

ARHEOLOOGILISED
VÄLITÖÖD
EESTIS

ARCHAEOLOGICAL
FIELDWORK
IN ESTONIA

2006

Koostanud ja toimetanud
Ülle Tamla

Muinsuskaitseamet
Tallinn 2007

© 2007 Muinsuskaitseamet
Uus 18, Tallinn 10111, Eesti
National Heritage Board
Uus 18, Tallinn 10111, Estonia
www.muinas.ee

Esikaas: 2006. a Palutaja külast avastatud aardes sisalduv
hõbedatud hoburaudsõlg.

Cover: Silver-plated penannular brooch from Palutaja hoard,
discovered in 2006.

Tagakaas: Krõllid Palutaja aardest.

Back cover: Silver beads from Palutaja hoard.

Toimetuskolleegium / Editorial Board:

Ants Kraut
Friedrich Lüth
Erki Russow
Leena Söyrinki-Harmo
Toomas Tamla
Ülle Tamla
Jaan Tamm
Juris Urtāns
Kalev Uustalu
Heiki Valk

Kujundus ja küljendus:
Jaana Kool

TARTU ÜLKOOL
RAAMATUKOBU

ISSN 1406-3972

THE SECOND RESTORATION OF THE WESTERN GATEWAY OF THE VARBOLA HILLFORT

Ülle TAMLA

*Tallinna Ülikool, Ajaloo Instituut (Institute of History, Tallinn University)
Rüütli 6, 10130 Tallinn, Eesti (Estonia)
ulle.tamla@ai.ee*

In August 2006 the western gateway of the Varbola hillfort (*Varbola Jaanilinn*), excavated and restored in 1984–1989, partly collapsed (Fig. 1). Although the damage to the fortification dating from the end of the prehistoric period was not extensive, the gateway had to be closed immediately. The entrance, restored about twenty years ago and the stage built to the courtyard at the same time, were in danger of further collapse since the heavy beams placed in each wall of the entrance during restoration were completely decayed.



*Fig. 1. Partly collapsed western gateway of the Varbola hillfort in August 2006.
Jn 1. Varing Varbola linnuse läänepoolses väravakäigis. Pildistatud 2006. a augustis.*

In September 2006 the National Heritage Board and the present owner of the hillfort, the State Forest Management Centre, undertook the second restoration of the gateway. Legislation abided the work to be carried out under the surveillance and guidance of an archaeologist (Tamla 2006). The aim was to restore the appearance of the gateway as it had been after the first restoration.

THE EXCAVATION AND RESTORATION OF THE GATEWAY IN 1984–1989

The circular limestone wall of the hillfort of Varbola had been built without mortar (Laid 1939). The hillfort had three gateways – on the northern, eastern and western sides. The object of the excavations, started in 1984, was the western gateway (Тамла & Тõниссон 1986; 1988; Tamla & Tõnisson 1990; Tamla 1992; Tõnisson 2005; Tõnisson & Tamla 1986), because the existence of the northern one, hidden by fallen stones and a thicket, was not certain at that time¹, and the eastern gateway was used as a tourist access.

To get a notion of the construction of the western gateway and the adjacent fortifications they were first cleared from the covering debris layer. While the top-most part of debris was formed of slanting limestone slabs fallen from the wall, the stone heap beneath it bore witness to deliberate destruction. Dating by the three coins found between the stones², the destruction must have taken place in the 14th century. This is in accordance with the opinion that Varbola was one of the two hillforts of the county of Harjumaa, which, according to Younger Livonian Rhymed Chronicle by Barholoäus Hoeneke, were still used at the time of the St George's Night Uprising (Vahtre 1960, 91). It is most likely that not only were the gates of the hillfort demolished at the time to destroy the defensive potential, but also the 14-m deep well in the courtyard was filled up (Tõnisson & Tamla 1986).

After the removal of debris it appeared that the gateway traversing the wall from the slope of the hillfort to the courtyard had been like a tunnel, with thick posts in each wall. They were mostly located opposite each other and were set up the way it is still done today – with the aid of stones wedged into the post-holes. It also appeared that the walls of the 2.2–2.4 m wide gateway had been erected in three stages: first a compact wall (the so-called rear wall) was built, then the supporting posts with a diameter of 0.3–0.4 m were set, and in the last stage the wall parts between the posts (the so-called front wall) were built (Fig. 2). Since some heavily worn larger limestone slabs were preserved on the bottom of the gateway, it was assumed that the floor of the gateway and the road running towards it along the rampart must have been at least partly paved.

¹ Now that the location of the northern gateway and the curving lane approaching it along the rampart have been cleared from the thicket, there can be no doubt about its existence. Ain Lavi was the first archaeologist who published an article (1990) about the northern gateway of the hillfort of Varbola Jaanilinn.

² Among these coins are two Luebeck pennies from the 2nd half of the 14th century (AI 5299: 17, 28). According to Mauri Kiudsoo (2004) such coins from North German towns prevailed in Livonian currency after 1332, when local minting was discontinued. The third coin is a *artig*, minted by Vifusen, Bishop of Tartu between years 1343–1373 (AI 5299: 20; Молвыгин 1986, Tab. I: 5).



Fig. 2. Well preserved sections of the southern front wall of the western gateway.
Jn 2. Hästisäilinud esimüüri osad läänepoolse väravakäigu lõunaseinas.

Photo / Foto: Enno Väljal, 1985.

The excavations provided sufficient information about the original width and length (nearly 10 m) of the gateway, but not about the height of it. It could only be assumed that, as the defenders needed to move freely along the circular wall, the gateways must have been covered, and built high enough to enable a horseman ride through. Evidently towers were also built upon the rampart, on the spots that provided the widest view and where the roads to the gateways could be watched (Tõnisson & Tamla 1986).

A surprising and exceptional discovery, at least in the context of Estonian prehistoric construction archaeology, was the 0.7–0.8 m high step of limestone slabs in front of the outer end of the gateway (Fig. 3). Since deep postholes were also discovered at each end of the step, it can be assumed that it supported a bridge-like construction, maybe even a drawbridge or a platform to prevent the enemy's intrusion into the fortress (Тамла & ТЫНИССОН 1988, 351, Fig. 1). It remained unclear where exactly the gate was located in the gateway, and whether there was one or several gates. The most probable location of the gate was the place where two mighty beams were placed close to each other in each wall of the gateway. Also more charcoal was preserved here than in other places, and their ¹⁴C-analyses gave the result 845±35 BP. With dendrochronological adjustment the



Fig. 3. Step of limestone slabs in front of the outer end of the gateway.

Jn 3. Väravakäigu välisküljele pöörduva käigu esisel paljandunud astang.

Photo / Foto: Enno Väljal, 1988.

beams were dated to 1160–1260 AD (Тамла & Тыниссон 1986, 376). The discovery of two silver coins also helped to date the gateway: one of them was found in a posthole, the other beneath the southern side wall, both coined in Visby, Gotland in 1220/30–1260/70 (Молвыгин 1986, nos 1, 2). On the basis of the age of these coins and the ¹⁴C-dating it seems plausible that the gateway was built between 1230 and 1260. This does not coincide with the opinion based on Henric's Livonian Chronicle that these territories were conquered in the 1220s. It seems rather that the hillfort of Varbola persisted for a longer time and its fortifications were even improved after the end of the ancient struggle for liberation (Tõnisson & Tamla 1986).

Simultaneously with archaeological excavations the restoration of the western gateway started in 1985. The two basic principles of the work (which was completed in autumn 1989) were that as much as possible must be preserved of the original wall construction of the gateway, and the dilapidated or completely



Fig. 4. The first restoration of the western gateway in 1985.

Jn 4. Läänepoolse väravakäigu restaureerimine 1985.

Photo / Foto: Enno Väljal

destroyed parts must be restored so that the general appearance of the gateway would be historically correct. Therefore the rear wall of the southern side was preserved as it had come to light in the course of the excavations. Of the front wall the 1.0–1.3 m high sections between the posts were preserved (Fig. 2). Since the limestone slabs of the front wall were heavily damaged by fire, new stones were laid upon the original construction to stop the dilapidation. The new posts placed in the existing gaps also helped to preserve the front wall (Fig. 4). Suitable beams for the posts were cut in the nearby forest, where six dead pines with a diameter of 40–45 cm were chosen for that purpose.

Since the northern walls of the gateway were in a considerably worse state of preservation (the rear wall was almost completely dilapidated and only fragmentary sections were preserved of the front wall), it was decided that only the front wall should be restored. As smaller and thinner slabs were used for the restoration of the northern wall, the result was noticeably different from the southern side, which was in greater part preserved in the original shape (Tõnisson 2005).

In view of the fact that information about the upper part of the gateway was insufficient it was decided to restore the unearthed part of the gateway. Its highest place in the middle was left at the height 2.2–2.5 m. The topmost stone lay-

ers of each wall were covered up with turf and zinc sheets were nailed to the post tops. It had to be kept in mind also that after the restoration the gateway would be used as an additional access to the hillfort by the visitors. Consequently the terrace that had come to light on the outer side was preserved, but its height was reduced and the foot of the step was elevated by nearly 40 cm. For security purposes a north-south-oriented wall was built along the rampart in front of the step to stop the rampart from falling and a staircase was formed of three large limestone slabs from the paved entrance to the slope.

RESTORATION OF THE DILAPIDATED GATEWAY IN 2006

In September 2006 Ants Kraut from the National Heritage Board, forest manager of the Vardi forest district Tanel Ehrpais and the author of the present paper surveyed the damaged gateway. It was discovered that the posts placed in the walls



Fig.5. The removal of the first decayed post in 2006.
Jn 5. Esimese kõduposti eemaldamine 2006. a.

of the gateway in the course of the first restoration were decayed, which was the main reason why the westernmost post in the northern wall broke at the ground level and caused the collapse of a 1.5 m long and 1 m high section of the wall into the gateway (Fig. 1). To stop further dilapidation of the gateway it was decided to replace the decayed posts in the wall with new ones. It was also agreed that this time the posts must be of deeply impregnated softwood. At present the only supplier of deeply impregnated timber in Estonia is Kestvuspuit Ltd in Palivere, County of Läänemaa. The impregnation of timber there is performed in a hermetically closed chamber at high temperature and pressure. This method takes the preservative deep



*Fig. 6. Placing a new post into the post-hole. View from East.
Jn 6. Uue posti asetamine postiauku. Vaade idast.*

into timber, thus protecting it more effectively against mould, fungi and insects. Such beams are slightly greenish at first, but the tint fades away and beams acquire a natural appearance rather quickly. Since the humidity of timber must be below 28% for impregnating, the beams for restoration were chosen from timber cut in winter 2006, which had sufficiently dried during the hot summer.

The survey of the walls of the gateway revealed that several wall sections between the posts were in a very poor state: owing to the crumbling of stones and decay of the beams the pressure of the rampart had tilted both walls of the gateway, the topmost 1 m of the northern wall was aslant towards the gateway as much as 15–20 cm. The part of the northern wall curving towards the yard and the walls of the entrance towards the outer slope of the rampart were in a relatively good state. Only the crumbled slabs of the topmost stone layer had to be replaced there. The stones for substitution were found from the very yard of the hillfort, where stones from the excavation plot I were stored in the 1970s. Relying upon the experience of restoration work in the hillfort of Varbola (previously five keris-stoves had been restored in the excavation near the eastern gateway) thicker limestone slabs and bioherms (i.e. limestone which has surface uneven and porous from shells) were preferred. Compared with other local limestone types bioherms' advantage lies in their lack of visible lamination of fractures, which prevents them fast from crumbling.

The limestone slabs lain on the floor of the gateway and outer entrance in 1989 were quite well preserved, but they were sporadically covered with a soil layer of a couple of centimetres, which was grown over with grass. Since the plant roots hasten the crumbling of stones it was decided to clear the pavement from soil and mould and replace some slabs.

Since the author of the present paper had been also participated in the excavations and the first restoration of the gateway we aimed at restoring the construction to the shape it was built in 1989.

The work started at the southern wall of the gateway. The first task was to remove the turf covering the wall since the first restoration, after that the decayed posts were lifted out of their holes with the aid of levers. The removal of the first post already proved that the wall sections between the posts, i.e. the front wall, were

crumbled to the extent where their preservation was impossible (Fig. 5). Only in two places - the sections between the 1st and the 2nd, and the 2nd and the 3rd posts from the yard - 6-7 bottom stone layers could be left in their original places.

The removing of the dilapidated remains of the front wall brought to light the rear wall built of large thick limestone slabs, which were laid aslant at about 15° towards the core of the rampart. Different from the front wall the rear wall was well preserved and still did not require any conservation.

For installing new posts the post-holes had to be cleared of the decayed wood and stones used for wedging. Then the posts were placed in holes, one by one (Fig. 6), and wedged



Fig. 7. The preserved rear wall section in northern wall of the gateway. View from S.

Jn 7. Algsena säilinud tagaseina müüriladu käigu põhjapoolses seinas. Vaade lõunast.



Fig. 8. View to the western gateway after the second restoration from the yard in October, 2006.
Jn 8. Vaade Varbola linnuse õuelt värskelt restaureeritud läänepoolsele väravakäigule 2006. a oktoobris.

tightly. After that new front walls were built between the posts, laying the stones without mortar, slightly aslant towards the core of the rampart. In the southern wall of the gateway six large limestone slabs were lain one upon another against the seventh post, with a 0.7 m thick bioherm on the western side. This large upright stone marks the place in the southern wall where it curved out towards southwest, which may also be regarded as the outer end of the gateway.

The restoration of the northern wall was started with the clearing of the ruin. The fallen stones were sorted and those which were less crumbled were used to lay the bottom layers of the outer wall up to the post remains that had caused the collapse. While in the southern wall the original rear wall was revealed after the removal of the remains of the front wall, no such sight came to light in the opposite wall. The back wall there was preserved only in a small section where the collapse had taken place in 2006, i.e. beginning from the 6th post from the yard side, in the part of the wall curving towards the outer end of the gateway. The preserved wall section was 1.2 m long and 1.3 m high, consisting of four larger limestone slabs and a 20–25 cm thick sandstone resting upon each other (Fig. 7). To preserve this section the gaps in it were filled with smaller limestones, a new post was set in the post-hole and firmly wedged with limestone pieces.

Since the front wall sections of the northern wall between the posts were in danger of collapse they had to be dismantled cautiously. After the posts were replaced, the wall sections between them were rebuilt, taking care that the northern and southern wall would be alike. Therefore slightly thicker limestone slabs than before, with rounded edges, were chosen for the wall. As the curving yard-side end of the wall was well preserved, it was left as it had been restored the first time.

The restoration of the gateway was completed by clearing the pavement of the gateway. The crumbled slabs were replaced and the edges of the restored walls were covered with turf. Differently from the first restoration the post tops were not covered with sheet metal this time. After the restoration in 2006 the gateway (Fig. 8) largely resembles the gateway after its first restoration in 1989.

References

- Kiudsoo, M. 2004.** Täiendusi Varbola Jaanilinna müntide osas. – Linnusest ja linnast. Uurimusi Vilma Trummali auks. (MT, 14.). Tallinn – Tartu, 77–96.
- Laid, E. 1939.** Varbola Jaanilinn. – Muistse Eesti linnused. 1936.–1938. a. uurimiste tulemused. Tartu, 183–215.
- Lavi, A. 1990.** Varbola muinaskantsil oli ka kolmas väravakäik. – Ühistöö, 08.11.
- Tamla, Ü. 1992.** The Hillfort of Varbola Jaanilinn and the Settlement at Jalase. – Estonia: Nature, Man and Cultural Heritage. – Proceedings of a Round Table held at Tallinn, at the Estonian Academy of Sciences, April 1991. (PACT, 37.). Rixensart, 145–155.
- Tamla, Ü. 2006.** Restaureerimistööd Varbola linnuse läänepoolses väravakäigus 2006. aasta oktoobris. (*Manuscript in AI.*)
- Tamla, Ü. & Tõnisson, E. 1990.** Archäologische Ausgrabungen auf der Wallburg Varbola-Jaanilinn 1988–1989. – TATÜ, 39: 4, 423–427.
- Tõnisson, E. 2005.** Aruanne Varbola Jaanilinna läänepoolse väravakäigu ja käiguesise kaevamistest aastatel 1984–1988. (5. kaevand). (*Unfinished Manuscript in AI.*)
- Tõnisson, E. & Tamla, Ü. 1986.** Linnaväraavat otsimas: viimaste aastate arheoloogilistest uurimistöödest Varbola Jaanilinnas. – Eesti Loodus, 9, 592–595.
- Vahtre, S. 1960.** Bartholomäus Hoeneke Liivimaa noorem riimkroonika. (Tõlkinud ja kommenteerinud S. Vahtre). Tallinn.
- Тамла, Ю., Тыниссон, Э., 1986.** Исследования на городище Варбола-Яанилинн. – TATÜ, 35: 4, 373–377.
- Тамла, Ю., Тыниссон, Э., 1988.** Варболаасская экспедиция в 1986–1987 г. – TATÜ, 37: 4, 351–354.
- Молвыгин, А., 1986.** Нумизматический материал с городища Варбола-Яанилинн. – TATÜ, 1986: 4, 377–385.

VARBOLA JAANILINNA LÄÄNEPOOLSE VÄRAVAKÄIGU TEINE RESTAUREERIMINE

Ülle TAMLA

1984.–1989. a arheoloogiliselt välja kaevatud ja uurimistulemuste põhjal restaureeritud Varbola Jaanilinna läänepoolses väravakäigus toimus 2006. a augustis varing (jn 1). Ehkki selle ulatus polnud kuigi suur, tuli linnusesse kulgev peamine sissepääs koheselt sulgeda, kuna toonase restaureerimise ajal mõlemasse käiguseina asetatud palgid (jn 4) olid nüüdseks pehkinud ning seetõttu võisid nende vahele laotud müüriosad käigu sisemusse variseda.

Avariiseisus objekti ekspertiis näitas, et väravakäigu taastamine sellisena, nagu see nägi välja ligemale kakskümmend aastat tagasi, eeldab lisaks kõdupalkide väljavahetamisele ka müüride uuendamist. Nimelt olid esimese restaureerimise ajal originaalmüürina säilitatud lõunapoolse seina esimüüri “sambad” (jn 2) murenenud ning suur osa põhjapoolsest käiguseinast vajunud valli survele oma algsest asendist kuni paarkümmend sentimeetrit käigu sisemuse poole. Üksnes kahes lõunaseina lõigus – õuepoolt lugedes esimese ja teise ning teise ja kolmanda posti vahelises osas võis jätta linnuseaegsest originaalmüürist 6–7 alumist kivikorda oma kohale. Põhjapoolses käiguseinas ei vajanud uut müüriladu kaarjalt õue poole suunduv osa.

Läänepoolse väravakäigu teine restaureerimine toimus 2006. a oktoobris siinse artikli autori juhendamisel ja Muinsuskaitseameti ning Riigi metsamajandamise keskuse rahastamisel. Ehitustöoks sobivad kivid leiti Varbola Jaanilinna 1970. –1980. a arheoloogiliste kaevamiste ajal kaevanditest välja kantud ja linnuseõuele ladustatud materjali hulgast. Kivivalikus eelistati paksemaid paeplaate ja eriti bioherme, st sellist lubjakivi, mille pealispind on karpidest konarlik ja urbane. Võrreldes teiste kohapealsete paekivisortidega on biohermide murdekohad ilma nähtava kihilisuseta ja püsivad müüris murenemata pikemat aega. Kõdupostide asendamiseks vajalikud 40–45 cm läbimõõduga kuusepuupalgid pärinevad linnuselähedasest metsast ja need lasti autoklaavselt immutada Palivere kestvuspuidu tehases, kus sellel meetodil töödeldud puidule garanteeritakse u 50 a pikkune säilivusaeg.

Restaureerimist alustati väravakäigu lõunapoolsest seinast kõdupostide eemaldamise ja postiaukude väljapuhastamisega (jn 5). Nii nagu esimese restaureerimise ajal, kiiluti nüüdki postiaukudesse asetatud palgid tugevasti kinni väiksematest ja õhematest paeplaatidest kiilukividega. Algselt postide vahele laotud ja nüüdseks lagunenenud esimüürijuppide eemaldamisel avanes vaade suurtest ja paksedest paeplaatidest koosnevale linnuseaegsele kompaktsale tagamüürile, kus kivid olid paika pandud u 15-kraadise kaldega vallisüdamiku poole. Erinevalt esimüürist oli tagamüür säilinud hästi ja ei vajanud restaureerimist. Paralleelselt postide asendamisega laoti üles uued esimüüriosad, kus kivid pandi paika tagamüüriga sarnase kaldega vallisüdamiku suunas. Seejuures jälgiti, et igal müüri asetatud kivil oleks vähemalt kolm kokkupuutepunkti. Lõunapoolses käiguseinas jäid linnuseaegsest esimüürist alles kuus suuremat pealistikku asetsevat paelahmakat, mis paiknesid õuepoolt lugedes vastu seitsmendat posti ja mille lääneküljel oli u 0,7 m paksune bioherm. See püstjas kivi tähistab lõunaseinas kohta, kus väravakäigu küljemüür pöördus kaarjalt edelasse ja mida võib pidada ka käigu välissuudmeks.

Põhjaseina restaureerimist alustati varingu likvideerimisega. Kui lõunapoolses käiguseinas avanes postidevaheliste müüriosade eemaldamisel tugev ja kompaktne tagamüür, siis vastasseinas niisugust pilti ei nähtud: tagaseinast oli säilinud linnuseaegse originaalmüürina algses asendis üksnes 1,2 m pikkune ja 1,3 kõrgune müürilõik õuepoolt lugedes kuuenda posti ja sealt edasi kaarjalt välissuudme suunas kulgevas osas, s.o seal, kus esimüür oli 2006. aastal varisenud käigu sisemusse (jn 7).

Originaalse kivilao säilitamiseks ja kindlustamiseks suruti kividevahelistesse tühemikesse väiksemaid paetükke. Ülejäänud osas oli esimese restaureerimise ajal õhemates paeplaatidest üles laotud tagamüür vajunud vastu poste ning esimüüri. Seetõttu tuli siin nii taga- kui ka esimüür uuesti üles laduda kuni hästi säilinud kaarjalt kulgeva õuepoolse osani. Kuna põhjapoolses seinas kasutati seekord müürilaos mõnevõrra paksemaid ja suuremaid paeplaate kui esimesel restaureerimisel, siis kahe käiguseina väljanägemine ühtlustus.

Läänepoolse väravakäigu teine restaureerimine lõpetati 1985.–1986. a sillutisena paika pandud paeplaatidele ladestunud kõdumulla ja sinna kasvada jõudnud taimestiku eemaldamisega. Üksikud murenenud plaadid asendati uutega. Kõige lõpuks kaeti käiguseinte ülaservad murumätastega. 2006. aastal uuesti ülesehitatud väravakäigu väljanägemine (jn 8) kattub suuresti sellega, mida sai näha 1989. aastal.