



## ARCHAEOLOGICAL INVESTIGATIONS AT LÄHTE PALALINNA HILL FORT

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### INTRODUCTION

Small scale archaeological excavations at Lähte Palalinna hill fort<sup>1</sup> were carried out during 13th–18th of July 2010 in co-operation between the University of Tartu and the National Heritage Board (Pajuste & Veldi 2011). The main aim of the excavation was to study the cross section of the hill fort's rampart in order to gather radiocarbon samples for dating different layers of human activity on the hill fort.

### LOCATION OF THE SITE AND PREVIOUS INVESTIGATIONS

Lähte Palalinna hill fort is located on the south-eastern edge of the Vooremaa landscape region, which is a very distinctive area characterized by moraine oblong drumlins and long lakes (Arold 2005, 205). The hill fort is situated on the top of the Sootaga drumlin (92 m a. s. l.), which is the highest point in the region (Fig. 1). Next to the hill fort in north-west

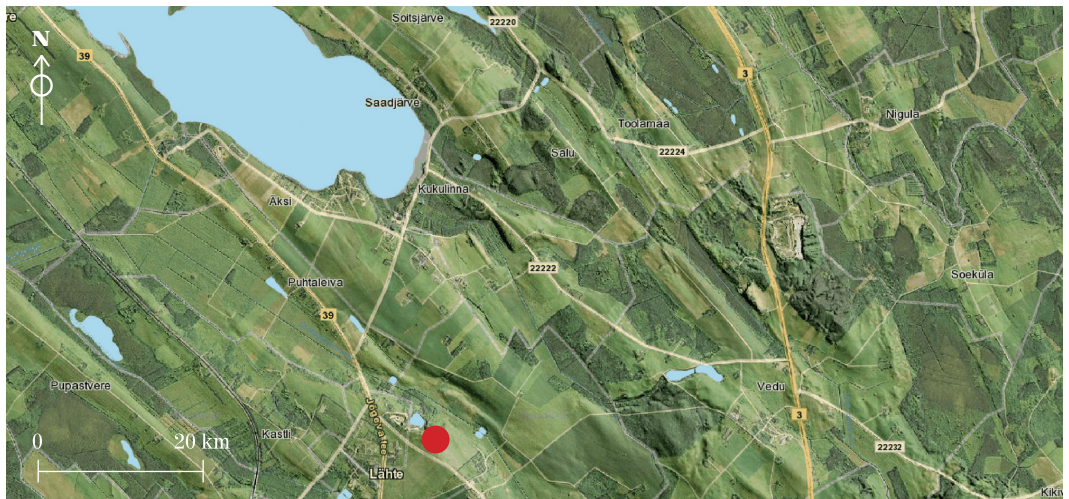


Fig. 1. Location of the Lähte Palalinna hill fort on the photomap of the Estonian Land Board.

Jn 1. Lähte Palalinna linnuse asupaik Maa-ameti fotokaardil.

Drawing / Joonis: Martti Veldi

<sup>1</sup> Reg. no. 12999 at the national registry of cultural monuments of the National Heritage Board.

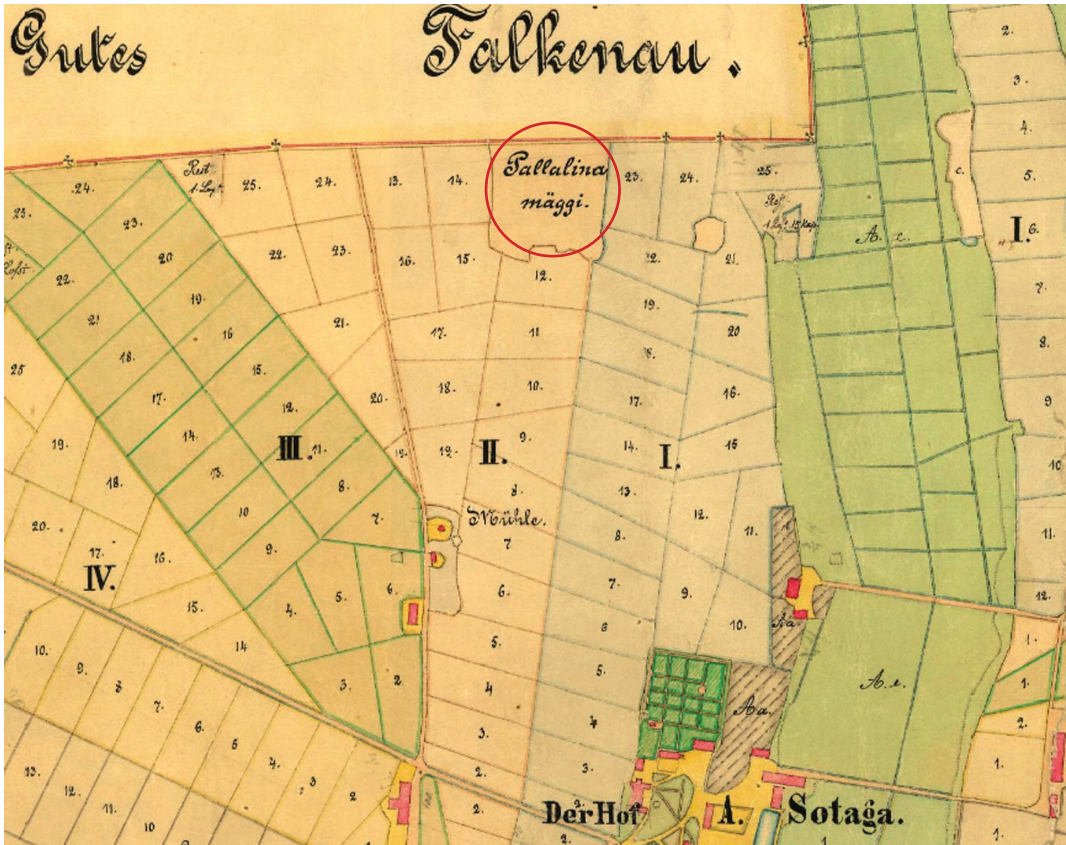


Fig. 2. Location of the site on a historic map from 1895.

Jn 2. Muistise asupaik 1895. a kaardil.  
(EAA 2623-1-2038.)

lies an old gravel quarry, which after abandonment was turned into an artificial lake. In three other directions the hill fort is surrounded by cultivated fields. According to current administration the hill fort is situated in Sootaga village, Tartu municipality, Tartu County. Historically the village belonged to the Sootaga manor in the Äksi parish (Fig. 2).

The plateau of the hill fort is quite small in size, measuring only 34 m in length and 28 m in width, making it slightly oval with the square measure of the plateau approximately 950 m<sup>2</sup>. From the southern side the hill fort is separated from the rest of the drumlin by a man-made ditch measuring 1.5 m in depth, and by a small rampart of 1.5 m in height. The rampart has been built only on the southern side of the plateau, the northern slope of the hill fort has just been steepened with a low ditch on the foot of the hill (Tõnisson 2008, 295).

The Äksi parish description of antiquities compiled in 1921 records that human bones were discovered from the foot of the north-western slope of the hill fort while digging for gravel. According to local oral tradition gathered in 1921 the hill fort had been excavated several times, but nothing had been found (Jürgens 1921, 14–15).

Lähte Palalinna hill fort has previously been archaeologically excavated only once by Aita Kustin and Harri Moora in 1953 (Kustin 1953). Moora and Kustin carried out small preliminary excavations and discovered a few pieces of hand-made pottery<sup>2</sup> similar to Rõuge-type ceramics (Moora 1955, 67). In 1993 during a landscape survey archaeologist Heiki Valk found some shards of hand-made pottery, and a bronze penannular brooch with rolled terminals<sup>3</sup> from the cultivated field west from the hill fort. The field report states that the cultural layer was extremely thin and the finds were gathered after thorough searching (Valk 1993, 2–3).

### EXCAVATIONS IN 2010

The main aim of the archaeological investigations executed in 2010 was to obtain <sup>14</sup>C-samples for dating the usage span of the hill fort, and also to gather information about the layers in the cross-section of the hill fort's rampart. The excavation trench of 15 m in length and 1 m in width was established over the south-western rampart spanning from the rampart ditch to the plateau of the hill fort (Fig. 3). In order to study the character of the cultural layer on the hill fort 12 trial pits were dug across the plateau.

The cross section (Fig. 4) of the hill fort's rampart revealed that the upper horizons of the cultural layer were fairly mixed, referring that the plateau had been previously cultivated. All together six different layers were distinguished. Under the turf layer a 30–90 cm thick brownish gray and slightly sandy cultural layer (Fig. 4: 2) was revealed. The cultural layer contained mixed finds including hand-made pottery and pieces of modern glass. Close to the inner side of the rampart several sets of burnt stones were discovered. Unfortunately the stones were not part of the rampart constructions, but a modern time camping site. In two places the layer contained dug-in pits (Fig. 4: 2a, 2b), which were filled with pieces of charcoal, and again with mixed finds from the prehistory and modern times. The dug-in pit 2a

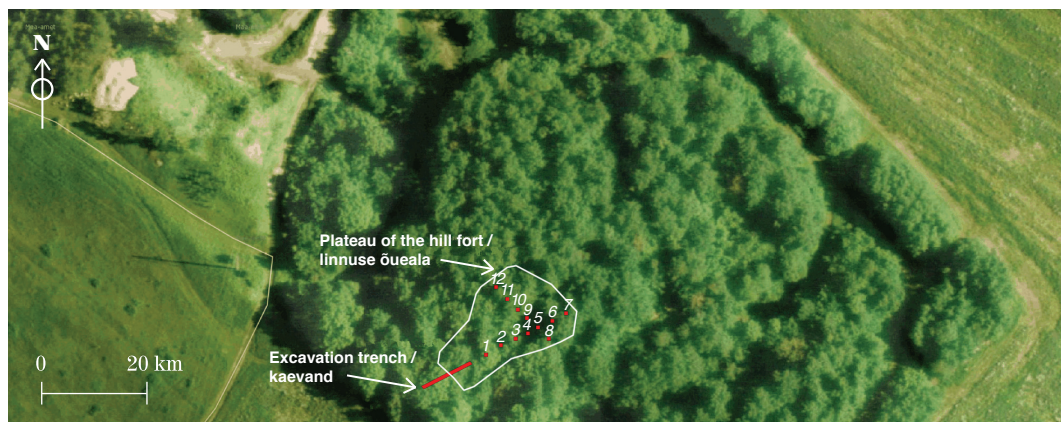


Fig. 3. Location of the trench and trial pits.

Jn 3. Kaevandi ja proovisurfide asupaik.

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<sup>2</sup> AI 4066: 1–3.

<sup>3</sup> TÜ 96.

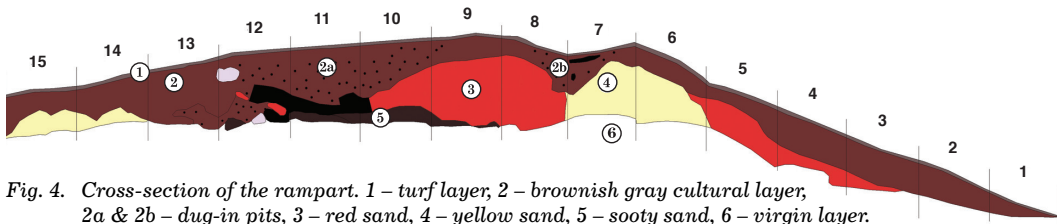


Fig. 4. Cross-section of the rampart. 1 – turf layer, 2 – brownish gray cultural layer, 2a & 2b – dug-in pits, 3 – red sand, 4 – yellow sand, 5 – sooty sand, 6 – virgin layer.

Jn 4. Linnuse valli läbilõige. 1 – mättakiht, 2 – pruunikashall kultuurkiht, 2a & 2b – sissekaeved, 3 – punane liiv, 4 – kollane liiv, 5 – söene liiv, 6 – looduslik põhi.

Drawing / Joonis: Martti Veldi

was almost 90 cm deep. Directly under it a thin (5–7 cm) layer of sooty gray sand (Fig. 4: 5) extending under the rampart was revealed. It seemed that the layer was the only part of the cultural layer, which was in its original location, and therefore a  $^{14}\text{C}$ -sample was obtained from it. On the highest part of the rampart under the mixed cultural layer two different layers of sand (Fig. 4: 3, 4), respectively yellow and red in color, were unearthed. They were excavated as separate units and contained no finds. The virgin layer (Fig. 4: 6) under the rampart was reached at the depth of about 135 cm from the original ground level, in the north-eastern end of the trench on the hill fort's plateau the virgin layer was revealed already 60 cm deep from the ground.

The 12 trial pits (Fig. 3) dug across the hill fort's plateau gave evidence of a mixed cultural layer poor in finds. All the pits were quite similar revealing 25–60 cm of brownish gray and slightly sandy cultural layer. From the 12 trial pits only 3 pieces of hand-made pottery were found all together.

### FINDS AND $^{14}\text{C}$ ANALYSES

The amount of finds<sup>4</sup> from the hill fort trench was relatively small, only 51 items of artifacts and 32 items of animal bones. Most of the finds consisted of hand-made pottery shards, including pieces of Rõuge-type ceramics<sup>5</sup>, one shard of pottery with line ornament<sup>6</sup> was also discovered. The pottery found was exclusively either prehistoric or modern, no medieval wheel-thrown pottery was unearthed. The bulk of the finds was gathered from the mixed brownish gray cultural layer, and from the dug-in pit 2a. Other layers were very scarce in finds. However, the most interesting find was a bowl of a stub-stemmed pipe (Fig. 5) dated to the end of the 18th or the beginning of the 19th century.<sup>7</sup>

During the excavations three radiocarbon samples were taken (Fig. 6): two<sup>8</sup> from different heights of the dug-in pit 2a and one<sup>9</sup> from the sooty gray layer under the rampart's fill. Surprisingly all the



Fig. 5. Fragment of a stub-stemmed pipe.

Jn 5. Manšettiibu fragment.

(TÜ 1839: 15.)

Photo / Foto: Viire Pajuste

<sup>4</sup> TÜ 1839: 1–51.

<sup>5</sup> TÜ 1839: 28.

<sup>6</sup> TÜ 1839: 46.

<sup>7</sup> Dated by Arvi Haak (TM).

<sup>8</sup> Tln-3226 and Tln-3227.

<sup>9</sup> Tln-3225.

Atmospheric data from Reimer et al (2004); OxCal v3.10 Bronk Ramsey (2005); cub r:5 sd:12 prob usp[chron]

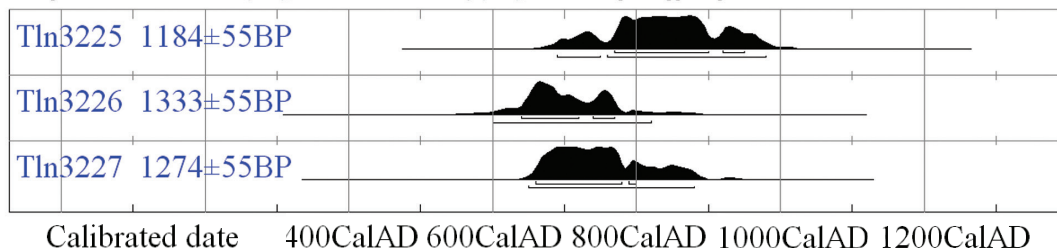


Fig. 6. Radiocarbon samples from the rampart.

Jn 6. Radiosüsiniku proovid linnuse vallist.

samples were dated to the prehistory, calibrated between 600–980 AD, whereby the sample taken from under the rampart gave a calibrated result 760–980 AD.

### CONCLUSIONS

The archaeological investigations carried out at the Lähete Palalinna hill fort in 2010 specified the stratigraphy of the hill fort's cultural layer, and provided new information about the dating of the hill fort. The scarce number of finds and the radiocarbon dates refer that the hill fort was used quite passively during the Viking Age, somewhere between 600–980 AD. The stratigraphy revealed that the hill fort's original wooden constructions were destroyed in fire, and after that the earthen rampart was piled. Most of the finds were discovered from the pit at the inner side of the rampart, which can be interpreted as a modern (19th–20th century) camping or fire making place with the remains of Viking Age hill fort layers in its deepest end.

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## ARHEOLOOGILISED UURINGUD LÄHTE PALALINNA LINNUSEL

*Martti Veldi ja Viire Pajuste*

Arheoloogilised kaevamised Lähte Palalinna linnusel toimusid 13.–18. juulil 2010 koostöös Tartu Ülikooli ja Muinsuskaitseametiga. Kaevamiste peamine eesmärk oli uurida linnuse lõunavalli stratigraafiat ning saada radiosüsiniku proove kultuurkihi erinevate horisontide dateerimiseks.

Lähte Palalinna linnamägi (jn 1–2) asub Voo-remaa kaguserval Sootaga voorel, mis on ümb-  
ruskonna kõrgeim tipp (92 m ü.m.p.). Linnusest loodes asub vanast kruusakarjäärilist loodud teh-  
hisjärv. Teistest ilmakaartest on linnus ümbrit-  
setud põllumaaga. Linnuse platoo (u 950 m<sup>2</sup>) on  
ülejäänud voorest eraldatud inimtekkelise valli-  
kraavi ja valliga. Vall on rajatud vaid linnuse pla-  
too lõunaservale. Põhja suunas vall puudub ning  
linnuse jalamit on seal ainult järsendatud ning  
sinna on rajatud ka madal kraav.

Palalinna linnamäge on varem arheoloogili-  
selt uurinud väiksemahuliste proovikaevamiste-  
ga 1953. aastal arheoloogid Aita Kustin ja Harri  
Moora, kes tuvastasid üksikuid Rõuge-tüüpi käsi-  
keraamika tükke sisaldanud leiuvaese kultuur-  
kihi. 1993. aastal avastas Heiki Valk maastiku-  
inspektsioonil linnusest vahetult läänes olevalt  
põllult käsitsi keraamikat ja pronksist rullotste-  
ga hoburaudsõle.

2010. a suvel toimunud kaevamiste käigus ra-  
jati linnuse edelavallile 15 m pikkune ja 1 m lai-  
ne proovikaevand (jn 3). Lisaks vallitranšeele  
rajati linnuse õuealale kultuurkihi uurimiseks  
12 väiksemat šurfi. Linnuse lõunavalli läbilõige  
(jn 4) näitas, et kultuurkihi ülemised horisondid  
olid võrdlemisi segatud, viidates, et linnuseplatoo

oli varem kasutusel ilmselt põllumaana. Õhuke-  
se mättakihi all paljandus u 30–90 cm paksune  
pruunikashall kergelt liivane kultuurkiht (jn 4: 2),  
mis sisaldas nii muinasaegset käsikeraamikat  
kui ka tänapäevaseid klaasikilde. Kultuurkihi  
sees oli võimalik eristada kahte sissekaevet (jn 4:  
2a, 2b), mis sisaldasid rohkelt söetükikesi. Sisse-  
kaeve 2a oli u 90 cm sügav ning vahetult selle  
all oli võimalik eristada õhukest halli söest liiva-  
kihti (jn 4: 5), mis ulatus linnuse valli alla. Valli  
alt saadi kihist radiosüsinikuproov. Kõrgeimas  
osas koosnes linnuse valli täide kahest erinevast  
liivakihist (jn 4: 3, 4), mis leide ei sisaldanud.  
Loodusliku moreenpõhjani jõuti linnuse valli all  
u 135 cm sügavusel algsest maapinnast, kaevan-  
di põhjaotsas paljandus looduslik põhi juba 60 cm  
sügavusel maapinnast.

Kaevamistel saadud leiuaines oli võrdlemisi  
kasin: 51 numbrit leide ja 32 numbrit loomaluid.  
Enamus leidudest koosnes käsikeraamikast, mille  
hulgas võis eristada ka Rõuge-tüüpi keraamika  
kilde, keskaegset kedrakeraamikat ei leitud. Huvi-  
tavamaks leiuks võiks pidada 18. saj lõppu või  
19. saj algusesse dateeritud manšettpiibu katket  
(jn 5). Uuringute käigus võetud kolm radiosüsinik-  
uproovi (jn 6) jäid kalibreeritult ajavahemikku  
600–980 pKr. Vahetult linnuse valli alt segamata  
kultuurkihist saadud söeproov andis tulemuseks  
760–980 pKr. Linnuse õuealale rajatud 12 šur-  
fist saadi leidudena vaid 3 käsikeraamika kildu.  
Uuringud näitasid, et Lähte Palalinna linnus oli  
nõrga ja leiuvaese kultuurkihiga ning selle kasu-  
tusaege jäi viikingiaega.