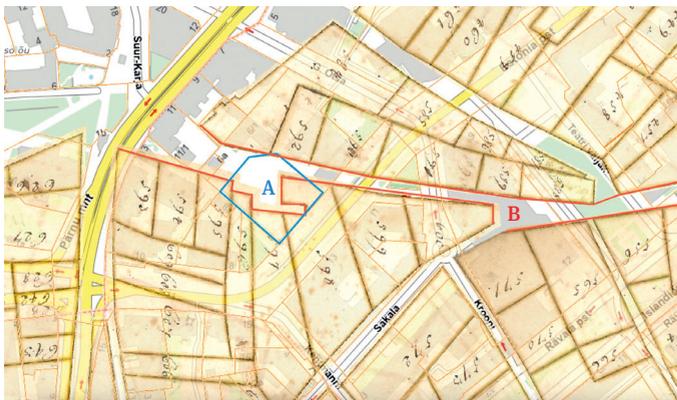
Map / Kaart: Jaana Ratas

in nature and low in intensity, suggesting that the area may have been used for pasture before the establishment of the suburb (Nurk *et al.* 2011, 115).

The suburb itself was formed in the 13th century. By the end of the 17th century, a road crossing the modern-day Estonia Ave. 6 plot from the Karja Gate towards Tartu can be observed on maps of the area (Fig. 2; von Staden 1699). This road was most likely present already in the 13th century and took on particular importance between 1538 and 1767 when the Harju Gate was shut because of the reorganisation of city defences and the Karja Gate became the only thoroughfare on the southern side of Tallinn's lower town (Nurk *et al.* 2011, 118). The presence of a medieval occupation layer in the suburb has also been confirmed in a small number of test pits to the south and to the southwest of Estonia Ave. 6 (Russow & Reppo 2024, TLN2009.09), but no previous open area excavations have allowed its thorough investigation. More extensive archaeological work has been carried out in the medieval Harju Gate suburb, where remains of stone cellars were uncovered along the road running from the Harju Gate towards Pärnu (Fig. 1: 2). The inner section of the same quarter was used as a clay extraction site, which was later repurposed for waste storage (Kadakas *et al.* 2010, 58–60). Some important discoveries have been made also along Tatari Street, about 130–150 m southwest from Estonia Ave. 6 (Fig. 1: 3–4; Heinloo 2021; Russow & Reppo 2024).

Any pre-existing lots and buildings at the site were likely dismantled before the Great Northern War (1700–1721). The renovation of town fortifications had already begun in the last decades of Swedish rule, but by the outbreak of war only a small section of the planned works had been completed. A glacis and covered way were constructed on the outer bank of the extant moat and contrary to plan, two smaller redoubts were created in the place of two bastions. The Pommer bastion, which was intended to the east of the Inger bastion and in front of the Karja Gate, was scrapped for a redoubt by the same name (Nurk *et al.* 2009, 8 and fig. 6 for the situation in the first half of the 18th c.).

The fortifications remained largely untouched until the end of the 18th century when under Russian rule the city defenses were once again renewed. The Pommer redoubt and several other earlier fortifications were dismantled. In their place, two demi-bastions and a tenaille were established. In the following decades, scarp and counterscarp walls between



**Fig. 2.** Historical road (B) crossing the modern day Estonia Ave. 6 plot (A) on von Staden's 1699 map of Karja suburb.  
**Jn 2.** Ajalooline tee (B) jooksmas üle tänapäevase Estonia pst 6 kinnistu (A) von Stadeni 1699. aasta Karja eeslinna kaardil.

Base map / Aluskaart: Tallinn map archive / Tallinna kaardiarhiiv. Compiled by / Koostanud: Mai-Britt Tomson

the Karja Gate and the Harju Gate were constructed along with a new glacis, complete with a palisade and covered way. On the account of contemporary maps, the tip of the western demi-bastion was expected to fall roughly in the western corner of the Estonia Ave. 6 plot (Nurk *et al.* 2009, 9, figs 7 and 8 for the situation after 1790).

## METHODOLOGY

Investigations were carried out in two phases. Initially, topsoil and modern fill layers were machine stripped from the southeastern part of the Estonia Ave. 6 plot where two excavation areas (areas 1–2) were laid out. Following hand excavation and documentation, the area was backfilled. In the second phase, the section immediately to the northwest of areas 1–2 was stripped and another two areas (nos 3–4) were laid out following the same principles (see Bernotas *et al.* 2024, I: app. 1, fig. 9 for the position of the areas).

The  $^{14}\text{C}$  samples collected were analysed by the Poznan Radiocarbon Laboratory. The dates were calibrated using OxCal v4.4.2 software (Bronk Ramsay 2020) with the probability of 95.4% using the IntCal20 calibration curve.

## FIELDWORK RESULTS

### The Iron Age

While  $^{14}\text{C}$  dates from the preliminary survey suggested the presence of an Iron Age occupation layer, no such deposit was identified in 2023. Nonetheless, at least six firepits in the natural sand represented human activity in the period. While their dates overlapped to a certain extent, some had the potential to be earlier than others. For example, two firepits in area 4 yielded calibrated dates of 252–416 AD and 255–420 AD<sup>1</sup>, placing them firmly in the Roman phase of the Early Iron Age. Both were without a cut, instead taking advantage of natural depressions and containing numerous burnt stones. All other pits had age ranges spanning both the Roman Iron Age and the Migration Period. Samples from two pits yielded identical date ranges of 406–543 AD.<sup>2</sup> One of them, located in area 3 (Fig. 3), was remarkably large, with a diameter of 2.2 m. A deliberate cut had been made for the firepit, which contained two deposits. The intensity of the firing event and the size of the pit compared to the others suggest that it was unlikely to be a simple campfire. Its exact use, however, could not be identified. The other pit was located in area 1, being much smaller in size. It, too, had two separate cuts, suggesting it was reused after the first firing event. The final two of these six pits, located in areas 1 and 4, yielded dates of 259–535 AD and 367–541 AD respectively.<sup>3</sup> Both lacked cuts and contained stones cracked by heat. In the area 1 pit, burnt stones lay in two distinct layers, in-



**Fig. 3.** Large Iron Age fire pit with numerous surrounding spade marks.

**Jn 3.** Suur rauaaegne tulease, mille ümber on mitmeid labidajälgi.

Photo / Foto: Paul Allik

<sup>1</sup> Firepit 2: Poz-175242, 1710±30 BP, firepit 3: Poz-175243, 1695±30 BP (Bernotas *et al.* 2024, app. 4).

<sup>2</sup> Pit 17: Poz-175238 and 'large firepit' Poz-175240, 1620±30 BP (Bernotas *et al.* 2024, app. 4).

<sup>3</sup> Pit 6: Poz-175221, 1660±30 BP, Firepit 1: Poz-175241, 1635±30 BP (Bernotas *et al.* 2024, app. 4).

dicating that the firepit may have had at least two phases of use. The evidence demonstrates, therefore, that the area may have been periodically revisited as suggested by the multi-phase firing pits.

Furthermore, it cannot be ruled out that some of the surrounding post holes and pits belonged to the Iron Age (see Bernotas *et al.* 2024, I: app. 1, fig. 19, app. 4: fig. 12, II: app. 1, fig. 2, app. 4, fig. 2 for plans of pits and other features within the natural ground). In the absence of both charcoal and finds, however, their exact date remains unconfirmed. It is also possible that a prehistoric occupation layer existed on the site, but was made indistinguishable from the overlying deposit by extensive ploughing. This is supported by the recovery of a Migration Period crossbow fibula (AI 8792: 2: 1813) from the medieval plough layer.

### The Medieval Period

Numerous spade, hoe and plough marks provided evidence of agricultural activity in the early medieval period, i.e. the late 13th–14th centuries. The marks penetrated through a layer of 14th-century agricultural sandy soil, which had likely been brought to the area at the beginning



**Fig. 4.** Wheel ruts within a medieval clay layer, aligned with the later road.

**Jn 4.** Vankrijäljed keskaegses savitasandis, mis kattusid hilisema teega.

Photo / Foto: Peeter Piirits



**Fig. 5.** A 15th-century wooden structure, possibly a cellar or a waste storage pit.

**Jn 5.** 15. sajandi puitrajatis, võimalik kelder või jäätmekast.

Photo / Foto: Keiti Randoja

of agricultural activities, and into the natural sand (Fig. 3). Furthermore, a ca. 5 m long row of wooden stakes was uncovered in area 2. Interestingly, their placement and orientation coincided with the plot boundaries depicted in von Staden's 1699 map of the Karja Gate suburb, demonstrating a remarkable continuity in land division from the very beginning of the medieval period. This has been noted also elsewhere in the neighbourhood (Heinloo 2019, 228).

The agricultural layer was superseded by the made ground and levelling deposits from the 14th–16th century. Among these, a layer of beige-grey clay represented the 15th-century ground level. An isolated post hole, a possible clay extraction pit, and a series of wheel ruts were discovered in the clay, the orientation of the ruts being nearly identical to that of the later 16th-century road (Fig. 4). A possible wooden cellar or waste storage pit, located in the southwestern part of the excavation area, was attributed to the mid-15th century based on dendrochronological dating which placed the cutting of the wood to 1441/1442 and 1442/1443 (Bernotas *et al.* 2024, app. 9). The east-west oriented structure was built into natural sand from pine wood, and the underside of its floor had been burned, likely to prevent the wood from decaying (Fig. 5).

The most exceptional discovery from the medieval period, however, was a series of four buildings, which were most likely erected in the early 16th century (Fig. 6). They were primarily identified by their limestone floors and wall foundations, the structures were rectangular in plan with shorter sides facing the street. Based on their shallow foundation depths, these were likely light buildings such as merchant stalls. Finds from immediately under and above the structures indicated that they were in use for a relatively short period. The abandonment of the buildings with some haste is also supported by the floors not being salvaged for raw material, although the walls of the buildings had been dismantled. The destruction happened most likely in connection with the Russian siege during the Russian-Livonian War (1558–1583) that has left traces of destruction or dismantling elsewhere in the southern suburbs of Tallinn (e.g., Fig. 1: 5; Russow *et al.* 2017, 174).

In front of these buildings ran a limestone slab pavement. Along its border, three round gaps denoting possible post holes were documented, indicating that part of it may have been covered by an awning. Immediately to the northeast, a more irregular road made of small limestone pieces, probably used for general traffic, was uncovered. It is noteworthy that the slab pavement had at least two phases of use, the earlier of which had been almost completely demolished prior to the construction of the second.

### Swedish and Russian periods

From the post-medieval period, various 16th-century occupation horizons were documented, succeeded by a layer of 17th-century grey clay that followed the east-west decline in natural elevation and functioned as ground level during the Swedish period. Within it, four shallow indentations and a post hole could be observed.

A building belonging to this period was also identified in area 1, of which only a single room containing a fireplace had survived (Fig. 7: A). Interestingly, medieval bricks and roof tiles had been repurposed for the fireplace's construction, even though the medieval limestone floors at the site had not been salvaged. Unfortunately, it was not possible to verify whether the building belonged to the period preceding the Great Northern War



**Fig. 6.** Limestone floors of 16th-century buildings. To the left is a limestone slab pavement and a gravel road.  
**Jn 6.** 16. sajandi hoonete paekivipõrandad. Vasakul paeplaatidest kõnnitee ja väikestest paekividest tee.  
 Photo / Foto: Keiti Randoja



**Fig. 7.** A Swedish period room with an oven (A) and a Russian period glasis wall (B).  
**Jn 7.** Rootsiaegne ahjuga ruum (A) ja veneaegne glassii-müür (B).  
 Photo / Foto: Paul Allik



**Fig. 8.** An underground room, possibly a bunker, dating from the early modern era.

**Jn 8.** Maa-alune ruum, mille puhul võis tegemist olla varuusaegse meeskonna varjendiga.

Photo / Foto: Peeter Piirits



**Fig. 9.** Contour of the moat's bank in the northwestern part of excavations.

**Jn 9.** Vallikraavi kalda kontuur uuringuala loodeosas.

Photo / Foto: Keiti Randoja

or whether it was associated with the fortifications constructed during the war, as its preservation was very limited.

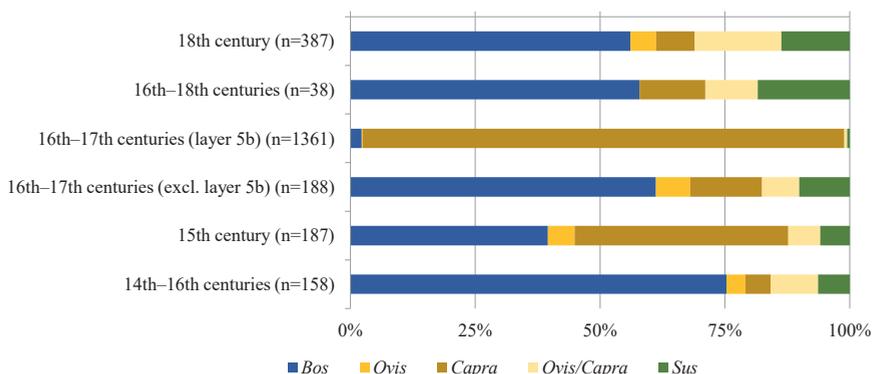
A layer interpreted as the lower part of the Swedish period glacis had also survived at the site. Six stone-padded post holes were identified within it, possibly belonging to a light building or a covered area. Furthermore, a limestone wall fragment, tentatively interpreted as a supporting wall for the Pommer redoubt glacis rampart during the Swedish period, was uncovered. A post hole possibly belonging to the palisade was situated on the inner side of this wall. An underground room, which may have been a bunker, was also recorded (Fig. 8). The inner part of the walls was made of wood with limestone pieces placed irregularly between the planks and the earth. As no evidence of an entrance was found, the room was likely entered from above. Considering the stratigraphy of the site it is probable that the room was constructed in the early 18th century. The latest find from backfill, a Russian *denga* of 1749 (AI 8792: 2: 1469) suggests that it fell out of use during the reorganization of fortifications under Russian rule. Interestingly, its topmost levels coincided with the levels of the post holes within the Swedish period glacis.

Evidence of Russian period fortifications following the reorganization was provided by a fragment of the 18th-century glacis wall in area 1 (Fig. 7: B). It was composed of irregularly shaped limestone blocks bound with mortar, which were leaning slightly northwest, probably from the weight of the glacis. The town moat in its 18th-century form was also discovered, and its course could be observed at the northwestern edges of areas 3 and 4 (Fig. 9). During the second soil stripping phase, the top of a possible counterscarp wall probably just beside the moat was discovered, however, it was covered with soil and will be excavated and interpreted in more detail during a later phase of work. The moat will also be investigated further at that time.

## ZOOARCHAEOLOGICAL EVIDENCE

The Estonia Ave. 6 material contained 3435 animal bone fragments: 3092 mammal bones, 41 bird bones, 254 fish bones and three mollusc shells. 45 bones could only be determined as 'vertebrates'. Of species, cattle (*Bos taurus*), sheep (*Ovis aries*), goat (*Capra hircus*), pig (*Sus domesticus*), horse (*Equus caballus*), dog (*Canis familiaris*), cat (*Felis catus*), elk and hare (*Lepus* sp., most likely mountain hare *Lepus timidus*) were represented.

The assemblage was generally typical of medieval and early modern material – among animals reared for meat, cattle was dominant, followed by ovicaprids and then pigs. More or less, all anatomical regions of the animals were represented (Fig. 10). The majority of bones belonged to young or adult animals, but a small number of juveniles were present. Cut marks were very frequent in this category of bone. Most layers also contained horse bones, which were most frequent in 18th-century deposits. Fragments of two horse skeletons and a skull fragment belonged to this period. Isolated bones were also recovered from the 15th-century, 16th–17th-century and 16th–18th-century layers. A small number of dog bones were collected from all periods as well, the most remarkable being a nearly complete skeleton from the 18th century. Cats were represented by two elements: a 16th–18th-century ulna and an 18th-century cervical vertebra.



**Fig. 10.** Representation of main domestic species within the assemblage.

**Jn 10.** Põhiliste koduloomade liigilise esinemus kollektsoonis.

Graph / Graafik: Liina Maldre

Among game, a rabbit was represented by three bones, all belonging to the 18th century, and an elk by a single left horn fragment of the same period. The tines and beam of the latter had been sawed off, suggesting that it had been used by a craftsman before being discarded. Bird bones were relatively rare in the assemblage, with nearly all examples coming from the same 18th-century layer (n=23). The remaining contexts contained only a few isolated elements. The vast majority of fish bones were recovered from soil samples, where they occurred most frequently in those belonging to the medieval period.

The concentration of animal bones in the northeastern part of layer 5b in area 1 (16th–17th century) was noticeably different from the rest of the site, possibly due to the concentration of workshop waste within this area of the fill layer. This assemblage was composed mostly of goat horn fragments. A certain anomaly was noted in the backfill of the 15th-century cellar within the same excavation area, where the recovered horns resembled those recovered from layer 5b in their fragmentation. Horn remains can point to butchering, tanning or horn-working activities. Certain indicators of horn processing by craftsmen, however, were horns sawn off at the base. Horns with chopping marks at the base can also indicate crafts but are also characteristic of tanning. Saw marks at the tips of horns (Fig. 11: 1–2) are more characteristic of horn processing, however (Albarella 2003, 74–77). Horns with definite saw marks were small in number, but it still indicates that a certain degree of horn processing was taking



**Fig 11.** Examples of horns with processing marks.

**Jn 11.** Näiteid töötlusjälgedega sarvedest.

Photo / Foto: Reet Maldre

place. A cattle horn originating from the 18th century also had its tip sawn off (Fig. 11: 3). In 18th–19th century England, cattle horn is known to have been used to line drainage trenches (Salvagno *et al.* 2017) so it cannot be ruled out that the elements in layer 5b had been used for drainage purposes.

### ARTEFACTUAL EVIDENCE

The archaeological investigation handled in the present paper provides another good insight into the late and post-medieval material environment of an important port town in the northern Baltic Sea region through a notably large collection of artefacts – from the area of 1468 m<sup>2</sup> altogether 7378 finds were collected, mainly dated to the period between the late 13th and 18th centuries. This is relatively similar to other open area excavations done in the neighbourhood, like

Tatari St. 2 / Pärnu Rd 15, studied in 1997 (Fig. 1: 4, 570 m<sup>2</sup> and 3500 artefacts), Tatari St. 1 / Estonia Ave. 19 from 2020–2021 (Fig. 1: 3, 1778 m<sup>2</sup> and 6366 finds), Pärnu Rd 22ff from 2016 (Fig. 1: 5, 1400 m<sup>2</sup> and 2173 finds) or Pärnu Rd 31–33, investigated in 2016 (Fig. 1: 6, 2952 m<sup>2</sup> and 4393 artefacts), but falls significantly behind some other suburban sites such as Tartu Rd 1 from 2011–2012 (Fig. 1: 7, 1100 m<sup>2</sup> and 20 797 finds) and Jahu–Väike-Patarei Street salvage excavation of 2018–2019 (Fig. 1: 8, 3754 m<sup>2</sup> and ca. 40 000 artefacts). However, what is typical of Estonia Ave. 6 and other sites mentioned above is that a substantial amount of the collected finds come from elsewhere, i.e. the deposits often represent material culture characteristic of the walled town, not suburban plots. Whether the finds were moved from the *intra muros* sites as a part of trash deposition on the agricultural areas (see Russow *et al.* 2019, 212ff) or arrived later as a filler for the post-medieval fortifications is inconclusive, but different discarding strategies will most certainly be discernible when the current collection is studied more in-depth in the future. Presently, the main aim is to offer glimpses into the artefacts unearthed and handle the contextual information rather sporadically.

### Pottery

As usual, the largest share of the artefacts is formed by ceramic finds, with 5923 fragments in total. The majority of these fall into the find groups connected to eating and drinking, considerably less available were other artefact categories such as heating and building ceramics or finds associated with leisure activities. From the latter, ten clay marbles and 462 white tobacco pipe fragments were collected, and one post-medieval pipeclay figurine depicting a foot soldier (?) might be also associated with pastimes. It stands out that the lion's share of the clay pipes can be dated to the mid-17th and latter part of the century, whilst the amount of younger finds is virtually non-existent. Unusually high is the number of technical ceramics – the 26 fragments of Hessian (Grossalmerode) crucibles are by far the greatest amount of sherds collected in Tallinn thus far (see Saage & Russow 2020 for the previous situation).

The 762 pieces of stove tiles give an important addition to the corpus of related finds in Tallinn. What strikes the eye is the relatively large number of glazed whiteware polychrome stove tiles – these occur up to now very rarely in Tallinn, thus the new collection of a dozen mid-16th century examples highlights the diversity of the available heating ceramics in the Hanseatic town. Also, the major group of glazed redware stove tiles offers interesting insights into the late and post-medieval domestic environment. First of all, the late 15th or early 16th century green glazed stove tiles are not common finds in Tallinn, as the use of tiled stoves seems to spread around the town more actively only after the 1520s. Yet here we have some early examples, but in all, the better part of the collection comes indeed from the mid-16th to early 17th century. Of these, it is interesting to highlight crown tiles depicting the coat of arms of the Duchy of Prussia and the City of Gdańsk (Fig. 12).



**Fig. 12.** Crown tiles. 1 – depicting an image of the coat of arms of Duchy of Prussia, 2 – depicting an image of the coat of arms of Gdańsk.

**Jn 12.** Kroonkahlid. 1 – Preisi hertsogkonna vapiga, 2 – Gdański vapiga.

(AI 8792: 2: 449; AI 8792: 3: 43–47.)

Photo / Foto: Jaana Ratas

The household pottery group with its 4653 sherds in total (Table 1) provides a more or less usual overview into the use of ceramic wares in the coastal merchant town. As is common for harbour settlements, the unearthed finds offer a very good diversity of ware types, with Siegburg stoneware and post-medieval redware having the largest proportion. There are, nevertheless, some interesting marginal pottery groups and types that will also be described here briefly.

From the medieval finds, it is extremely rare to see French wares in the northern Baltic. The late 13th century glazed whitewares have been found in Tallinn only a couple of times, represented with highly decorated Rouen Ware (Russow & Haak 2023, 9). Now another example, a spout of a likely Seine Valley glazed jug (Deroeux *et al.* 1994, 169; Fig. 13: 1) adds another piece to ‘exotic’ pottery, probably reflecting the wine trade of the time. Broadly from the same region, three 15th-century sherds of Beauvais stoneware (Hurst *et al.* 1986, 105–116) are the first pieces of this pottery in Tallinn, and the only other find in medieval Livonia is thus far known from Haapsalu (Russow 2006, 157). Another rarity in the Baltic littoral is the late

**Table 1.** List of pottery wares and the number of sherds. The code names and general dating of pottery follows the framework published in Russow 2006**Tabel 1.** Keraamikagrupid nimekiri ja kildude arv. Keraamikakoodid ja üldine dateering lähtub Russow 2006 avaldatust

Compiled by / Koostanud: Erki Russow

Date / Aeg	Code / Kood	Pottery Group / Keraamikarühm	Area / Ala 1	Area / Ala 2	Area / Ala 3	Area / Ala 4	Total / Kokku
1200	KNSNm?	Prehistoric coarseware / muinasaegne kohalik keraamika	2	0	0	0	2
	PAFF	Paffrath globular pot / Paffrathi kerapott	4	2	2	0	8
	SIEG1	Siegburg proto stoneware / Sieburgi protokivikeraamika	10	9	21	7	47
	SIEG2	Siegburg near stoneware / Sieburgi varakivikeraamika	14	11	25	11	61
	ORNPGLK	highly decorated medieval redware / ornamenteeritud glasuurkeraamika	6	1	11	2	20
	Seine?	French glazed whiteware, likely Seine valley / Prantsuse valge glasuurkeraamika, Seine'i oruala	0	0	1	0	1
	KNSN	local coarseware / kohalik lihtkedrakeraamika	50	30	39	28	147
	LASX2	Southern Lower Saxon (near) stoneware with iron wash / angoobiga Lõuna-Alam-Saksi (varakivikeraamika)	39	10	28	19	96
1300	SIEGgemag	Siegburg stoneware with inclusions / Sieburgi lisanditega kivikeraamika	9	2	13	5	29
	LANG1	Langerwehe near stoneware with iron wash / Langerwehe angoobitud varakivikeraamika	3	2	6	0	11
	LANG2	Langerwehe stoneware with iron wash / Langerwehe angoobitud kivikeraamika	17	13	28	8	66
	SIEG3a	earlier Siegburg stoneware, without ash glaze / varasem Sieburgi kivikeraamika	64	13	37	13	127
	BRUHL	Siegburg offshoot industry, Brühl? / Sieburgi jäljendav kivikeraamikatööstus, Brühl?	3	3	4	0	10
	LASX3	brown mottled southern Lower Saxon (near) stoneware / Lõuna-Alam-Saksi pruunilaiguline (vara)kivikeraamika	50	12	36	12	110
	HSN	greyware / hallid savinõud	24	4	13	13	54
	SIEG3b	Siegburg stoneware with ash glaze / lõõmutusega Sieburgi kivikeraamika	251	145	292	143	831
1400	SIEGANG	Siegburg stoneware with iron wash / angoobitud Sieburgi kivikeraamika	8	2	6	2	18
	SIEGGRGL	green-glazed Siegburg stoneware / roheline pliiglasuuriga Sieburgi kivikeraamika	2	0	0	1	3
	BEAUVKK	Beauvais stoneware / Beauvais' kivikeraamika	0	0	0	3	3
	LANG3	Langerwehe stoneware with salt glaze / Langerwehe soolaglasuuriga kivikeraamika	43	13	68	25	149
	WALD1	Waldenburg medieval stoneware / keskaegne Waldenburgi kivikeraamika	13	17	26	8	64
	ZITTAU	Eastern German (near) stoneware with wavy decoration / Ida-Saksa lainelise ornamendiga (vara)kivikeraamika	0	0	1	0	1
	RAER1	Raeren stoneware, medieval / keskaegne Raereni kivikeraamika	24	21	19	15	79
	ZIEGLERW	brickware / telliskivikeraamika	1	1	4	0	6
	PGLK1	Medieval glazed redware / keskaegne punane glasuurkeraamika	66	55	136	54	311
	VALENCIA	Valencian lustreware / Valencia säravapinnaline keraamika	2	3	3	2	10
	1500	MAI, IT	Maiolica, Italy / Itaalia majoolika	1	0	1	0
VNVSN		Vene valge savinõu / Russian white coarseware	0	0	1	9	10
COL		Cologne stoneware / Kölni kivikeraamika	26	20	21	24	91
SIEG4		Siegburg relief decorated stoneware / Sieburgi reljeefdekooriga kivikeraamika	12	8	7	5	32
ANGMHSN		(Polish) greyware with slip decoration / (Poola) angoobmaalinguga hallid savinõud	79	63	21	46	209
PGLK2		post-medieval glazed redware / varauusaegne punane glasuurkeraamika	265	411	191	210	1077

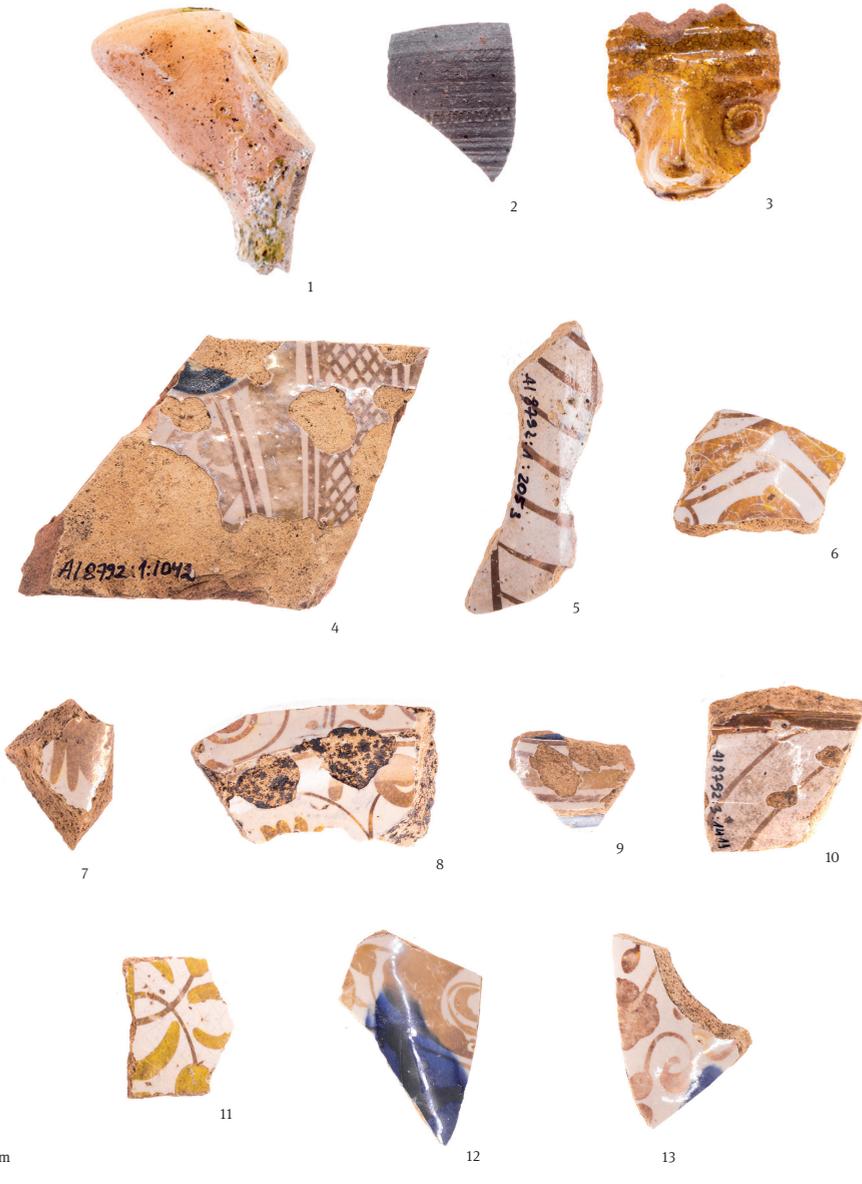
Date / Code / Aeg	Code / Kood	Pottery Group / Keraamikarühm	Area / Ala 1	Area / Ala 2	Area / Ala 3	Area / Ala 4	Total / Kokku
	PGLKholl	Dutch glazed redware / Madalmaade punane glasuurkeraamika	7	29	16	10	62
	VNHGLK	NW-Russian glazed greyware / Loode-Vene hall glasuurkeraamika	0	2	1	3	6
	RAER2	Raeren stoneware, highly decorated / renessansiaja Raereni kivikeraamika	48	59	14	17	138
↓	DUING	Duingen stoneware / Duingeni kivikeraamika	42	20	8	13	83
	WALD2	Waldenburg post-medieval stoneware / Waldenburgi varauusaegne kivikeraamika	0	4	1	0	5
	FRECH1	Frechen stoneware, earlier production phase / varasem Frecheni kivikeraamika	9	4	13	7	33
	WESER	Weser ware / Weseri keraamika	13	21	5	4	43
1600	WERRA	Werra ware / Werra keraamika	0	0	0	2	2
	PHOLL	North Holland glazed redware / Põhja-Hollandi punane glasuurkeraamika	2	2	0	1	5
	PMGLK	glazed red slipware, post-medieval / varauusaegne punane maalingutega glasuurkeraamika	88	76	46	37	247
	BGLK	glazed yellowish-red ware, postmedieval / varauusaegne beežikas glasuurkeraamika	0	24	6	3	33
	VGLK2	post-medieval glazed whiteware / varauusaegne valge glasuurkeraamika	14	19	9	4	46
↓	MAI, NL	Maiolica, southern Netherland / Madalmaade majoolika	4	13	11	4	32
	MERIDA	Portuguese redware / Portugali punane keraamika	2	2	0	0	4
	SEVILLA	Sevilla-type coarseware / Sevilla tüüpi lihtkeraamika	2	2	0	0	4
	FAJ, PT	Portuguese faience / Portugali fajanss	1	0	7	1	9
	FAJ, Arnstadt	Arnstadt faience / Arnstadti fajanss	1	1	0	0	2
	WEST1	Westerwald stoneware, earlier phase / Westerwaldi varasem kivikeraamika	34	34	27	15	110
	FAJ, NL	Dutch faience / Madalmaade fajanss	30	10	12	9	61
1700	VNHSN	Russian coarseware / vene lihtkedrakeraamika	3	3	0	0	6
	POR, EU	European porcelain / Euroopa portselan	0	3	3	1	7
	Late STW	Late stoneware / hiline kivikeraamika	3	0	4	0	7
↓	SELTERS	ceramic mineral water bottle / mineraalveepudel	0	1	2	3	6
	TRANSFER	Transferware / trükitehnikas kaunistatud tööstuslik keraamika	0	3	0	0	3
	Unidentified	Unidentified pottery / määramatu keraamika	3	5	5	1	14
<b>Total</b>			<b>1394</b>	<b>1208</b>	<b>1251</b>	<b>800</b>	<b>4653</b>

medieval east or middle German near stoneware (Fig. 13: 2) – this is now only the fourth time that it has been documented in Tallinn (Russow *et al.* 2019, 198 and fig. 10: 1–3). Furthermore, even though the late medieval glazed redware<sup>4</sup> is relatively common in the Estonia Ave. 6 collection, there is at least one item that hardly ever appears, the glazed redware imitations of Waldenburg stoneware beakers (Russow 2004). The present sherd (Fig. 13: 3) is the third fragment from Tallinn.

Whereas the above-mentioned pottery had likely modest or medium value, there are also several finds belonging to the upper stratum of pottery production. From these, two groups stand out: late medieval Valencian lustreware and Renaissance period relief decorated Siegburg stoneware. With 10 sherds (Fig. 13: 4–13), it is the third largest occurrence of Valencian tableware in Tallinn after the Jahu-Väike-Paterei St. landfill (Russow *et al.* 2019, 74 sherds (updated quantity)) and Tartu Rd 1 tavern (?) site (Russow *et al.* 2013, 17 sherds).

<sup>4</sup> As always, it is difficult to distinguish the origin of the late medieval glazed redware as the tiny fragments of medieval Dutch glazed redware are not easily recognizable from the Baltic redware if the distinctive morphological elements are not available. The line between late medieval glazed redware and post-medieval glazed redware is at times vague as well (Russow *et al.* 2019, 196).

The 32 fragments of Siegburg relief decorated stoneware (mainly tankards but a few sherds of pitchers as well) form a third of related finds in Tallinn, as up to day only 98 sherds from 24 different sites have been documented.



**Fig. 13.** Rare pottery finds. 1 – Spout of a French glazed whiteware jug, 2 – Zittau (?) near stoneware, 3 – redware imitation of Waldenburg stoneware, 4–13 – Valencian lustreware.

**Jn 13.** Erandlikud keraamikaleiud. 1 – Prantsuse valge glasuurkeraamilise kannu tila, 2 – Zittau (?) varakivikeraamika, 4–13 – Valencia säravapinnaline keraamika.

(AI 8792: 3: 708, 1706; AI 8792: 2: 1637; AI 8792: 1: 1042, 2053; AI 8792: 2: 1302, 1552, 1659; AI 8792: 3: 969, 1410, 1411; AI 8792: 4: 519, 700.)

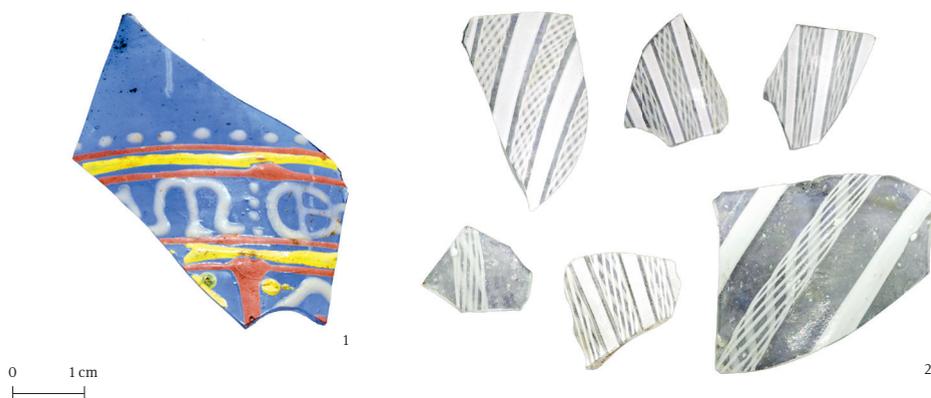
Photo / Foto: Jaana Ratas

## Glass

The oldest glass artefacts found from the site date from the late 13th and first half of the 14th centuries. These include fragments of window glass (e.g. AI 8792: 1: 1378, 2024) and a body fragment of a blue enamelled Venetian beaker with the letters M : E (Fig. 14: 1). The fragment is decorated in the same way as a contemporaneous beaker found from Viljandi (Niilisk *et al.* 2017, 206, fig. 2). The neck fragment of a potential biconical bottle (AI 8792: 1: 1315) is notable, as only five such fragments have been found from Tallinn before. Most 14th–15th-century drinking vessels from this site are characteristic to Tallinn. These are represented by fragments of beakers with applied ribs and blue blobbing (Ger. *Fadenrippenbecher*; e.g. AI 8792: 3: 1268), printed beakers (e.g. AI 8792: 1: 654; AI 8792: 3: 1406) and beakers with applied horizontal blue glass threads (e.g. AI 8792: 1: 1279).

Late medieval examples from this site include beakers with optic mould-blown patterns (e.g. AI 8792: 4: 1163) and 16th-century Berkemeiers with flared bowls and pulled prunts (e.g. AI 8792: 1: 492). Fragments from 16th–17th-century octagonal Passglas and pedestal beakers (e.g. AI 8792: 1: 520) and Roemers (e.g. AI 8792: 1: 300) may indicate communal and/or social drinking on the site from which the material was brought to Estonia Ave. 6. The most notable post-medieval vessel finds are six colourless fragments from a late 16th-, early 17th-century a *vetro a filigrana* beaker or jug with vertical *lattimo* (white) *vetro a retorti* cables and *vetro a fili canes* (AI 8792: 1: 196, 1605, AI 8792: 2: 540, 1878; Fig. 14: 2). An individual glass cane formed from twisted *lattimo* and translucent light blue canes was also found (AI 8792: 1: 660) from the 18th-century fill. These canes were and are used in bead-making. One yellow medieval biser bead and six imported post-medieval beads were found alongside five 17th–18th-century buttons with iron wire loops.

Flat glass forms nearly half of the 253 glass artefacts collected in 2023. Rectangular, triangular, polygonal, rhomboid and curved panes were present with several panes preserved intact. Almost all the window and stained glass fragments date to the medieval period. 18 painted and six plain fragments of stained glass of the colourless (light green, 13), flashed



**Fig. 14.** Rare glass finds. 1 – a sherd of a medieval blue enamelled Venetian beaker, 2 – fragments of a late 16th – early 17th century *vetro a filigrana* beaker or jug.

**Jn 14.** Erandlikud klaasileiud. 1 – keskaegse sinisest klaasist Veneetsia peekri katke, 2 – 16. sajandi lõpu, 17. sajandi alguse *vetro a filigrana* peekri või kannu katked.

(AI 8792: 3: 1129; AI 8792: 1: 196, 1605, AI 8792: 2: 540, 1878.)

Photo / Foto: Jaana Ratas

red (3), emerald green (3), and blue (3) variety were found. Leaves, waves, arches and plain borders can be distinguished. Most colourless painted fragments were found from excavation areas 1 and 3. Medieval (e.g. AI 8792: 2: 1315) and post-medieval lead came (e.g. AI 8792: 4: 1196) fragments indicate that the window glass may have been used on site.

### Monetary deposit: contents of a mid-15th-century purse

From the collected monetary finds, 14 coins, probably belonging to the same late medieval (*tpq* 1430) complex (a purse?), are of special interest. Regardless of its smallness, the assemblage provides substantial information about regional currency in the second quarter of the 15th century: hoards belonging to that time are extremely rare. Although at the present stage of research, ca. 70 medieval coin hoards and purses are known to have been found in Estonia, only two hoards (without any contextual information), dating from the 1430s are known. The purses, left in the ground during this period, were entirely unknown before (Kiudsoo 2023, 139, 169). However, the latter offers the most valuable information for defining real monetary circulation in the Middle Ages. It can be expected that during the compilation of that kind of complexes, selective choice has been less dominant than in the economic hoards ('saving banks') characteristics for the Middle Ages (see Kiudsoo 2012, 58–60).

The purse that came to light at Estonia Ave. 6 contains exclusively Livonian coins (see Table 2), minted by the nearest minting lords: the master of Livonian Order (8), the prince-bishop of Tartu (4) and the archbishop of Riga (2). The oldest specimen among these coins is the *lübische* (Table 2: 1), minted in Tartu already before the monetary reform of Old Livonia (1422/1426). It is important to note the presence of a *scherf* (Table 2: 6), struck in Tallinn from 1426 through 1430. The Landtag in Cēsis (Germ. Wenden) decided to start minting new *artigs* (people soon began to call them *schillings*) in 1422, and also *pfennigs* and *scherfs* in 1426 (Leimus *et al.* 2018, 57–58). The *scherfs* which were less numerous than *schillings* and *pfennigs* and were minted of silver of considerably lower quality occur primarily among finds from offering sites. *Scherfs* of the 15th century hardly ever occur in the composition of hoards (Kiudsoo 2004, 80–81).

**Table 2.** List of coins (AI 8792: 3: 1286–1293) from a likely purse

**Table 2.** Võimalikust rahakotist pärit müntide (AI 8792: 3: 1286–1293) nimekiri

Compiled by / Koostanud: Mauri Kiudsoo

No. / Nr	Issued by / Müntija	Denomination / Vääring
1	Tartu BR, ca. 1413–1420(15?)	<i>lübische</i>
2–4	Tartu BR, Dietrich IV Resler, 1422–1441	<i>schilling</i>
5	Livonian Order, Tallinn, ca. 1426–1430	penny
6	Livonian Order, Tallinn, ca. 1426–1430	<i>scherf</i>
7–8	Riga ABR, Henning Scharpenberg, 1424–1448	<i>schilling</i>
9	Livonian Order, Tallinn, ca. 1428?–1435?	<i>schilling</i>
10–14	Livonian Order, Tallinn, ca. 1430–1449?	<i>schilling</i>

### Leather finds

Altogether 258 leather artefacts or their fragments were found, spread unevenly within the excavation areas (areas 1 to 4: 46, 76, 107, and 30 finds respectively). The collected leather was either in a moderate or poor preservation state, of the damages it was possible to document the lamination of leather layers, both use-wear deformations and damage after disposal.

The artefacts were made of vegetable-tanned leather, belonging to both bovine and caprinae. As expected, most of the finds represent shoes or their details, either from the pattens or shoes of different heights. Also, nine fragments of two bags and a few belts were documented. In addition, many finds come from discarded leatherwork production waste, mostly strips with sewing holes from upper-sole stitching. Those pieces, as well as the prepared upper toe part (upper-sole stitch holes part cut off) to be used later for making new items, indicate discarded production waste of a cobbler workshop. This interpretation is supported also by the finds of repair soles with wooden sticks and some repaired items.

Statistically, the most numerous were the uppers coming from the Bruges-PW style pattens (Volken 2022, 95), one strap with stitched decoration and some with a simple line ornament. Among the finds are fragments from cork soled patten Bruges-PC – one insole, as well some of its decorated straps with buckle fastening. Additionally, a few simpler straps for wood-soled patten Schelde-PW (Volken 2022, 96) with pin fastening were found.

The leather shoes reflected several styles that were popular during the 14th and 15th centuries. Some shoes stood out because of their large foot number and notable was the amount of children's footwear of different sizes. Most of the shoe styles were of the mid-calf height, like Freiburg-JcE (style with tailed knots fastening at leg front) (Volken 2014, 376) and Tallinn-JnE<sup>5</sup> styles (side laced shoe with added leg extension). The edges of the leg extensions of the Tallinn-JnE style shoes were in many cases decorated with pinked edges. The Greyfriars-JsE style (front laced shoe with leg extension) (Volken 2014, 349) was represented with 10 details; slightly lower styles were reflected by Den Bosch (straight)-Js (Volken 2014, 340) with a straight connection seam and front lace fastening with tailed knots, as well its version adapted to children, Den Bosch (children's variant)-Js (*ibid.*), with five fragments. The only representative with the primary cutting pattern D was Criblet-DDE (Volken 2014, 292), which has side lace fastening as well as leg extension. From lower shoes, most were Amsterdam (straight)-Js (Volken 2014, 341) with bifurcated front lace fastening; only one exemplar was from Brabant-Jc (with dipped sides and peaked back, bifurcated lace fastening at instep point) (Volken 2014, 375) and Amsterdam sister style with buckle fastening – Exeter (straight)-Js (Volken 2014, 341).

### Sewing equipment

Of the eight thimbles found from the site, the oldest are a squat 14th-century beehive thimble (AI 8792: 2: 1048) and a 14th–15th-century thimble with concave sides (AI 8792: 4: 649). The rest of the thimbles date from the 16th century, including two with floral bands and knurled sides (AI 8792: 2: 280, 1183). A 16th-century sewing ring with a maker's mark (Fig. 15), seemingly fashioned from a worn-out thimble with a domed top, is a rare example in Estonia. Needlework and textile work are also evidenced by two pairs of scissors, eight spindle whorls, fragments of



Fig. 15. A sewing ring with a maker's mark.

Jn 15. Meistrimärgiga sörmkübar.

(AI 8792: 1: 1126.)

Photo / Foto: Jaana Ratas

<sup>5</sup> The exact typological aligning is presently open because of the controversial description of the mentioned styles.

a bone needle case (AI 8792: 1: 2069), two metal sewing needles and a bone *nalbinding* needle found from the site. Most of these date from the 15th–16th centuries. Two copper alloy pins may have been used to pin clothes or hair accessories – the one with a wound head (AI 8792: 1: 1054) was found from the 14th–16th-century layer; the example with a rhomboid head (AI 8792: 2: 165) comes from the 18th-century fill.

### The waste of trade: cloth seals

Finally, from the other small metal finds collected from the site, only one distinct group of artefacts will be presented here because other items (some pieces of jewellery, dress accessories, counting tokens, etc.) do not add much to the overall knowledge of the medieval and later material culture of the town. The cloth seals, on the other hand, broaden slightly the geographical scope of one of the main groups of goods that merchants of Tallinn mediated to local, regional and further consumers (for details, see Russow *et al.* 2022). In all, 33 15th–17th-century cloth seals were collected from Estonia Ave. 6, largely from the 17th-century fill layers; unfortunately, none of the seals seems to relate to the above-mentioned early 16th-century shops. Of the identifiable seals, a more or less usual image of medieval and early modern period northern Baltic textile trade emerges, with the Dutch and German production sites prevailing. Still, next to the quality marks of the common textile centres (Leiden, Dordrecht, Naarden (?), Augsburg, Göttingen (?), Fig. 16: 1–5) some cloth seals have not been documented previously in Estonian archaeological collections, such as Woerden (?), Osnabrück and Bremen (Fig. 16: 6–8).



Fig. 16. Cloth seals.

Jn 16. Kangaplommid.

(AI 8792: 4: 907, 532, 335; AI 8792: 2: 968, 69; AI 8792: 1: 257; AI 8792: 2: 198; AI 8792: 4: 783.)

Photo / Foto: Jaana Ratas

## CONCLUSION

Archaeological investigations encompassing an area of 1468 m<sup>2</sup> were carried out at the Estonia Ave. 6 plot in relation to extension works to the Tallinn Secondary School of Science. The four excavation areas laid out revealed rich occupation and fill layers spanning all the way from the prehistoric period to the 18th century. The earliest signs of human occupation were several Iron Age firepits, some of which had multiple distinct phases of use. This suggests that the area may have been subject to at least semi-permanent occupation at this time. The medieval period at the site also yielded unexpectedly rich finds, with remains of four 16th-century buildings uncovered along the southwest part of the area. Before this, the area was probably in agricultural use. Later periods of Swedish and Russian rule were also represented at the site, with various buildings most likely associated with town defenses uncovered at the site. The most remarkable of these was an underground construction, which may have functioned as a bunker. Overall, the Estonia Ave. 6 site was significant in the way it showed the continuity of occupation and the changing face of the Karja Gate suburb for more than a millennium. No less important is the collection of unearthened artefacts: with the evidence coming foremostly from the late 15th to the 17th century, it helps to fill the gap in our understanding of the changing consumption habits in Tallinn, and although the majority of the more than 7000 artefacts have no direct relation to the *in situ* settlement activities, they provide important insight into the general material environment of a major mercantile town in the northern Baltic.

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## ARHEOLOOGILISED UURINGUD ESTONIA PUIESTEE 6 KINNISTUL, KESK- JA VARAUUSAEGSES TALLINNA KARJA VÄRAVA EESLINNAS

Mai-Britt Tomson, Liina Maldre, Tuuli Jõesaar, Mauri Kiudsoo, Monika Reppo ja Erki Russow

2023. a uuriti seoses planeeritava Reaalkooli juurde ehitusega Estonia pst 6 kinnistul (jn 1: 1). Piirkonna varasele inimasutusele viitasid juba 2009. a eeluuringute sõeproovid, mis kuuluvad muinasaega. Lisaks osutasid nii kirjalikud allikad kui ka muud tööd keskja varauusaegsete ladestuste, hoonestuse, maantee (jn 2) ja kindlustusvööndi elementide olemasolule. Nende uurimiseks rajati alale neli kaevandit.

Kuigi uuringutel ei õnnestunud varem täheldatud muinasaegset kihti tuvastada, esindasid seda perioodi siiski vähemalt kuus looduslikku liiva süvendatud tuleaset. Neist kaks pärinevad sõeproovide põhjal Rooma rauaajast, ülejäänud kas Rooma rauaajast või rahvasterännuajast. Üks tuleasemeist, mis dateeriti ajavahemikku 406–543 pKr, oli märkimisväärselt suure, 2,2 m läbimõõduga (jn 3). Kolmel tuleasemel

täheldati vähemalt kahte kasutusfaasi, mis viitas uuringuala perioodilisele taaskasutusele rauaajal, kui mitte püsivale asustusele. Võimalik, et ka mõned teised looduslikus liivas olnud lohud või postiaugud kuulusid selsse perioodi. Lisaks ei saa välistada, et uuringualal oli omal ajal ladestunud muinaskiht, mis hilisema põlluharimise käigus läbi künti. Sellele võimalusele osutas lisaks 2009. aasta eeluuringutele ka 2023. aasta keskaegsest põllukihist leitud ambsõlg.

Keskaegsele põlluharimisele viitasid labida-, kõpla- ja adrajäljed looduslikus liivas, mis läbisid kohapeal ladestunud 14. sajandi põllumullakihti (jn 3). Kihiga oli seotud ka vaarivi, mis ühtis von Stadeni 1699. aasta kaardil kujutatud kinnistupiiridega. 14.–16. sajandil veeti põllukihile erinevaid tätekihte, mille hulgas oli ka 15. sajandil maapinnaks olnud beežikashall savikiht. Sellsse savikihti oli süvendatud erinevaid arheoloogilisi üksusi, millest huvitavamateks olid 16. sajandi tee orientatsiooniga tühtivad vankrijäljed (jn 4) ja männipuust kelder või jäätmekast (jn 5). Kõige märkimisväärsem keskaegne leid oli 16. sajandi algupoole kaubaputkad ja nende esine paeplaatidest kõnnitee, mis võis olla omal ajal varikatusega kaetud (jn 6). Vahetult plaatidest tee kõrval oli väiksematest paetükkidest tee, mille puhul oli arvatavasti tegemist putkadega samaaegse maanteega.

Keskajast pärineva kasutushorisondi peal täheldati erinevaid tätekihte. Nendel lasus 17. sajandi hall savikiht, mis osutus rootsiaegseks kasutustasandiks. Sellses dokumenteeriti postiauke ja üks lohk. Lisaks kuulusid uuringualal väljapuhastatud kinnismuististe hulgas Rootsi aega üks ahjuga hoone (jn 7: A) ja glassiivalli alaosa koos võimaliku Pommeri reduudi glassiimüüri katkega. Rootsi aja lõpuga seostus maaalune puidust rajatis, mille puhul võis tegemist olla meeskonnavarjendiga (jn 8). Veneaegsetest kindlustustest olid säilinud glassiimüüri katke (jn 7: B) ja vallikraav, mida kaevamiste käigus päris tühjaks ei kaevatud (jn 9). Pinnasekoorimisel dokumenteeriti selle põhjas kontreskarp müüri katke.

Uuringutel korjati 3425 loomaluud. Enamikus kihtides oli tegemist tüüpilise kesk- ja varauusaegse materjaliga – lihhaloomadest domineerisid veised, teisel kohal olid lambad-kitsed ja kolmandal kohal siga, rohkemal või vähemal määral olid esindatud kõik loomad kerepiirkonnad (jn 10). Ulukitest oli jännes esindatud kolme luuga ja põder ühe saagimisjälgedega sarvekatkega, mis oli arvatavasti pärit käsitöölise juurest. Kaevandis 1 oli loomaluude kooslus kihi 5b kirdeosas erinev ülejäänud uuringualast, nimelt koosnes selle ladestuse luuaines peamiselt sokkude sarvjätketest. Teatav anomaalia oli täheldatav ka 15.

sajandisse dateeritud materjalis. Sarvjätked võisid viidata nii lihunike, parkalite kui ka sarvetöötlejate tegevusele. Saagimisjäljed sarvjätke tipus (jn 11: 1, 2) olid seotud pigem sarvetöötlejatega. Materjalis on ka üks 18. sajandisse dateeritud veise sarvjätke (jn 11: 3), millel oli tipp ära saetud.

Välitöödel talletati 7378 esemeleidu, mis valdavalt pärinevad 13.–18. sajandi vahelisest perioodist. Sellses moodustab 5923 katkega suurima osa keraamika, mis jaguneb eelkõige ahju-, ehitus-, jõudeaja- ja toidukeraamika vahel. Kogutud savipiibuleidud pärinevad esmajoones 17. sajandi keskpaigast ja teisest poolest, ahjukahlite seas leidub üksikuid keskaegseid, kuid lõviosa kuulub Tallinnale omaselt 16. sajandi keskpaika – 17. sajandi algupoole (jn 12). Keraamiliste söögi- ja jooginõude katkete seast (tabel 1) leiame merelinnale omast mitmekesisust, tüüpiliselt domineerib Sieburgi kivikeraamika ja punane glasuurkeraamika. On ka üksikuid haruldusi, näiteks 13. sajandi lõpu Prantsuse valge glasuurkeraamika (jn 13: 1), samuti Prantsusmaalt pärit Beauvais' kivikeraamika, Zittau (?) varakivikeraamika (jn 13: 2) ning Waldenburi kivikeraamikat imiteeriv punane glasuurkeraamika (jn 13: 3). Samuti väärrib esile tõstmist erandlikult suur kogus Valencia säravapinnalist keraamikat (10 katket, jn 13: 4–13) ning Sieburgi renessansiperioodi kivikeraamika 32 fragmendiga.

Estonia pst 6 kaevamiste vanimad klaasileidud on 13. sajandi lõpu või 14. sajandi esimese poole aknakuulaas, sisemisest klaasist emailmaalingutega peekri küljekatke (jn 14: 1) ning 13. sajandi lõpu–15. sajandi kaksikkoonilise pudeli kaelakatke. Leidude seas on palju keskaegsete joogianumate katkeid, enamjaolt Tallinnas tavapäraseid aplikatsioonide ja optiliste muustritega peekrid. Uusaegsete leidude seas on erilised 16. sajandi lõpu või 17. sajandi alguse *vetro a filigrana* peekri või kannu katked (jn 14: 2). 16.–17. sajandi mõdupeekrite ja röömerite esinemine leiumaterjalis võib viidata seltskondlikule alkoholipruukimisele. Suurema osa leiumaterjalist moodustab aga keskaegne tahvel- ja vitraažklaas. Mitmed klaasipaanid on säilinud terviklikult. On võimalik, et siin asunud hoone(te) aknad olid klaasitud.

Mündileidudest on olulisim ühe 15. sajandi rahakoti (?) sisu (tabel 2). Need 1430. aastatesse dateeritud mündid annavad haruldase sissevaate toona argipäevastel ringluses olnud rahadele – seni kajastas seda aega vaid kaks täpsema leiukohata aaret.

Huvitavat täiendust pakkusid ka nahaleidud, ootuspäraselt oli 258 nahakatke seas enim jalatsite jäänuseid, aga saadi ka kahe koti tükke ning paar vöödetaili. Kõige rohkem oli puidust tallaga padinate pealseid, aga leidus ka üks sisemise korktallaga

nahast alustald. Nahast jalatsid olid esindatud mitme 14.–15. sajandil moes olnud stiiliga. Silma paistis mitmete jalanõude suur jalanumber ning erinevas moodsus lastejalatsite arvukus.

Lisaks leiti kaevamistelt mitmeid õmblus- ja tekstiilitööle viitavaid esemeid. Suurem osa neist pärines 15.–16. sajandist, sh Eesti arheoloogilises aineses erandlik pealt avatud sõrmkübar (jn 15). Tallinna kesk- ja varauusaegsele tekstiilikaubandusele osutavad aga 33 kangaploomi, mille seas leidus nii varem arheoloogilises aineses esinevate valmistuskeskuste (Leiden, Dordrecht, Naarden (?), Augsburg, Göttingen (?)) kvaliteedimärgised kui ka üksikuid esmakord-

selt Eestis esinevaid, nt Woerden (?), Osnabrück ja Bremen (jn 16).

Kokkuvõttes võib tõdeda, et Estonia pst 6 kinnistul aset leidnud välitööd pakkusid uut ja olulist infot Karjavärava eeslinna piirkonna asustusloo kujunemises, alates Tallinna mõistes haruldase rahvasterännu-aegse asustusjälgja ja keskaegsete kaubaputkadega ning lõpetades varauusaegsete muldkindlustustega. Ka osteoloogiline ja esemeline aines aitab meil paremini mõista kesk- ja varauusaegse sadamalinna ainelist keskkonda, lisades märkimisväärselt juurde varem suhteliselt ebahühtlaselt esindatud 16.–17. sajandi olmekultuurile.