



ADDITIONS TO THE EARLY CONSTRUCTION HISTORY OF THE KURESSAARE BISHOP'S CASTLE

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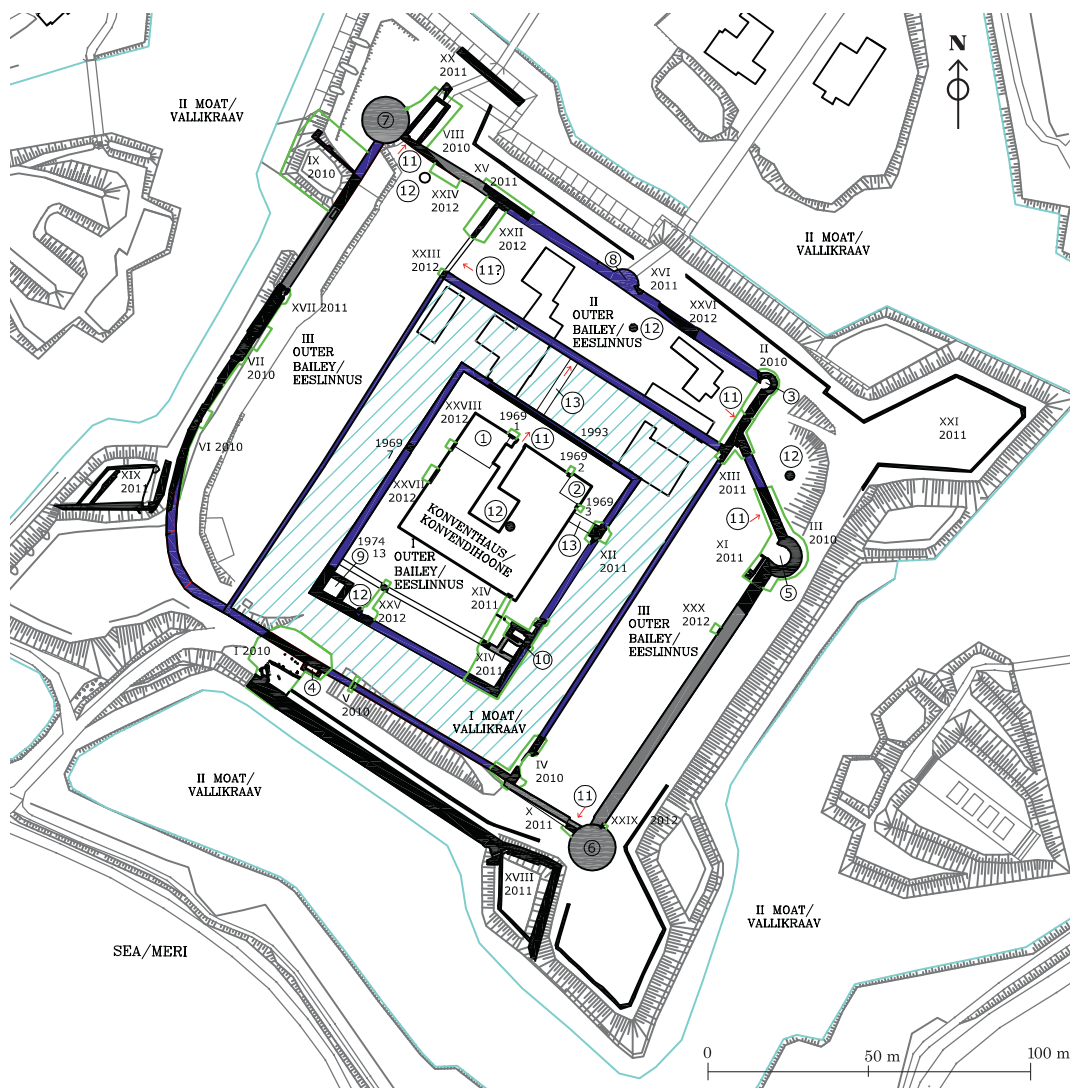
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INTRODUCTION

In autumn 2012 Agu EMS OÜ completed fieldwork on the territory of the Kuresaare bishop's castle, which had lasted for three years (2010–2012). During the last season nine new excavation areas were investigated (XXII–XXX, Fig. 1), which provided information that considerably changed our existing knowledge about the building and extending of the castle. The present article is a sequel to the review published in the previous volume (Püüa *et al.* 2012) and concentrates mainly on the construction history of the main castle. Although the overall knowledge on the castle has been greatly supplemented with the results of the 2012 fieldwork, the format of the article does not allow broader elaboration of the topic. An additional challenge is the accurate dating of the construction stages and single buildings, since the recovered finds and analyses, as a rule, give quite a prolonged date. In the course of the fieldwork 26 ¹⁴C analyses (from Poznań Radiocarbon Laboratory) and 2 dendrochronological investigations (from Tartu University) were ordered, and 2541 artefacts were recovered, which are now stored in the archaeological collections of the Saaremaa Museum (SM 10663).

NEW ARCHAEOLOGICAL EVIDENCE IN THE MAIN CASTLE

Fieldwork of 2012 mainly concentrated on the studies of the main castle of Kuresaare, more specifically on the construction history of which researchers have expressed quite different opinions (see Püüa *et al.* 2012, 94–95). The centre of the castle complex is the *Konventhaus* that follows the building traditions of the Teutonic Order; its four wings surround the square inner court. Towers were built on each corner of the main facade: the massive Sturvolt in the north and Tall Hermann, barely salient from the wall line, in the east (Fig. 2). As a reminder it should be mentioned that according to Armin Tuulse (1942, 212–213) the *Konventhaus* was



I – XXX – the excavation plots of 2010–2012/kaevandid 2010–2012

1969 – previous fieldwork (selectively)/varasemad kaevandid (valikuliselt)

■ – towers and walls found in 1969–2012/aastatel 1969–2012 välja kaevatud tornid ja müürid

■ – walls on the historical maps/müürid ajaloolistel plaanidel

■ – In 1970–2011 restored towers and walls/aastatel 1970–2011 restaureeritud tornid ja müürid

■ – I moat/I vallikraav

□ – houses/hooned

— borders of excavation plots/kaevandite piirid

— the border of the II moat/II vallikraavi piirid



Fig. 2. The Kuressaare Konventhaus in the last quarter of the 19th century, view from the north-east. On the left, the tower of Tall Hermann, on the right, the massive Sturvolt. Binding stones, left during the building of Sturvolt, can be observed quite clearly. On the left in front of the Konventhaus is the officers' building, which was demolished in 1910. On the right the officers' dwelling house, preserved to the present day, can be seen. Today it houses the office rooms of the Saaremaa Museum.

Jn 2. Vaade kirdest Kuressaare konvendihoonele 19. sajandi viimasel veerandil. Vasakul torn Pikk Hermann, paremal massiivne Sturvolt. Küllaltki hästi joonistuvad välja Sturvoldi ladumisel jäetud sidekivid. Konvendihoone ees vasakul asub 1910. aastal lammutatud ohvitseride hoone. Paremal on näha tänaseni säilinud ohvitseride elamut, kus praegu asuvad Saaremaa Muuseumi kantseleiruumid.

(SMF: 4546(1).)

Photo / Foto: Aleksander Grünbladt 1891(?).

Fig. 1. Towers and walls. Excavations of 2010–2012 (I–XXX). 1 – tower Sturvolt (14A), 2 – tower Tall Hermann (14B), 3 – eastern tower (15b), 4 – south-western tower (15b), 5 – south-eastern tower (Piper tower; 15B), 6 – Gunpowder (Kuther) tower (15d), 7 – Cannon (Fortenau, Forsnau) tower (15d), 8 – tower Kakelborch (Kakelburg; 15b), 9 – Wolff's (Wulff's) tower (14B), 10 – latrine chute built inside the I curtain wall (14B), 11 – gates, 12 – wells, 13 – bridges.

Jn. 1. Tornid ja müürid. Kaevandid 2010–2012 (I–XXX). 1 – torn Sturvolt (14A), 2 – torn Pikk Hermann (14B), 3 – idatorn (15b), 4 – edelatorn (15b), 5 – kagutorn (Piperi torn; 15B), 6 – Püssirohutorn (Kutheri torn; 15d), 7 – Suurtükitor (Fortenau, Forsnau; 15d), 8 – torn Kakelborch (Kakelburg; 15b), 9 – Wolff'i (Wulffi) torn (14B), 10 – I ringmüüri sisse ehitatud käimla šaht (14B), 11 – väravad, 12 – kaevud, 13 – sillad.

Abbreviations / Lühendid:

number = century / sajand

A/B = first or second half of the century / sajandi esimene või teine pool

a, b, c, d = first, second, third or fourth quarter of the century / sajandi esimene, teine, kolmas või neljas veerand

Drawing / Joonis: Garel Püüa

designed as the initial building of the castle and Sturvolt on the northern corner was the first part of it. On the other hand, Kalvi Aluve who directed the restoration work in the 1970s – 1980s, has suggested that at first Tall Hermann was built as an independent watch tower, which was later integrated into the new main castle (Aluve 1980, 13–21; 1993, 13–17). In more recent times Kaur Altoa and Boris Dubovik, in their article published in 1995, have reached the conclusion that the core of the present main castle is the lower part of Sturvolt together with the adjacent room on its south-western side (Altoa & Dubovik 1995, 91–93).

Archaeological excavations of 2010–2012 add new information and suggest corrections of different extent¹ to all these opinions. For example, it is clear that at least on the north-eastern side Sturvolt has not been built as an independent structure, but it had been designed to proceed the construction of the castle in line with the north-eastern wall of the later *Konventhaus*. This is indicated by massive binding stones placed during the construction of Sturvolt (Fig. 2; Tuulse 1942, 213) as well as the continuation of the foundation of Sturvolt towards south-east. The latter was recorded by K. Aluve in the trial pit dug in 1969² (Aluve 1980, 13), (see Fig. 1, excavation 1969, 1).

Excavation XXVIII in 2012 disclosed the junction of the western corner of Sturvolt and the side wall of the *Konventhaus* (Fig. 1). It revised and enlarged pit 5 dug by K. Aluve in 1969 (see Püüa *et al.* 2012, fig. 2, excavation 1970, 5) and therefore the soil layers were mostly mixed. In the excavation it appeared that the point chosen for the defence tower was most appropriate regarding natural conditions: Sturvolt has been founded on solid limestone bedrock rising 1.7 m above sea level, i.e. even higher than the coastal ridge discovered in other excavations. The placement of stones beneath the western corner of the tower suggests that Sturvolt has not been designed as a separate tower and the foundation continues towards south-west.³

This opinion is confirmed by the window aperture with holes for bars, discovered in the partition wall on the basement floor of the north-west wing of the main castle. Relying upon this a smaller one-room building adjacent to Sturvolt has been identified here, that has existed before the construction of the *Konventhaus*. On the north-west side of the *Konventhaus* construction traces in the zone of the ground floor also deserve attention. Regular masonry has been laid starting from Sturvolt, the regularity is interrupted approximately near the end wall of the above-mentioned small building. It is not a straight vertical joint here, which would indicate a corner of a building: binding stones have been placed at irregular intervals, which suggests a plan to continue the building of the wall.

In 2012 the presumable vertical joint between the room south-west of Sturvolt and the wall of the later *Konventhaus* was disclosed in an excavation measuring 3 × 6 m (Fig. 1, excavation XXVII). In the bottom zone different construction stages could not be observed and the foundation continues towards the sea as a homogenous stonework (see Fig. 3). This leads us to the conclusion that the original plan of the castle included,

¹ The building history of the main castle prior to the *Konventhaus* stage has been published earlier (Altoa & Püüa 2013). The opinions expressed there are also reflected in the present article.

² According to itemized data all pits reportedly dug by K. Aluve in 1970 (Püüa *et al.* 2012, fig. 2) had been actually dug already in 1969.

³ At the western corner of Sturvolt's foundation a narrow stone has been placed in an upright position thus producing a long vertical joint between the tower and the adjacent wall. This may induce the notion that originally Sturvolt had been designed to be a separate structure.

174 In reality a corner of a limestone wall, moreover a corner of a high tower, is never built like that, evidently we have here a so-called 'working joint'.

besides Sturvolt and the smaller building adjacent to it, also a surrounding wall, which ran approximately in line with the north-western side of the later *Konventhaus*. The narrow foundation trench had been dug through a layer of natural clay and soft coastal sediments, almost a metre thick, upon which lay a thin vein of lime mortar marking the first construction stage of the stone castle.

The medieval cultural layer in excavation XXVII was 1.15–1.3 m below the present-day ground level, and had emerged immediately upon the mortar layer from the times of the construction of the *Konventhaus*. Although clear remains of pavement laid upon sand or clay base could not be detected in the excavation, the north-western stonier part of the layer apparently once formed a road pavement (see Fig. 4). Deciding by the finds the ground remained at the same altitude from the beginning of the 15th up to the 17th century, and only later it has been elevated to the present level by mixed rubble and demolition debris fillers. The earliest well identified artefacts from the occupation layer upon the mortar from the construction of the *Konventhaus* are two coins, *lībische*, of the Livonian Order minted in Tallinn, which date from the period 1395–1420.⁴ Relying upon the finds we may assume that by that time construction had been completed at least on the outer perimeter of the *Konventhaus*. It is also unlikely that the coins fell into the ground much later, since in connection with the monetary



Fig. 3. Excavation XXVII at the junction between the room south-west of Sturvolt and the later north-western wall of the *Konventhaus*. In the foundation zone uniform stonework without visible building stages can be seen. View from the west.

Jn 3. Kaevand XXVII Sturvoldist edelasse jääva ruumi ja hilisema konvendihoonde loodeseina liitekohas. Vundamenditsoonis jätkub ühtlane müüriladu ilma nähtavate ehitusjärgkudeta. Vaade läänest.

Photo / Foto: Garel Püüa

⁴ All coins found during the excavations were identified by Mauri Kiudsoo (AI).



Fig. 4. The medieval road, partly preserved in excavation XXVII at the north-western side of the main castle, straight upon the mortar layer from the period of the construction of the *Konventhaus*.

Jn 4. Pealinnuse loodeküüljel kaevandis XXVII osaliselt säilinud keskaegne tee, mis oli tekkinud otse konvendihoone ehitusaegsele mördkihile.

Photo / Foto: Garel Püüa

important role. It disclosed the foundation of the *Konventhaus*, and in a long trench (up to the first surrounding wall of the I outer bailey) revealed a complete cross-section of soil layers at the seaward side of the I outer bailey, and the partly preserved buildings there (Fig. 1, excavation XIV).

In excavation XIV two different wall textures of the *Konventhaus* were clearly discernible. In the lower part, virtually up to the present-day ground level (1.25–4.08 m above sea level) the stonework is regular, but only roughly worked stones have been used. Above that level (at the same height the quadrate corners of the *Konventhaus* at the foot of the wall change into rounded ones) hewn blocks are used. Finds from the pavement-like rubble (at the altitude of 2.6–2.87 m) indicate that the medieval yard surface has remained on approximately the same level until the 17th century (Fig. 5). Hence the lower part of the wall from unhewn limestone was not originally a foundation hidden in soil, but rather a kind of a footing, visible to the height of about 140 cm. Transition from one material to the other is immediate (no base ledge or moulding). Therefore it does not seem likely that the contrasting of the textures was deliberate in erecting the *Konventhaus*. It is more likely that the lower part of the wall dates from an earlier period, it may have been part of the surrounding wall of the *castellum*. And so the outer wall of the *Konventhaus* seems to be following the *castellum* wall also on the south-western side.

On the south-eastern side of the castle only the neighbourhood of the Tall Hermann has been hitherto investigated (see Püüa *et al.* 2012, fig. 2). The erection of this

reform carried out in Old Livonia in 1422 the earlier coins became invalid (Kiudsoo 2007, 25).

The earliest pottery finds that could be dated more accurately were apparently the fragments of polished greyware, dated to the second half of the 14th century or the beginning of the 15th century.⁵ Imported pottery of the same type was recovered also from the I outer bailey, from excavations XIV and XXVIII (Fig. 1), which are, incidentally, the oldest (well-determined) pottery finds from the whole territory of the castle.

All in all we may assert that the midpoint of the original main castle of Kuressaare was Sturvolt; the surrounding wall was built as an extension of its north-eastern and north-western sides. It ran along the outer perimeter of the later *Konventhaus*. So it apparently was a *Ringmauerkastell*.⁶ In the study of its general shape excavation XIV on the south-western side of the main castle played an

⁵ Determined by Erki Russow (AI).

⁶ The term *kastell* is used differently in different regions. In Central Europe a typical feature of such a castle type is a perimetral building. In Nordic countries (see Tuulse 1947, 7–38) the main character of a *castellum* is a regular surrounding wall – like it was with its archetype, Roman military camp. In addition the terms *Ringmauerkastell* and *Randhauskastell* have been used. See Alttoa 2008, 14.

tower was evidently connected with the *Konventhaus*. To avoid possible damage from subsidence, its foundation was built autonomously (Altoa & Dubovik 1995, 91–93). So it cannot be precluded that the earlier constructions here were demolished while building Tall Hermann: not only in the zone of the tower, but also around the adjacent walls. However, the investigation results of the remaining three sides of the castle allow us to presume that the surrounding wall of the earlier castle ran along the outer wall of the *Konventhaus* also on the south-eastern side.

Summarizing the obtained information we may assert that in Kuressaare a *Ringmauerkastell* (Fig. 6, A), the outer dimensions of which coincided with the later *Konventhaus* (Fig. 6, B), was built first. At the same time it strikes the eye that the transitions of the stonework of the *castellum* and the *Konventhaus* are, in some places, quite random. This leads us to the conclusion that the *castellum* was never completed and at some moment its building was suddenly interrupted.

PROBLEMS CONCERNING THE DATING OF THE MAIN CASTLE

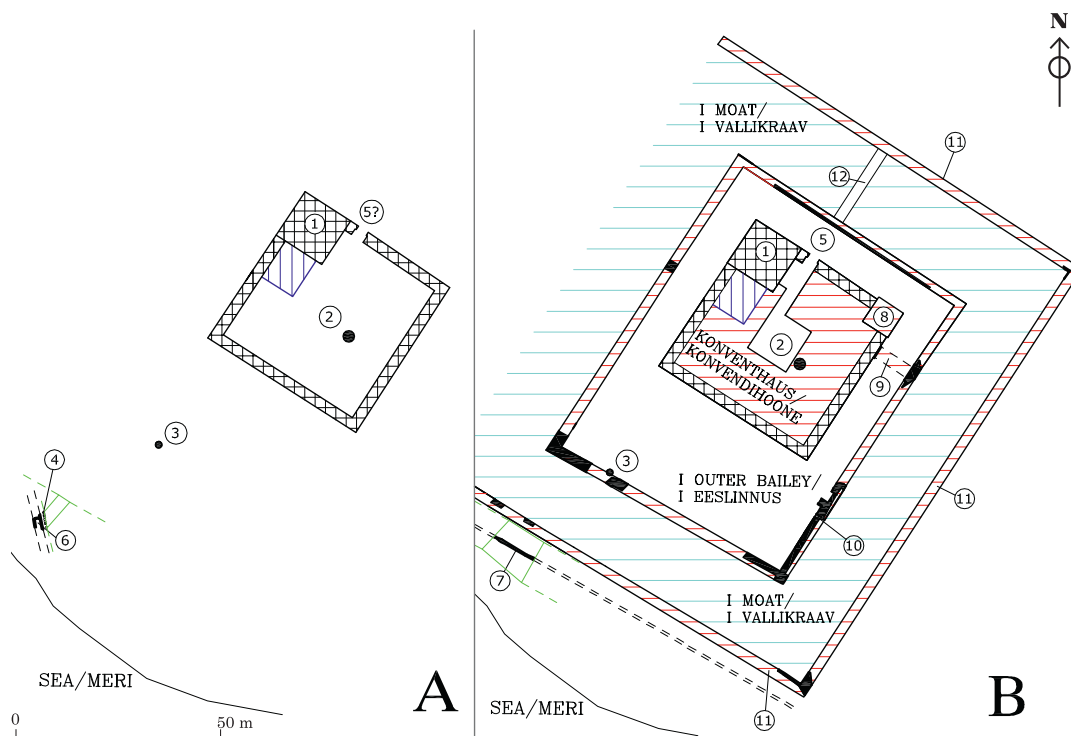
Written sources concerning Kuressaare are extremely scanty, hence the researchers have had very few fulcra to date the castle. A lot of timber samples were collected from the main castle, which in the 1970s, using dendro-chronological methods, were dated to the 1260s (Aluve 1980, 10, 15). From this K. Aluve has suggested the beginning of the construction of the castle of Kuressaare.⁷ Nevertheless we must be extremely cautious with such derivations: a surprising amount of secondarily used timber occurred in the castle (for instance five beams were dated to the 11th century!) and the earliest appeared to be a baulk from the stairway of the Sturvolt tower, which was cut during the period 930–1050 AD (Aluve 1980, 9–10). Besides, we have no reason to suppose that timber in the 1260s was cut specifically for the castle under construction. We must clearly discriminate between two questions. First, to which time does the local settlement centre date? And second, when was the castle built?



Fig. 5. Two different wall textures discovered at the south-western side of the main castle (excavation XIV). On the right, the transition on the southern corner of the *Konventhaus* from the quadrate corner of the lower part to the rounded one in the upper part can be seen. The ground under the measuring rod remained on the same level still in the 17th century. Jn 5. *Pealinnuse edelaküljel (kaevandis XIV) paljastunud kaks erinevat müüri faktuuri. Paremäl on näha konvendihoone lõunanurga üleminekut kvadraatselt alaehitiselt ümardatud nurgaga seinäosaale. Mõõtelati alla jääv maapind püsis samal kõrgusel veel 17. sajandil.*

Photo / Foto: Garel Püüa

⁷ The author presumed that in the 1260s both Tall Hermann and the oblong rectangular *castellum* measuring about 87 × 67 m were completed. The idea of the *Ringmauerkastell* has been adopted also by some other researchers (Raam 1985, 16; Altoa 2007, 822). However, this opinion is not tenable either (see Püüa *et al.* 2012, 99–100).



A. Curtain wall of the castellum, Sturvolt tower (1) and small building next to it, before 1343 AD.

A. Kastelli ringmüür, torn Sturvolt (1) ja väike kõrvalhoone, enne 1343 AD.

B. Four ranges of the Konventhouse with tower Tall Hermann (8) and first curtain wall with bridge (ca. 1346–1400 AD). Moat and counterscarp (11) on three sides of it (work started probably at the end of the 14th century).

B. Konvendihoone koos torniga Pikk Hermann (8) ning esimene ringmüür ja sild (u 1346–1400 AD). Vallikraav ja kontreskarp (11) selle kolmel küljel (tööd algasid tõenäoliselt 14. sajandi lõpul).







-  – tower Sturvolt and castellum / torn Sturvolt ja ringmüürkastell
-  – room on the south-western side of Sturvolt / ruum Sturvolti edelaküljel
-  – new structure added in period B / perioodil B lisandunud uued ehituskonstruksioonid
-  – I moat / I vallikraav
-  – towers and walls found in 1969–2012/ aastatel 1969–2012 välja kaevatud tornid ja müürid
-  – low embankment of clay on the coast / rannale kuhjatud madal savivall

Fig. 6. Kuressaare bishop's castle. Development concept A and B. 2, 3 – wells, 4 – row of stakes (ca. 1276–1321 AD), 5 – gates, 6 – timber road on the beach (ca. 1264–1301 AD), 7 – log palisade, 9, 12 – bridges, 10 – latrine chute inside the I curtain wall (ca. 1353 AD).

Jn. 6. Kuressaare piiskopilinnus. Arenguskeemid A ja B. 2, 3 – kaevud, 4 – vaiarida (u 1276–1321 AD), 5 – väravad, 6 – rannaäärne laudtee (u 1264–1301 AD), 7 – palkidest palissaad (u 1342–1395 AD), 9, 12 – sillad, 10 – käimla šaht I ringmüüri sees (u 1353 AD).

Drawing / Joonis: Garel Püüa

The oldest construction discovered on the territory of the Kuressaare castle in the course of the recent fieldwork appears to be the plank road (Fig. 6 A: 6) discovered in 2010 while digging a new car tunnel through the south-western early modern rampart curtain (Fig. 1, excavation 1). The road,⁸ preserved only in fragments and repeatedly damaged by the stormy sea (the planks had been replaced at least five times) ran along the shore towards the harbour. The ¹⁴C dating of the better preserved bottom beam of the plank road gave the result 705±25 BP (Table 1: 1). The age of the latest preserved road plank was dated to 610±30 BP (Table 1: 2), i.e. to the 14th century.

At the castle side of the road a row of poles rammed in the ground was discovered (Fig. 6 A, 4), the analysis of a sample taken gave the result 665±30 BP (Table 1: 3). The pole row, evidently intended to serve as a fence, precisely followed the direction of the road, and so did the sloping clay embankment, up to a metre high, starting at the same line (see Fig. 6 A). It is likely that with strong southerly winds the sea rose quite high and it was necessary to shelter the construction site from overflow.⁹ The plank fragment found from the clay embankment was dated by ¹⁴C method to 560±30 BP (Table 1: 4). The plank road and the pole row, as well as the original clay embankment have existed together during some period. Here, secondary use may be possible at the bottom beam, but at plank fragments and poles it does not seem likely. Equally, the analyses also allow us to date most of the mentioned constructions, with quite a high probability, to the end of the 14th century or even to the beginning of the 15th century, but the following construction activities seem to exclude the possibility. That is to say, after the end of the exploitation of the plank road a new higher embankment has been piled upon it (and also upon the earlier embankment), and on that a log palisade has been built (see Püüa *et al.* 2012, 104). The ¹⁴C analysis of a sample taken from a preserved timber construction of the palisade gave the result 620±50 BP (Table 1: 5). The reconditioned palisade on the embankment, meanwhile piled still higher, persisted until the construction of the seaward side of the great surrounding wall and the south-western tower (see Fig. 1).

Table 1. Radiocarbon datings from Kuressaare.

Tabel 1. Kuressaare radiosüsinikdateeringud.

No/ Nr	Lab. No./ Lab. nr	Radiocarbon age/ radiosüsiniku- aastad	Calibrated with 95.4% probability/kalibreerimis- vahemik 95.4%	Calibrated with 68.2% probability/kalib- reerimisvahemik 68.2%
1	Poz-49248	705±25 BP	1264–1301 AD (86.3%); 1367–1382 AD (9.1%)	1272–1293 AD
2	Poz-49255	610±30 BP	1295–1404 AD	1302–1329 AD (27.8%); 1341–1367 AD (27.2%); 1382–1396 AD (13.2%)
3	Poz-49258	665±30 BP	1276–1321 AD (49.9%); 1350–1392 AD (45.5%)	1283–1306 AD (36.0%); 1364–1385 AD (32.2%)
4	Poz-49252	560±30 BP	1306–1363 AD (49.8%); 1385–1430 AD (45.6%)	1322–1348 AD (33.8%); 1392–1416 AD (34.4%)
5	Poz-49250	620±50 BP	1284–1410 AD	1296–1328 AD (25.9%); 1342–1395 AD (42.3%)
6	Poz-49242	435±30 BP	1417–1495 AD (92.5%); 1601–1615 AD (2.9%)	1433–1466 AD
7	Poz-49254	555±30 BP	1310–1360 AD (45.0%); 1386–1431 AD (50.4%)	1324–1345 AD (28.8%); 1393–1418 AD (34.4%)
8	Poz-49244	455±30 BP	1413–1473 AD	1427–1451 AD

⁸ The timber construction consisted of two parallel beams, located at a distance of 1.2–1.3 m from each other, and 23 cm wide transverse planks placed upon them.

⁹ Raising of the seaward embankment continued, stage by stage, in connection with the construction of the south-western curtain until the end of the 17th century.

The analysis of a charcoal sample from the foundation of the south-western tower gave the result 435±30 BP (Table 1: 6). Accordingly, the plank road was buried under new soil layers in the second half of the 14th century at the latest.

The road under discussion associates primarily with the harbour site. It is also possible that the timber samples of K. Aluve, dated approximately to the same period, are also related to the beginning of this settlement centre. But it would be arbitrary to derive from them the building time of the castle. We must also bear in mind that in the 1260s the construction of the centre of the bishopric – the castle and the cathedral of Haapsalu – was on hand. It does not seem likely that in such circumstances the bishop would have divided the construction power between two large projects.

Deciding by the building substance of the *castellum* of Kuressaare we may conclude that it was never completed. Evidently the construction was interrupted in a quite random state. Considering the entire construction it is not possible to assert that it reflects the constructional efforts of half a century or even more. Rather, we have here a continuous construction of about a dozen years or slightly more, which, for some reason, has been suddenly interrupted. After that the *Konventhaus* has been built.

And so, to even approximately determine the construction time of the earlier main castle, we must first know when the building of the Kuressaare *Konventhaus* started. Here the picture is quite vague, too. Villem Raam was the first to point to several architectural solutions that suggest the Bohemian origin of the masters who worked here (Raam 1978, 236–240).¹⁰ In this context the cloister of the Emmaus monastery in Prague deserves attention in the first place. Its architectural forms, so similar to the main rooms of the Kuressaare castle, suggest it may have been applied as a model; it cannot be precluded that it may be the creation of the same masters (Altoa 2011, 58). The cloister was completed by 1358 at the latest (Poche 1978, 91). Relying upon this we may assume that intensive construction activities in the main rooms of the Kuressaare *Konventhaus* took place in the 1360s. By that time the foundations and walls of the ground floor were completed – but this was not a job to be performed in a couple of seasons. Once more it must be accentuated that the construction of the *castellum* that preceded the *Konventhaus* had been interrupted apparently unexpectedly. Summarizing all these circumstances it is likely that the interruption was related to the uprising of the inhabitants of Saaremaa in 1343–45.

No fulcrum can be found to date the construction of the *castellum*: accurately datable archaeological finds are still absent. Still, a document from 1328 (Markus 1991, 22–23) deserves attention. Namely, the Order is said to have consented to help the bishop of the Saare-Lääne Bishopric in the construction of a castle; the context suggests that the construction of a new castle was meant.¹¹ There is no more information: it is not clear, which castle was discussed and if anything happened at all. But we can agree with K. Markus that the subject may have been the future castle of Kuressaare.¹²

Thus we must seriously consider the possibility that sometime *post quem* 1328 the construction of a castle started in Kuressaare. The preserved wall capacity of the

¹⁰ The subject has been further elaborated by Kersti Markus (1991, 6–16).

¹¹ The contents of the document was first mentioned by Hermann Hildebrand (1876, 106–107). Evidently the author has not published the whole document, since later researchers have mentioned details, referring to the same document, which are missing in Hildebrand's publication.

¹² It is quite plausible that the talk was about Saaremaa; its eastern part was administered by the Order, who could have had common interests with the bishop, concerning the administration of the island. In the mainland part of the diocese such cooperation would have been

building prior to *Konventhaus* perfectly accords with the supposition that the construction took place during a decade and a half, and was then suddenly interrupted. Next, the *Konventhaus* was built, with outer walls resting upon the surrounding wall of the earlier *castellum* (Fig. 6).

CONSTRUCTIONS BEYOND THE MAIN CASTLE: THE WELLS

Returning to the construction phase of the main castle before the *Konventhaus*, the two known wells may also be connected with this period. The first well (Fig. 6, 2) is in the well room at the south-eastern side of the inner court of the present *Konventhaus*; the choice of the site seems quite inconvenient for use. Therefore it is possible that the well was related already with the *castellum*, since it frequently happened that earlier effective resolutions were exploited. The other well (Fig. 6, 3) is located in the western corner of the I outer bailey, and partly inside the surrounding wall. The well was discovered by Kalvi Aluve in his south-west – north-east oriented trench dug in 1969 (see Püüa *et al.* 2012, fig. 2, excavation 1970, 6), but it is not marked on the earliest known historical plans dating from the mid-17th century.

According to the description by K. Aluve, the inner circle of the well, built together with the first surrounding wall, reaches into the *castellum* wall by 30 cm, and the preserved curb of the well, built of dolomite blocks without mortar, is 320 cm high (2.1 m.a.s.l.). The inner diameter of the well is 160 cm and its bottom is 110 cm below sea level. The two bottom block rows of the curb are roughly hewn, all upper ones are neatly worked (Aluve 1980, 19). This might suggest different building stages of the well. Besides, the generally regular first surrounding wall has a distinct stretch for the well corner (see Fig. 6, B). It looks as if the stretching out of the western corner of the surrounding wall was connected with the well, particularly with the wish to encompass the existing well in the outer bailey.

Neither of the wells, repeatedly cleaned and rebuilt, could be dated more accurately in the course of the latest fieldwork. Although, in order to check the hypothesis, the surroundings of the well (Fig. 6, 3) were again¹³ disclosed in 2012, but nothing important could be specified. K. Aluve had managed to reconstruct the well into a modern watering place.

THE MOAT AND THE COUNTERSCARP. RAISING OF THE GROUND

Simultaneously with the *Konventhaus* the first surrounding wall of the I outer bailey has been built (see Püüa *et al.* 2012, 99–100) and probably in the last decades of the 14th century the digging of the moat and the building of the counterscarp of dolomite blocks has begun. The counterscarp (Fig. 1, excavations I, IV, XIII, XXIII, Fig. 6, B), built upon limestone bedrock, resembles by its thickness (*ca.* 2.4 m), depth of the foundation, and stonework the first surrounding wall, which functions as the scarp of the same moat. The wall, originally reaching the natural soil level, suggests plans for further extension of the castle, because the moat did not require a 2.4 m thick supporting wall – the clay bank would not have collapsed without it. The thickness of the wall refers to plans to build it higher in the future (see Püüa *et al.* 2012, 103, 106). The soil dug out from the moat was used around it (in new outer baileys II–IV, see Fig. 1) as filler before the construction of the surrounding wall of the large bailey,

¹³ Excavation XXV (see Fig. 1).

as the natural ground appeared to be too low and uneven. As we found out in the course of the fieldwork, the ground in the new outer bailey had been raised, in places by over two metres¹⁴ and without the supporting wall the filler should have been shaped into a long and unstable slope. It would have covered quite a large part of the yard of the outer bailey enveloping the moat on three sides, and making it unusable. Here a question arises: why was such a laborious work of soil filling and building the seaward wall undertaken, and how high was the sea level in the mid-14th century?

The databases of shore displacement (Saarse *et al.* 2003; 2009)¹⁵ and the reconstructions produced on the basis of them indicate that e.g. in 1350 AD the sea level at the Kuressaare castle was *ca.* 1.3 m higher than today.¹⁶ On the basis of this the calculated land uplift is 1.9 mm per year, which is in accordance with most of the maps of land uplift in Estonia.¹⁷ Hence the outer baileys were partly covered with water, at least in flood times, because during storms the water level rose by at least a metre. Evidently the moat could have functioned as a drain as well as a defence.

Although no datable finds were recovered from the filler, a sample was taken from a plank fragment found near the eastern tower (see Fig. 1, 3), the analysis of which gave the result 555±30 BP (Table 1: 7).¹⁸ Relying upon this and the relative chronology we may assert that raising of the ground beyond the moat took place at the end of the 14th and the first quarter of the 15th century. It should be also mentioned that the ¹⁴C analysis of the timber sample from the transverse beam of a loophole on the ground floor of the eastern tower (see Püüa *et al.* 2012, 106–107) gave the result 455±30 BP (Table 1: 8). So it is most likely that the eastern tower was completed in the second quarter of the 15th century, when the raising of the ground in the yard of the II outer bailey had been finished.

SUMMARY

At the present stage of investigations it seems likely that the construction of the Kuressaare castle was started sometime at the end of the 1320s. It was intended to be a *castellum* by type, with a tower designed on the northern corner. The construction of the *castellum* was interrupted in the 1340s. The two known wells may also date from this period. Further on (after the uprising of the islanders in 1343–1345?) a great change has taken place in the construction plans: next, the *Konventhaus* was built, the outer walls of which rest upon the surrounding wall of the earlier *castellum*. The main castle has been, indeed, built on a natural knoll, but the original ground on the seaward side of the I outer bailey rises sporadically only 150 cm above sea level. In the new outer baileys it was still lower. Besides being open to the sea the natural ground is typical to the shore, broken and uneven, which hampered traffic as well as everyday life. Therefore the raising and levelling of ground around the main castle and piling up an earth embankment on the seaward side has started without delay.

¹⁴ Information about the altitude of natural ground level was mostly obtained from the IV outer bailey at the south-eastern side of the moat. In excavation XIII it was *ca.* 1.24 m above sea level, in excavation XI it varied between 1.2–1.77 m, and in excavation XXX it was 2.04–2.2 m above sea level.

¹⁵ Used by the senior researcher of the Institute of Geology of Tallinn University of Technology, *PhD* Jüri Vassiljev, who, among other subjects also studies the development of the Baltic Sea.

¹⁶ Jüri Vassiljev (TUT) (pers. comm.) and Saarse *et al.* 2009.

¹⁷ See Kall 2008.

182 ¹⁸ Like the surrounding wall and the south-western tower, which were completed at the same time on the seaward side of the castle.

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TÄIENDUSI KURESSAARE PIISKOPILINNUSE VARASEMALE EHITUSLOOLE

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2012. a sügisel lõpetas OÜ Agu EMS kolm aastat kestnud väliuuringud (2010–2012) Kuressaare piiskopilinnuse territooriumil. Viimasel hooajal rajati 9 uut kaevandit (kaevandid XXII–XXX, jn 1), kust saadud andmestik korrigeerib oluliselt senist ettekujutust linnuse tekkest ja selle laiendamisest. 2012. a välitööd keskendusid Kuressaare pealinnuse uurimisele.

Lõppenud väliuuringute ja varasemate kaevamiste tulemusi pealinnuse ümbruses kokku võttes (jn 1), võime väita, et algse linnuse kavatisse kuulus lisaks Sturvoldile ja sellega külgnevale väiksemale kõrvalhoonele ka ringmüür (vt jn 3), mis kulges hilisema konvendihoone välisperimeetril. Seega on Kuressaares esmalt ehitatud torniga ringmüürekastelli, mille välisgabiiridid kattusid hilisema konvendihoonega (vt jn 6). Torkab silma, et kastelli ja konvendihoone müüritise üleminekud on kohati küllaltki juhuslikud. Siit saab järeldada, et kastell-linnust pole kunagi valmis ehitatud: tööd on mingil hetkel järsku katkenud. Kogu müürimahtu silmas pidades ei sõandaks väita, et tegu on poolsajandi kestnud ehituslike ponnistustega. Pigem on siin tegemist tosina aasta või pisut pikema normaalse ehitamisega, mis on miskipärast ootamatult katkenud (saarlaste ülestõus 1343–1345?). Seejärel on plaanides toimunud suured muutused, sest järgnevalt on varasemale ringmüürile hakatud rajama juba konvendihoonet.

Nagu 2011. ja 2012. a kaevandite põhjal selgus (vt jn 1, kaevandid XIV, XXVII, XXVIII), jääb keskaegne kultuurkiht pealinnuse loode- ja edelaküljel tänasest maapinnast 1,15–1,3 m madalamale ning on tekkinud otse konvendihoone ehitusaegsele mõrdikihile (vt jn 4–5). Leiumaterjali põhjal otsustades püsis maapind samal kõrgusel 15. saj algusest 17. sajandini. Kõige varasemad hästi määratavad esemeleiud konvendihoone ehitusmõrdile ladestunud elutegevuskihist on kaks Liivimaa ordu Tallinnas vermitud lübischet, mis pärinevad ajavahemikust 1395–1420. Leidude põhjal võiks arvata, et selleks ajaks olid ehitustööd lõppenud vähemalt konvendihoone välisperimeetril.

Viimaste väliuuringutega leitud vanimaks rajatiseks tuleb pidada 2010. aastal edelakurtiini läbiva uue autotunneli kaevamisel (jn 1, kaevand I) avastatud laudteed (jn 6 A: 6). See koosnes kahest paralleelsest, teineteisest 1,2–1,3 m kaugusel asuvast palgist ning risti nende peale asetatud 23 cm laiustest laudadest. Vaid üksikute fragmentidena säilinud tee, millest meri oli tormidega korduvalt üle käinud (laudu oli vähemalt viis korda uuendatud), kulges piki randa sadama suunas. ¹⁴C-dateering andis laudtee paremini säilinud aluspalgi vanuseks 705±25 radiosüsinikuaastat (tabel 1: 1). Kõnesolev tee seostub eelkõige sadamakohaga. Tee linnusepoolselt küljelt leiti maasse rammitud vaiarida (jn 6 A: 4), mis jälgis täpselt tee suunda, nagu ka samalt joonelt algav kuni meetri kõrgune lauge savivall (vt jn 6 A). Võib arvata, et tugevate lõunatuultega ulatus meri küllaltki kaugele ning tekkis vajadus ehitusplatsi kuidagi üleujutuste eest kaitsta. Pärast laudtee kasutamise lõpetamist on sellele (ja varasemale vallile) peale kuhjatud uus kõrgem pinnasevall, millele püstitati juba palkidest palissaad (vt jn 6 B: 16).

Koos konvendihoonega on käinud esimese ringmüüri ehitus ning arvatavasti 14. sajandi lõpukümnel on hakatud kaevama vallikraavi ja rajama dolomiitplokkidest kontreskarpi. Aluspaale püstitatud kontreskarp (jn 1, kaevandid I, IV, XIII, XXIII, jn 6 B) sarnaneb oma paksuse (u 2,4 m), vundeerimissügavuse ja müüriilao poolest I ringmüüri, mis on sisuliselt sama kavatise eskarp. Algselt loodusliku maapinna kõrguseni ulatunud müür viitab juba linnuse edasistele laienemiskavadele, sest vallikraavi kaevamisel 2,4 m paksuse tugimüüri järele vajadust ei tekkinud – savinõlv poleks niigi varisema hakanud. Müüri paksus näitab, et seda kavatseti tulevikus kõrgemaks ehitada. Vallikraavist välja tõstetud pinnast kasutati selle ümbruses (uutes eeslinnustes II–IV, vt jn 1) enne suure ringmüüri ehitamist täitematerjalina, sest looduslik maapind osutus liiga madalaks ja ebatasaseks (kõrgus I vallikraavi kaguküljel asunud IV eeslinnuses u 1,2–2,2 m ümp.).

TTÜ Geoloogia Instituudi vanemteaduri Jüri Vassiljevi kasutuses olevad rannataseme andmebaasid ja nende põhjal tehtavad rekonstruktsioonid osutavad, et näiteks aastal 1350 oli meretase Kuressaare linnuse juures u 1,3 m üle praeguse merepinna. Seega jäid eeslinnused (vähemalt üleujutuste korral) osaliselt vee alla. Nagu lõppenud välitöödel selgus, on uutes eeslinnustes maapinda tõstetud kohati üle kahe meetri. Kui täitepinnaest dateerivat leiumaterjali ei saadud, õnnestus idatorni (vt jn 1, 3) kõrvalt leitud lauakivist võtta proov, mis andis tulemuseks 555±30 radiosüsinikuaastat (tabel 1: 7). Sellele ja suhtelisele kronoloogiale tuginedes toimus maapinna tõstmine väljaspool vallikraavi 14. sajandi lõpul – 15. sajandi esimesel veerandil, mille järel alustati uue flankeerivate tornidega ringmüüri ehitamist.