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EXCAVATIONS ON THE HILL FORTS OF SOUTHERN ESTONIA: VARESTE, ERUMÄE AND TILLEORU

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In 2008 the University of Tartu continued fieldwork on the hill forts of southern Estonia. Excavations with the aim to date the sites took place on three prehistoric forts – Vareste, Erumäe and Tilleoru.

The hill fort of Vareste (*Vareste Liinamägi*) (Valk 2008, 319–320) is located in County of Võrumaa, Räpina parish, Vareste village, on the eastern shore of the River Võhandu, ca. 100 m south-west of Sõrra farmstead. The fort lies on the northern end of a north–south directional, ca. 150 m long oblong hill just upon the bank of the high (ca. 20 m) river valley. When measured from the flat plateau on the land side, the hill is 6–7 m high. The highest, northern end of the ridge has been separated from the rest of it by a moat; the soil from it has been heaped up into a ca. 2.5 m high rampart. A smaller, ca. 0.5 m high rampart with a shallow moat-like depression on the inner side can be observed on the northern edge of the hill. The hill fort area is 1000–1200 m², but most of it is uneven, sloping towards the edges. Between the higher part of the hill and the river valley there is a lower plateau with the width of ca. 5 m. The location of the fort at the river and its rather weak fortifications enabled to suggest a Viking Age date for it.

The excavation plot (20 × 1 m) stretched from the flat hill top until the beginning of the steep northern slope of the hill, cutting also the low northern rampart (Figs. 1; 2). When cutting the rampart, made of loam and sand of different colour and consistence, an intensive layer of brands and charcoal was discovered in the bottom of the trench. The brands originate from timber that had supported the rampart from both sides. The diameter of the thickest charred log was up to 25 cm. The fortifications had been built in one stage. A ¹⁴C-sample from the external year rings of one brand gave the result 1730±60 BP (cal. 95.4% 135–423 AD)¹ and a sample from another yielded the date 1647±60 BP (cal. 95.4% 255–542 AD).² The overlapping part of the two samples, originating from the same fire, refers to the mid-3rd – early 5th century, i.e. to the Roman Iron Age.

¹ Tln-3162.

² Tln-3163.



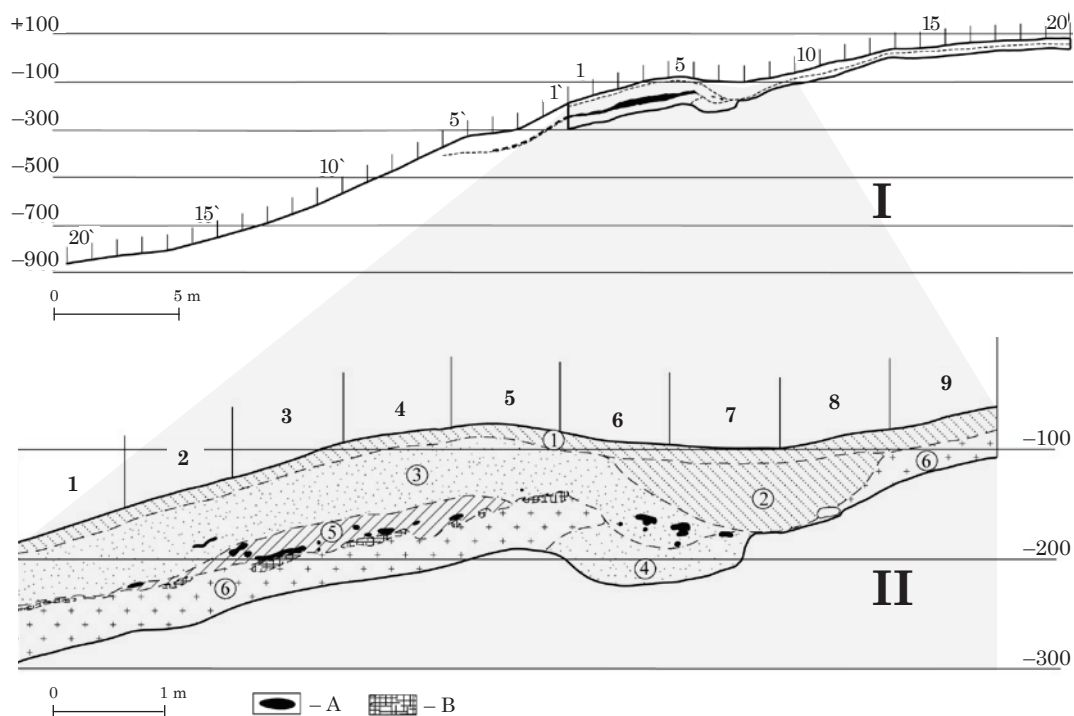
Fig. 1. Trench on Vareste hill fort with brands at the northern rampart.

Jn 1. Tranšee Vareste linnamäel põlengujäänustega põhjavalli piirkonnas.

Photo / Foto: Heiki Valk

Digging the yard of the fort revealed no traces of a cultural layer. The soil was light brown and turned into natural sand or gravel at the depth of 25–30 cm. In spite of sieving, only one fragment of coarse hand-made pottery was found (Fig. 3). The absence of a cultural layer gives evidence of a short-time use of the fort. Evidently, it must have perished in fire rather soon after it became to function.

Just below the hill fort, between the fort and the river there is a flat, evidently levelled more-or-less triangular plateau that lies *ca.* 1 m above the low area, flooded at high water. The plateau with its 54 m long side along the slope of the river valley stretches *ca.* 25 m westwards. The levelled area was most suitable for controlling traffic on the river, and also for harbour activities. A place suitable for landing the ships or boats is located just north of the triangular ‘peninsula’ where the stream of the river is weaker. The test pits revealed, however, no cultural layer on the plateau. A ^{14}C -sample from charcoal fragments collected from the 30 cm



thick brownish soil in the depth of up to 25 cm from an area of 2 m² gave a later date, not related to the hill fort: 222±55 BP (cal. 95.4% 1516–1597, 1617–1707, 1719–1826, 1832–1885, 1913–1955 AD).³

The hill fort of Erumäe (*Erumäe kants*) is situated in County of Tartumaa, Nõo parish, historical Uueküla (presently Vahesaare) village. The hill fort and settlement of Alt-Laari are also located in its close vicinity (the distance of ca. 300 m) (see Lillak & Valk Rescue Excavations on Alt-Laari ..., this volume). The plateau of the fort extends from north-west to south-east for 80 m and is approximately 40 m wide, with a total area of ca. 2500 m². The southern and south-eastern side of the plateau is edged by a rampart that is up to 4.5 m high; the height of the rampart on the western side of the plateau is 1–2 m. On the other sides of the plateau, protected by a steep slope of a deep natural valley, the rampart is absent.

In 1982 a trial trench (1 × 5 m) was made in the northern part of the western rampart by Evald Tõnisson. He found nothing but remains of several layers of charred logs that were dated to the 11th–13th centuries (Tõnisson 2008, 298–299).

In July 2008 two excavation plots were made on the hill fort with the hope to get more precise information about the chronology of the site

³ Tln-3164.

(Fig. 4). The first of them, with the total area of 28 m², was situated mainly on the inner side of the southern rampart, with a 1 × 4 m trench cutting its inner part (Fig. 5). The cultural layer on the hill fort yard was of low intensity. The light brown soil changed gradually into intact natural ground – brownish-yellow sand at the depth of 35–45 cm. Some pottery fragments, mostly from coarse hand-made vessels (Figs. 8: 1; 9: 2), but also some wheel-thrown sherds (Fig. 8: 5) were found. Neither construction remains nor fireplaces were discovered from the plateau. A ¹⁴C-sample from dispersed charcoal particles in the lowest part of the cultural layer (30–45/48 cm below the ground level) gave the result 1479±90 BP (cal. 95.4% 383–694, 703–706, 748–765 AD).⁴

The rampart was made of sand; though in the depth of 1.45 m a charred log fragment was found. Evidently, it was not in the original position, but had fallen there when the burning rampart collapsed. A ¹⁴C-date from the brand gave the result 1031±70 BP (cal. 95.4% 784–787, 826–841, 862–1172 AD).⁵ In the same area also burnt remains of a thin (until 1 cm thick) charred board with the preserved width of 26 cm were found.

The second excavation plot (Figs. 6; 7), a 1 m wide trench with the total area of 10 m² cut the inner side of the ca. 3 m high rampart on the south-eastern side of the hill fort, stretching also for 2 m to the horizontal plateau. The plot was located in the area where the height of the rampart began to reduce quickly, due to the growing depth of the hill slope. The surface of this part of the rampart had been damaged by some pits, probably originating from the World War II. To get more information about the cultural layer on the plateau, the investigated area in the yard was extended with a 4 × 2 m excavation plot that was added to the trench in autumn 2008.

The rampart was made of fine sand that had fallen to the yard area after the timber constructions had perished in fire. Inside the rampart first some occasional brands were found but in its bottom, at the former ground level a compact layer of fallen brands was discovered. The brands had fallen from different directions in the course of a fire. This is shown by the fact that the two burning layers (Fig. 7: A and B) that first seemed to originate from different fires and to designate different construction stages of

Fig. 2. The profile of the northern rampart of Vareste hill fort.

- I – general view
- II – excavated area
- 1 – turf and brown sandy soil
- 2 – eroded dark brown soil
- 3 – sand and sandy loam from the fallen rampart
- 4 – loam
- 5 – dark loam with charcoal particles
- 6 – intact natural ground
- A – brands
- B – hard-burnt clayish loam.

Jn 2. Vareste linnamäe põhjavalli profiil.

- I – üldvaade
- II – kaevatud ala
- 1 – mättakiht ja pruun liivmuld
- 2 – erodeerinud tumepruun muld
- 3 – vallivaringu liiv ja saviliiv
- 4 – saviliiv
- 5 – põlengukiht: tume sõeosakestega saviliiv
- 6 – puutumata looduslik aluspõhi
- A – tukid
- B – kõvaks põlenud liivsavi.

Drawing / Joonis: Eve Rannamäe

⁴ Tln-3156.

⁵ Tln-3155.



Fig. 3. Pottery fragment from Varest hill fort.

Jn 3. Savinõukild Varest linnamäelt.

Photo / Foto: Heiki Valk (TÜ 1688.)

the rampart met deep inside it. In this area in the layer of charcoal also several remains of flat charred boards were found. The maximal preserved width of the boards was in one case 23 and 25 cm; their maximal thickness was 3 cm and 4 cm, respectively. The boards had probably lined the inner side of the rampart. Most of the investigated ground had fallen from its original position after the timber inner wall of the rampart had collapsed; its presumed original location was reached only when a cave-like extension was made in the eastern end of the excavation plot in the bottom of the rampart (Fig. 7). The presumed original location of the inner wall, supported by a layer of brown clay, was in the distance of ca. 8 m from the present-day inner edge of the rampart (in fact, the heap of the rampart soil fallen and eroded into the edge of the hill fort yard).

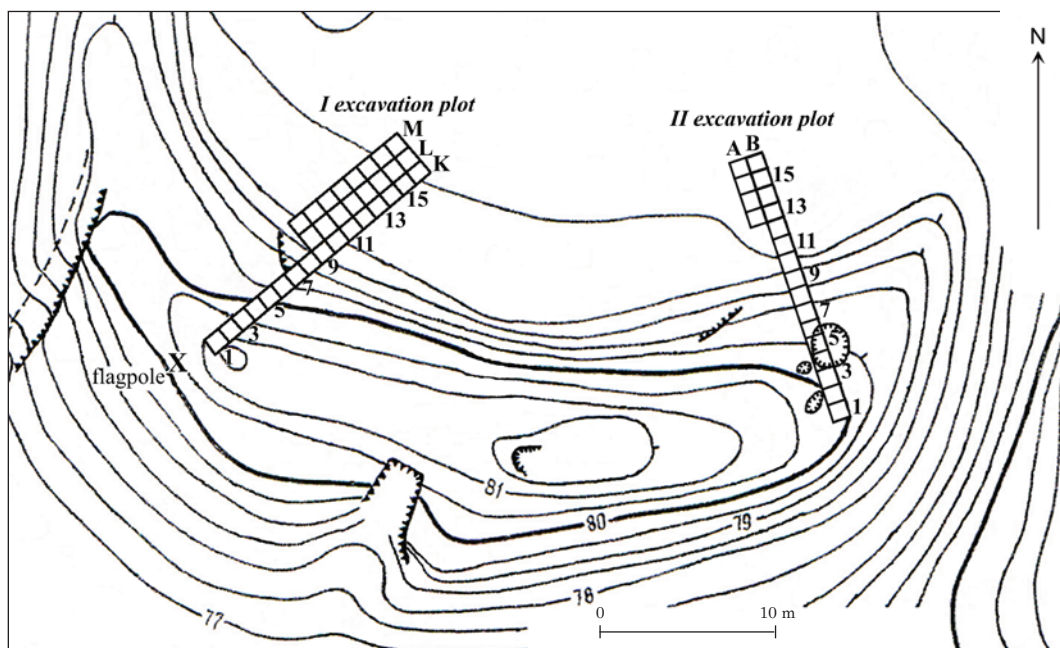
It seems likely that on the inner side of the rampart there had been some light timber buildings or a shelter that had burnt down before its collapse – this was evinced by an even, 1–2 cm thick burned layer that covered intact natural sand and was covered by the bigger brands and fallen sand.

On the hill fort plateau, where in all an area of 10 m² was excavated, the cultural layer was of low intensity.

Fig. 4. Excavation plots I and II at Erumäe hill fort.

Jn 4. Kaevandid I ja II Erumäe linnamäel.

Drawing / Joonis: Riina Juurik





It consisted of light brown (close to the rampart brownish-pink) sand which was replaced by intact natural sand in the depth of *ca.* 30 cm. The sand contained some fragments of wheel-thrown pottery with thin walls and decorated with line ornamentation (Fig. 8: 3, 4, 6; Fig. 9: 3–6); in one case also wave ornamentation was found. Some fragments of coarse hand-made pottery similar to that from excavation plot 1, a piece of striated pottery (Fig. 8: 2), and a piece of iron slag were also found.

The profile of excavation plot II (Fig. 7) shows that the rampart was built in one stage. As in both excavation plots of 2008, remains of similar charred boards were found, the high rampart seems to have been heaped up in the course of the same construction works. Since the cultural layer on the yard was of low intensity and as there were no traces of life activities in the presumed area of buildings on the inner side of the rampart, the fort has been of very short-time use at the time when the rampart existed.

Two ^{14}C -samples from the brands in excavation plot II, originating from the same fire, gave the following results: 1040±60 BP (cal. 95.4%

Fig. 5. Excavation plot I on Erumäe hill fort.

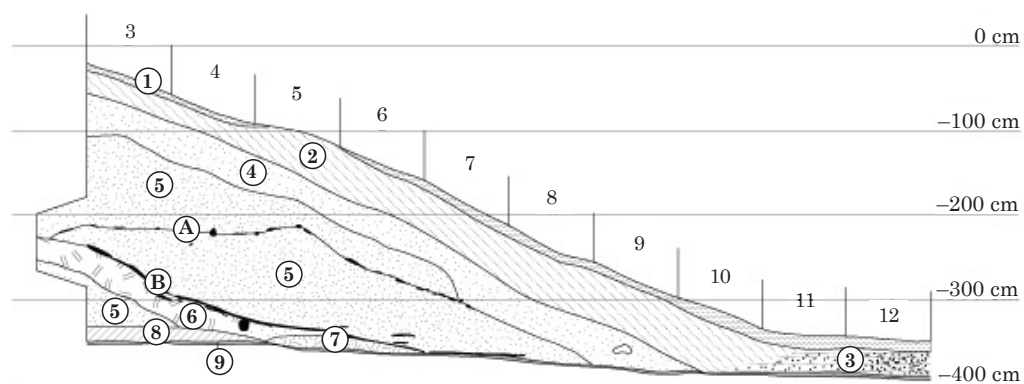
Jn 5. Erumäe linnuse I kaevand.

Photo / Foto: Heiki Valk

Fig. 6 Excavation plot II on
Erumäe hill fort.

Jn 6. Erumäe linnuse
II kaevand.

Photo / Foto: Heiki Valk



881–1157 AD)⁶ and 890±55 BP (cal. 95.4% 1027–1252 AD).⁷ The overlapping part of these dates is 1027–1157 AD. The ¹⁴C-dates from the brands do not enable us to get a clear and unambiguous date for constructing the rampart. When considering also the 8 calibrated dates from Evald Tõnisson's trial excavations on the western rampart (2008, 298–299), the overlapping part of all the 11 dates covers the late 1150s. The lack of crossbow bolts also enables us to suggest that the fort was not besieged by the crusaders in the early 13th century. This enables us to suggest rather a mid-12th century date.

The hand-moulded pottery from both excavation plots refers to some settlement of the hill fort area also before constructing the main rampart, but it remains unclear whether the settlement unit was protected from the land side, i.e. south, or not. The ¹⁴C-date from the bottom of the cultural layer in excavation plot I and the fragment of striated pottery from plot II indicate life activities on the site in the second quarter of the 1st millennium AD.

Tilleoru (*Tilleoru Kantsimägi*) hill fort is located in County of Võrumaa, Kanepi parish, Varbuse village, immediately west of the historical Tartu–Võru road. Excavations were undertaken there to get information about the date of the latest construction stage of the mighty rampart with the height of 4.3 m on the inner and 4.5 m

Fig. 7. Profile of the excavation plot II on Erumäe hill fort.

- 1 – turf
- 2 – eroded sand
- 3 – disturbed brownish-pink sand with pottery fragments
- 4 – orange-yellow sand
- 5 – yellow sand
- 6 – brown clay
- 7 – disturbed ground (sand and soil)
- 8 – original soil
- 9 – intact natural mineral ground
- A, B – burning layers.

Jn 7. Erumäe linnuse teise kaevandi profiil.

- 1 – mättakiht
- 2 – erodeerinud liiv
- 3 – savinõukilde sisaldav segatud pruunikasroosa liiv
- 4 – oranž liiv
- 5 – kollane liiv
- 6 – pruun savi
- 7 – segatud pinnas (liiv ja muld)
- 8 – algne mullakiht
- 9 – puutumata looduslik aluspõhi
- A – ülemine põlengukiht
- B – alumine põlengukiht.

Drawing / Joonis: Eve Rannamäe

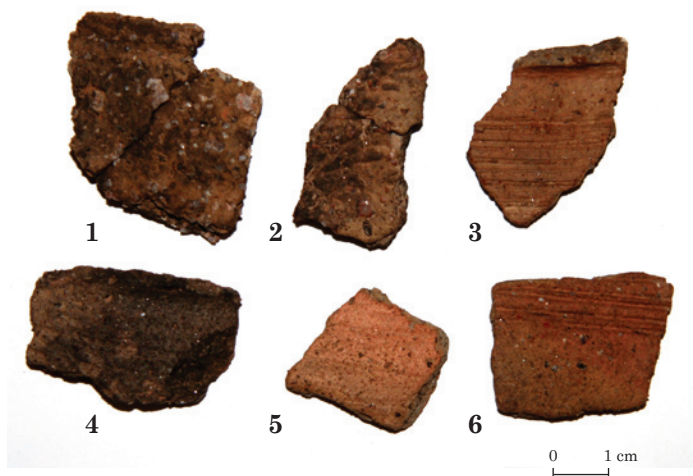


Fig. 8. Pottery fragments from Erumäe hill fort.

Jn 8. Savinõukilde Erumäe linnuselt.

(TÜ 1694: 12, 23, 123, 81, 15, 78.)

Photo / Foto: Heiki Valk

⁶ Tln-3157.

⁷ Tln-3161.

Fig. 9. Pottery profiles from Tilleoru (1) and Erumäe (2–6) hill forts.

Jn 9. Savinõukildude profiilid Tilleoru (1) ja Erumäe (2–6) linnustelt. (TÜ 1703:7; 1694: 12, 51, 116, 52, 45.)

Drawing / Joonis: Riina Vesi

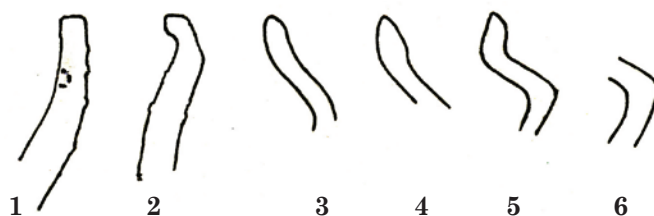


Fig. 10. View of the excavation plot of Tilleoru from the area in front of the rampart. View from the north-west.

Jn 10. Vaade Tilleoru kaevandile linnuse eest. Vaade loodest. Photo / Foto: Heiki Valk

on the outer side (here measured from the bottom of the 17 m wide and presently *ca.* 0.8 cm deep moat); earlier fieldwork of 2005 (Valk 2006, 127–130) had given no information on this question. A trench (1 × 10 m), deepened stair-wise in the central part, was made on top of the rampart, at rather similar distances from its northern and southern end (Figs. 10–12). The aim of the work was to find possible charred remains of the timber constructions from the latest stage of the fortifications; they were expected to have preserved as brands under the sand of the collapsed rampart.



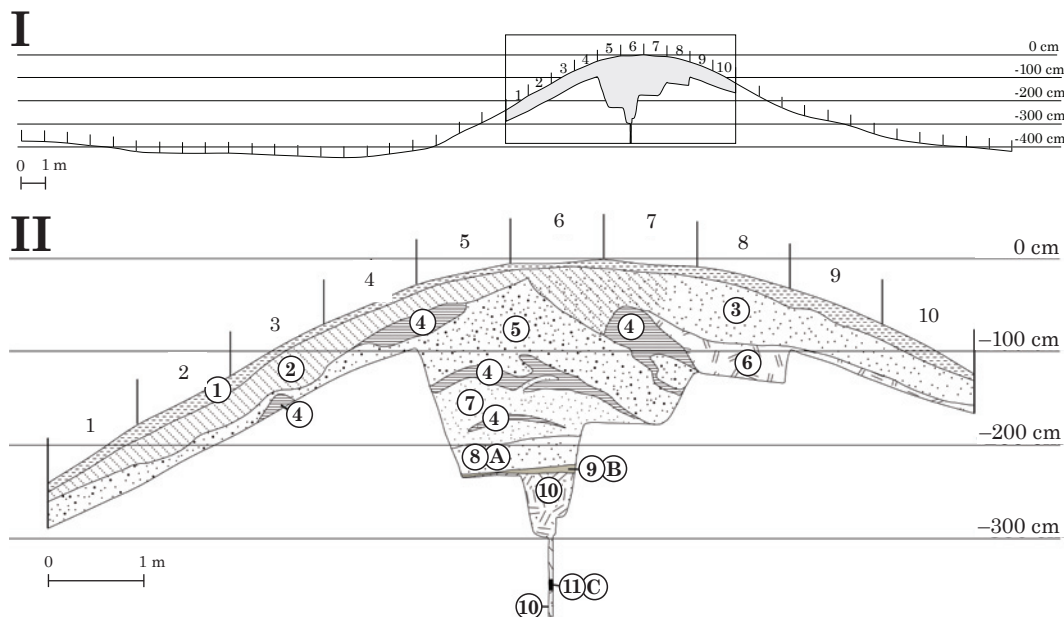
Fig. 11. Excavation plot of
Tilleoru hill fort. View
from the top to the outer
side of the rampart.

Jn 11. Tilleoru vallikaevand.
Vaade valliharjalt
välisküljele.

Photo / Foto: Heiki Valk

The central part of the rampart was made of loam and sand that contained some rare fragments of hand-made pottery (Figs. 9: 1; 13: 1–3), including a coarse sherd with dots at the edge (Fig. 13: 1) – similar to those on the so-called Rõuge-type ware, but not penetrating the rim. From the fill soil also sherds of black vessels with a smoothed surface (Fig. 13: 4, 5) and an iron awl (Fig. 13: 6) were found. The finds come, probably, from the cultural layer of the settlement that existed in front of the rampart, including the area of the moat, and which had been heaped up into the rampart. From a cluster of charcoal particles in fine sand (Fig. 12: II: A) that was expected to originate from a fireplace of the rampart builders also a ^{14}C -sample was collected: it gave the date 1290 ± 75 BP (cal. 95.4% 610–895, 927–935 AD).⁸ The charcoal may originate, however, also from the removed settlement layers in front of the rampart.

⁸ Tln-3165.



A layer of burning (up to 5 cm sand with traces of ashes and charcoal particles) appeared in the rampart in the depth of 225 cm from its top. The AMS-date from the charcoal particles (Fig. 12: II: B) gave the result 1435 ± 40 BP (cal. 68.2% 595–655 AD or 95.4% 550–660 AD).⁹ Another burnt layer (or just patch of charcoal particles?) in the depth of 345 cm from the top of the rampart – access to it was gained by boring – was AMS-dated to 1400 ± 40 BP (cal. 68.2% 610–660 AD or 95.4% 570–680 AD)¹⁰ (Fig. 12: II: C). This layer lies only *ca.* 80 cm higher than the level on the plateau of the fort (and *ca.* 1 m higher than the expected original ground level).

As no remains of charred timber fortifications that might be related to the last stage of the rampart were found from the slopes, it seems likely that the last stage of the rampart of Tilleoru Kantsimägi has remained unfinished.

Some test pits were made also on the hill Tilleoru Rõõmumägi, located on the bank of the same river valley, *ca.* 100 m south of Kantsimägi and separated from it by a crossing valley. Tilleoru Rõõmumägi had been included in the list of Estonian hill forts by Eerik Laid (1923, 115; 1933, 24) but, as a result of Harri Moora's inventory in 1951 (Moora 1951, 4–5) it has not been regarded a hill fort any more. The flat plateau of the hill, and especially the southern end where the slope was evidently artificially steepened, still enabled to suggest human activities there. From a test

⁹ Hela-1860.

¹⁰ Hela-1859.



pit made at the path leading to the southern end of the hill a thin layer of charcoal was found under the layer of disturbed red soil in the depth of *ca.* 55 cm (similar stratigraphy had been discovered also in a test pit made on the other side of the path in 2005). An AMS-dated sample taken from the charcoal gave the result 980 ± 35 BP (cal. 95.4% 990–1160 AD or 68.2% 1010–1050 AD, 1080–1150 AD).¹¹ From other test pits made on the hill, however, no remains of charcoal or cultural layer were found.

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Fig. 12. Excavation plot in the rampart of Tilleoru hill fort.
I – profile of the rampart
II – profile of the excavation plot
1 – turf
2 – eroded sand and loam
3 – red sand
4 – disturbed cultural layer from the moat area
5 – light brown sand
6 – red clay
7 – reddish brown sand
8 – light brown sand
9 – burning layer with ash and charcoal particles
10 – reddish brown loam
11 – charcoal
A–C – places of taking radiocarbon samples.

Jn 12. Kaevand Tilleoru linnamäe otsavallis.

- I – valli profiil
II – kaevandi profiil
1 – mättakiht
2 – erodeerunud liiv ja saviliiv
3 – punane liiv
4 – segatud, vallikraavi alalt pärit kultuurkihi kogumid
5 – helepruun liiv
6 – punane savi
7 – punakaspruun liiv
8 – helepruun liiv
9 – tuhane söeosakestega põlemiskiht
10 – punakaspruun saviliiv
11 – süsi
A–C – süsinikuproovide võtmise kohad.

Drawing / Joonis: Eve Rannamäe

Fig. 13. Finds from Tilleoru hill fort.

- 1–5 – pottery fragments
6 – awl.

Jn 13. Leide Tilleoru linnamäelt.

- 1–5 – savinõukillud
6 – naaskel.

Photo / Foto: Heiki Valk
(TÜ 1703: 7, 15, 31, 17, 28, 20.)

¹¹ Hela-1858.

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KAEVAMISED KAGU-EESTI LINNAMÄGEDEL: VARESTE, ERUMÄE JA TILLEORU

2008. a suvel tegi Tartu Ülikool proovikaevamisi Varestes, Erumäe ja Tilleoru linnamäel eesmärgiga täpsustada muististe dateeringut.

Vareste linnamägi (Räpina khk) asub Vöhandu jõe järsu kaldanõlva serval paikneva künka põhjapoolsel otsal, mis on ülejäänud seljakust eraldatud valli ja kraaviga. 20 × 1 m proovitranšee (jn 1; 2) kulges üle linnuseõue, lõigates ka künka põhjaserval olevat madalat valli. Kultuurkiht puudus, sõelumisel leiti vaid üks savinõukild (jn 3). Saviliivast vall on ehitatud ühes järgus; selle sise- ja väliküljel on toetatud puitkonstruktsioonidega, mille tukkidest võetud süsiniku-proovid andsid kalibreerituna tulemuse 135–423 pKr ja 255–542 pKr. Vahetult linnamäe all jõe kaldapealsel, lammialast u 1 m kõrgemal paiknev tasane, ilmselt tasandatud kolmnurkne platoo (u 1350 m²) on ala, mis sobib hästi jõeliikluse kontrollimiseks ja sadamakoha tugialaks ning mille rajamine seostub tõenäoliselt linnusega. Kultuurkihti siit ei avastatud ning süsiniku-proov andis eri vahemikes 16.–20. saj viitava tulemuse.

Erumäe kantsile (Nõo khk) tehtud kaevanditest (jn 4) asus esimene (28 m²) kõrge lõunavalli keskkoha ääres (jn 5). Proovitranšee lõikas 4 m ulatuses ka valli sisekülge. Õuepinna määratud liiva alaosast korjatud sөөosakestest võetud süsiniku-proov andis kalibreeritud tulemused 383–694, 703–706, 748–765 pKr. Valliliivas leidunud varisenud tukist võetud sөөeproov viitab ajavahemikele 784–787, 826–841, 862–1172 pKr.

Teine kaevand (18 m²) tehti piirkonda, kus idavall madaldus. 1 m laiune tranšee (jn 6; 7) lõikas 8 m pikuselt valli sisekülge; 10 m² ulatuses uuriti vallitranšee pikendusel ka õueala. Valli sisemuse liivast leiti õuepinna kõrguselt põlenud tukkide lasu, mis pärineb valli sisekülge toestanud tugiseinast ja nähtavasti ka valli taga olnud kergetest puitehitistest. Valli siseküljel on olnud vooderdatud kuni 4 cm paksuste ja kuni 25 cm laiuste plankudega; samalaadse plangu jäänus leiti ka

esimesest kaevandist. Teise kaevandi profiili põhjal otsustades on vall ehitatud ühekorraga. Kaks põlengust võetud sөөeproovi andsid kalibreeritud tulemused 881–1157 pKr ja 1027–1252 pKr. Kõigi linnusevalli põlengust võetud kalibreeritud proovide (sh E. Tõnissoni 1982. a proovikaevamised) ühisosa jääb 1150. aastate lõppu – 1160. aastate algusesse. Kultuurkiht puudus nii valli siseküljel varingupinnase all kui ka varingust väljapoole jääval õuealal.

Mõlemas kaevandis leiti valli siseküljel olevalt altalt väheintensiivsest kultuurkihist (pruunikast liivast) mõned savinõukillid (jn 8; 9: 2–6), mis pärinevad nii 12.–13. sajandi kdrakeraamistest kui ka käsitsi valmistatud nõudest. Leiti ka üks riibitud keraamika katke ning rauašlakitükk.

Tilleoru Kantsimäel (Kanepi khk), mille õuepinda ja valliotsti oli uuritud 2005, tehti valli keskele 10 × 1 m suurune, keskosas astmeliselt süvenev proovikaevand (jn 10; 11). Loodeti leida sütt, mis võimaldaks dateerida valli viimse järgu ehitamist. Vallipinnasest, mis pärineb selle ees olnud asulakohta kaevatud vallikraavi altalt, leiti käsikeraamikakilde, sh servades lohukestega nõu katke, ja raudnaaskel (jn 9: 1, 13; 12). Valliharjast vastavalt 229 cm ja 345 cm sügavusel (linnuse õuepinnast 80 cm kõrgemal) olnud õhukestest põlenguviirudest saadud sөөeproovid andsid sarnase tulemuse: 550–660 pKr ja 570–680 pKr.

Mõned šurfid tehti ka Tilleoru Kantsimäest sadakond meetrit läänes olevale Rõõmumäele, mida E. Laid pidas linnamäeks, kuid mille H. Moora oli viimaste seast välja arvanud. Kultuurkihti mäelt ei leitud, kuid künka järsustatud lääneotsast, mille madalduvat pinda oli platooserva tasandamiseks liivaga täidetud, saadi ligi 55 cm sügavusel olevast õhukesest põlengukihist sөөeproov. See andis kalibreerituna tulemuseks 990–1160 pKr.