



Archaeological monitoring in medieval Rannu Church: construction remains and coin finds

Heiki Valk

Tartu Ülikool, ajaloo ja arheoloogia instituut, arheoloogia osakond (University of Tartu, Institute of History and Archaeology, Department of Archaeology), Jakobi 2, 51005 Tartu, Estonia; heiki.valk@ut.ee

Mauri Kiudsoo

Tallinna Ülikool, arheoloogia teaduskogu (Archaeological Research Collection, Tallinn University), Rüütli 10, 10130, Tallinn, Estonia

INTRODUCTION

The church of Rannu in Tartumaa County (Fig. 1), a three-aisled hall church with only two bays and a chancel, was constructed, judging by architectural features, probably in the first half of the 15th century (Altoa 1999). Its vaults had perished in wars: the inventories of 1613 and 1627 note only the walls standing (Bunge 1857, 28; Roslavlev 1965, 10) and the former presence of the vaults could be concluded only from corbel remains.



Fig. 1. Rannu church.

Jn 1. Rannu kirik.

Photo / Foto: Heiki Valk

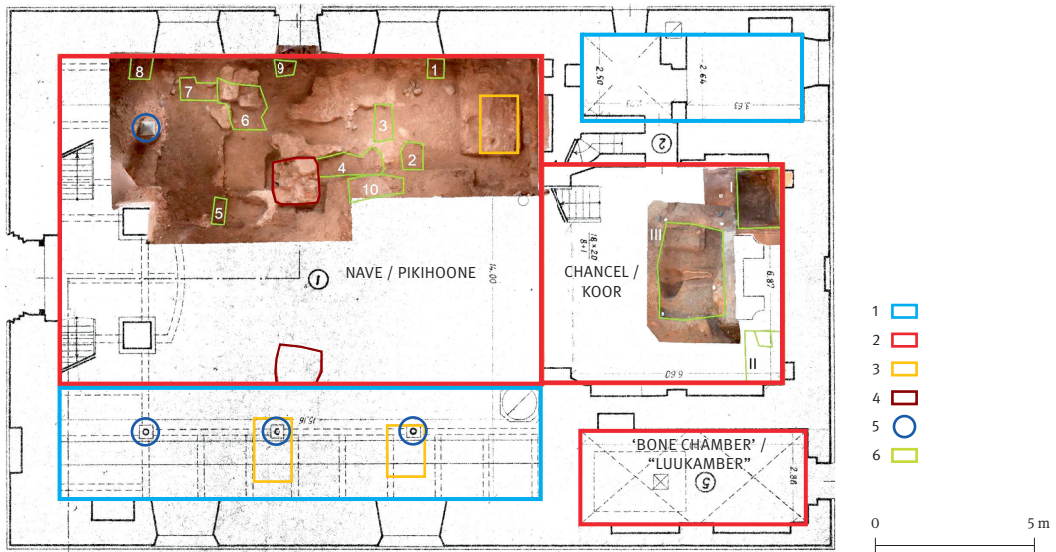


Fig. 2. Investigation areas in Rannu church. 1 – investigation areas of 2020, 2 – investigation areas of 2021, 3 – discovered altar foundations, 4 – foundations of medieval pillars, 5 – find places of medieval pillar details, 6 – trenches.

Jn 2. Uurimisalad Rannu kirikus. 1 – 2020. a uurimisala, 2 – 2021. a uurimisala, 3 – avastatud altarivundamendid, 4 – keskaegsete piilarite vundamendid, 5 – keskaegsete piilarite detailid, 6 – šurfid.

Photogrammetry / Fotogramm-meetria: Ragnar Saage



Fig. 3. Archaeological investigations in the nave of Rannu church.

Jn 3. Arheoloogilised uuringud Rannu kiriku keskklööv. Photo / Foto: Heiki Valk

Since the floor of the church was seriously damaged by dry rot, it was replaced by a new one in 2020 and 2021. The sand contaminated with rotten timber remains and the top layer of brown disturbed soil under it had to be removed until the depth of 30–40 cm from the floor level, to make space for a layer of clean sand under new floor beams.

Archaeological monitoring of the removal of sand and soil was performed by the University of Tartu, assisted in metal detecting by Aleksandr Kotkin and occasionally by Igor Tsakuhhin (both from history club Taaler). In 2020 the work was undertaken in the southern third of the nave and in the sacristy and its entrance hall, in 2021 in the rest of the church (Figs 2, 3).

The study of soil from the southern aisle and nave was limited to metal detector investigations which reached the depth needed for construction activities. In the northern part of the church and in the chancel, investigations went deeper to get more information about the history of the building. All soil from below the contaminated sand, except for layers of demolition debris, was sieved on 5 mm eye meshes. Since work was performed in winter and the soil froze 5 cm per night, the area for digging in the northern aisle was opened stepwise – the

layer of dry contaminated sand under the floor offered protection from freezing. The finds are stored in the archaeological collections of the University of Tartu.¹

AREAS OF RESEARCH

The southern part of the church and medieval altar foundations

When the work began in early 2020, sand had already been partly removed from the southern part of the church before archaeological monitoring. Thus, some coins, mainly from the 17th and 18th century, found by metal detector from re-allocated sand, had lost their context. The locations of other coins were documented *in situ*.

The southern balcony of the church, built in the 18th or 19th century, was supported by three timber posts. When the church floor was removed, a medieval limestone pillar fragment, re-used as basis for the balcony posts, was found under each post (Fig. 4). The details located under the western and central posts were round bases for pillars, 90 and 85 cm in diameter. The eastern fragment originated from an octagonal column with a 70 cm diameter. The medieval details were removed from their location and are presently being exposed in the church.

When removing soil from under the easternmost pillar basis, an assemblage of granite stones bound with hard white lime mortar appeared ca. 35–40 cm below the floor level. Although the structure with minimal addition of brick fragments was first thought to originate from the foundation of an earlier church, its distinct eastern and western edges disproved the opinion. The structure appeared to be a rectangular stone foundation measuring 1.2 m in the east–west and 1.5–1.53 m in the north–south direction (Fig. 5). Its southern edge was situated ca. 0.85 m north and eastern edge 3.5 m west of the nearest church wall. Evidently, the foundation originates from a medieval side altar in the southern aisle.



Fig. 4. Details of the medieval pillars in Rannu church from the southern aisle. a – unearthened pillar details in situ, b – the easternmost pillar fragment in situ, c – the pillar bases after removal.

Jn 4. Keskaegsete piilarite osad Rannu kirikus. a – piilariosad in situ nende avastamisel, b – piilaridetail idapoolse rõduposti all, c – piilaribaasid pärast teistsaldamist.

Photo / Foto: Heiki Valk



Fig. 5. The eastern altar foundation in the southern aisle. **Jn 5.** Lõunalõovi idapoolne altarivundament.

Photo / Foto: Heiki Valk

¹ Finds from 2020 – TŪ 2838; finds from 2021 – TŪ 2929.

When looking for the south-eastern corner of the altar foundation, it appeared that the construction of the altar had damaged the skeleton of an elderly man (aged 44–86)²: the bones of his left shoulder region had been removed. It also appeared that his skull was filled with bright white limewash and there was limewash also between his ribs and vertebrae. This must have been the result of a mortar box on top of the burial that tipped over or through during construction work, possibly of the altar. From the chest of the skeleton a bracteate of prince-bishop of Tartu Bartholomaeus Savijerwe (1441–1459) was found. Since the flesh had to be totally decayed by the time of construction, the side altar cannot have been built before the 1470s. Its possible upper date is the beginning of the Livonian War in 1558. After the reconstruction of the floor the structure is exhibited in the wooden church floor, being covered by glass.

From the southern aisle, two more stone foundations came to light – from under the central and western balcony posts, all on the same line. The measures of the central foundation were 1.9 m in the north–south and 1.5–1.60/65 m in the east–west direction. It was made of smaller granite stones and bigger brick fragments with a different ‘handwriting’ – seemingly, at a different time. The western foundation, made of brick and S-shaped roof tile fragments bound with weak sandy lime mortar, was 1.35 m wide in the north–south direction. Although it was first also considered to be an altar foundation (Valk 2021), this suggestion appeared to be wrong when similar foundations were discovered also in the northern aisle in 2021 – under the northern pillar of the organ balcony from the 18th or 19th century, and under the northernmost wooden post of the altar balcony. The last-mentioned timber post also stood on an octangular limestone detail of a medieval pillar (68 cm in diameter; facet length 28.5 cm) – almost identical with the faceted block found in 2020.

The chancel

Due to the supposed existence of a medieval main altar and coin finds expected from its surroundings, research paid special attention to the chancel. After the removal of contaminated sand, soil around the altar foundation from 1876 (Andresson 1928, 47)³ contained many tiny medieval coins. Evidently, they originated from bigger depth, having been re-allocated when digging the trench for the altar foundation. Numerous bones from disturbed burials were also found from the soil under contaminated sand in front of the foundation.

Both north and south of the altar soil was removed until the depth of 50–60 cm from the floor level. Immediately north of the southern wall of the chancel remains of a thin clay floor on a 20–30 cm thick layer of brick debris was discovered in the depth of ca. 35–40 cm from the nowadays floor. Digging deeper with trenches was continued in the north-eastern and south-eastern corner of the chancel, as well as in front of the altar (Fig. 2, I–III).

In both corners of the chancel a trench of ca. 1.5 m × 1.9 m was dug between the altar foundation and the church wall. The soil under the top layer with coins was poor in finds. In both trenches two plinths indicating different medieval floor levels could be observed in the chancel foundation, the first located ca. 40 cm and the lower ca. 90 cm below the present-day floor level. In both trenches a 5–7 cm thick grey mortar floor, partly cut by grave pits, appeared ca. 20 cm below the lower plinth, being, evidently, related to the same stage of construction.⁴ A trial pit (ca. 50 × 50 cm) made in the north-eastern corner of the southern trench showed that the bottom of the church foundation lies ca. 1.6 metres below the existing

² Age estimations of skeletons here and below by Martin Malve (TÜ).

³ Information provided by Linda Andresson in 1928 is based on the study of parish archives, located in Rannu parsonage at that time.

⁴ Access to the plinths discovered in the northern trench was maintained by a hatch in the renewed church floor.

floor level. From the disturbed gravel which continued further, tiny bones of a new-born child were discovered in the depth of 50 cm from the foundation bottom.

In front of the altar an area of 3 × 2 m was opened (Fig. 6). The top layer of soil with bones was followed by fill of disturbed soil and debris under which the skeleton of a 3.5–5.5-year-old infant came to light ca. 80 cm from the floor level in the northern part of the trench. The child was buried in an unconventional direction – with the head towards the east, following the axis of the church. The burial had two coins – a schilling of Dahlen (Dole) from 1572 and a schilling of Polish king Sigismund III, from 161(?) on the left side of the chest, and a similar silver coin from 1614 under the pelvic bones.

Soil in the central part of the trench was disturbed by grave pits of deeper lying burials. From the trench feet bones of a strong adult man buried with the head towards the west were found. In the fill of the grave a schilling minted in Riga in the 1660s was found.

The southern part of the trench was mostly undisturbed by burials. Here in the depth of 0.9–1 m from the church floor, a fragmentary dark burnt layer was found on a thin and patchy layer of grey mortar. Radiocarbon analyses from the charcoal particles gave the result of 756±30 BP, calibrated with 95.4% probability 1222–1284 AD.⁵ Under this floor level there was ca. 40 cm of disturbed findless fine gravel, evidently, fill, which lay upon remains of pre-church original humous soil and intact mineral soil – fine yellow gravel – under it. The mortar layer in front of the altar was located 15–20 cm higher than that in the southern trench and was less compact. Although connections between the mortar levels remained unclear, since horizontal stratigraphy between them had been cut by burials, they might hypothetically belong to the same construction stage, related to the lower plinth and representing the earliest phase of the stone church.

The nave and pillar foundations

The study of brown soil under the layer of contaminated sand in the nave by using metal detectors revealed dispersed coins from different time periods. From disturbed soil the foundations of both medieval pillars were discovered. The northern pillar measured 1.38 m in the north–south and 1.4 m in the east–west direction; the measures of its southern counterpart were, respectively, 1.33 and 1.5 m. The foundations were made of granite stones with the diameter from 20–30 to 60–70 cm, bound with white or brownish mortar which contained big brick fragments. The corners of the pillars were missing, stones being broken out, but the central parts had preserved higher. Directly beside the northern pillar, both north and south-west of it, remains of a simultaneous mortar floor were found.

Near the northern border of the nave also the bottom of a vertical timber post with the diameter of 38 cm was found. The outer perimeter of the post had preserved in the height of ca. 30 cm. The pit around the post, as well as its bottom were filled with fine sand. Radiocarbon



Fig. 6. The trench in front of the altar.

Jn 6. Kaevand altari ees.

Photo / Foto: Heiki Valk

⁵ Poz-150652, with 68.3% probability 1229–1245 (21.9%) or 1256–1279 AD (46.4%). All radiocarbon samples were calibrated with OxCal 4.4 programme (Bronk Ramsey 2009) and IntCal 20 calibration curve.

analysis from the outer tree rings gave the result 125 ± 30 BP, calibrated with 95.4% probability 1675–1744 (26.6%), 1750–1765 (3.4%) and 1799–1942 (65.4%) AD.⁶ Most likely the post supported the ceiling of the church either before or after the damages in the Great Northern War (1700–1710/21). The attempts to find the remains of a symmetrical post south of the church axis gave no result. Instead, the skull of a west-oriented infant (aged 1.5–3.5 years) appeared in the suggested location.

The northern aisle

More information about the history of the church was gained from the northern part of the nave (Fig. 2). Here ground was removed and sieved until the appearance of fragmentary remains of compact mortar floor(s) in the depth of ca. 50–60 cm from the present floor level, and between the mortar patches also somewhat deeper. In addition, 10 trenches were dug beside preserved patches of mortar, to get information about intact stratigraphy under them, as well as beside the walls.



Fig. 7. Mortar floors and trenches in the northern nave of Rannu church.

Jn 7. Mõrdist aluspõrand(ad) ja šurfid Rannu kiriku põhjalöövvis.

Photo / Foto: Heiki Valk

Traces of fire

In the northern aisle of the church an irregular patch of uneven black 2–4 cm thick layer of dark soil and tiny charcoal particles, measuring up to ca. 1 × 2 metres and not disturbed by later grave pits, was revealed. Evidently, the layer originates from some fire which destroyed the church. A radiocarbon date from charcoal particles gave the result 570 ± 30 BP, calibrated with 95.4% probability 1306–1364 (57.7%) or 1385–1424 (37.7%) AD.⁷ From this area and its surroundings an assemblage of burnt medieval coins, consisting of several hundreds of items was found (see below). In some test pits patches of clean yellow sand appeared under the fire layer, giving evidence of using different materials to separate floor beams from the soil.

The mortar layers

In total, 17 mortar patches of different size, shape and state of preservation, mostly with broken, but in some cases also with preserved original flat horizontal surfaces came to light in the northern aisle (Fig. 7). The mortar, appearing at different heights, was of diverse consistence, varying from bright white to greyish yellow or yellowish grey.

⁶ Poz-139409, with 68.3% probability 1688–1712 (11.4%), 1717–1730 (6.1%), 1807–1824 (8.0%), 1831–1894 (32.5%) or 1904–1925AD (10.3%).

⁷ Poz-139498. With 68.3% probability 1324–1355 (44.1%) or 1393–1409 (24.1%).

The thickness of mortar layers also varied, ranging from 3–4 cm to ca. 30 cm as the thickest. In several cases different mortar layers lay above each other, either directly or being separated by 3–5 cm thick layers of brown soil between them.

Judging by unworn clay surfaces of preserved units, the mortar layers did not function as ‘real’ church floors – in such case the soft surfaces of patches near the northern portal would surely have been worn out. Evidently, the mortar served as a subfloor or basement for beams under the floor boards, avoiding direct contact between timber and soil. The subfloor of similar character has also been found from the chapel of Helme, built, probably, in the 1420s (Valk 2020).

The mortar layer(s) had greatly been destroyed by digging graves. Repeated damages necessitated continuous repairs, as shown by the different consistence and colour of preserved areas. Occasionally thin layers of disturbed soil were between the mortar layers, resulting, evidently, from grave digging. Since mortar floor remains appeared under the layer with numerous burnt coins, mortar subfloors existed before the great fire around 1400 AD already.

The Polish era altar and the floor

In the eastern end of the northern aisle remains of a rectangular side altar with preserved measures of about 1.7 × 1.12 m appeared under the layer of demolition debris at the distance of ca. 53 cm from the eastern wall with an altar niche in it (Fig. 8). From the altar only the two lowest layers of bricks had partly preserved. Since the bricks were 7.5 cm thick, i.e. of post-medieval origin, the altar dates from the time of the Polish rule (1582–1625). North of the altar fragments of a 1–2 cm thick clay floor, similar to that at the southern wall of the chancel could be observed. From the layer of fine brick debris under the altar and the clay floor a Swedish coin from 1568–1592 was found.



Fig. 8. Late 16th century altar foundation in the eastern end of the northern aisle.

Jn 8. Poola-aegse altari jäänused põhjalöövi idaotsas.
Photo / Foto: Heiki Valk

The ‘bone chamber’

During the construction activities of 1835 two new rooms were added to the church (Andresson 1928, 47) – the sacristy north of the chancel and the room for maintaining the dead before the funerals south of it – the so-called ‘bone chamber’ or ossuary⁸ (luukamber). After the removal of the floor boards of the ‘bone chamber’ a brick floor appeared under it. In its western part there was a rectangular 48 × 59 cm opening which led to a cellar or crypt covered by a cylinder brick vault (Fig. 9). The room with the measures of 3.04 m in the east–west and 2.0 m in the north–south direction was partly filled with soil. Its height until the fill was 1.1 m in the middle and 20–30 cm at the northern and southern walls. The eastern and western wall of the room were made of broken granite rocks. Its bottom was covered by rotten boards – evidently, from a previous floor replacement in the early 1990s.

⁸ Although not really of such function, this name is being used for the room by the congregation.



Fig. 9. Floor of the ‘ossuary’ or ‘bone chamber’ of Rannu church.

Jn 9. Rannu kiriku “luukambri” põrand.

Photo / Foto: Heiki Valk



Fig. 10. Fragment of a coffin decoration from the ‘bone chamber’.

Jn 10. Rannu kiriku “luukambri” leitud kirstukaunistus.

Photo / Foto: Heiki Valk

The crypt might originate from a burial chapel demolished during the church reconstruction in 1835. The visitation protocol of Rannu church from 1717 notes that the burial sites of Rannu and Valguta manors were located in the chancel, right and left of it, but that of Tamme manor was ‘walled’ (Andresson 1928, 52–53). Most likely, this note and the fact that no walls of the grave chamber were discovered from the chancel, explain the vaulted cellar beside the chancel.

An indication to burials in the crypt is also a copper alloy sheet decoration (Fig. 10) found from the brick floor of the bone chamber – coffins of the nobility were richly ornamented with metal applications in the late 17th and 18th century (Hagberg 1937; Viljus 2010). Style features suggest that the fragment represents either rococo or Jugend style, respectively, from the 1750s to the early 1770s or from the early 20th century.⁹ The inscription fragment [...]st. den 13 Oc [...] (evidently from *gest[orben]. den 13. Oct[obri]*. unambiguously refers to the period from the 1750s to early 1770s. Most likely, the walls of the presumed chapel were demolished when the bone chamber was built in 1835. If the crypt functioned as a burial chamber, its partial filling with soil took probably place when burial inside and around churches was prohibited in the Russian empire in 1771–1773 (Hausmann 1903). However, constructing the cellar together with the ‘bone chamber’ cannot fully be excluded, either.

The western edge of the ‘bone chamber’ floor was partly repaired by using profile bricks of medieval shape and their fragments – the total of ca. 20 items. Later expertise¹⁰ showed, however, that, judging by the contents of clay and the colour of bricks the finds were not medieval, but represent the pseudo-gothic architecture of the 19th century.

⁹ Estimation by prof. Juhan Maiste (TÜ).

¹⁰ Estimation by Kaur and Eve Alltoa.

BURIALS AND FINDS

Burials

Although in general the investigations did not reach the level of burials, in addition to two graves in front of the altar (see above) the bones of nine more individuals were met *in situ* and partly opened in the trenches (see Fig. 2). The graves, oriented along the axis of the church and with heads towards the west, appeared mostly in the depth of ca. 0.7–1.4 m from the present-day church floor.

In trenches north and south of the altar the mortar floor was in both cases cut by the end of a grave pit in which feet bones of a burial appeared. In the bottom of trench 4 the remains of a coffin lid and upper edges of its side boards appeared in the depth of ca. 1 m from the present-day floor level. The coffin which was not opened was of trapezoid shape – 1.87 m long, 28 cm wide in the head end and only 20 cm at the foot end – evidently, deformed by the pressure of soil. In the fill of the grave an 1/6-öre coin from the 1660s was found.

From trench 7 two burials were unearthed. One of them (no. 8, a woman aged over 45) had a poorly preserved annular brooch of lead alloy with possible traces of an inscription on it (Fig. 11: 14) under the chin. Bones of the lower part of her body had been removed when digging a grave for another burial (no. 9) with a penannular brooch with rolled ends (Fig. 11: 11) also in the same place – under the chin. In the bottom of trench 10, dug to discover additional items from the assemblage of burnt coins, the lower part of a west-oriented male skeleton cut by a later grave was unearthed.

Soil under the contaminated sand contained also numerous bones from disturbed graves, but in most of the investigated area mainly smaller bone fragments were found. Bigger bones – skulls, long and pelvic bones seemed to have been removed when digging new graves. They were numerous only in two areas – in front of the altar and near the northern entrance. While the first assemblage can be explained by the re-deposition of bones found when digging the altar foundation trench in 1876, the large concentration of big bones at the northern entrance greatly deviates from the general situation.



Fig. 11. Pendants and brooches from Rannu church.

Jn 11. Ripatsid ja sõled Rannu kirikust.

(TÜ 2929: 329, 330, 24, 336, 482; TÜ 2838: 45, 47; TÜ 2929: 328, 25, 37, 487, 442, 487, 493.)

Photo / Foto: Heiki Valk



Fig. 12. 13th century grave goods from Rannu church.

Jn 12. 13. sajandi matuste leide Rannu kirikust.

(TÜ 2929: 108, 200, 452/241, 339, 661.)

Photo / Foto: Heiki Valk

Artefact finds

Artefact finds from disturbed soil, mainly jewellery and metal details of costume, were, considering the amount of sieved soil, not numerous. The finds may originate from disturbed graves, but tiny dress accessories may also be items occasionally lost by church visitors.

Judging by finds, the earliest phase of the cemetery belongs to the second or third quarter of the 13th century. Finds of that period are represented by a ring with a wide shield and long open ends (Fig. 12: 1), a simple cross pendant decorated with dotted circles (Fig. 12: 2), two fragments of a broad thin bracelet (Fig. 12: 3), and a ring with a thickening middle part and open ends (Fig. 12: 4). Similar bracelets and shielded rings have formerly been found from Ala-Kõrtsi cemetery – a burial site which probably preceded the church and churchyard of Urvaste (Valk *et al.* 2018).

From the 13th–14th centuries fragments of two annular brooches with a narrow arch (: 209; Fig. 11: 7), and two copper alloy spiral tubes (Fig. 13: 8, 9) might originate. To the same period belongs a small well elaborated penannular brooch with mushroom-shaped ends (Fig. 11: 6). This find from the northern entrance hall to the chancel and sacristy originates from the western Baltic (Semigallian-Zhemaitian) areas.¹¹ Formerly only one brooch of such type was known from southern Estonia. Medieval jewellery is also represented by five 14th–15th centuries' cross pendants with a rhomb-shaped middle part (Fig. 11: 1–5), most of them, probably, from one necklace, and a pin from a penannular brooch (: 171). A lead alloy belt mount (Fig. 13: 23) – a similar item has been found from the chapel of Helme (Valk 2020, 114, fig. 7: 6) – might originate from the 15th century. Of medieval origin are also an oblong (Fig. 11: 10) and a rectangular mount (Fig. 13: 21), a ring with open ends and minuscule inscription (Fig. 14: 2), a lead alloy ring with a pseudo-woven front part (Fig. 14: 3), a round sheet pendant of silver (Fig. 11: 9) and three rectangular mounts – one of copper alloy (: 119), and two identical items of lead alloy (Fig. 13: 14, 15).

To the late 15th – early 17th century might belong a degenerated spiral ring with a twisted middle coil (Fig. 13: 5), two simple penannular brooches (: 675; Fig. 11: 12, 13), and a fragment of a supposed button (Fig. 13: 20).

The Early Modern Times are represented by a simple closed ring (Fig. 14: 1), a signet ring with an abstract image (Fig. 14: 4), a tiny button with a crown image (Fig. 13: 1), a bell without a slot (Fig. 13: 19), a dress hook and its eye (Fig. 13: 16, 17), and a buckle fragment (Fig. 13: 24). A small annular brooch (Fig. 11: 8) dates from the 17th or 18th century, and a fragment of a simple ring with jaggy edges (Fig. 14: 6) from the 18th century. Of unknown date are a thumb-tack of white metal (Fig. 13: 13) and a small round mount (Fig. 13: 22). In addition, three 18th–19th centuries' book clasps of copper alloy (Fig. 13: 10–12) were found.

Some artefacts are alien for the rural popular culture of Estonia, representing the culture of the German nobility. In the village cemeteries of the region there are no parallels to a medieval tiny mount with lily-shaped ending (Fig. 13: 7), to a dressing hook with a gilded

¹¹ Estimation by Vitolds Muižnieks and Jānis Cigliis (Latvian National History Museum).

flower-shaped head (Fig. 13: 18), to a fragment of gilded round thin silver brooch (Fig. 13: 5), and to some silver fragments, probably, remains of thin annular brooches (Fig. 13: 4, 6). Two buttons with a cross image (Fig. 13: 3a, b) may have belonged to a priest's robe.

Beads were represented by a fragment of a big round yellow item from the 13th–14th centuries (: 450), a hollow glass bead (Fig. 13: 2), two round dark crystallized glass beads, probably from the 16th century (: 95, 486), and some 17th century beads – a fragmented oblong blue glass bead (: 362), an orange glass bead (: 256), and a tiny black bead (: 249).

Finds of tools and utensils were rare and their share was small when compared to that in rural village cemeteries. From the church only an iron knife from the 13th or 14th century (Fig. 12: 5), and a blade tip of a knife (: 307), as well as an iron needle (Fig. 13: 25) and a needle fragment (: 297) were found. The bent tip of the needle may not be occasional, but could reflect some ritual activities. A lead plummet from a fishing rod (: 299) may be brought to the church with sand from the shore of Lake Vörtsjärv.



Fig. 13. Finds from Rannu church. 1 – a button, 7, 14, 15, 21–23 – mounts, 2 – a hollow bead, 3a, b – buttons, 4–6 brooch fragments, 8, 9 – bronze spiral tubes, 10–12 – strap ends, 13 – a thumbtack, 16, 17 – a hook and an eye, 18 – a decorative hook, 19 – a bell, 20 – a button (?), 24 – a buckle fragment, 25 – a needle. 2 – glass, 4–6 – silver, 14, 15, 24 – lead alloy, 25 – iron; others – copper alloy. Nos 5 and 18 – gilded.

Jn 13. Leide Rannu kirikust. 1 – nööp, 7, 14, 15, 21–23 – naastud, 2 – õõnes klaashelmes, 3a, b – nööbid, 4–6 sõlekatked, 8, 9 – spiraalторukesed, 10–12 – rihmaotsikud, 13 – rõhknael, 16, 17 – haak ja aas, 18 – ehishaak, 19 – kuljus, 20 – nööp (?), 24 – pandlakatke, 25 – nõel. 4–6 – hõbe, 14, 15, 24 – pliisulam, 25 – raud, teised – vasesulam. Nr 5 ja 18 – kullatud.

(TÜ 2838: 52, 7; TÜ 2929: 193a, b, 211, 399, 631, 54, 625, 309; TÜ 2838: 51, 5; TÜ 2929: 111, 140, 294, 232; TÜ 2838: 24, 11; TÜ 2929: 523, 288, 668, 97, 119, 126, 158, 400.)

Photo / Foto: Heiki Valk



Fig. 14. Rings from Rannu church.

Jn 14. Sõrmused Rannu kirikust.

(TÜ 2929: 12, 87, 314, 336, 405; TÜ 2838: 22.)

Photo / Foto: Heiki Valk



Fig. 15. Fragments of profile bricks from Rannu church.

Jn 15. Profiltelliseid Rannu kirikust.

Photo / Foto: Heiki Valk

Glass and pottery

The find assemblage includes also numerous fragments of transparent or slightly greenish window glass, some of them strongly burnt or melt in fire. The fragments with retouched edges represent quarrels of triangular (e.g. 21 × 28 × 20 mm), rhomb-shaped (side 21 mm), squared (e.g. 42 × 4 mm), and trapezoid shape.¹² At least five fragments with arch-formed edges, and 11 fragments of oval or round quarrels, with thickening or returned edge were found. One piece of glass was light blue, two represented one-sided

red stained glass, i.e. transparent glass one side of which was covered by a thin layer of red glass melt on its surface. At least five fragments had traces of paintings – fold of cloth, plant bines and other, unidentified images. Three sherds represent engraved images of feathers or leaves.

Finds of profile bricks were not numerous, being represented by fragments from window posts, and from vault ribs¹³ (Fig. 15). Medieval roof tile fragments were also rare. In addition, a piece of strongly worn limestone originating probably from a grave slab (: 348) and a fragment of terracotta figure of an unknown saint (Fig. 16: 8) were found from the interior of the church.

Pottery fragments gained by sieving are represented by about 30 fragments of mostly dark coarseware (Fig. 16: 1–7), some of them decorated with lines (Fig. 16: 2), and one having diagonal hatches along the rim (Fig. 16: 4). Such pottery may date both from the time before and after the crusades.

Of unknown origin are a large number of strongly melt and deformed copper alloy particles, 2–4 cm in diameter, which were found mainly near the western window, but were present also in the southern aisle.



Fig. 16. Pottery finds (1–7) and a fragment of a terracotta statue (8) from Rannu church.

Jn 16. Keraamikat (1–7) ja terrakotast pühakukuju katke (8) Rannu kirikust.

(TÜ 2838: 42; TÜ 2929: 490, 449, 310, 52, 443, 346, 264.)

Photo / Foto: Heiki Valk

¹² Estimations by Monika Reppo (TÜ).

¹³ Estimations by Kaur and Eve Altooa.

Coins

Fieldwork in Rannu church brought to light ca. 840 coins (Table) – about 290 burnt and 550 unburnt items. The exact number remains unclear because of the high fragmentation of the burnt coins.

Medieval coins

Medieval coins are represented with ca. 630 finds. We must extra emphasize the continuity of their temporal distribution throughout the period, i.e. until the beginning of the Livonian War in 1558. The majority of the coins originate from the time before the Livonian monetary reform in 1422/1426 and only 91 are of a later date.

Coins struck before the 1420s

The earliest coins from Rannu church were struck in the second or third quarter of the 13th century. Besides ten Visby pennies from the period 1220/1225–1288/1290 (: 113, 196, 214, 396, 423, 530, 549, 575, 624, 640)¹⁴ there are three more hypothetical Gotlantic(?) 13th century coins (: 581, 587, 612). One of those depicts the Maltese cross (Fig. 17) and has until today the only parallel in Koksi hoard from Saaremaa (see Leimus 2004a, 66–67). To the middle or even the second quarter of the 13th century, belongs one worn Tallinn bracteate depicting a crowned head (: 560), struck under the Danish rule.

The other 13th century Rannu coins can equally well belong to the 14th century. The oldest among them are seven Danish bracteate pennies from ca. 1265–1332 minted in Tallinn (: 312, 461, 489, 525, 626, 633, 642), 33 pennies of Tartu prince-bishopric approximately from the same time period, and two unidentified pennies from the turn of 13th or 14th century (: 568, 632).

From the aspect of coin circulation in the 14th century Livonia the most interesting specimens are undoubtedly two W-bracteate pennies from Gotland (ca. 1290–1361) (Fig. 18). One of them was minted at the very end of the 13th century, the other approximately in the middle of the 14th century (Lagerqvist 1970, Group XXXIV: A). Although Gotlantic coins, the influx of which to Livonia ceased after the renewal of local minting in the 1260s (Leimus 2004a, 64; Kiudsoo & Tamla 2006, 278–279), reappear en masse in the composition of Estonian hoards in the third quarter of the 14th century (Kiudsoo 1999, table; 2001, 69), these are already invariably gotes, the first nominals larger than a penny in the Nordic countries.



0 5 mm
|-----|

Fig. 17. A bracteate with the Maltese cross from the 13th century.

Jn 17. Malta ristiga brakteaat 13. sajandist. (TÜ 2929: 612.)

Photo / Foto: Mauri Kiudsoo



0 5 mm
|-----|

Fig. 18. Two W-bracteates of Gotland, the one on the left is earlier.

Jn 18. Kaks Ojamaa W-brakteaati, vasakpoolne neist on varasem. (TÜ 2929: 519, 580.)

Photo / Foto: Mauri Kiudsoo

¹⁴ All medieval coins mentioned in the text are from the excavations of 2021 (TÜ 2929), if not noted otherwise. While this coin type (XXII) was formerly dated to 1210/20–1260/70 (Lagerqvist 1970, 79), the coinage of this group is considered to have begun from 1220/25 and the chronological upper border is dated ca. 1280 or also 1288/90 (Hyötyniemi 1987, 85; Jonsson 1990, 50; Holmberg 1995, 78–79; Myrberg 2012, 182).

Only one Gotlantic penny of the 14th century had been previously found in Estonia (Kiudsoo 2020, 3). From Rannu two Gotlantic örtugs or gotes from the second half of the 14th century were discovered (: 419, 420).

Bracteate pennies from north German towns (Table: 61–70), represented in Rannu by ten items, prevailed in local circulation since 1332, when coining at the mint of Tallinn was interrupted. These coins still clearly predominate in the composition of hoards deposited in the second half of the 1360s, but at the end of the 1370s their amount considerably decreased. The main reason for their disappearance lies in the decrees of the Livonian authorities prohibiting their import and circulation because of their low silver content (Kiudsoo 2004, 79–80 and references).

The find assemblage from Rannu includes 424¹⁵ coins struck between the mid-1360s when local mintage restarted in Livonia and the monetary reform of 1422/26. Such coins make up ca. 73% of the medieval specimens. This fits well with former conclusions that consistent and frequent offering of coins in churches started around the turn of the 14th and 15th centuries, i.e. in the beginning of the so-called depression period (1390s–1470s) that sorely affected the local population at that time (Kiudsoo 2011, 79–80). Although the monetary system with its three denominations had developed in Livonia by the end of the 14th century, being one of the most advanced in the Baltic region (Leimus 2002, 129–130; 2004b, 1101), coin finds with a cultic background indicate rather the low level of monetarization of the native rural society than the intensity of circulation.



Fig. 19. The so-called ‘Tartu pennies’: coins of Vyffhusen, Velde and ‘Damerow’ are grouped in pairs.

Jn 19. Nn Tartu pennid – paariti grupeeritud: Vyffhuseni, Velde ja „Damerowi“ rahad.

(TÜ 2929: 94, 89; 558, 96; 555, 305.)

Photo / Foto: Mauri Kiudsoo

Before archaeological investigation in Rannu church, the so-called ‘Tartu pennies’ (Fig. 19), minted between probably between 1363 and the monetary reform of 1422/26, most likely, only for local circulation in the prince-bishopric, have been rare finds. These coins, both one- and two-sided, were later made of pure copper (Kiudsoo 2019, 52 and references). Beside 74 specimens struck by prince-bishop Johann I Vyffhusen (1364/5–1373) and 11 or 12 by Heinrich I von Velde (1373–1378(?)) (: 91, 96, 125, 498, 535, 541, 543, 558, 565, 597, 673, 674) the finds from Rannu include even at least 240 later ‘Tartu pennies’ (so-called ‘Damerow bracteates’), which date from the time range between 1379 and 1420 and can be attributed either to Dietrich

III Damerow (1379–1400), Heinrich II Wrangel (1400–1410), Bernhard II Bülow (1410–1413) or Dietrich IV Resler (1413–1420) (Sarkkinen 2001, 227). Until now the largest number of ‘Tartu pennies’ (21) from Estonia has been found beside the churchyard of Nõo (see Valk & Kiudsoo 2020, 132). In addition, 32 ‘lübisches’ of Tartu prince-bishopric (ca. 1397–1420; incl. 8 from ca. 1400–1420) and 11 of the Livonian Order, minted in Tallinn between 1398 and 1420, as well as seven seestlings of Tallinn (two from 1395–98, five since 1398) were found.

¹⁵ 91 unidentified burnt coins from the burnt assemblage are included in this number.

Table. *Coin finds of 2020 and 2021 from Rannu church.***Tabel.** *2020. ja 2021. aasta mündileiud Rannu kirikust.**Compiled by / Koostanud Heiki Valk. Coins identified / Mündid määranud Mauri Kiudsoo*

No. / Nr	Items / Münste	Issued by / Müntija	Denomination / Vääring	Comments / Kommentaariid
MEDIEVAL, before the monetary reform of 1420s (537 items)				
1–10	10	Gotland, Visby, 1220/25–1288/90	penny	
11	1	Gotland?, 13th c.	penny	'Maltese cross'
12	1	Gotland?, 13th c.	penny	
13	1	Gotland, Visby, late 13th c.	penny	
14	1	Gotland, Visby, mid-14th c.	penny	
15–16	2	Gotland, Visby, 2nd half of 14th c.	örtug	
17	1	Denmark, Tallinn, mid-13th c.	penny	'crowned head'
18–21	4	Denmark, Tallinn, ca. 1265–1332	penny	
22–25	4	Denmark, Tallinn, ca. 1265–1332(?)	penny	
26–58	33	Tartu BR, 13th–14th c.	penny	
59	1	Tartu BR, 13th–14th c.(?)	penny	
60	1	13th–14th c.	penny	
61–66	6	Northern Germany, Hamburg, 14th c.	penny	
67	1	Northern Germany, Mecklenburg, 14th c.	penny	
68	1	Northern Germany, (or Salzburg?), 14th c.	penny	
69–70	2	Northern Germany, 14th c.	penny	
71	1	Tartu BR, Johann I Vyffhusen, ca. 1364/5–70?	artig	
72–142	71	Tartu BR, Johann I Vyffhusen, ca. 1364/5–73	penny	
143	1	Tartu BR, from 2nd half of 13th c. to Vyffhusen	penny	
144	1	Tartu BR, Johann I Vyffhusen, ca. 1364/5–73(?)	penny	
145–154	10	Tartu BR, 'Velde', 1373–78(?)	penny	
155	1	Tartu BR, 'Velde', 1373–78	penny	
156	1	Tartu BR, Velde/Damerow?	penny	
157–390	234	Tartu BR, 'Damerow', 14th–15th cc.	penny	probably more items than 234
391–396	6	Tartu BR, 'Damerow', 14th–15th cc. (?)	penny	
397–419	23	Tartu BR, 1397(?)–1420	lübische	
420	1	Tartu BR, 1397(?)–1420(?)	lübische (?)	
421	1	Tartu BR, 14th–15th cc., 'Damerow' (?)	penny	
422–425	4	Tartu BR, 1400(?)–140?	lübische	
426–427	2	Tartu BR, 1410(09)?–1413	lübische	
428–429	2	Tartu BR, 1413–1420(15?)	lübische	
430–431	2	Livonian Order, Tallinn, 1395–98	seestling	
432–433	2	Livonian Order, Tallinn, 1398–1403(?)	lübische	
434–438	5	Livonian Order, Tallinn, since 1398	seestling	
439–443	5	Livonian Order, Tallinn, 1406(?)–15	lübische	
444	1	Livonian Order, Tallinn, until 1415	lübische	
445–446	2	Livonian Order, Tallinn, 1415–20	lübische	
447	1	Livonian Order, Tallinn, 1415–20(?)	lübische	
448–537	90	Unidentified, Tartu BR (?), 13th–14th c.	predominantly pennies	from the burnt assemblage, deposited around 1400 AD

No. / Nr	Items / Münze	Issued by / Müntija	Denomination / Vääring	Comments / Kommentaariid
From the monetary reform of 1420s to 1558 (91 items)				
538	1	Tartu BR, Dietrich IV Resler, 1422–41	penny	
539–543	5	Tartu BR, Dietrich IV Resler, 1426–41	scherf	
544	1	Tartu BR (?), 15th c., Dietrich Resler (?)	scherf	
545–548	4	Tartu BR, Bartholomaeus Savijerwe, 1441–59	penny	
549–558	10	Tartu BR, Bartholomaeus Savijerwe, 1441–59	scherf	
559	1	Tartu BR, Helmich von Mallinkrodt, 1459–68	penny	
560–562	3	Tartu BR, Helmich von Mallinkrodt, 1459–68	scherf	
563–566	4	Tartu BR, Andreas Peper, 1468–73	scherf	
567–568	2	Tartu BR, Johannes II Bertkow, 1473–85	penny	
569–576	8	Tartu BR, Johannes II Bertkow, 1473–85	scherf	
577–583	7	Tartu BR, Dietrich V Hake, 1485–98	scherf	
584–585	2	Tartu BR, Johannes III Rope, 1499–1505	scherf	
586	1	Tartu BR, <i>sede vacante</i> , 1515 or 1528 (?)	scherf	
587–589	3	Tartu BR, Johannes V Blankenfeld, 1518–27	penny	
560–593	4	Tartu BR, Johannes VI Bey, 1528–43	penny	
594–599	6	Livonian Order, Tallinn, 1426–70s	scherf	
600	1	Livonian Order, Tallinn, 1430–65(?)	penny	
601	1	Livonian Order, Tallinn, 1470s	penny	
602–603	2	Livonian Order, Tallinn, (Bernd von der Borch), 1471–83	penny	
604–605	2	Livonian Order, Cesis, Johann Freitag vom Loringhofe, 1483–94	schilling	
606	1	15th c.	scherf	
607	1	Teutonic Order, 15th c. (?)	scherf	
608	1	Livonian Order, Riga, Wolter von Plettenberg, 1527	penny	
609	1	Livonian Order, Riga, Wolter von Plettenberg, 1535	schilling	
610–612	3	Livonian Order, Tallinn, Wolter von Plettenberg, 1532–34 (3)	penny	
613	1	Livonian Order, Tallinn, Wolter von Plettenberg, 1520s/30s	penny	
614	1	Livonian Order, Tallinn, Wolter von Plettenberg, 1534–34	schilling	
615–617	3	Livonian Order, Tallinn, Hermann Brüggenei-Hasenkamp, 1535, 1536, 1541	schilling	
618–620	3	Livonian Order, Riga, Hermann Brüggenei-Hasenkamp, 1538, 154., 1535–49	schilling	
621	1	Livonian Order, Tallinn, Heinrich von Galen, 1555	ferding	
622	1	Livonian Order, Tallinn, Heinrich von Galen, 1555	penny	
623	1	Livonian Order, Tallinn, 154.	schilling	
624–627	4	Livonian Order, Tallinn, 16th c.	schilling	
628	1	Riga ABR, Henning Scharpenberg, 1424–48	penny	
Livonian War and the era of Polish rule (1558–1621/25) (19 items)				
629–630	2	Riga, ABR, Wilhelm margrave von Brandenburg, 1563	schilling	
631–633	3	Lithuania, Vilno, Sigismund II Augustus, 1561, 1564, 1547–72	1/2 grosch	
634	1	Riga Free town, 1561–81	schilling	
635	1	Russia, Pskov, Ivan IV, until 1584	kopek	
636–637	2	Sweden, Tallinn, Eric XIV, 1562, 1565	schilling	
638	1	Sweden, Tallinn, John III, 1568–92	ferding	
639	1	Sweden, Tallinn, John III, 1571–85	schilling	
640	1	Poland, Dahlen (Dole), 1572	schilling	
641–645	5	Poland, Riga, Sigismund III, 1614, 161., 1620, 1587–1621 (2)	schilling	
646	1	Poland, Sigismund III	dreipöcker	
647	1	Poland, Lobenz(?), Sigismund III, 1622	penny	

No. / Nr	Items / Münze	Issued by / Müntija	Denomination / Vääring	Comments / Kommentaariid
Period of Swedish rule (1621/25–1704/10) (137 items)				
648–650	3	Sweden, Riga, Gustavus II Adolphus, 1621–32	schilling	
651–665	15	Sweden, Riga, Christina, 1635 (2), 1641, 1647, 1650, 1651, 1652, 1654 (2), 165., 1632–54 (5)	schilling	
666–667	2	Sweden, Riga, Christina, 1632–54	schilling	Suszawa fake
668–674	7	Sweden, Livonia, Christina, 164. (2), 1653 (2), 1648, 1644–54 (2)	schilling	
675	1	Sweden, Christina, 1634	1/4 öre	
676	1	Sweden, Stockholm, Christina, 1635	öre	
677–685	9	Sweden, Riga, Charles X Gustavus, 1655 (3), 1656 (1), 1658 (2), 1659, 1654–60 (2)	schilling	
686–688	3	Sweden, Livonia, Charles X Gustavus, 1654, 1655, 1654–60	schilling	
689–719	31	Sweden, Avesta, Charles XI, 1666 (9), 1667 (2), 16(67?), 1670, 1671 (8), 1672, 1675, 1676 (2), 1681, 1682, 1666–77, 80–83, 86 (4)	1/6 öre	
720	1	Sweden, Avesta, Charles XI (?)	1/6 öre (?)	
721–741	21	Sweden, Riga, Charles XI, 166. (2), 1661 (3), 1663 (5), 1664 (2), 1665 (3), 1661–65 (6),	schilling	
742–762	21	Sweden, Livonia, Charles XI, 1660, 166(0?), 1661 (4), 1662 (3), 1663 (2), 1664 (2), 1660–65 (8)	schilling	
763	1	Sweden, Livonia (?), Charles XI, 1662	schilling	
764	1	Sweden, Stockholm, Charles XI, 1667	2 öre	
765	1	Sweden, Stockholm, Charles XI, 1672	öre	
766	1	Sweden, Riga/Livonia, 16.4	schilling	
767–768	2	Poland, John Casimir, 1663, 1649–68	schilling	
769	1	Germany, Brandenburg, Georg Wilhelm, 1625		
770	1	Germany, Brandenburg, Friedrich Wilhelm, 1654	schilling	
771	1	France, Louis XIV, 17th–18th cc.	counting penny	
772–773	2	Russia, Mikhail Fyodorovich, 1613–45	kopek	
774–778	5	Russia, Aleksei Mihkailovich, 1645–62	kopek	
779	1	Russia, Aleksei Mihkailovich, 1645–76	kopek	
780–781	2	Russia, 16th–17th cc.	kopek	possibly this period
782	1	Russia, 16th–18th cc.	kopek	possibly this period
783	1	Poland, 17th c.	dreipöcker	possibly this period
784	1	Riga, 17th c.	schilling	possibly this period
Period of Russian rule (since 1704/10) (47 items)				
785–797	13	Russia, Peter I, 1696(?)–1718	kopek	
798	1	Russia, Peter I, 1700–1709	kopek	
799	1	Russia, Peter I, 1700–1718	kopek	
800	1	Russia, Peter I, 1707 (?)	kopek	
801	1	Russia, Peter I, 1720	kopek	
802–808	7	Russia, Anna Ivanovna, 1731 (2), 1733, 1734 (2), 1735, 1738	polushka	
809–811	3	Russia, Anna Ivanovna, 1735 (3)	denga	
812–815	4	Russia, Elizabeth Petrovna, 1743, 1747, 1748, 1754	denezhka	
816	1	Russia, Ekaterinburg, Paul I, 1798	2 kopeks	
817–818	2	Russia, Kolpino (Izhora), Alexander I, 1811, 1814	2 kopeks	
819	1	Russia, St Petersburg, Alexander I, 1811	5 kopeks	
820	1	Russia, Ekaterinburg, Nicholas I, 1831	kopek	
821	1	Russia, St Petersburg, Nicholas I, 1841	1/4 kopeks	
822	1	Russia, St Petersburg, Nicholas I, 1841	denezhka	
823–825	3	Russia, Ekaterinburg, Nicholas I, 1852	kopek	

No. / Nr	Items / Münte	Issued by / Müntija	Denomination / Vääring	Comments / Kommentaariid
826–827	2	Russia, Ekaterinburg, Alexander II, 1855, 1859	denezhka	
828	1	Russia, Ekaterinburg, Alexander II, 1856	kopek	
829	1	Russia, Alexander II, 1859	polushka	
830–831	2	Russia, Ekaterinburg, Alexander II, 1859, 1866	2 kopeks	
Not identified (7 items)				
832	1	16th century	?	
833–838	6	?	?	

Assemblage of burnt coins

As noted above, numerous coins from the last third of the 14th and/or early 15th century which were found from a limited area in the northern nave bore traces of fire (Fig. 20). Some of them were burnt so strongly that they could not be found by metal detector, but were discovered only by sieving. Due to strong fire damages several coins were stuck to each other or were broken into pieces. Because of these reasons, the total number of burnt coins remains unclear, but it can be estimated roughly to ca. 300 items. The burnt coins which could be identified include mainly the so-called Damerow bracteates (at least 168 items), pennies of Tartu prince-bishop Johann von Vyffhusen (1364/5–1373) (at least 24 items), lübische pennies of Tartu bishopric (12 items) and two pennies of Tartu prince-bishop Heinrich I von Velde (1373–1378). Most likely, the burnt coins were in one container – a cash box for donations or candle money.¹⁶ The reasons for the co-existence of pennies of Vyffhusen with high and those of Damerow with low silver contents in the burnt assemblage are unclear – such complexes are not known in the numismatic material of Estonia. As a rule, when coins of lower silver contents appear, they quickly push the earlier coins with the same nominal value out of circulation. An explanation to the presence of Vyffhusen (and Velde) coins in the assemblage might be that the box was in use for a longer period and when it was emptied, some earlier pennies had remained there (maybe in cracks?), being released from there only by the fire.



Fig. 20. Burnt coins from Rannu church.

Jn 20. Põlenud münte Rannu kirikust.

Photo / Foto: Heiki Valk

¹⁶ As a possible parallel, it can be noted here that according to the church visitation of 1634, the church had a 'church sack' for collecting money and this bag, which existed until 1876, provided the only source of its financial incomes (Andresson 1928, 57–58).

Since the investigation area reached mainly the depth of ca. 60 cm from the present-day floor level, numerous burnt coins which had been disturbed into later grave pits surely remained unearthed. Here it must be noted that from trench 10 (mainly from its eastern part) located in the distance of 1.5–2 metres from the main concentration area of burnt coins numerous burnt items, originally belonging to the assemblage were found. It seems likely that also a large part of coins from that period (ca. 1365–1422/26) without traces of fire (212 items) originate from the same assemblage, because many of them were found from the same area with burnt items.

The fact that strongly burnt coins from a limited time span were found from a small area shows that they originate from one event – a fire that destroyed the church around 1400 AD or a little later.

Coins struck since the 1420s

Medieval coins since the monetary reform of 1422/26 are represented with 91 items. It is important to note the presence of 49 scherfs, struck by local authorities in the 15th or 16th centuries. The Landtag in Cēsis (Germ. Wenden, Est. Võnnu) decided to start minting new artigs (people soon began to call them schillings) in 1422, and also pennies and scherfs in 1426 (Leimus *et al.* 2018, 57–58). The scherfs which were less numerous than schillings and pennies and were minted of silver of considerably lower quality occur primarily among finds from offering sites (Kiudsoo 2004, 80–81 and references).

From the perspective of coin history in Livonia one of the most important scherfs from Rannu is a specimen with a circle of rays around the edge and the coat of arms of Tartu diocese in the centre (: 231). That type, most likely minted in the 16th century during a *sede vacante* (Germ. *Sedisvakanz*) period, i.e. during the interregnum between the terms of two consecutive bishops (1515 or 1528), was completely unknown before 2019 (Valk & Kiudsoo 2020, 132, fig: 6: 2). Rare finds from Rannu are also the four scherfs with a six-pointed star in the centre (Fig. 21), minted in Tartu diocese by Andreas Peper (1468–1473) (: 308, 412, 447; TŪ 2838: 15). Previously, Estonian museum collections had only two coins of such design; one was found from the Niklasmägi chapel site (Valk *et al.* 2013, table 2: 33), the other from Haljala church (Kadakas 2017, table 1). In addition, 3–4 Peper’s scherfs are kept in private collections (see Haljak 2010, no. 559, 6 R). Two scherfs of Johannes III Rope (1499–1505) are also worth extra noting. Those bracteates with the Rope’s (Buxhövdén’s) family coat of arms are only the fourth/fifth of that kind in public collections.



Fig. 21. Scherf of Andreas Peper, prince-bishop of Tartu (1468–1473).

Jn 21. Tartu piiskopi Andreas Peperi (1468–1473) šerf. (TŪ 2929: 447.)

Photo / Foto: Mauri Kiudsoo

Coins from the Early Modern and Modern Times

The turmoil of the Livonian War and the following wars between Sweden and Poland (1558–1625) is represented by 19 coins only (Table: 629–647). This fact is most noteworthy because the number of coins rapidly increases in Estonian numismatic material since the mid-16th century when money began to lose its primary function due to the chaos brought along by

the war (Kiudsoo 2020, 13). In this connection it must be noted that coin types of the second half of the 16th century discovered in Rannu occur in the composition of Estonian hoards also in the beginning of 17th century. For example, Estonian coin hoards do not, as a rule, reflect extensive circulation of Lithuanian half-grosses (: 74, 184, TŪ 2838: 54), before the end of the 1590s, but they occur in extremely large quantities (21.4–94.6% of the total number of coins in a hoard) in the hoards of the first period of the Polish-Swedish war (1600–1611) (Kiudsoo 2004, 82). Thus, it seems possible that there may even have been a gap in coin deposition in Rannu church in the period of the Livonian War when the building stood in ruins.

The time of the Swedish rule (ca. 1625/30–1710) is represented by 137 coins¹⁷ (Table: 648–784), making up ca. 16.3% of their total number. Regarding the circulation time of 17th century coins found at Rannu church we must consider that although the minting of schillings in Riga ended in 1665, these coins were still in use in large numbers in Livonia during the Great Northern War and they massively circulated even in the mid-18th century (Leimus *et al.* 2018, 141–142). We also have evidence about the circulation of Swedish 17th century copper coins in the beginning of the 18th century (Kiudsoo 2004, 86; 2007, 29–30). Five coins of unsure date (Table: 780–784) were plausibly also deposited in the period of Swedish rule.

The number of coins greatly decreases in the 18th and 19th centuries, especially since the mid-18th century. From the 47 Russian coins from that period (Table: 785–831) 17 are from the era of Peter I, being minted between 1696 and 1720. The decreasing number of coins might be caused by changes of ritual practices, i.e. the end of coin offering. The latest coin dates from 1866. The new floor from 1876 (Andresson 1928, 47) probably made dropping or loosing coins through the boards impossible.

The coin assemblage in a broader context

The coin assemblage from Rannu church is the second largest assemblage of church coins ever discovered in Estonia. Contrary to the Scandinavian countries, coin finds discovered in Estonian churches and handed over to public collections have been scanty and fragmentary. While in Finland alone information about more than 11 671 coins and in Sweden at least 6 182 coins from the medieval period (1150–1520) has been published (Kiudsoo 2020, 2 and references), in Estonia barely a thousand single coins connected with churches had been recorded by 2010.

For a long time the biggest find in Estonia were 269 coins that were picked up from a heap of soil near the church of Muhu in 1983. The coins had been moved there together with the underfloor fill from the church floor. In 2002, 248 coins and four jetons were found from the church of Jõelähtme, when archaeologist Jaak Mäll carried out archaeological monitoring there (Kiudsoo 2003). During the last decade two significant archaeological investigations of medieval churches were carried out in the coastal areas of northern Estonia: Harju-Risti (1180 coins; Kadakas *et al.* 2012, 183) and Haljala (392 coins; Kadakas 2017; Kiudsoo 2020, 2 and references).

In the southern part of Estonia no medieval coins have been recorded from inside rural churches until the finds from Rannu.¹⁸ The coin assemblage is also unique because of the extraordinarily large share of items from before the monetary reform of 1422/26 whereby most of the coins from between 1365 and 1420 originate from a closed context – a fire in the church.

¹⁷ The number does not include silver kopeks of Peter I (1696–1720) which are regarded together with 18th century Russian coins.

¹⁸ The only exception is the find of twelve 15th century counting pennies from Tarvastu churchyard (AI 1861b: 109–113, 115, 120–125). The large coin assemblage from Nõo (Valk & Kiudsoo 2020) was collected from the churchyard and its closest vicinity.

DISCUSSION: TRACES OF CHURCH HISTORY

Formation of the cemetery and churchyard

Artefact finds from Rannu church show that a cemetery existed on the site at least in the middle of the 13th century. Judging by finds, it seems possible that the first parish cemetery was founded soon after the Christianization of Ugandi district in 1215 (HCL XIX: 7). There is no information about the size and location of the first church but, keeping in mind the general situation after the crusades, a wooden building is most probable. A radiocarbon date from a layer of charcoal between white mortar layers (outer tree rings from a piece of a thick charred log) in the northern aisle gave the result of 885 ± 30 BP¹⁹, calibrated with 95.4% probability 1045–1086 (20.0%), 1092–1105 (2.1%) or 1120–1225 AD (73.3%). The early date refers to the secondary use of timber for the church construction in the 13th century.

Scanty archaeological material provides no firm evidence about the presence of a cemetery before the crusades, but this cannot also be excluded. Hints are provided by a burnt greyish-brownish, probably a human bone fragment (Malve 2020, appendix 2)²⁰ and finds of possibly Late Iron Age pottery. These stray finds may, however, originate not from the cemetery context.

During the earliest phase of the cemetery the relief in the churchyard area was different from the present-day situation when it is indistinguishable from the surrounding flat landscape. The fact that bones of an infant burial were found under the chancel foundation, in the depth of 2.1 m from the floor level shows that the cemetery was originally located in a shallow depression which was later, probably when constructing the stone church, filled/levelled with fine gravel. The thickness of the fill varies from ca. 40 cm in front of the altar until ca. 80 cm in the trench south-east of it.

The low number of 13th century artefact finds, mostly gained from the central part of the nave, can also be explained by the deep location of the earliest burials – probably, the graves were covered by the fill – which has greatly safeguarded them from being disturbed by later ones. Thus, later burials have brought only rare items from these grave goods to the depth traceable for metal detectors. Choosing the church site in a depression within flat landscape indicates that the place must have had a special meaning before the era of crusades already.

The medieval stone church

The medieval stone church seems to have had three construction stages, the first was related to the lower, and the two later ones with the higher plinth. The lower plinth (ca. 44.25 m a.s.l.) suggests the floor of the first stone church to have been at the level of about 44.40 m. Since the level of the second plinth (44.75 m) greatly corresponds to the layer of fire with coins, the second stage of the stone church dates from before the great fire, judging by the burnt coins, around 1400 or in the early 15th century. The floor level of that construction stage has been ca. 45 cm below the present-day one.

Not much is known about the pre-fire church. The building had stained glass windows, but the lack of roof tile and vault brick fragments in the fire layer refers to a wooden roof and ceiling. From the period before the fire dates also the practice of laying floor beams on mortar subfloor. Such method of floor construction could be observed since the 14th until the 17th century. Evidently, the floor boards could be easily removed for the purpose of burial and,

¹⁹ Poz-150570. With 68.3% probability 1054–1062 AD (5.1%) or 1157–1217 AD (63.1%).

²⁰ A small assemblage of cremated and calcined bones (TÜ 2838: 651) does not belong to humans but rather refers to food remains thrown into fire.

consequently, were probably not very long. The possible limestone grave slabs, evinced only by a small fragment, also seem to have been rested upon the same beams.

The great fire might be the reason for profound re-construction of the building, i.e. constructing the third phase of the medieval stone church. Architectural date of the church into the first half of the 15th century fits well with the archaeological record referring to a fire around 1400 AD. The church became vaulted only after it: the fire layer would probably not have been so intensive, if being composed only of floor boards, excluding ceiling and roof constructions. The third stage of the stone church is also represented by the rectangular pillar foundations and details of limestone pillars, – two circular, but different pillar bases, and two identical octagonal column fragments. These are the first indications of using limestone pillars in southern Estonia²¹ – the region of medieval brick architecture.

The side altars from Rannu are also the first known case from rural southern Estonia. The easternmost altar in the southern aisle can be dated, judging by a coin find from a burial cut by it, between the 1470s and the end of the Medieval period. The altar foundation in the central part of the southern aisle might be somewhat later, but is also probably of medieval origin. It remains unclear if there was one more side altar between the late 15th century altar and the eastern wall of the church: its presence is suggested by a sacrament niche in the eastern wall and sufficient free space of 3.5 metres. Differently from the southern aisle, in spite of thorough search, the remains of only one side altar were discovered in the northern part of the church. Although this altar dates, judging by post-medieval bricks and coin finds from the period of the Polish rule, it might have a medieval predecessor which is indicated by the altar niche in the eastern wall.

The medieval church had lattice windows in which stained glass was used. The most outstanding window glass fragments of high quality techniques – those with an arch-shaped edge, and with traces of detailed stained glass paintings, as well as those from polyangular units – were found from the chancel, but fragments of quarries of different shape (incl. a piece with engraved feather, another with traces of paintings, and a blue glass fragment) existed also near both windows of the northern nave. Fragments of round and triangular quarries, but also of engraved and red glass from the fire layer give evidence of their date from before/around 1400 AD. In addition to glass finds, some fragments of lead alloy comes from church windows were found.

From the late 16th to the 18th centuries

The church seems to have been destroyed and standing in ruins since the early years of the Livonian War (1558–1583), as shown by the very low number of coins from the war period. This situation clearly differs from the popular offering practices of that time when coin finds are most numerous in rural cemeteries (Valk 2001, 57–58) and chapel sites, e.g. Siksälä Kirikumägi (Valk & Laul 2014, 196–198; Kiudsoo 2014, 287–292), Sammaste (VM 10234; VM 10876) and Vanamõisa (VM 9550). Also judging by the low number of jewellery items it seems that burying in the church ruins was not a common practice during the Livonian War.

In the time of the Polish rule the church was taken in use again. Reconstruction work is evinced by a layer of debris (mortar and small brick fragments) from which material suitable for reuse was deliberately removed. The new altar in the northern aisle was probably constructed in the 1580s or 1590s – before the war between Sweden and Poland which began in

²¹ Oral comment by Kaur Altoa.

1600. The period of this new war became fatal for the building: by 1613 the church was fully ruined, as shown in written data. A ‘wrongly’ oriented infant grave in front of the altar with coins from the 1610s also suggests the deserted status of the church.

According to the inventory of 1634, the church which had stood in ruins, was rebuilt again, getting a board ceiling and a roof of wood shakes (Andresson 1928, 45). Also the growth in the number of coin finds indicates increasing ritual activities in the building since the 1630s or 1640s. The old roof was replaced with a tile roof in 1695 (*ibid.*, 46) and the big timber post in the nave might originate from this period of reconstruction or from those after the Great Northern War (1700–1710/21). However, the excavations did not reveal any traces of fire damages of this war: the burning of the roof and the ceiling should have left a considerable layer of charcoal.

Cemetery within the church

A large number of bones from disturbed graves, as well as serious damages caused to mortar subfloors by grave pits give evidence of long-term use of the inside of the church as a burial area. The analysis of bone finds from the southern aisle (Malve 2020) and a preliminary survey of bones from 2021 give evidence of the presence of both sexes and different age groups among people buried into the church – from newborn infants to highly aged persons.

Medieval Livonia was the area of interactions of two ethno-social communities – the native Estonian and the German. Brooches and rings characteristic for rural village cemeteries show that the inside of the church was a burial site not only for the German nobility, but also for the Estonian peasants.²² However, the low number of typical Estonian finds and the background of finds from Ervu cemetery in the same parish (Valk 1991) indicates differences between the burial practices inside the church and on village cemeteries. The large number of bones from disturbed burials in the chancel and the fact that no typical Estonian jewellery items were found there suggests, however, the reservation of this more highly evaluated burial area to the German nobility. Nevertheless, this rule was not followed during the period of the ruined church, as shown by the east-oriented infant burial in front of the altar with coins from the 1610s. Further information about the ethnic affinity of people buried in different parts of the church is expected to be gained from ancient DNA analysis.²³

The broader context

The present research state does not make it possible to discuss the finds and findings from Rannu in a broader context of church burials in southern Estonia, because of missing or most scanty information from other churches of the region. Unfortunately, similar research in the neighbouring church of Puhja from the inside of which a 50–60 cm thick layer of soil was removed (Piiirits 2004) was performed at the time when metal detecting had not become a part of archaeological investigations yet, and the monitoring resulted with no archaeological finds. Investigations in the western end of the nave of Kambja church in 1993 (TÜ 501) revealed no traces of medieval burials – the area functioned as a burial site of Estonian population only since the mid-17th century whereby silver jewellery gives evidence of the high social status of peasants buried there.

²² As for the proportion of the Estonian and German population of the parish, there were 3700 Estonian and only 25 German members in Rannu congregation in 1804 (Andresson 1928, 43). Also these data suggest that the German community was not big enough to fill the church with burials.

²³ Analyses in progress at the Institute of Genomics, University of Tartu.

CONCLUSIONS

Archaeological investigations in Rannu church gave new information about its early history. The medieval stone church of Rannu, probably preceded by a wooden one from the era of the crusades, appeared to have three stages of construction, the latest of them completed in the 15th century, after a big fire around 1400 or somewhat later. Judging by the depth of the earliest graves, the primary burial area was located in a shallow depression which was filled before constructing the stone church. Artefact finds suggest that the cemetery was founded in the first half of the 13th century or its middle at the latest, whereby the question about the pre-Christian meaning of the site remains open. Excavation results show long-term use of the church as a burial area. The large coin assemblage of ca. 840 units gives an overview of coin use in the church from the 13th to the 19th century whereby the contents of a burnt cash container from around 1400 AD must specially be outlined.

From the perspective of building history most considerable findings are the limestone details of medieval pillars, the foundations of three side altars – two from the late medieval times and one from the era of the Polish rule –, as well as remains of repeatedly repaired and renovated mortar subfloors which served as basis for floor beams. Also the presumed grave crypt of 17th century burial chapel south of the chancel must be outlined – formerly no information about such structures from the rural churches of southern Estonia was available.

The investigation results of Rannu church show that archaeological monitoring can provide significant new information on church history even when (re)construction work is limited to the replacement of the floor with a new one.

ACKNOWLEDGEMENTS

The authors are grateful to Aleksandr Kotkin and Igor Tsakuhhin who assisted in metal detecting, to Monika Reppo who studied the glass finds, and to Miina Kuusemaa and Indrek Vaheäär from Puhja and Rannu congregations for their positive attitude towards archaeological investigations, which exceeded the volume required for floor replacement work.

REFERENCES

- Altoa, K. 1999.** Rannu Martini kirik. – Eesti arhitektuur, 4. Tartumaa, Jõgevamaa, Valgamaa, Võrumaa, Põlvamaa. Ed. by V. Raam. Tallinn, 87–88.
- Andresson, L. 1928.** Ajalooline traditsioon Rannu kihelkonnast. Kogunud 1928. aasta suvel Linda Andresson. EKLA f 200, m 9: 1. (*Manuscript based on church archives in EKM.*)
- Bronk Ramsey, C. 2009.** Bayesian analysis of radiocarbon dates. – Radiocarbon, 51: 1, 337–360.
- Bunge, F. A. von (ed.) 1857.** Protocoll der Catholischen Kirchenvisitation in Livland vom Jahre 1613. – Archiv für die Geschichte Liv-, Esth- und Curlands. Zweite, durch neue Artikel vermehrte Auflage, Bd. I. Reval, 23–77.
- Hagberg, L. 1937.** När döden gästar. Stockholm.
- Haljak, G. 2010.** Livonian Coins XIII–XVIII century. Part I: Feudal States. Livonian coins from XIII–XVI century. Tallinn.
- Hausmann, R. 1903.** Ausserkirchliche Begräbnisplätze im Estenlande in Christlicher Zeit. – Sb. GEG, 1902, 135–155.
- HCL =** Henriku Liivimaa kroonika. / Heinrici chronicon Livoniae. Ed. by E. Tarvel. Tallinn, 1982.
- Holmberg, K. 1995.** När kungens mynt blev allmogens mynt. En översikt över mynt, myntning och myntens roll i det svenska samhället under 1200-talet. – Numismatiska Meddelanden, XL, 63–82.
- Hyötyniemi, Y. 1987.** Gotländska mynt på 1200-talet – förslag till tolkning och datering. – Nordisk Numismatisk Unions Medlemsblad, 4, 78–87.
- Jonsson, K. 1990.** Den äldsta gotländska myntningen. – Medeltidsarkeologisk Tidskrift, 3, 42–53.
- Kadakas, V. 2017.** Archaeological studies in the church of Haljala. – AVE, 2016, 109–130.
- Kadakas, V., Tooming, K., Kiudsoo, M. & Kilumets, J. 2012.** Archaeological studies in Risti church and churchyard. – AVE, 2011, 175–188.
- Kiudsoo, M. 1999.** The coin hoard from Puriki, Setumaa. – AVE, 1998, 147–154.
- Kiudsoo, M. 2001.** Parivere teine aardeleid. – Studia numismatica, II. Festschrift Mihhail Nemirovitš-Dantšenko 80. Ed. by I. Leimus. Eesti Ajaloomuuseum. Töid ajaloo alalt, 3. Tallinn, 66–74.

- Kiudsoo, M. 2003.** Additions to the numismatic collections in 2002. – AVE, 2002, 221–226.
- Kiudsoo, M. 2004.** Täiendusi Varbola Jaanlinna müntide osas. – Linnusest ja linnast. Uurimusi Vilma Trummali auks. Ed. by A. Haak, E. Russow & A. Tvaari. MT, 14. Tartu–Tallinn, 77–93.
- Kiudsoo, M. 2007.** Eesti kesk- ja varauusaegsed aardeleiud. Vermingud ja nende ajaline ringlus. Unpublished MA-thesis. Tartu. (*Manuscript in TÜAK.*)
- Kiudsoo, M. 2011.** Harju-Risti kiriku mündileid. – Muinsuskaitse aastaraamat, 2010. Tallinn, 79–80.
- Kiudsoo, M. 2014.** Siksälä mündid ja ümbruskonna aardeleiud. – H. Valk, S. Laul. Siksälä kalme, I. Muistis ja ajalugu. Tartu, 278–294.
- Kiudsoo, M. 2019.** New rare Livonian coin finds from South-East Estonian chapel-sites. – Numismatics in the Centenary Year of the Baltic States. Ed. by I. Leimus. Numismatica Baltica II. Tallinn, 48–53.
- Kiudsoo, M. 2020.** En preliminär översikt över hopade myntfynd i kyrkor i Estland – Myntstudier 2020: 1, 1–17.
- Kiudsoo, M. & Tamla, Ü. 2006.** Utike aardeleid. – Etnos ja kultuur. Uurimusi Silvia Lauulu auks. Ed. by H. Valk. MT, 18. Tartu–Tallinn, 267–297.
- Lagerqvist, L. O. 1970.** Svenska mynt under vikingatid och medeltid (ca 995–1521) samt gotländska mynt (ca 1140–1565). Stockholm.
- Leimus, I. 2002.** Vom Münzgebrauch Livlands, insbesondere in Dorpat in der 2. Hälfte des 14. Jh. – The Medieval Town in the Baltic: Hanseatic History and Archaeology II. Ed. by R. Vissak, A. Mäesalu. Tartu, 127–132.
- Leimus, I. 2004a.** W-mønter fra Gotland – endnu en gang. – Nordisk Numismatisk Unions Medlemsblad, 2004: 2, 63–68.
- Leimus, I. 2004b.** Inflatsioon Eestis aastail 1000–1700 ehk kuidas veeringust sai peenraha. – Akadeemia, 5 (16), 1093–1111.
- Leimus, I., Kiudsoo, M. & Haljak, G. 2018.** Sestertsist sendini: 2000 aastat raha Eestis. Tallinn.
- Malve, M. 2020.** Rannu Püha Martini kirikust leitud luustiku ja segatud inimluude analüüs. (*Manuscript in TÜAK.*)
- Myrberg, N. 2012.** The hatched cross: Gotlandic coins of the 13th century Baltic Sea area. – Monetary History of the Baltics in the Middle-Ages (12–16th c.): International Symposium in Tallinn, 9–10 Dec. 2010. Ed. by I. Leimus. Varia historica, 6. Tallinn, 180–195.
- Piirits, P. 2004.** Arheoloogilised järelevalvetööd Puhja kiriku põrandapinna planeerimisel. (*Manuscript in MA.*)
- Roslavlev, O. 1965.** Das Dorpater Land 1624/27. Comp. by O. Roslavlev. *Hefte zur Landeskunde Estlands*, 1. München.
- Sarkkinen, H. 2001.** Einige neue Dorpater Vorreform- und Nachreformkleinmünzen. – Studia numismatica II. Festschrift Mihhail Nemirovitš-Dantšenko 80. Ed. by I. Leimus. Eesti Ajaloomuuseum. Töid ajaloo alalt, 3. Tallinn, 221–234.
- Valk, H. 1991.** Rettungsgrabungen auf dem Dorffriedhof Ervu. – TATÜ, 40: 4, 378–382.
- Valk, H. 2001.** Rural Cemeteries of Southern Estonia 1225–1800 AD. 2nd edition. *CCC Papers*, 3. Visby–Tartu.
- Valk, H. 2020.** Investigations in Helme: medieval chapel ruins, earlier timber shrine and churchyard. – AVE, 2019, 109–124.
- Valk, H. 2021.** Arheoloogia Rannu kirikus: keskaegsed raidkivid ja altarivundamendid. – Tutulus, 2020, 62.
- Valk, H., Kama, P., Rammo, R., Malve, M. & Kiudsoo, M. 2013.** The Iron Age and 13th–18th century cemetery and chapel site of Nikluskmägi: grave looting and archaeology. – AVE, 2012, 109–132.
- Valk, H. & Laul, S. 2014.** Siksälä kalme, I. Muistis ja ajalugu. Tartu.
- Valk, H., Kivirüüt, A., Rammo, R., Ots, M. & Ratas, J. 2018.** Archaeological investigations on Ala-Kõrtsi cemetery in Urvaste parish centre in Võrumaa. – AVE, 2017, 97–110.
- Valk, H. & Kiudsoo, M. 2020.** Finds from Nõo churchyard and its vicinity: material evidence of Medieval and Early Modern church fairs. – AVE, 2019, 125–146.
- Viljus, A. 2010.** Kirstukaunistused von Münnichite perekonna hauakambri Tartu Jaani kirikus. – Ilusad asjad. Tähelepanuväärseid leide Eesti arheoloogiakogudest. Comp. and ed. by Ü. Tamla. MT, 21. Tallinn, 321–340.

ARHEOLOOGLINE JÄRELEVALVE KESKAEGSES RANNU KIRIKUS: EHITUSJÄÄNUSED JA MÜNDILEIUD

Heiki Valk ja Mauri Kiudsoo

2020. ja 2021. aastal toimusid Rannu kirikus (jn 1) sees põrandavahetusega arheoloogilised järelevalvetööd (jn 2, 3). Uue põrandapinna panekuks tuli eemaldada vammiga saastunud pinnas põrandatasemest kuni 30–40 cm sügavuseni. Metallidetektoriga vaadati läbi nii eemaldatav pinnas kui ka detektori tööulatuse jäävad sügavamad ladestused. Kooriruumis kaevati

altarist ja altarivõrest põhja ja lõuna pool põrandatasandist 50–60 cm sügavusele ning tehti u 1,5 × 1,9 m mõõtmetega šurfid ruumi kirde- ja kagunurka altari ja seinte vahele. Pärast altarivõre eemaldamist rajati 3 × 2 m kaevand ka 1876. aastal ehitatud altari ette. Põrandavahetuseks vajalikust sügavusest madalemale mindi veel põhjalöövis, võidukaare põhjaserva

joonest põhja pool, kus kaevati samuti pörandast 50–60 cm sügavusele või mõrdist aluspörandate jää-nuste ilmumiseni. Pikihoonesse, peamiselt põhja-löövi tehti kümme šurfi, et leida haudadest segamata pinnaseladestusi ja uurida kiriku vundamenti.

Lõunalöövis avastati 2020. aastal, et rõdu kandepostid toetuvad pöranda all olevatele keskaegsete lubjakivist piilarite detailidele (jn 4). Idapoolse posti all oli kaheksatahuline 70 cm läbimõõduga piilariplokk, teiste peal ümarad piilaribaasid (lm 85 ja 90 cm). Iga piilariosa all tuli omakorda nähtavale nelinurkne kividest vundament. Idapoolne (jn 5) ja keskmine vundament olid mõrdiga seotud maakividest ning kuulusid keskaegsetele kõrvalaltaritele, kusjuures esimese ehitamisega oli lõhutatud vanema mehe luustiku vasaku õla piirkonda. Maetu rinnal olnud 1441.–1459. aasta vahemikust pärinev münt näitab, et altar ei saa olla varasem 1470. aastatest. Kuigi läänepoolseimat, pehme liivase mõrdiga seotud kividest vundamenti peeti algul samuti altaripõhjaks, selgus 2021. aastal, et sama „käekirjaga“ on ehitatud ka Põhjasõja-järgse orelirõdu nelinurkse kivist kandeposti ja läänerrõdu põhjapoolseima tugiposti vundament. Ka viimase peal oli kaheksatahulise piilari detail – samasugune nagu lõunalöövis. Lõunalöövi piilaridetailid eksponeeriti kirikus ning idapoolse altarivundamenti nägemiseks jäeti pörandasse klaasiga kaetud vaateava.

Kooris leidus pealmistes pinnasekihtides arvukalt keskaegseid väikemünste, mis tõenäoliselt pärinevad altarivundamenti kaevamisel teisaldatud pinnasest. Lõunaseina ääres tulid 35–40 cm sügavusel nähtavale lammutusruhu kihil olnud õhukese savist pöranda või aluspöranda jäänused.

Koori kirde- ja kagunurgas ilmnes, et keskaegse kiriku vundamendil on kaks soklit – ülemine praegusest pörandast u 40 cm, alumine 90 cm sügavusel. Mõlemas šurfis paljandus alumisest soklist u 20 cm madalamal silutud, kuid ebahütlase kõrgusega mõrdikiht – ilmselt aluspörand, mida osalt oli lõhutatud hilisemate haudade kaevamisel. Kagupoolse šurfi kirdenurka kaevatud prooviaugust ilmnes, et koori vundamenti põhi on pörandast u 1,6 m sügavusel. Segatud pinnast edasi kaevates leiti pörandast u 2,1 m sügavuselt vundamenti alt imikuluustiku jäänused.

Altari esise kaevandi (jn 6) põhjapoolsest servast avastati mulla- ja rusukihist 3,5–5,5 aasta vanuse, peaga ida poole maetud lapse luustik, mille juures oli kolm münti, neist kaks hilisemat 1610. aastatest. Kaevandi keskosa oli haudadega segatud, kuid lõuna pool oli säilinud segamata pinnast. Siin paljandus rusukihhi ja pealmise segatud mulla kivi all mõrdi ja tambitud mulla segune pörandatsoon, mida katnud õhukesest põlengukihist võetud radiosüsiniku-

proov andis kalibreeritud tulemuseks 1222–1284 pKr. Pöranda all oli 35–40 cm paksune veidi mullase peene kruusa lade, mis ei sisaldanud mingeid leide. Selle all oli säilinud algse loodusliku mullakihi alaosa, millele järgnes puutumata looduslik kruus. Võimalik, et altari ees ja koori nurkades avastatud pörandatsoonid seostuvad kivikiriku vanima, alumise sokliga seotud ehitusjärguga – seda vaatamata asjaolule, et altari ees paljandus aluspörand ligi 20 cm kõrgemal kui koori kagunurgas.

Pikihoone keskosas tulid pörandast 30–40 cm sügavusel nähtavale kahe keskaegse piilari nelinurksed, mõrdiga seotud maakividest vundamendid (1,38 × 1,4 m ja 1,33 × 1,5 m) (jn 2, 7). Põhjapoolse piilariga liitus samaaegse mõrtpöranda serv. Kesklöövi põhjaservast leiti 38 cm läbimõõduga vertikaalse, liivaga ümbritsetud puitposti jäänused, mille välistest aastaringidest võetud radiosüsinikuproov andis kalibreeritud tulemuseks ajavahemikud 1675–1744 (26.6%), 1750–1765 (3.4%) või 1799–1942 pKr. Tõenäoliselt on tegemist kas 1695. aasta katusevahetuse aegset või Põhjasõja järgset lage kandnud tugipostiga.

Põhjalöövis järgnes vammiga saastunud liivale segatud, inimluid ja münte sisaldav muld, mille all tuli hilisemate haudadega segamata piirkonnast kuni 1–2 m läbimõõduga alalt nähtavale rohkelt 14. sajandi lõpukolmandiku münte sisaldav põlengukiht. Sõepurust võetud radiosüsinikuproov andis võimalikeks ajavahemikeks 1306–1364 (57,7%) või 1385–1424 (37,7%) pKr.

Põhjalöövi idaotsas avastati nelinurkse, vähemalt 1,7 × 1,2 m mõõtmetega kõrvalaltari jäänused (jn 8): selle kaks osaliselt säilinud alumist kivirida olid tehtud 7,5 cm paksustest tellistest. Altari ja sellega külgneva savipöranda all olevast rusukihist leitud münt (1568–1592) näitab, et altar pärineb Poola ajast. Kuna altar asus pikihoone idaseinas olevast nišist vaid u 0,5 m kaugusel, võiks samas kohas olla paiknenud ka keskaegne altar.

Segatud mulla alt leiti kokku 17 eri sügavusel paiknevat ja eri suuruses säilinud mõrtpörandalaiku (jn 7), mille paksus varieerus 3–4 ja 30 sentimeetri vahel. Laikude kuju ja suurus ning mõrdi koostis vaheldusid tugevasti. Mõrdialade pealispind oli enamasti maha kaevatud, osalt aga ka horisontaalsena ja silutuna säilinud. Kuna põhjaportaali ees oli mõrdialakudel säilinud saviga silutud pehmet pealispinda, on ilmselt tegemist olnud pörandalaage kandud ja neid mullast eraldanud aluspörandatega, mitte päris kirikupörandaga. Pörandamõrdi kihti on aegade jooksul haudade kaevamisega korduvalt lõhutatud – seda näitasid läbi mõrdi kaevatud haualaikude kontuurid ja kohati mõrdi sees leiduvad mõne sentimeetri paksused mullast vahekihid. Mõrdi koostise varieeruvus

ja erinevad pinnatasandid kinnitavad, et aluspõrandat on aegade vältel korduvalt lapitud. Aluspõranda jäänuseid leidis ka müntidega põlengukihki all. Mõnes šurfris oli söekihi all kollast liiva, mida on samuti kasutatud laagide mullast isoleerimiseks.

Kiriku koori lõunaküljel asub 1835. aastal ehitatud ruum, mida kasutati surnute hoidmiseks enne matmist. Praegu luukambriks kutsutava ruumi põranda ülesvõtmisel ilmselt, et selle all on tellispõrand (jn 9), mille lääneosas asuv 48×59 cm mõõtmetega avaus viib u 3×2 m mõõtmetega ja silindervõlviga keldri ruumi. Osalt mullaga täidetud keldri maksimaalne kõrgus võlvi keskel oli u 1 m, võlvi servades aga vaid 20–30 cm. 1717. aasta kirikuvisiitatsiooni teatel olnud Rannu ja Valguta mõisnike ning kirikuõpetaja matusepaigad kooris, Tamme mõisa matusepaik aga “müüritud”. Kuna koorist hauakasti seinu nähtavale ei tulnud, võiks kelder endast kujutada Tamme mõisa mõisnike hauakambrit. Oletust toetab asjaolu, et luukambri tellispõrandalt leiti pronksplekist ehispaldid, mis võib stiilitunnuste põhjal pärineda rokokooajastust, s.t 1750.–1760. aastatest ja kujutab endast kirstu kaunistust (jn 10). Luukambri põranda lääneotsa oli parandatud pseudogooti ajastu profiiltellistega.

Pikihoonesse tehtud šurfides tõdeti praegusest põrandast 0,7–1,4 m sügavusel kokku 9 matuse olemasolu. Surnud olid maetud piki kirikut ja peaga lääne poole. Šurfis 7 oli kaks osaliselt säilinud luustikku. Neist ühe kurgu all oli rõngassõlg (jn 11: 14), teise ja hilisema juures aga hoburaudsõlg (jn 11: 11). Saastunud liiva all olev muld sisaldas rohkesti segatud inimluid, kuid valdavalt oli tegemist väikeste luude ja luutükkidega. Ilmselt on haudade kaevamisel leitud suuremad luud kuhugi teisaldatud. Neid ja koljusid leidis rohkesti vaid altari ees ja põhjaportaali läheduses.

Segatud pinnasest saadi sõelumisel mitmeid üksikleide, peamiselt ehteid ja rõivamanuseid (jn 11–14), kuid uuritud ala kohta oli neid võrdlemisi vähe. Varaseimad leiud – “vuntsidega” laiakilbiline sõrmus, härjasilmaornamendiga ristripats, kaks laia käevõru katket ja pakseneva esiosaga sõrmus (jn 12: 1–4) pärinevad 13. sajandi teisest või kolmandast veerandist. 13.–14. sajandisse kuuluvad kaks kitsakaarelise rõngassõle katket (jn 14: 8, 9) ja seenenuppotstega läänebalti hoburaudsõlg (jn 11: 6). Keskajast pärinevad veel viis rombikujulise keskosaga ristripatsid (jn 11: 1–5), mõned naastud (jn 11: 10; jn 13: 7, 14, 15, 21, 23), sõrmused (jn 14: 2, 3) ja hõbedast ümarripats (jn 11: 9). Saadi ka 15. sajandi II poole ja 17. sajandi alguse vahemikku kuuluvaid, samuti varauusaegseid üksikleide. Mõned leiud, sh hõbedast rõngassõlgede katked (jn 13: 4–6), neist üks kullatud, seostuvad sakslastest ülemkihiga. Tööriistu ja tarbeasju oli väga

vähe – vaid üks noakatke ja nuga, võimalik, et 13. sajandist (jn 12: 5) ning kaks nõela (jn 13: 25).

Segatud mullast leiti rohkesti aknaklaasitükke, millest osa pärineb tinaraamides olnud klaasidest. Leidis kolmnurkse, rombi- ja ruudukujulise ning ovaalse või ümara kujuga aknaklaaside kilde, kusjuures üks helesinine kild ja kaks punast klaasitükki viitavad värvilistele vitraažidele. Vähemalt viiel killul oli maalingute jälgi (rõivavoldid, taimeväädid), kolmele aga oli graveeritud sulgesid või lehti. Vitraažikilde leiti nii koorist kui ka pikihoone akende piirkonnast.

Kuna taaskasutuseks sobivad kivid olid rusudest välja korjatud, leidis suuremaid profiiltelliste ja katusekivide tükke vähe. Profiiltelliste tükid (jn 15) pärinevad võlviroietest ja akende vahepostidest. Segatud pinnases oli hajusalt ka muinasaja lõpust või keskaja algusest pärit savinõukilde (jn 16: 1–7), kuid nende algupära jääb ebaselgeks. Veel väärivad märkimist oletatav paest hauaplaadi ja savist pühakukuju katke (jn 16: 8). Kirikust leiti ka rohkesti väikseid tugevalt sulanud, teadmata algupäraga vasesulamikänkraid.

Kõige arvukama leiurühma moodustavad ligikaudu 840 münti (Tabel), millest ligi 290 on põlenud. Kuna viimased olid tihti tükkideks murenenud, jääb müntide koguarv ligikaudseks ning osad rahad pole määratavad. Umbes 630 keskaegsest mündist pärineb enamasti 1420. aastate rahareformi eelsest ja vaid 91 hilisemat ajast. Vanimad mündid on löödud 13. sajandil Ojamaal. Sellesse aega kuuluvad ka malta ristiga brakteaat (jn 17) ja Tallinnas vermitud Taani brakteaat kroonitud pea kujutisega. 1260.–1330. aastate vahemikku jäävad 8 Taani Tallinna penni ja 33 Tartu penni. Leiti ka kaks Eestis väga haruldast Ojamaa W-brakteaati (jn 18) ning kümme vendilinnade penni. 1360. ja 1420. aastate vahel vermitud müntidest moodustavad enamuse Tartu piiskoppide pennid, sh vähemalt 240 nn Damerowi brakteaati, mis tegelikult võivad pärineda kolme piiskopi valitsusajast, sealhulgas ka 15. sajandi algusest (jn 19). Veel sisaldab leiukogum 32 Tartu lübischet, 11 Liivimaa ordu Tallinna lübischet ja 7 Tallinna seestlingit.

Enamik 14. sajandi lõpukolmandiku – 15. sajandi alguse müntidest (ligi 300) on põlenud (jn 20) ja pärineb ilmselt tulle jäänud rahalaekast. Liivimaa rahareformi järgse aja müntidest väärivad esile toomist mõned šerfid, sh 4 neist kuueharulise tähe kujutisega (jn 21).

Liivimaa sõja ajal vermitud müntide arv on sedavõrd väike (19), et näib viitavat rahade kirikusse toomise katkemisele. Selleaegseid verminguid võis kirikusse jõuda ka hiljem. Müntide hulk kasvab järsult Rootsi ajal, alates 1630.–40. aastatest, kuid vähe- neb järsult 18. sajandil, eriti alates selle keskpäigast.

Hiliseim raha pärineb aastast 1866. Rannu kirikust saadud mündileidude kogum on Eestis suurusel teine Harju-Risti järel. Tegemist on seni ainsa mündileidude kogumiga Lõuna-Eesti maakirikutest.

Leiud Rannu kirikust viitavad kihelkonnakalmistu rajamisele varsti pärast Ugandi ristimist 1215. aastal. Kuigi kaevamistel ei leitud algse puukiriku jäänu-seid, näitab põhjalöövis olnud põlengukihist saadud radiosüsinikudateering võimalike ajavahemikega 1045–1086 (20,0%), 1092–1105 (2,1%) või 1120–1225 pKr (73,3%) vallutuseelsest ajast pärit puidu kasutamist mingis kiriku varases ehitusjärgus 13. sajandil. Enam kui 2 m sügavuselt koori vundamendi alt leitud lapsematus ja altaripiirkonna šurfides ilmnenud kruusast täitekiht viitavad sellele, et algselt paiknes kalmistu lohukohas, mis kivikiriku ehitamise ajal täideti peene kruusaga. 13. sajandi leidude vähesus võib tuleneda asjaolust, et pärast täitepinnase toomist jäid sügaval asuvad varasemad matused hilisemate haudade kaevamisel enamasti segamata. Pole teada, kas kirikule eelnes muinaskalme, kuid kihelkonnakiriku ja kalmistu rajamine lohukohta viitab sellele, et paigal pidi olema eriline tähendus juba vallutuseelsel ajal.

Keskaegsel kivikirikul on olnud kolm ehitusjärku, millest esimene seostub alumise, kaks viimast aga ülemise sokliga. Ülemise sokli aegse põrandataseme puhul (u 45 cm praegusest madalamal) võib eristada

1400. aasta paiku või pisut hiljem toimunud suure põlengu eelset ja järgset ehitusjärku. Enne põlengut on kirik või vähemalt pikihoone olnud võlvimata, kuid klaasakendega ja mõrdist aluspõrandatega, mida on tehtud ja parandatud kuni 17. sajandini. Pärast tulekahju sai kirik võlvid ja praeguseni jälgitava üldkuju. Lõunalöövi kõrvalaltarid pärinevad 15. sajandi lõpuveerandist ja Liivimaa sõja alguse vahelisest ajast. Keskaegsel kirikul olid vähemalt alates 14. sajandi lõpuveerandist tinaraamidega klaasaknad, kus leitud ka vitraaže. Liivimaa sõja ajal varemeisse jäänud kirikut on Poola aja alguses taastatud ning siis ehitati põhjalöövi idaotsa uus kõrvalaltar, kuid Rootsi–Poola sõjas jäi kirik taas täiesti varemetesse.

Rannu kirikusse on maetud nii sakslasi kui ka eestlasi. Kuna 1804. aasta kirikuvisiitatsiooni kohaselt oli kogu kihelkonna peale vaid 25 sakslast, peab arvukate kirikusse maetute seas olema ka rohkesti talupoegi – neile viitavad külakalmistutele iseloomulikud ehteleiud. Siiski osundab eestipäraste ehete ja eriti nugade väike hulk sellele, et eestlaste matmistavad kirikus olid mõneti teistsugused kui külakalmistutel.

Rannu kirik kujutab endast ainsat ulatuslikult uuritud sisemusega Lõuna-Eesti maakirikut. Kaevamistulemused näitavad, et ka vaid põrandavahetusega seotud järelevalvetööde raames võib saada rohkelt uut teavet kiriku ajaloo kohta.