



## Trial excavations at Vatla ring fort in western Estonia

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The University of Tartu carried out excavations on the ring fort of Vatla (Karuse) in the framework of the research project ‘Estonia in 1100–1400: native society, culture and traditions in the time of changes’. The aim of the work was to study the chronology of the site and to cast new light upon the Late Iron Age strongholds of continental western Estonia – to find out if they were in use for some period after the crusade in the first quarter of the 13th century.

### THE MONUMENT, ITS CONTEXT AND EARLIER INFORMATION

The ring fort of Vatla (Jung 1910, 196; Karopun & Pruuden 1923 & 1921, 24–27; Männik 1924, 2–3; Tavast 1931, 13–15; Tõnisson 2008, 255–256) is located in western Estonia, Karuse parish, presently Lääneranna rural municipality. The site lies in Linnuse village, 7.5 kilometres from the coast of the Baltic Sea. When regarding land upheaval as 3 mm per year, the stronghold was located ca. 4 km from the coast in the Final Iron Age (in Estonia, ca. 1050–1225/50 AD).<sup>1</sup> However, according to oral lore the sea reached the stronghold in the past (Männik 1924, 2) and the remains of a rather big ship are said to have been found from the bottom of the mire when cutting peat somewhere in the surroundings ‘in the time of serfdom’, i.e. before 1816 (Jung 1910, 196). Differently from other Iron Age ring forts of western Estonia, which were called *maalinn* in Estonian and *Bauerberg*<sup>2</sup> in German, a different term was used for Vatla ring fort: it was called *kants* in Estonian and *Schanze* in German in the late 19th century (Stackelberg & Bogoyavlenski 1896, 31).

The stronghold which has formerly been dated to the 11th–12th centuries AD (Tõnisson 1974, 93) is located 400–500 m north of the historical Linnuse village centre, on the narrowing tip of a long WNW–ESE-directional flat promontory (Fig. 1). Sometimes the ring fort has been considered to be identical with the place named *Paehalle*, which was mentioned in the Chronicle of Henry of Livonia in the context of baptizing people in 1225 (HCL XXIX: 7; Tõnisson 2008, 255).



Fig. 1. Vatla ring fort, from the east.

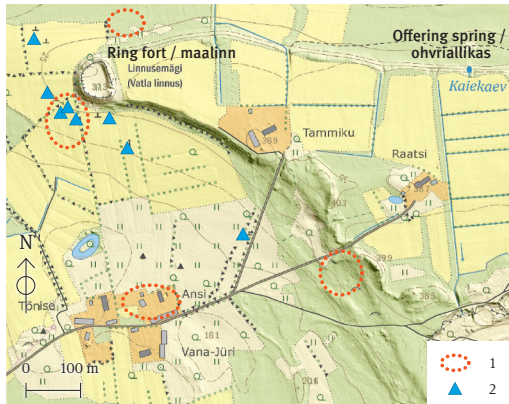
Jn 1. Vatla maalinn, idast.

Photo / Foto: Heiki Valk

<sup>1</sup> In 1895 the site has been described as located only 3 *versts* from the seashore (Stackelberg & Bogoyavlenski 1896, 30).

<sup>2</sup> Here a misprint or an error cannot be excluded – the Estonian strongholds were usually called *Bauerburg* (and not *-berg*) in Baltic German.

In the vicinity of the stronghold there are several other archaeological monuments (Fig. 2). Cultural layers of two small settlement units south-east and south of the site with predominantly wheel-thrown pottery mainly from the 12th–14th centuries were studied with trial trenches in 1972 and a third settlement site was found north of it (Tõnisson 1974). A settlement site immediately south-west of the ring fort was discovered by Mati Mandel in 1987. In the fields south, south-west and north-west of the ring fort there are seven cup-marked stones in the distance of 40–100 m from it, and another stone lies in the distance of ca. 350 m. The high time of these monuments is dated in Estonia mainly to the Bronze Age and Early Pre-Roman Iron Age (Tvauri 1997; Lang 2020, 222), but they remained in use also later.



**Fig. 2.** Monuments in the surroundings of Vatla ring fort.  
1 – a settlement site, 2 – a cup-marked stone.

**Jn 2.** Muistised Vatla maalinna ümbruses. 1 – asulakoht, 2 – lohukivi.

Map / Kaart: Land Board / Maa-amet

access to the courtyard from the promontory plateau. When Vatla ring fort was first excavated in 1895 by Sergey Bogoyavlensky and Reinhold von Stackelberg before the All-Russian X Archaeological Congress in Riga (Stackelberg & Bogoyavlensky 1896, 30–31), the south-eastern gateway was claimed to be made by the peasants ‘in recent times’. This information was confirmed by the description of the rampart profile, not yet covered by turf then.<sup>3</sup> The core of the rampart was described as made of granite and being 1 m high, covered by a layer of mostly granite stones, almost of similar thickness. The higher part of the rampart on top of it was made of ‘granite and stones’ (evidently, limestone) and covered by soil. Thus, the rampart has been constructed in different stages. The last-mentioned stage was described ‘roughly as high as the rampart in other parts of the hill fort’ and numerous charcoal and brands could be observed ‘under the highest row of stones’ (*ibid.*, 30–31). According to information from local inhabitants during the excavations in 2023, the gateway was greatly expanded by German military forces during World War II, to enable access of heavy equipment and machines to the courtyard.

Since the highest point of the rampart – ca. 37.5 m a.s.l. is located south of the broadened south-eastern gateway, it cannot be excluded, however, that a gateway existed there already

The height of the circular rampart of the ring fort is 1.5–2 m on its inner side in the south, west and north. The height of the promontory slopes is 8–9 metres until the courtyard level on the south, west and north side of the stronghold. The slopes merge with the rampart without any visible border. The eastern side of the rampart is higher – ca. 5.5 m from the outer and 4–4.5 m from the inner side. On the outer side of the high eastern rampart there is a shallow depression from the former moat. The original depth of the moat, partly filled with dark eroded soil has been at least 1 metre (Tõnisson 1974, 93).

There are two gateways in the rampart. The gateway in its north-western part, with access from a very deep slope, has remained intact. The second gateway lies in the southern end of the eastern rampart and gives access

<sup>3</sup> The profile was open also in 1931 (Tavast 1931, 31). Presently the profiles are fully overgrown.

before the peasants started breaking the rampart. This high structure beside a place suitable for a gateway can be interpreted as the site of *summitas castris* ('top of the stronghold'), a feature repeatedly mentioned in connection with Estonian early 13th century strongholds in the Chronicle of Henry of Livonia (Tõnisson 1981).

Information about the excavation results from 1895 from the courtyard is limited (Stackelberg & Bogoyavlensky 1896, 31). When digging trenches on the plateau, a ca. 25 cm thick structure of two layers of charred oak logs (ca. 15 cm in diameter), the lower of them covered by a layer of burnt sand and bordered by a row of stones was found. The structure (ca. 3 × 2 m) might originate from the floor of a building. In addition, some post holes with the depth of ca. 50 cm were found. As finds from the courtyard, animal bones (pig, sheep/goat) and charcoal fragments, mostly in the depth of 25–30 cm, were noted. The excavations yielded also 'some artefacts' and axe fragments.

Some stray finds from Vatla ring fort are stored also in museum collections. In later times, some pottery, but also two cross pendants, have been gathered from the courtyard.<sup>4</sup> In addition, there are some finds from the outer side of the eastern rampart<sup>5</sup> or from the promontory in front of the stronghold,<sup>6</sup> and an assemblage of finds – pottery sherds and fragmentary jewellery items have been gained from the ring fort or its vicinity.<sup>7</sup>

### EXCAVATIONS

During the investigations two trenches were made in the ring fort in 2023 – one in the southern part of the courtyard, the other on top of the eastern rampart (Fig. 3).<sup>8</sup> All the soil was sieved on meshes with the eye width of 6 cm.

#### The courtyard trench

The courtyard trench (6 × 1 m) was east–west directional and perpendicular to the southern rampart, beginning in the distance of 5 m from its foot (Fig. 4). The layer disturbed by ploughing – the courtyard was used as a field before World War II – was dark greyish soil which contained very few stone fragments, and some finds – mostly small pottery sherds, but also three bronze items – a tiny triangular pendant (Fig. 5: 8), a fragment of



Fig. 3. Trenches in Vatla ring fort.  
Jn 3. Kaevandid Vatla maalinnas.  
Map / Kaart: Land Board / Maa-amet



Fig. 4. The courtyard trench. View from the north.  
Jn 4. Õuekaevand põhja poolt.  
Photo / Foto: Heiki Valk

<sup>4</sup> AI 4364; AI 5329; AM A 135: 1, 2; AM A 714; HM 3074: 52; AI 5329.

<sup>5</sup> AM 32548 / A 778.

<sup>6</sup> HM LK 3074: 52 Arh.

<sup>7</sup> AM 13749 / A 135: 1–24.

<sup>8</sup> The finds: TÜ 2999: 1–84.



**Fig. 5.** Finds from Vatla ring fort. 1–4, 7, 9 – hand-made pottery, 5, 6 – wheel-thrown pottery, 8 – a trapezoid pendant.

**Jn 5.** Leide Vatla linnamäelt. 1–4, 7, 9 – käsitsikeraamika, 5, 6 – kedrakeraamika, 8 – trapetsikujuline ripats. (TÜ 2999: 78a, 49, 62, 74, 55, 82, 69, 3, 70.)

Photo / Foto: Heiki Valk



**Fig. 6.** A javelin spearhead from Vatla ring fort.

**Jn 6.** Viskeodaots Vatla linnamäelt. (TÜ 2999: 52.)

Photo / Foto: Heiki Valk

a mount (: 18) and a rivet (: 19). In the depth of 20–25 cm the soil became dark, containing burnt stones and stone rubble, as well as a few fragments of major burnt stones which might originate from stoves. From this intensive cultural layer fragments of hand-made vessels (Fig. 5: 7, 9), including some sherds of fine ware from the Pre-Viking or Viking Age, and a javelin spearhead dating from the 12th or 13th century with possible traces of fire on it (Fig. 6) were found. Two post holes of ca. 40–50 cm also relate to the dark layer.

The dark cultural layer which covered the bottom of the whole trench ended in the depth of 32/35 cm. Most of it lay on very hard mineral moraine ground of clay and gravel. On top of intact mineral ground there were some coarse ware fragments with larger pieces of stone rubble as inclusions, characteristic of the Late Bronze or Early Iron Age (Fig. 5: 2–4). One of them (Fig. 5: 2) was a fragment of Asva type pottery, decorated with notches on the edge.<sup>9</sup> Evidently, the original soil had been removed from the area before these early occupation activities. A radiocarbon analysis from a sheep/goat bone in the bottom of the cultural layer<sup>10</sup> gave the result of

1315±30 BP (95.4% probability), calibrated date 654–710 (49.6%) AD or 721–775 (45.8%) AD.

The few animal bones<sup>11</sup> found from the courtyard trench were highly fragmented and several of them had been in fire. Among the fragments mainly the presence of sheep/goat and pig could be identified. In two cases the fragments represent a major ungulate (cattle or elk).

In the southern end of the trench the dark cultural layer did not lay on moraine gravel, but on a thin layer of brown soil. When removing it, it appeared that a ca. 95 cm wide depression, filled with similar brown soil diagonally crossed the bottom of the trench. In the depth of 15–20 cm from the surface of the depression it contained a thin intensively black cultural layer. Its thickness was up to 3–5 cm in the middle part and it contained some fragments of very coarse pottery. One of the sherds which was decorated with triangular notches under the rim (Fig. 5: 1) represents Late Bronze Age pottery as well. The assemblage also contained a sherd with faint textile impressions (: 78b). Under the black layer there appeared a post hole with the diameter of ca. 60 cm and filled with similar brown soil. The depth of the pit was 92–93 cm when measured from the ground surface and 45 cm from the surface of intact mineral moraine. Its southern and south-eastern edge contained some wedge stones (diameter 12/15–17/23 cm) and there were some similar stones also in the bottom. The pit had been dug

<sup>9</sup> Identifications of Bronze Age and Early Iron Age pottery by Prof. Valter Lang (TÜ).

<sup>10</sup> Poz-177193. Radiocarbon samples were calibrated with OxCal v4.4 programme (Bronk Ramsey 2009) and IntCal20 calibration curve.

<sup>11</sup> Identified by Eve Rannamäe (TÜ).

in extremely hard soil of clay and gravel. Evidently, a massive post, possibly of a building, stood in the courtyard. After its removal and filling the cavity with brown soil, the upper part of the remaining depression was used for waste.

### The rampart trench

A trench of 3 × 1 m was made on top of the high eastern rampart, in the distance of ca. 14 m from the point where the slope of the eastern gateway begins (Fig. 7). It was made perpendicularly to the rampart axis, in the east–west direction (80–260°). The trench was mainly located on the flat top of the rampart, but its eastern end lay greatly on the slope. As the research questions focused on the latest stage of the stronghold, the trench was dug until the depth of 40 cm from the ground surface.

The top of the rampart consisted of dark grey soil which contained a few small stones. The first bigger stones (diameter of 12–15/20 cm), both limestone and granite, appeared mostly in the depth of 10–15 cm, but their number was not big until the depth of 25–30 cm. The grey soil contained five pottery sherds, a few fragments of animal bones (pig, ungulates), some of them cremated, four pieces of blacksmithing slag and some tiny charcoal fragments. Pieces of pottery represent both hand-made and wheel-thrown vessels. The latter two had very thin walls (4 mm and 5 mm), and one of them is from the rim edge (Fig. 5: 6). Considering the character of Final Iron Age pottery in western Estonia, the sherds might even belong to the medieval, post-conquest period. In the western end of the trench a big fragment of partly charred birch bark (47 × 10 × 0.5 cm) was found. A radiocarbon sample from it gave the result of 885±29 BP<sup>12</sup>, calibrated age (with 95.4% probability) 1045–1085 (3.5%), 1093–1105 (1.8%) or 1121–1224 AD (74.1%) which seems to exclude the post-crusade construction of the last stage of the rampart, and, probably, also the use of the stronghold in that time. In the eastern end of the trench, i.e. on the outer side of the rampart the edges of bigger stones appeared in the top soil. The amount of stones increased considerably in the depth of 20–30 cm. In the depth of 30–40 cm the stones, mostly of 15–25/30 cm in diameter, both limestone and granite, formed a rather compact assemblage which covered almost the whole trench. Some of the granite stones were fire-cracked and seemed to originate from stoves. The biggest stone



**Fig. 7.** The rampart trench. *a* – view from the north, *b* – view from the east.

**Jn 7.** Vallikaevand. *a* – põhja poolt, *b* – ida poolt.

Photo / Foto: Heiki Valk

<sup>12</sup> Vilnius Radiocarbon Laboratory FTMC-LR25-1.

on the outer side of the rampart had the measurements of  $51 \times 47 \times 17\text{--}18$  cm; it was slanted and seemed to have fallen or slipped from above. The other bigger stones measured  $36 \times 24 \times 17$  cm and  $42 \times 35 \times 17\text{--}20$  cm. It seemed that these big stones had formed the outer border of the rampart body made of smaller ones, supporting it from falling. There was grey soil in the eastern edge of the trench, east of the assemblage of big stones, but no more stones. In the depth of 30–40 cm also disturbed yellow moraine gravel appeared in the central part of the rampart.

Excavations show that the core of the rampart top was made of granite and limestone, having a boundary of major granite rocks on the outer side. The stones had been covered with a ca. 20/25–30 cm thick layer of soil which contained some finds from cultural layers. Similar soil continued also deeper between the stones of the rampart, filling gaps between them and linking them into a compact rampart body. The layer of soil which covered the stones formed a flat and even top of the rampart – necessary both for walking and for binding timber constructions.

## DISCUSSION

The finds of Asva type pottery from the tip of a promontory with high slopes make it possible to regard Vatla as a fortified settlement of Late Bronze Age, representing the same cultural and social phenomenon as the fortified settlements of Asva, Iru and Ridala (Lang 2007, 57–71). It cannot be excluded that the earliest, 1 m high stage of the rampart might belong to this period of occupation. In such case Vatla might be an early example of early promontory hill forts (Lang 2007, 81–83). The radiocarbon date from the bottom of the cultural layer indicates the use of the stronghold also in the Pre-Viking Age – in the 7th and 8th centuries.

Archaeological investigations showed that the stronghold was strongly fortified in the final stage of the Iron Age. This is indicated by a rim fragment of a wheel-thrown vessel from the top soil on the rampart body (Fig. 5: 6). The fact that a fragment of the same vessel was found from the courtyard trench (Fig. 5: 5) – the two sherds perfectly fit with each other – shows that some of the soil for covering the re-fortified eastern rampart was taken from the courtyard. When considering the observations on the profile of the eastern rampart from 1895, its height seems to have been increased for ca. 1.5–2 metres during the last construction stage that took place, judging by the radiocarbon date, between 1121 and 1224. The character of the wheel-thrown pottery fragment indicates, however, the final stage of this time span.

Former investigations have shown that the Final Iron Age strongholds of Saaremaa and northern Estonia remained in use for some time after the conquest, being ruled by the native Estonian nobility (Valk 2009; Valk 2014; Mägi *et al.* 2023), but there was no information on the western part of continental Estonia, the prehistoric province of *Rotalia*. Finds of wheel-thrown pottery, as well as the radiocarbon date, refer to the use of Vatla ring fort in the final stage of the Iron Age, but the excavations gave no definite indication of its continuity after the crusades.

The presence of the native nobility among post-conquest social elite of the region is indicated by trapezoid gravestones with warrior images in Karuse and Hanila churchyards located 4.9 km NNW and 7.7 km NW of the stronghold – evidently in the hinterlands of Vatla stronghold. These gravestones date from the 13th century, and some of them have been attributed to Estonian noblemen (Markus 2023). Written sources also indicate the preservation of high social position of native Estonian nobility in continental western Estonia in the

post-conquest 13th century. In 1241 *seniores de Estonibus Maritimae* are noted as testimonies of the treaty between the Osilians and the Teutonic Order (LUB I: 169).

Although archaeological finds did not provide firm evidence of the use of Vatla ring fort in the post-conquest time, and of the presence of the post-conquest native nobility, it cannot, however, be fully excluded, considering the limited scope of the excavations.

## CONCLUSIONS

The excavation results make it possible to suggest a Late Bronze Age fortified settlement on the site of the later Vatla ring fort. The radiocarbon date indicates the use of the stronghold also in the Pre-Viking Age and Viking Age habitation can be supposed judging by pottery. The Late Iron Age ring fort seems to have remained in use for some time also after the crusades and baptism of the region in 1225, being strongly fortified in the 13th century.

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## PROOVIKAEVAMISED VATLA MAALINNAS AJALOOSEL LÄÄNEMAAL

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Vatla ehk Karuse maalinn (jn 1) asub Karuse kihelkonnas Linnuse külas, Karuse kirikust linnulennul 4,9 km, Hanila kirikust 7,7 km ja praegusest rannikust ligi 7,5 km kaugusel. Pärimuse kohaselt ulatunud meri kunagi linnuseni ja kusagilt ümbruskonnast olevat turba lõikamisel leitud üsna suure laeva jäänuseid.

Linnust on 1895. aastal uurinud R. Stackelberg ja S. Bogojavlenski, kuid tulemuste kohta on teada vähe. Kaevamisülevaate kohaselt on kagupoolne väravakäik väga hiiline: selle on kõrge idapoolse valli sisse lõhkunud talupojad alles üsna hiljuti. Kirjeldatakse valli lõiget, milles paljandub vähemalt kolm ehitusjärku: all on meetrikõrgune raudkividest valliosa, selle peal lade raudkive ja teisi, arvatavasti paekive ning kõige pealmine on mullaga kaetud raud- ja muudest kividest valliosa, mis on ligikaudu sama kõrge kui ringvall linnuse teistel külgedel. Linnuse õuelt leiti sõestunud tammepalkidest ligi 3 × 2 m suurune laotis, mille ühes servas oli põlenud kivide rida. Nähtavasti on tegemist hoone põranda jäänustega. Linnuse õuelt ja ümbrusest on varasemalt saadud mitmeid juhu-leide. Maalinna lähiümbrus on muististerohke (jn 2). E. Tõnisson on leidnud seal kolm 12.–14. sajandi asulakohta ning M. Mandel avastanud asulakoha linnuse lõunajalamil. Muistise lähikonnas on 8 tõenäoliselt nooremaste pronksiaega või varasesse rauaaega kuuluvat lohukivi.

2023. a korraldas Tartu Ülikool Vatla maalinnas proovikaevamised, et kahe kaevandi (jn 3) abil täpsustada muistise dateeringut. Õue lõunaossa, lõunavalli lähedusse tehtud tranšee (6 × 1 m) (jn 4) künnikihi tumehallist mullast sõeluti välja veidi savinõukilde ja loomaluud ning väike trapetsripats (jn 5: 8). Maapinnast 25–30 cm sügavusel oli tume, põlenud kive sisaldav kultuurkiht, millest leiti lisaks käsitsikeraamikale (jn 5: 7, 9) arvatavalt 12.–13. sajandi viskeodaots (jn 6). Tumeda kultuurikihi all loodusliku moreenkruusa peal leidis robustseid käsitsikeraamikakilde (jn 5: 2–4). Üks neist pärineb nooremast pronksiajast ja esindab Asva tüüpi keraamikat

(jn 5: 2). Kultuurikihi põhjast leitud loomaluust tehtud radiosüsinikudateering andis kalibreeritud tulemuseks ajavahemiku 654–775 pKr. Kaevandi lõunaotsas oli tumeda kultuurikihi all õhuke pruuni mulla lade, mis jooksis madala süvendina poolpõiki üle kaevandi. Sellelt alalt avastati u 60 cm läbimõõduga ja maapinnast ligi 90 cm sügavusele ulatuv kiilukividega postiauk. Süvendi ülaosas oli 3–5 cm paksune lade tumedat mulda. See sisaldas jämedapurrulist käsitsikeraamikat, sealhulgas leiti veel ühe hilispronksiaegse nõu kild (jn 5: 1).

Teine kaevand (3 × 1 m) tehti idavalli harjale valliga risti, kagupoolsest sissepääsust 14–15 m kaugusele (jn 7). Tasase valliharja pealmine pinnasekiht koosnes 15–25 cm paksusest täitemullast, milles leidis veidi kive ja kultuurikihi jälgi – loomaluud ja savinõukilde. Kaks õhukese seinaga kedranõukildu, sh üks servatükk (jn 5: 5, 6) pärinevad ilmselt vallutusjärgsest ajast. Maapinnast 20–30 cm sügavusel leiti suur tükk poolsõestunud kasetohtu, millest tehtud radiosüsinikudateering andis tulemuseks ajavahemiku 1121–1224 pKr. Kattemulla all 20–30 cm sügavuses algas kividest vallikehand, mida kaevati maapinnast kuni 40 cm sügavuseni. Valli välisserv oli tehtud suurtest kividest. Nende taga asus tihe 15–30 cm läbimõõduga raudkivide lasu ja valli keskele oli täiteks toodud kruusa.

Kaevamistulemuste põhjal on inimtegevus linnuse alal alanud juba nooremal pronksiajal. Kuna muistis paikneb neemiku tipul looduslikult kaitsitud kohas, võib paika pidada kindlustatud asulaks. Asustusjärgi on ka eelviikingi- ja viikingiajast ning võib-olla ka muinasaja lõpust. Keskaegne keraamika valliharjale ehituse ajal toodud täitepinnasest (jn 5: 6) ja süsnikudateering viitavad sellele, et linnust on kasutatud ja tugevdatud muinasaja lõppjärgus – 1895. aasta valliprofiili kirjelduse kohaselt tervenisti 1,5–2 m võrra. Kindlaid märke sellest, et linnus oluoks kasutusel veel pärast vallutust, kaevamised ei andnud, kuigi kaevamiste väike maht ei lase seda ka välistada.