Kodavere medieval cemetery – a parish churchyard?

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INTRODUCTION AND LOCATION
In April 2017 an archaeological survey took place in the historical parish centre of Kodavere, presently in Peipsiääre municipality, Jõgeva County (Fig. 1) in connection with the reconstruction of Aovere–Kallaste–Omedu road and building of the light traffic track. During the work, some in situ burials (Roog et al. 2017, 3) were discovered in the area protected as a part of Kodavere settlement site (Reg. No. 9257). Rescue excavations supervised by Martin Malve followed in an area of ca. 30 × 4 m in from April to June (Malve & Juus 2018). The research was completed in April 2018 with metal detector survey of soil removed from the cemetery area. Commingled bone fragments displaced from their original location by the bulldozer were found up to ca. 115 m towards the north from the end of the trench. The detector survey was performed by Aleksandr Kotkin and Igor Tsakuhhin from history club ‘Kamerad’.

Authors have contributed to the article as follows: H. Valk – the finds, discussion, chronological framework and broader context, M. Malve – human remains, M.-A. Liblik – dental disease, M. Malve and T. Juus – excavation and burials; T. Jonuks – contributions regarding primary monitoring.

BURIALS
Human bones have been found on the cemetery site already in the past. In 2004, the owner of adjacent Soonetsi farm had found four skulls, which were all left in the ground. During the fieldwork in 2017 an area (approx. 5 × 1 m) with reburied bones and some finds from destroyed
graves was discovered. These commingled bones most likely originate from burials destroyed by earlier road constructions.

During the fieldwork 76 *in situ* burials were documented, 69 of which were unearthed. All opened burials were single graves. Some skeletons were poorly preserved due to their location in natural loamy sand (Fig. 2). The burial density was quite high: several graves were damaged by later burials (Fig. 3).

All burials, where the position of the skeleton could be determined, were in a supine-extended position. Most of them, 63 skeletons, were east-west aligned, heading to the west. Exceptionally, burials no 8 (sex unknown, adult) and 45 (male, 40+ years) were oriented in the opposite direction.

Wood from the coffin had preserved only in case of two burials (nos 41 and 44); coffin nails were not found, but one nail (TÜ 2666: 216) occurred in the commingled material. In addition to two certain coffin burials, three more can be suggested (nos 7, 9 and 22), judging by the position of the bones in the grave. Since most of the skeletons were very poorly or only partially preserved, the presence of a coffin remained unclear.

The position of hands¹ could be observed in 18 cases: they were mostly placed on the body. The most common position was one hand at a right angle across the abdomen and the other diagonally across the chest (seven burials). The following positions were also noted: 1) both hands diagonally across the chest (two burials), 2) one hand at a right angle across the abdomen and the other diagonally across the pelvis (two burials), 3) both hands at a right angle across the abdomen (two burials), and 4) both hands diagonally across the pelvis (two burials).

An east-west aligned stone structure with no binding agent was found crossing the trench ca. 20 m north from the northernmost inhumations. The structure consisted of two layers – smaller rocks of 25/30–45/50 cm were arranged in two lines for the foundation and large boulders of ca. 100 cm diameter formed the main construction (Fig. 4). As no burials were found north from the construction it could represent an enclosure of the cemetery.

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¹ Determining the position of hands is based on schematics by H. Valk (2001, 69, fig. 53).
HUMAN REMAINS

All 69 individual articulated skeletons were osteologically analysed\(^2\) (Malve & Liblik 2018), whereby also highly fragmented ones and those with undetermined sex and age were included in the statistics. None of the skeletons were fully excavated, all had been damaged by later burials or during earthworks, or remained partially out of the excavation area. Also, most of the skeletons were rather poorly preserved due to moistness and acidity of soil. The bones were in poor condition often with eroded and disintegrated surfaces.

The analysed skeletons from Kodavere churchyard included 51 adults (73.9\%) and 18 subadults (26.1\%). The small proportion of infant and toddler burials is most likely due to the poor preservation of bones; the proportion of child burials is usually much higher in medieval and early modern cemeteries. 20 of the adults were males (including two possible males) and 16 were females (including one possible female). The ratio of male-to-female burials is characteristic of cemeteries of the period. In the case of 15 adults it was not possible to determine the sex since the skeletons were highly fragmented. Most adults were between 17/18 and 50 years of age at the time of death. 12 327 commingled and fragmented bones, most of them (12 046) discovered in the pit of the reburied bones, were found during the excavation. Based on the number of right femora, the minimum number of individuals was 102 in the commingled material. Stature could be estimated only for seven men and two women from the site. Mean stature of men was 169.9 cm.

As usual for medieval and early modern cemeteries, the most frequently encountered expression of pathology was osteoarthrosis of limb joints and of the spine. The pathology was identified in the extremities’ joints of 15 burials: ten males, two females, and three adults with undetermined sex. All individuals were over 40 years old. A probable case of diffuse idiopathic hyperostosis (DISH) was found in burial no 61 – a male aged over 50. The disease predominantly affects males over this age who are obese and living on a calorie-rich diet or can be linked to late-onset diabetes (Jankauskas 2003, 290). Schmorl’s nodes were identified in the case of nine individuals – six men in the age range 17–50+ years and three women of

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\(^2\) The sex of the deceased was determined according to the morphological traits of pelvis and skull bones (Buikstra & Ubelaker 1994, 16–20) and the maximum length of the long bones (Garmus & Jankauskas 1993, 5–23) and tarsal bones (Garmus 1996, 28). The age at death of adults was derived according to the changes in wearing of the teeth (Brothwell 1981, 72), pubic symphyseal face (Todd 1920; Todd 1921; Brooks & Suchey 1990) and wearing of the limb joints caused by ageing (Ubelaker 1989, 84–87), as well as the size and development of the bones (Schaefer et al. 2009). The age of subadults was determined according to the development and eruption of the teeth (Ubelaker 1989, 64), the maximum length of the long bones (Allmäe 1998, 183–184) and the epiphyseal fusion (Schaefer et al. 2009). The sex of the subadults was not determined because clear traits develop only in the final stage of puberty (Buikstra & Ubelaker 1994, 16). Significant pathologies were also specified (Urtner & Putschar 1985; Roberts & Manchester 2012). Stature of the adults were calculated after the length of the long bones (Trotter 1970, 71–83).
18–35 years. Typically, they were more common in males than in females. This pathology is caused by stress, trauma or strain during adolescence or early adult life (Weiss 2015, 75–77). A young female (burial no 43) had the separation of the neural arch of a fifth lumbar vertebra, probably, of congenital in origin. Non-union of the acromial process (os acromiale) also has genetical reasons, but specific habitual activities prevent fusion (Stirland 2000, 122). Unfused os acromiale was found in one male (no 65) and one female (no 22) skeleton. Healed fractures were seen on four skeletons: three males and one female, whereby there was a healed fracture of the left clavicle (burial no 50; Fig. 5). All other were well healed fractures of the shaft of the ribs. A male skeleton (no 61) had altogether seven healed fractures in V–XI ribs. Porosity in the roof of the orbits (cribra orbitalia) was documented in a subadult skeleton (no 25). Cribra orbitalia is not connected to a certain disease, but is a description of a symptom. There were three cases of non-specific osteitis in femora, tibiae and fibulae (burials nos 59, 63 and 66). Beside osteitis three cases of periostitis, all in male skeletons (burials nos 27, 45 and 47) and involving tibiae were also documented.

One burial of a 25- to 35-year-old female (no 9) clearly differed from the rest: on the left side of the skull there was a penetrating cut wound (Fig. 6). The long, straight, and narrow, V-shaped cut with straight edges was of the same colour as the rest of the bone which indicates a peri-mortem injury. It started on the parietal above the ear, extended across the zygomatic process of the frontal bone, and reached the body of the zygomatic bone. This kind of injury is caused by a thin-bladed weapon, e.g. a sword. The location of the wound on the left side indicates a right-handed attacker facing the victim. Most sharp force injuries are found on male skeletons; females present with these injuries very rarely. Previously, two female skeletons with sharp force injuries were found in the multiple grave at Vastseliina (Malve et al. 2018, 123). Beside sharp force trauma, the described pathologies are very characteristic of a peacetime cemetery.

Disturbed soil contained also several fragments of cremated bones, 600 g in total, mostly dark grey, but also brown and black grey in colour.
**Dental diseases**

The burials were also studied for dental pathologies: dental calculus (Brothwell 1981, 155, fig. 6.14: B), dental caries, dental enamel hypoplasia (DEH; vertical and horizontal grooves, and pits; Guatelli-Steinberg & Lukacs 1999), periapical lesions, alveolar reduction (Brothwell 1981, 155, fig. 6.14: A), and ante-mortem tooth loss (AMTL; Roberts & Manchester 2012, 74).

Of the 69 unearthed in situ skeletons, 26 had teeth and/or dental sockets preserved. 458 erupted and preserved teeth of which 49 were deciduous and 409 permanent, were examined. In addition, 16 teeth had been lost ante-mortem and 58 teeth lost post-mortem. Altogether information on 490 erupted and 50 unerupted teeth was available. In case of four 3rd molars and two 2nd molars it was not possible to determine if the teeth had been present due to the fragmentary state of the alveolar bones.

20 burials (76.9%) had at least one dental pathology. The most common was dental calculus (73.1%), followed by DEH (61.5%), dental caries (42.3%), periapical lesions (19.2%), alveolar reduction (19.2%), and AMTL (15.4%). Six burials with teeth presented without dental pathologies: burials nos 19, 20, 33, and 58 had only one (erupted) tooth each, and the deceased in burial no 42 was 24 to 32 months old at death.

The high prevalence of dental calculus is very common in medieval and early modern cemeteries: 88.9% at Vastseliina cemetery (Malve et al. 2018, 125), 75.7% at Tartu St Jacob’s cemetery (Liblik 2017, 27). Dental caries and DEH is usually found in half of the burials (53.1% at Vastseliina, 50.2% at St Jacob’s and 58% at Vastseliina, 41.8% at St Jacob’s accordingly). The comparatively low prevalence of periapical lesions (39.5% at Vastseliina, 36.3% at St Jacob’s), alveolar reduction (38.3% at Vastseliina, 33.9% at St Jacob’s), and AMTL (32.1% at Vastseliina, 31.5% at St Jacob’s) could be due to the age of the deceased as these are often age related dental diseases and more prevalent in older individuals (Salo 2005, 73; DeWitte 2012, 409; Fujita et al. 2013, 3): of the 20 burials with at least one pathology 14 were younger than 30 at the time of their death and only three were at least 40 years old.

**THE FINDS**

The find assemblage seems to be large enough to characterise the cemetery or, at least, the part damaged by construction work. Since most of the finds were gained from disturbed soil, the number of items from closed complexes is limited. These complexes (Table) provide, however, new information about the co-existence of different artefacts, especially in necklaces.

Brooches are represented by 13 whole or almost whole finds and five fragments. Among the five penannular brooches the typologically earliest item, with rolled ends and a fully twisted arch (Fig. 7: 2), is characteristic for the Latgallian areas in the 11th–13th centuries (LA 1974, 230, pl. 63: 2, 7, 9; pl. 66: 21). To the 13th century might belong also a massive brooch with its cast twisted arch and knob ends decorated with cross images typical for that period (Fig. 7: 1), although of somewhat degenerated shape. From the 13th–14th century might date a brooch with rolled ends and an arch of a rhomb-shaped section (Fig. 7: 4). There is also a brooch with rolled ends and a pseudo-twisted arch (Fig. 7: 3), maybe from the 16th century, and a small fragmented brooch with rolled ends (: 60) from grave no 12.

The find assemblage included 9 round flat brooches, either fully or fragmentarily preserved. Their earlier phase, with a narrow arch surrounded by the pin and dating mainly from the 13th–14th centuries has conventionally been called ‘Hanseatic brooches’. Among five such finds three have an inscription (Fig. 7: 5, 6, 8), including AVE MARIA. One pinless item (Fig. 7: 7) and a fragment (: 157) bear triangle ornamentation. Typologically close to the
‘Hanseatic brooches’ are similar brooches with four ‘ears’ which are represented by one item with the text AVE MARIA (Fig. 7: 12). A Gothic rosette-shaped brooch (Fig. 7: 10) dates from the late 14th or 15th century (Vaska 2017, 61).

Brooches with flat arch penetrated by the pin, Livonian derivates of the ‘Hanseatic brooches’, become common since the mid-15th century. A brooch decorated with ‘the sun’ and triple dots (Fig. 7: 11) dates from the late 15th and 16th centuries (Valk 2001, 46, pl. XIV: 3, XVI: 8; Vaska 2017, 82–83, fig. 53: 3, 58: 1). Four fragments (: 6, 29, 127, 202) originate from three simple

Table. Closed complexes from Kodavere medieval cemetery.
Tabel. Suletud kompleksid Kodavere keskaegselt kalmistult.
Compiled by Heiki Valk

<table>
<thead>
<tr>
<th>Burial No</th>
<th>Beads</th>
<th>Pendants</th>
<th>Buttons</th>
<th>Spiral tubes</th>
<th>Brooches, rings, bracelets</th>
<th>Other finds</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td>cross pendant with rhomb-shaped middle part (: 63)</td>
<td></td>
<td></td>
<td>penannular brooch (: 60), spiral ring (: 61), bracelet (: 64)</td>
<td>knife (: 62), coin from 1532–34 (: 65)</td>
<td>1530s – mid-16th century</td>
</tr>
<tr>
<td>21</td>
<td>624 seed beads (: 78) (incl. 7 green) (: 78d)</td>
<td>7 buttons (: 77)</td>
<td>18 spiral tubes (: 79)</td>
<td>knife (: 80)</td>
<td>13th–14th cc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>95 seed beads and 15 round beads (: 82)</td>
<td>fang pendant (: 81), flat rhomb-shaped pendant (: 83), flat round pendant (: 84)</td>
<td></td>
<td></td>
<td></td>
<td>13th–14th cc.</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
<td>buckle (: 24), belt ring (: 25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>278 seed beads and 9 round beads (: 88), 2 cowry shells (: 103)</td>
<td>4 buttons (: 91)</td>
<td>6 spiral tubes (: 102)</td>
<td>brooch with ‘ears’ (: 87)</td>
<td>13th–14th cc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>438 seed beads (: 98), 33 round beads (: 99; ca. 15 cowry shells (: 103)</td>
<td>3 buttons (: 100)</td>
<td>14 spiral tubes</td>
<td>2 spiral rings (: 94, 95), shielded ring (: 96), bracelet (: 97)</td>
<td>13th–14th cc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td></td>
<td>2 bells (: 109, 114), 2 round sheet pendants (: 111, 112), 4 16th–17th cc. counting penny pendants (: 113, 115, 117, 118) button (: 123)</td>
<td>2 spiral rings with twisted middle coil (110, 119)</td>
<td>needle sheath (: 121), knife (: 120), D-shaped iron buckle (: 122)</td>
<td>16th c.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td></td>
<td>breast pins (: 137, 138)</td>
<td></td>
<td></td>
<td></td>
<td>1st half of 13th c.</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>663 seed beads (: 168), curved beads (: 166), round bead (: 164)</td>
<td>some spiral tubes (: 167)</td>
<td>bracelet (: 163)</td>
<td>link from bronze chain (: 165)</td>
<td>13th–14th cc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td></td>
<td>spiral tubes (15) (: 175)</td>
<td></td>
<td>iron buckle (: 176)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block (: 43)</td>
<td>11 round beads on a cord (: 43/4)</td>
<td></td>
<td>2 shield-shaped rings (one with spiral tubes) and a spiral ring (: 43/1–3)</td>
<td>purse with 26 coins (: 42)</td>
<td>ca. 1375</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
brooches, probably, local-made, judging by poor and negligent elaboration. A local imitation of flat brooches was made of iron (Fig. 7: 13).

One round bronze brooch with a narrow arch of round section (Fig. 7: 9), covered by well-preserved patina is a medieval type and might date from the 13th or 14th century. An item of similar shape, made of iron (: 38) has functioned either as a brooch or a belt buckle.

Among the 20 finger rings the most common types are ten spiral and five closed rings. From the spiral rings, seven have a twisted middle coil whereby two of them were attached to each other (Fig. 8: 1). Such rings may date from the late 14th to the 17th century (Valk 1991, 186). Six of them (Fig. 8: 1, 2 and : 110, 119, 134, 135) bear a wave ornamentation which might indicate their pre-mid-15th century origin, but two of those were found from grave no 30, dating from the 16th century. The seventh spiral ring with a twisted middle coil (: 61) is a degenerated and unornamented item and, probably, of later origin. Two spiral rings (: 203, 204), both from grave no 30, have a middle coil of convex section (Fig. 8: 3) and one (Fig. 8: 4) was made of evenly ribbon-shaped bronze band. Such rings usually originate from the mid-13th until the mid-15th century (Valk 1991, 185–186). A rare find for the medieval period is a spiral ring made of wire or round section (: 43/ 3) – a form characteristic of the Final Iron Age.
From five closed rings three (Fig. 8: 8, 9 and : 31) have parallel grooves at the edges which indicate their origin from the mid-13th to the mid-15th centuries (Valk 1991, 189–190), and two, both stray finds, have no ornamentation (Fig. 8: 7 and : 158). One ring with open ends (: 124) had a thickening middle part. A fragment of a ring with broadening front part with a pseudo-twisted middle coil (Fig. 8: 10) must specially be noted, since it seems to bear traces of fire and indicate post-conquest cremation practice. Such rings date from the mid-13th–14th centuries and are not known from pre-crusade contexts. There are also two rings with a semibroad shield (Fig. 8: 5 and : 43/2) which were found together with an assemblage of coins, buried around 1375 (see below), and a ring with broad shield (: 96) from the 13th or 14th centuries (Valk & Laul 2014, 118).

Necklaces of different composition (see Table) have been found in seven cases (burials nos 21, 23, 25, 30, 38, 60 and a block (: 43) from a disturbed burial) whereby five of them contained numerous seed beads. In addition, two seed beads were on the right side of burial no 55 and one at the toe bones of burial no 46. Most of the seed beads were yellow\(^3\) (2098 items in total), but in grave no 21 there were also seven green items (: 78d). Thereby, the number of yellow seed beads was 667 in grave no 60, 617 in grave no 21, 278 in grave no 25 and 436 in grave no 30. The necklaces of burials nos 23, 25 and 30, and the block without context (: 43) contained also the total of 68 round glass beads, in unconserved state of grey or black colour, and in grave no 60 there were fragments of some blue curved beads (: 166). The latter do not occur in medieval village cemeteries of southern Estonia, but in Novgorod they have been found from layers which were dendro-dated between ca. 1177 and 1382 (Lesman 1984, table 1). Cowry shells were found in two necklaces – two finds in grave no 25 and fragments of ca. 10–15 items in grave no 30. The necklace of burial no 38 included bells, round sheet pendants and counting penny pendants, but no beads. The reason for the lack of beads was probably their late origin, the 16th century. A fragmentarily preserved necklace from the block (: 43/4) contained round beads and bronze spiral tubes.

The pendants, mainly gained as stray finds, include 25 bronze and two fang pendants. The 15 cross pendants with rhombus-shaped central part (Fig. 9: 1, 2) represent a type common in Livonia in the late 14th and 15th centuries (Mugurēvičs 1974, 228, 229, fig. 2: 22; Valk 2001, 52, pl. XX: 11; Muižnieks 2015, fig. 93: 16); there are also four flat round pendants of thin bronze sheet with pressed dots of bigger (Fig. 9: 3, 4; and : 84, 112) and smaller sizes (Fig. 9: 12), and two flat rhombus-shaped pendants (Fig. 9: 5). Both of these find groups belong to the 13th–15th centuries. In addition, there are also fragments of three thin sheet pendants of unknown type.

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\(^3\) Estimations of colour are preliminary, based on unconserved finds.
Fang pendants (Fig. 9: 6, 7) from graves no 23 and 30 were made of pig fangs. The presence of fang pendants in medieval necklaces, even in two cases, must specially be outlined as pig fangs do not occur often as grave goods and tooth pendants in general are rare in Middle Age Estonian inhumations (see also Jonuks & Rannamäe 2018). All the 12 bells have four sheets, nine are of smaller (h=17–20 mm; fig. 9: 10), and three of bigger size (h=27–29 mm; fig. 9: 11). Among the cross pendants there are two probably 13th-century lattice crosses, a wholly preserved (Fig. 9: 13) and a fragmentary item (Fig. 10: 207), two small flat crosses (Fig. 9: 14, 15), and a Early Modern times’ Orthodox cross (Fig. 9: 16). Bronze spiral tubes of different sizes and shapes (Fig. 10: 1–4) occurred in necklaces together with seed beads in five graves (21, 25, 30, 60, 65) and their number was not large (18, 6, 14, 11 and 15, respectively). In addition, some bigger items (Fig. 10: 5, 6) originate from disturbed burials.

The find assemblage includes ten bracelets or their fragments. Bracelets with narrow rolled ends are represented by one fully preserved item and three fragments (Fig. 11: 1–4). Such bracelets are alien for Estonian village cemeteries, but occur in Novgorodian cultural layers between 1006–1369 AD (Lesman 1990, 44). One ribbon-shaped flat bracelet of even, 11 mm width has straight ends (Fig. 11: 9). Found together with a coin from the 1530s, it is the latest bracelet find known hitherto from Estonian rural cemeteries. Fragment of a ca. 5 cm wide bracelet (Fig. 11: 8) has no exact parallels from Estonia. Bracelets of such width are common in the northern part of eastern Latvia (Vaska 2017, 33–45) and Siksälä cemetery (Valk & Laul 2014, 115–116), and there are recent finds from Urvaste (see Valk et al. 2018, 103–104), but their ornamentation is different. The finds include also a cast 5 mm wide double convex bracelet with narrowing ends (Fig. 11: 5), and two fragments of 4 mm wide wire bracelets of triangular section, maybe from the same object (Fig. 11: 6). These bracelets originate, probably, from the Late Iron Age. A fragment of a Final Iron Age bracelet of segment-shaped

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*Identified by Eve Rannamäe (University of Tartu/York).
section (Fig. 11: 7) has been used as a ring – either as a finger ring or a ring attached to the belt.

The find assemblage from Kodavere includes some items typical for the final stage of the Iron Age. To that period belong also some finds which do not occur on ordinary medieval village cemeteries – two breast pins from grave no 41, one of them cross-headed, the other broken (Fig. 12: 1, 2), a leather knife sheath covered with ornamented bronze sheet (Fig. 12: 3), and some fragments of other similar sheaths.

A specific find group from Kodavere cemetery are hollow bronze buttons made of two halves and having a wire loop (Fig. 14: 1) – the total of 16 finds from graves nos 21, 25, 30 and 38 (7, 1, 3 and 1 finds, respectively), and four stray finds. Such buttons occur in Novgorod (Sedova 1981, 155), but they are most rare in medieval rural cemeteries of Estonia. A tiny lead item (Fig. 14: 2) also belongs to dress adornments and the finds also include a fragment of finely decorated lead object (Fig. 13).

Among the ten buckles, eight were made of iron and two of copper alloy. From the latter, one represents a type from the 15th–16th centuries (Fig. 15: 3); the other (Fig. 15: 7) is a unique item and it may not originate from the cemetery context. Among iron buckles there are three D-shaped items, two big and one small (Fig. 15: 5, 9), a slightly oval D-shaped find (Fig. 15: 10) and four rectangular buckles (Fig. 15: 1, 2, 4, 6) whereby the first of the rectangular buckles was in grave no 24 together with a small belt ring (Fig. 15: 15). In addition, four other belt rings of iron (Fig. 15: 11, 14) and two of bronze (Fig. 15: 12, 13) were found. Belt accessories also include a strap end (: 129) and maybe some supposed mount fragments.

The find assemblage contains eight knives or knife fragments (: 36, 40, 62, 69, 80, 120, 142, 153), four of them from burial contexts. The knives were located in one case on the
chest on arm bones, near the left hip, and between thigh bones. A bent sewing needle made of iron (76a) was found from the left elbow of burial no 20. The only key (Fig. 15: 17) was a stray find. Keys do not occur in typical Estonian medieval cemeteries, but are common on the Votic cemeteries of Tartu bishopric (Ligi & Valk 1993, 187). Among the finds there are also tweezers made of a finger ring (Fig. 14: 3), a needle-sheath of bone (Fig. 15: 8), a fragment of 13th-century ice nail (Fig. 15: 16), a thimble (49) which may also be of later origin and not belong to grave goods, and a heel iron (212).

During the excavations 52 coins were found. The oldest of them, probably related not to the cemetery, is a fragment of a Samanid dirhem from the 10th century (141). A most rare find was gained from disturbed soil. It consists of 26 coins (42/1–17) which originally stood in a ‘tower’ (Fig. 16) and were found in a block together with three rings and remains of a necklace – a few beads and bronze spiral tubes (43). The find which is the largest assemblage of coins from medieval cemeteries of Estonia, contained at least 14 pennies of Tartu bishop Johann I Vythhusen (1343–1373), 3 artigs of the Livonian Order, minted in Tallinn between ca. 1375 and 1385 (types: Haljak 2010, 77–78, nos 20–22), a Visby örtug (1340–80/90), and

\[\text{Fig. 15. Artefacts from Kodavere medieval cemetery. 1–7, 9, 10 – belt buckles, 8 – needle sheath, 11–15 – belt rings, 16 – ice nail, 17 – push key.}
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\[\text{(TÜ 2666: 85, 150, 32, 108, 122, 190, 161, 121, 75, 132, 39, 209, 5, 37, 86, 152, 54.)}
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\[\text{Photo / Foto: Heiki Valk}
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\[\text{5 Coins were identified by Mauri Kiudsoo (TLU AT).}\]
a 14th-century penny minted in Hamburg. A part of the ‘tower’ with coins firmly stuck to each other, with pennies of Vyffhusen from before 1373 on its top and in its bottom, was preserved intact and 7 coins, all of similar size, could not be determined. Judging by its contents, the purse was buried in or around 1375 (± 1 year). ⁶

Late 14th – early 15th century coins were represented by a lübische of the Livonian Order, minted in Tallinn, s.d. (1395–1420), and a Tartu bishop Dietrich Damerow type penny. To the 15th century belong pennies minted in Tallinn in the 1470s, and in Tartu by bishop Johannes II Bertkow (1473–85), to the late 15th – early 16th century – a Lithuanian penny of Grand Prince Alexander (1492–1506). Among the 16th century coins from the Livonian period (until 1561) five items were minted by the Livonian Order in Tallinn (a scherf from after 1515, three pennies and a schilling from 1532–1534), and three coins by the bishops of Tartu – two pennies of Christian Bomhower (1515–1518) and a penny of Johannes V Blankenfelt (1518–1527). To the medieval period belong also two fragments of Gustav Vasa 4 penny coins (1521–1560), to the period of the Livonian War (1558–1583) – a schilling of the Dukedom of Couronia (duke Gotthard Kettler) from 1577. From five Nuremberg 16th–17th century counting pennies, all used as pendants, four originate from one necklace (grave no 38). Only three coins date from the 17th century – a 1/4 öre from 1635, a 1/6 öre from 1673, a 1 öre from 1667 and a Moscow kopeck by czar Mikhail Fyodorovich from 1614. Most of the coins were gained as stray finds. In addition to the four counting pennies, only a Livonian Order Tallinn schilling (1532–1534) is from a burial context (grave no 12).

Three assemblages deserve special noting – graves nos 12 and 38, and the block (: 43). Bracelet from grave no 12, found together with the coin from 1532–1534, is the first bracelet from the 16th century graves in Estonia. The grave shows also the presence of extremely degenerated penannular brooches and simple forms of spiral rings with a twisted middle coil before the Livonian War (1558–1583) already, and the use of cross pendants with a rhomb-shaped middle part as late as in the 16th century. Noteworthy because of the long-term use of out-of-date jewellery is also grave no 38 with four Nuremberg 16th–17th century counting pennies in the necklace. Round small sheet pendants and small bells, both represented in the necklace with two items, as well as the hollow button from the same context, are jewellery items which generally went out of use by the mid-15th century already. Most likely, the counting pennies were later added to an old necklace inherited from generation to generation. The block (: 43) with 26 coins from around 1375 (Fig. 16), three rings and necklace remains shows the presence of simple, degenerated forms of shielded rings in the 1370s already, as well as the long-term use of spiral rings made of wire or round section – an artefact type characteristic of the Final Iron Age.

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⁶ Estimation by Mauri Kiudsoo.
KODAVERE CEMETERY – MEDIEVAL PARISH CHURCHYARD?

Although the finds from Kodavere seemed firstly to indicate an ordinary unknown village cemetery, the location of the site in the historical parish centre between the 19th-century parsonage, located ca. 80 m south-west and the present-day parish church ca. 200–250 m east-south-east of it (Fig. 1), rather refers to the medieval parish churchyard.

The presence of Kodavere parish (kerspel to Kotever) is noted in 1443 (LGU I, no 311). The medieval church was destroyed, probably, in the Livonian War. The Swedish land audit of 1624/27 tells that ‘times ago there has been a nice big church with 80 peasants’ (ist vor Zeitten eine schoene grosse Kirche gewest, wornach 80 pauer nach gehoerett) and that there stands only a small chapel rebuilt on that place (Itzt stehet nur eine kleine Cappelle daselbst uffgebawett) (Roslavlev 1965, 7). In 1638 the church of St Michael existed again (Roslavlev 1969, 229), being also noted around that time as a new wooden chapel (ELGR 1911, 258), but it was probably finally destroyed in the war between Russia and Sweden (1656–1661).

From the written data we know that a new church was built around 1671 in a new place and instead of that building which was, probably, burnt during the first years of the Great Northern War (1700–1721), a new wooden church was constructed before 1730 (ELGR 1911, 258). The present stone church dates from 1775–1777. Judging by the historical maps, also its two 17th–18th-century wooden predecessors were located in its immediate vicinity, 300 m east of the parsonage and ca. 200–250 m east of the investigated cemetery. The church, built around 1671 and destroyed in the Great Northern War, is depicted on the Swedish map from 1684 (Fig. 17). The location of the 18th-century wooden church is shown immediately south of the present church on a map from 1794 as Alte Kirchen Stelle (Fig. 18).

All what is known from the written data about the location of the medieval church is that the parish church was built on a new location around 1671. The lack of a medieval church site and churchyard near the present church is shown also by the fact that the soil contains no fragments of human bones even east, south-east and south of the sacristy. In case of long-term use of the churchyard the soil would surely have contained bone fragments there.

Considering the historical road system (Figs 1, 17), it seems likely to find the site of the medieval church not from the area of the

**Fig. 17.** Kodavere parish centre in 1684. Abstract from a Swedish district map.

**Jn 17.** Kodavere kihelkonnakeskus aastal 1684. Väljavõte rootsiaegsest piirkonnakaardist.

(RA, EAA.308.2.68.1)

**Fig. 18.** Plan of Kodavere parsonage lands in 1794.

**Jn 18.** Kodavere kirikumõisa maade kaart aastast 1794.

(RA, EAA 1256.1.388)
17th–18th century churches (i.e. ca. 300 m east of the village centre), but close to the meeting place of old roads, near the historical parsonage. Although neither traces of a stone church nor any hill of debris can be observed there, this is not sufficient to deny the existence of a medieval timber church. An indirect hint towards it exists also in the Swedish audits: these sources which often present brief notes about the state of ruined stone churches (survival of walls, lack of roof or vaults, etc.) are silent in terms of Kodavere. However, the audit from 1624/1627 notes the rebuilding of a small chapel ‘on the same place’ (daselbst). As building a chapel on the site of a medieval stone church would mean the former demolishing of the stone walls, but there exist no parallels to such practice from rural parish centres of Estonia from that time, there is enough reason to suggest that the medieval Kodavere church was a wooden building.⁷

Considering these circumstances, the excavated burial site can be regarded as the cemetery of a medieval wooden parish church. This interpretation seems likely also because there is no information about two big medieval cemeteries – the churchyard and adjacent non-churchyard village cemetery – from any other rural parish centre of Estonia. Even if we suggest the medieval church and churchyard to have been located somewhere close to the present church, the excavation site is only in the distance of 200–250 m, and that is too close.

A definite argument to interpret the cemetery as a former churchyard is also the ca. 1 metre wide structure made of big rocks north of the burial area (Fig. 4). Most likely, it can be regarded as churchyard boundary which separated the consecrated cemetery from the ordinary, mundane surroundings.

CHRONOLOGICAL FRAMEWORK
There is enough reason to suggest that the parish church and churchyard were founded in Kodavere just after Christianization of the area in 1220 (HCL XXIV: 1), since the building of churches immediately after the conquest was a common practice in Livonia in the era of crusades (HCL XI: 5; XIV; X; XVI: 8; XXIX: 1). The area of Kodavere parish, a geographically clearly defined region, is probably identical with the small Final Iron Age province of Sobolitz/Soboliz (Est. Soopoolitse; see: Kenkmann 1933, 38–39; Tarvel 1968, 587–588). This province, although not named in Henry’s crusading chronicle, was mentioned in the list of ‘lands’ after Ugaunia in 1224 (terram Ugenois, Sobolz, Waigele) and in 1229 (episcopus /---/ Ugenois, Sobolitz et Waigele) (LUB I, no LXI, CII). In 1224 it also was noted as an area attached to Ugandi (Ugenois cum Waige, Sobolitz) (LUB I, no LXIV). The Iron Age province was big enough to form a medieval congregation area whereby the parish preserved first also its name: the parish church in Sobelis (parochiale ecclesiam in Sobelis) was first mentioned in 1342 (Motzki 1921, 112, no 3).⁸ The minimal number of ploughlands to make a separate parish has been estimated to at least 200 farmsteads in the 13th century Livonia (Selart 2018, 60–61).

Finds from the cemetery include also a lot of commingled cremated bone fragments and pieces of melt metal objects which indicate, probably, Late Iron Age origin of the burial site. It seems that a new Christian cemetery with artefacts from the late 12th or early 13th to the 16th century was founded on the former cremation cemetery around 1220. Two breast pins from

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⁷ A timber church in Kodavere in the 15th century has also been noted, however, without any reference to the source, in the lexicon of Estonian architecture (Kodres 1999, 98).

⁸ The name of the province Soboli(t)z/ Soopoolitse has even longer preserved in the former name of Alatskivi manor, called Soblitz in the mid-16th century (Hagemeister 1837, 123).
grave no 41 and knife sheath(s) covered with bronze represent find groups which do not occur in ordinary medieval village cemeteries. However, such finds may anyway originate from the transition period, as shown by a pin find from the churchyard of Viru-Nigula (Tamla 1993, 18–20, pl. III) and a knife sheath (AI 4978: 38) from among the early post-conquest graves in Lahepera cemetery in the distance of ca. 11 km. Continuity from the Iron Age cemetery to a Christian churchyard fits well into the broader pattern: finds referring to it are common in southern and eastern Estonia (Valk 2017). Probably, the reason for establishing a parish church in Kodavere was the location of the village between different local settlement areas, as well as vicinity to the coastline (Karro 2010, 191–192).

Judging by artefacts, the cemetery was in use up to the late 16th or early 17th century. It must be noted that coins from the second half of the 16th century are very few when compared to the situation typical for medieval village cemeteries of southern Estonia — there their number, on the contrary, notably increases since that time (Valk 2001, 57–58). This fact might be a sign of a considerably decreased number of burials, caused by sudden population decrease since the beginning of the Livonian War. Among later finds which might have belonged to burials only three 17th-century coins — from 1635, 1667 and 1673 can be noted. The total lack of new jewellery types which came into use since the 1630s (Valk 2001, 47–48, 51) does not allow to interpret these coins as grave goods. Probably, they are either lost items or a result from popular assemblies and offerings in holiday time at the site of the perished Catholic sanctuary, as it was common in the 17th century (Kõpp 1959, 217–234).

The lack of 17th century graves with inventory characteristic for the era of the Swedish rule fits well with transferring the church to a new location. It remains, however, difficult to explain the lack of graves from the 1630s to the 1660s, since the chapel mentioned in 1627 was built on the site of the earlier church, but the church was constructed in a new place only around 1671. The lack of Swedish period graves might be caused by using some other part of the churchyard in that time or by the decrease of its dimensions. However, the consecration of a new cemetery apart from the church since the beginning of the Swedish rule might also be possible, since some new out-of-churchyard parish cemeteries were founded in Livonia in the second half of the 17th century. The reason for that in Kodavere may have been the high level of ground water, caused by the raising of water level in Lake Peipsi: the cemetery soil was very wet also during the excavations of 2017. The raising of water in Kodavere region is also shown by several Late Iron Age and medieval metal detector finds from the lake bottom east of Kodavere village.

THE BROADER CONTEXT AND CONCLUSIONS

Finds from Kodavere gave new information about medieval burial rites and adornment culture in the area of the former Sobolitz province: respective earlier data were limited to some 13th century and 16th century graves from Lahepera cemetery. The number of investigated medieval cemeteries in the northern part of Tartu bishopric has been small as a whole, and archaeological information has mostly been limited to stray finds. In addition to Lahepera, the only excavated sites with medieval inhumations were the Votian cemeteries in Välgi and Kusma villages (Ligi & Valk 1993), which represent, however, migrant, non-indigenous population. Finds from Kodavere — a large number of brooches and rings, as well as necklaces with bells and pendants — give evidence of great similarity with jewellery and adornment culture in south-eastern Estonia, being typical for medieval rural cemeteries of the region.
Some specific features of the find assemblage from Kodavere are, however, untypical for medieval rural cemeteries of southern Estonia. They are represented by hollow bronze buttons which occurred in four graves and as stray finds, giving evidence both of a definite fashion trend and of the availability of these dress accessories. Another specific feature is also the large number of yellow seed beads in the necklaces – finds of probably Novgorodian origin. These circumstances refer to communication with the eastern coast of Lake Peipsi in the 13th and 14th centuries. The difference from the village cemeteries of south-eastern Estonia appears also in necklaces: the relatively small number of cowry shells and presence of spiral tubes.

The unearthed human osteological material with discovered pathologies is characteristic of a peacetime cemetery of the era – with the exception of a female skeleton with a deadly wound on the cranium. It seems highly likely that the cemetery in the historical Kodavere parish centre is the medieval parish churchyard, giving also a hint about the location of the medieval wooden parish church of that time.

ACKNOWLEDGEMENTS
This paper has been supported by the Estonian Ministry of Education and Science – Institutional Research Support Schemes IUT 20-7 and 22-5 and personal research grant PRG29. The authors are grateful to all participants of the excavations, to Mauri Kiudsoo who identified the coins, as well as to hobby detectorists Aleksandr Kotkin and Igor Tsakuhhin (both from history club ‘Kamerad’), Peeter Kiuru, Veikko Vulf and Andrei Roosild who helped to find metal objects from disturbed soil.
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KODAVERE KESKAEGNE KALMISTU – KAS KIRIKAED JA KIHELKONNASURNUAED?
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(jn 14: 3). Metallist võõosad (jn 15) on esindatud 10 erikujulise pandлага (8 raust, 2 vasesulamist) (jn 15: 1–7, 9, 10), 6 võööngaga (jn 15: 11–14) ja rihaaotsaga. Tööriistadest ja tarbeasjadest leiti 8 nuga ja noakatket, kõveraks painutatud ömblusnõel, võti (jn 15: 17), sõrmusest tehtud pintsetid (jn 14: 3), luust nõelakanda (jn 15: 8), jäänael (jn 15: 16) ja sõrmkübar.


