



Archaeological research of the Medieval to Early Modern St Barbara cemetery in Tallinn

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INTRODUCTION

Rescue excavations were carried out ahead of the renewal of water, sewage and drainage systems on Kaarli Avenue (Fig. 1) between July and September 2024, in the process of which the skeletal remains of over two hundred inhumation burials belonging to the well-documented St Barbara's cemetery were uncovered. Burials were found within three of the 16 trenches investigated (Fig. 2: red). Overall, nine mass graves and 25 single burials were studied. As the osteological analysis is still underway at the time of publication, only evidence from the excavations will be presented in this paper.

HISTORICAL BACKGROUND AND PREVIOUS INVESTIGATIONS

The St Barbara cemetery derives its name from a chapel by the same name, which was located near the northern end of Roosikrantsi Street. While the exact date of its construction is still unknown, the earliest possible mention of the chapel comes from 1341, and the cemetery was in use by 1379 at the latest. The latter fell out of use by 1710–1712, as recorded in the last mentions of its use relating to the burial of plague victims (Tallinna entsüklopeedia I, 34). While the cemetery was no longer depicted on the maps of Tallinn as an independent territorial unit from 1728 onwards, no buildings were erected on the site for many years (Heinloo 2020).

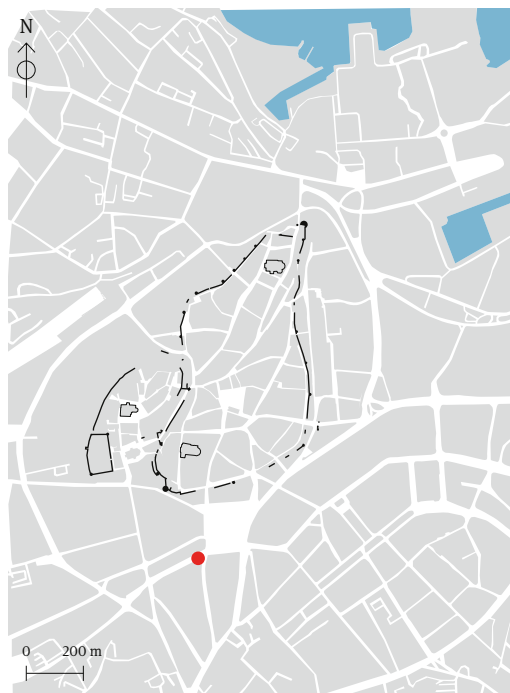


Fig. 1. Location of the investigated area within Tallinn.
Jn 1. Uuringuala paiknemine Tallinna linnaruumis.
Base map / Aluskaart: Jaana Ratas

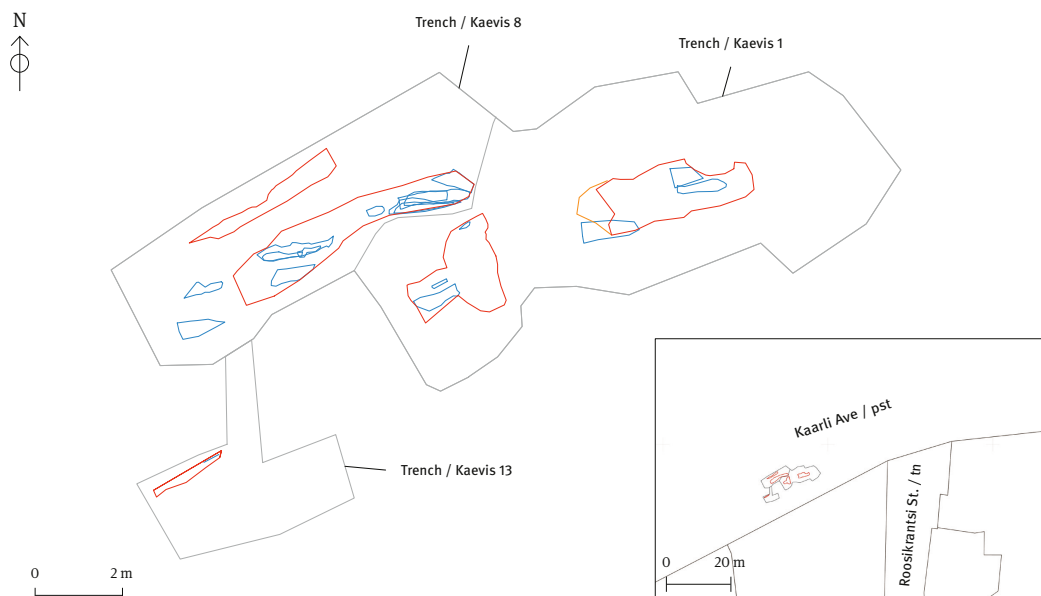


Fig. 2. Trenches 1, 8 and 13 (grey), the areas where in situ burials were excavated (red) and 18th-century coffin burials (blue), suggestive of possible ‘gravesites’.

Jn 2. Kaevised 1, 8 ja 13 (halliga), alad, kus kaevati in situ matuseid (punasega) ja 18. sajandi kirstumatused (sinisega), mille paiknemine viitab võimalikele „hauaplatsidele”.

Drawing / Joonis: Mai-Britt Tomson

While the site of the former cemetery has already been documented through stray finds between the late 19th and mid-20th centuries (see Russow & Reppo 2024), more extensive archaeological excavations have been carried out only since 1988, most notably by Vladimir Sokolovski (1996; 1997; 2008). Altogether, during the excavations of 1988–90, 1992 and 1995, 2463 inhumations and five mass graves were documented (Sokolovski 1996), and in 2008, 236 single inhumations and 310 individuals buried in a mass grave were recovered (Sokolovski 2009). It is also worth noting that a small number of burials were unearthed outside the bounds of consecrated ground, which Sokolovski hypothesised related to suicides (Sokolovski 1997).

Overall, Sokolovski identified three distinct phases of use in the St Barbara area. The earliest of these was an occupational layer preceding the creation of the cemetery, followed by a 14th–early 16th century funerary layer. The burials were cut through a layer of loam and into the relatively tough and gravelly natural substrate. Due to this, a clear attempt to reuse previous burial locations was observed, which resulted in the creation of so-called ‘gravesites’, generally made up of burials in three to four layers, although mass graves also occurred. All of these burials were inhumations, and with a few exceptions, they were orientated with heads to WSW, laid out in extended supine positions (Sokolovski 1996; 2009).

The area’s third phase of use was represented by burials belonging to the late 16th–18th centuries. These burials were cut into a layer of soil brought to the site, likely with the intention of raising the ground level, but in some parts of the area, the grave cuts still partially penetrated through this deposit and into natural soil. This was especially true for the mass graves. Like in the previous phase, all burials were inhumations, mainly laid out in supine-extended positions with heads pointing WSW or W, although again there was a small

number of exceptions. Unlike previously, the burials were not separated into gravesites, but uncovered across the entire area of investigation with a noticeably higher burial density. Another distinct difference was the use of coffins for around 20% of the burials and the inclusion of some grave goods which had previously been absent. Sokolovski theorised that this may have resulted from a large-scale influx of people from the countryside, who brought with them burial practices common to rural areas (Sokolovski 1996; 2009). Only a preliminary osteological analysis of the human skeletal material recovered has been compiled so far, reporting the sex and age distributions as well as craniological data from a selected sample (Allmäe 1996).

In addition to Sokolovski's investigations, excavations were also carried out at the St Barbara cemetery in 1999–2000 by OÜ AGU-EMS on the Roosikrantsi 2a plot. The preliminary excavation report suggested that the earliest burials in this area originated from the 17th–18th centuries and no evidence of the earlier phase of use, as documented by Sokolovski, was recorded (Heinloo 2020). Overall, 1004 burials were recovered, and an osteological analysis was carried out. 406 of the burials belonged to males and 351 to females, with the rest being unsexable either due to insufficient skeletal preservation or subadult age. Interestingly, an unusually low number of infants and young children was recorded, suggesting that there may have existed spatial organisation related to age at death (Kalman 2000).

FIELDWORK RESULTS

The Kaarli Avenue area of investigations in 2024 was extremely limited by the requirements of the renovation works at the site. In addition, past groundworks had destroyed several sections of the graves, as well as truncated them horizontally. Therefore, it was not possible to excavate the burials in their entirety, and in some areas, earlier burial levels were not investigated but instead covered by a layer of sand in order to protect them from any damage during present groundworks.

Single burials

Overall, 25 single burials were recovered over the course of the archaeological investigations. Of these, 21 were interred within coffins and cut through a layer of earlier burials. Coffins were generally not well preserved and identified through fragments of remaining wood or the presence of coffin nails in the vicinity of the skeletons. Nearly all the individuals were laid to rest in extended-supine positions, with heads orientated WSW or W, although there were some exceptions, the most frequent of which was the ENE or E orientation. The highest density of coffin burials was documented in Trench 8, in the most WSW part of the investigated cemetery area. Here, three distinct clusters of burials could be identified (Fig. 2: purple), reminiscent of the gravesites identified by Sokolovski. Based on the stratigraphic sequence as well as the finds associated with the burials, they were dated to the 18th century. It is unclear, then, why the use of gravesites prevailed here when in the area investigated by Sokolovski, they had disappeared by this period.

Four pre-18th-century single burials were documented as well, all without coffins. All of these were truncated, leading to an incomplete picture of single inhumations of this period. Three were at least partially cut into the natural substrate (58: Trench 1; 158 & 184: Trench 8) and one (146: Trench 8) directly into the upper part of burial 158. Burial 184 was partially cut by 158, which in turn cut an earlier mass grave in addition to the natural substrate. Two burials were orientated W, one E, and one SW. Although they were all fragmentary, it could

be ascertained that they were buried in supine positions, likely extended. No dateable finds were recovered, but the stratigraphical sequence points to the possibility that the burials belonged to the 14th– early 16th century period outlined by Sokolovski.

Multiple burials

In addition to single burials, nine mass graves were investigated (Fig. 3: pink). None of these were encompassed entirely by the excavation area, and therefore, it was not possible to piece together a full picture of their extent. The minimum number of individuals interred within each of them is included in Table, but it is likely that in reality a larger number of individuals were buried within each. Furthermore, as all of them were truncated by groundworks and thus excavated within a limited scope, not many material goods directly associated with the burials were recovered. As outlined by Sokolovski, the upper burial layer consisted of a made ground deposit, meaning that the more plentiful finds within the grave fills originated from a period different to that of the burials themselves. Therefore, dating relied primarily on stratigraphic sequences, and only in a few cases was material evidence associated with the burials able to provide a reference point.

Table. Minimum number of burials within each mass grave.

Tabel. Massihaudadesse maetute miinumarv.

Compiled by / Koostaja: Mai-Britt Tomson

MH1a	MH1b	L1	L2	MH2a	MH2b	MH3	MH4	MH5
28	8	46	3	31	53	3	6	9

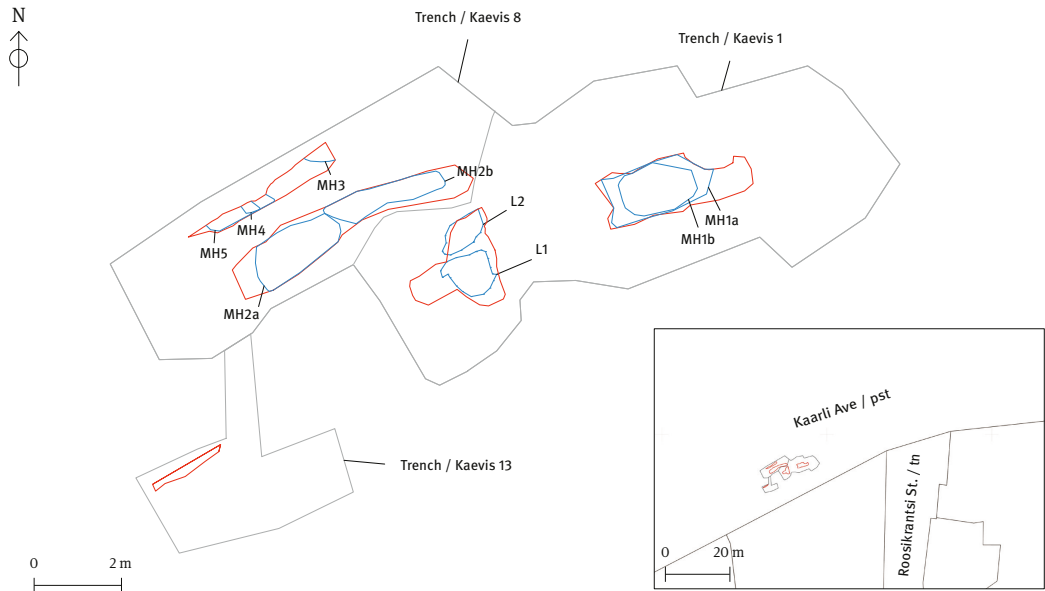


Fig. 3. Trenches 1, 8 and 13 (grey), the areas where in situ burials were excavated (red) and locations of mass graves (blue). Key: MH = Mass Grave, L = Pit.
Jn 3. Kaevised 1, 8 ja 14 (halliga), alad, kus kaevati in situ matuseid (punasega) ja massihaudade asukohad (sinisega).
Võti: MH = massihaud, L = lohk.
Drawing / Joonis: Mai-Britt Tomson

Two examples of such reference points came in the shape of two 18th-century mass graves (L1 & MH2a), both of which were dated on the basis of brooches. In terms of burials, L1 (lohk 1 = Pit 1) contained 46 and MH2a (massihaud 2a – Mass Grave 2a) 31 individuals. Most burials during this period were orientated with heads to ENE or WSW, although exceptions did occur, possibly due to an attempt to fit a larger number of burials into the burial pits. Most burials were in supine-extended positions. In L1, more uniformly placed skeletons were observed in the lower layers of the grave, while the final layers of bodies were placed more haphazardly, possibly due to the need to close the burial pit within a specific time frame. While neither L1 nor MH2a could be excavated to their full breadth, it was possible to investigate them all the way to the bottom. There, a layer of highly acidic soil, possibly due to the pooling of decomposition liquids, was observed, within which the bones were highly eroded and very poorly preserved. Regarding the brooches mentioned previously, that of MH2a and belonging to burial 67, deserves to be highlighted for the exceptionally well-preserved textile fragments associated with it (Figs 4–6). The top layer consisted of a fabric, fastened with copper-alloy clasps, below which there were fragments of leather and which appeared to be lamb wool. Below all, the brooch was recovered, with pieces of black textile attached, possibly fragments of a linen shirt (Jaana Ratas, pers. comm.).¹ In L1, in addition to the brooch, textile fragments likely belonging to a coin pouch and four associated late 17th-century Swedish coins were discovered, which suggest the end of the 17th or rather early 18th century as the likely dating.



Fig. 4. Clothing made of woven fabric, fastened with copper-alloy clasps, burial 67.

Jn 4. Kootud kangast pealisriide hõlmad, mis olid kinnitatud vasesulamist haakidega, matus 67.

Photo / Foto: Jaana Ratas

¹ In-depth results of textile conservation will be included in the excavation report at a future date.

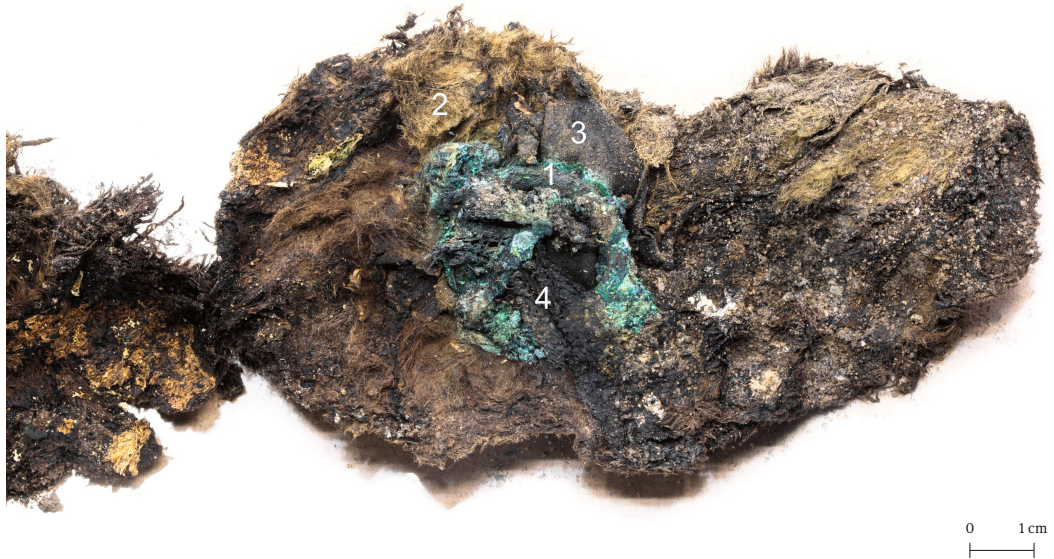


Fig. 5. Underside of textile monolith. 1 – fibula, 2 – wool, 3 – leather, 4 – fabric.

Jn 5. Tekstiilimonoliidi alumine pool. 1 – sõlg, 2 – vill, 3 – nahk, 4 – kangas.

Photo / Foto: Jaana Ratas



Fig. 6. Textile following conservation.

Jn 6. Tekstiilileid peale konserveerimist.

Photo / Foto: Jaana Ratas

The Great Northern War (1700–1710) and the following plague epidemic (1710–1712) resulted in extremely high mortality in Tallinn (Malve & Tvauri 2022, 244–245).

To the period of 16th–18th century five mass graves were ascribed (MH1a, MH1b, L2: Trench 1 and MH2b, MH3: Trench 8). The method of interment during this period generally followed the same pattern as the rest of the site, with supine-extended positions being the most common, heads orientated to E/ESE or W/WSW. The only exception was MH1b, where the bottom layer of burials was positioned crosswise to those above, with heads to NNE or SSW. Furthermore, based on

the preliminary osteological analysis, both MH1b and MH2b stood out from other burials of this period by their much larger proportion of subadult burials. Stratigraphic sequence allowed to determine that MH1b was earlier and cut by MH1a. It was also possible to hypothesise that L2 and MH2b were burials of the same period as the fill observed in the unexcavated bottom part of MH2b was remarkably similar to that of L2.

To the earliest phase at the site, the 14th–early 16th century, only two mass graves could be ascribed (MH4, MH5: Trench 8), both of which were excavated within an extremely limited scope. Only six burials were recovered from MH4 and nine from MH5. No dominant burial orientation emerged with heads generally pointed W, SW, E or N. Like elsewhere, most burials

were supine, but due to the very narrow strip that was excavated, more specific analysis of burial positions was not possible. MH5 was cut into the natural substrate, its date therefore being more firm than that of MH4, which did not contain any finds and was dug into a layer of coffinless single burials. It was certain, however, that MH5 predated MH4.

CONCLUSIONS

In 2024, 16 trenches were opened along Kaarli Avenue ahead of the renewal of water, sewage and drainage systems. In three of these, skeletal remains belonging to more than 200 individuals were recorded and lifted. While the area of excavations was highly limited due to truncation by previous groundworks and limitations set by the scope of the current renovation works, it was possible to verify the chronological pattern observed by Vladimir Sokolovski over the course of his investigations of the St Barbara cemetery. The earliest two mass graves and likely a small number of single burials without coffins aligned with the 14th–early 16th century period. The following late 16th–18th century period proved to be most plentiful in terms of burials, containing both a large number of mass graves as well as single burials with coffins. The 18th century alone contained at least two sub-phases, as mass graves dated to this period were cut by the later coffin burials.

Although exceptions did occur, for all phases of use extended-supine burial positions with heads pointed either E/ENE or W/WSW dominated. The evidence generally suggested a careful method of disposal, with the only notable exception being the top layers of L1, where bodies had been placed into the grave haphazardly. While burials deviating from the trend also occurred elsewhere, they were not common. Conclusions about burial density could not be drawn with any high degree of certainty, however, as the area of investigations was extremely limited and therefore it was not possible to observe the gravesites described by Sokolovski in the 14th–16th century phase of use.

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KESK- JA VARAUUSAEGSE PÜHA BARBARA KALMISTU ARHEOLOOGILISED UURINGUD TALLINNAS

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2024. aasta juulis–septembris toimusid Tallinnas Kaarli puiesteel vee-, kanalisatsiooni- ja sademeveetorustike uuendamise tõttu arheoloogilised uuringud, mille käigus puhastati välja üle 200 indiviidi luustikud. Tegemist oli kesk- ja varauusaegse Püha Barbara kalmistuga, mida uuriti eriti ulatuslikult 1980. aastate lõpus ja 1990. aastate alguses. Uutel välitöödel dokumenteeriti matuseid kuueteistkümnest rajatud kaevise kolmes (jn 1), kokku tuvastati üheksa ühis- ja 25 üksikhauda.

Kõige hilisem tuvastatud kasutusfaas kuulus 18. sajandisse, mil lahkunud sängitati kirstudes, üksikute eranditega selili-siruli asendites, pead W või WSW suundades. Huvitaval kombel näisid uuringuala WSW osas moodustuvat kaks „hauaplatsi“ (jn 2). 18. sajandisse kuulus ka kaks massihauda, millest ühes olnud matus 67 väärrib eraldi esile toomist sellega seotud tekstiilileiu tõttu (jn 3–5). Sellest pealmise osa moodustasid villasest kangast pealistrõiva hõlmad, mis oli vasesulamist haakidega kinnitatud.

Selle all paiknes lambavilla meenutav kiht, mis võis pärineda mõnest kasukast. Kõige all oli 17.–18. sajandisse dateeritud sõlg, mille küljes oli mustaks värvunud riideräbalaid, võimalik, et linasest riidest särgi jäänused.

Laiemalt 16.–18. sajandisse paigutusid hiliste sissekaevetega lõhutud viis massihauda, millest osasid ei olnud võimalik ehitajatele vajaliku sügavuse tõttu põhjani välja kaevata ning 14.–18. sajandist pärinesid kaks äärmiselt fragmentaarset massihauda. Mõlema perioodi vältel oli tavaks matta indiviide selili, kuigi esines ka üksikuid teisi matmisasendeid. Pead olid valdavalt suunatud kas itta/idakirdesse või läände/lääneedelasse, kuid esines ka erandeid. Käesolevate kaevamistulemuste puhul tuleb aga silmas pidada, et uuringuala oli äärmiselt piiratud ja ühtegi massihauda ei olnud võimalik tervikuna välja kaevata. Seega peaks siin esitatud informatsiooni kasutama koos V. Sokolovski varasemate kaevamistööde tulemustega.