



# The newly discovered second hill fort at Sinialliku near Viljandi

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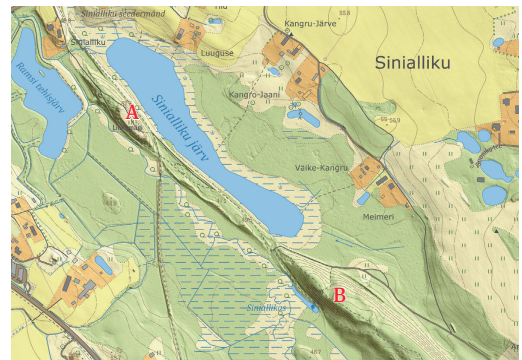
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The second hill fort of Sinialliku was discovered by Andres Vindi (TÜ) in October 2020 by checking information from the digital relief map of the Estonian Land Board which indicated two parallel ramparts and a moat cross-cutting the top of a high ridge near Lake Sinialliku. This site is located in Viljandi rural municipality 5 km south of Viljandi, ca. 500 m south-east of the lake, in the Loodi nature park area. The offering spring of Sinialliku, one of the biggest in Estonia, lies immediately south-west of the stronghold.

The newly discovered monument lies only 700 metres from the first hill fort of Sinialliku (Fig. 1). The formerly known site (Tõnisson 2008, 277–279) has been studied by Elmo Raadik, a non-professional interested member of the public in 1947 and 1948, and with bigger archaeological excavations supervised by Jüri Selirand from 1967 to 1969 (Selirand 1973a–c). This hill fort with the territory of ca. 4000 m<sup>2</sup> – the exact size is unknown because the monument was partly destroyed by railway construction in the 1890s – dates from the late 11th to late 12th or early 13th century. Since no crossbow bolts were found there during the digs, it was evidently abandoned before the crusades (in southern Estonia in 1208–1224).

## THE MONUMENT

The discovered hill fort (Fig. 2) is situated on the back of a long ridge, being separated from the rest of it by a wide natural depression in the north-west and by a man-made moat in the south-east. The hill fort plateau (ca. 110 m × 50–52 m) is large, involving ca. 5600 m<sup>2</sup> between the ramparts.<sup>1</sup> The height of the rampart in its north-western end is 0.5–1 m on its inner and

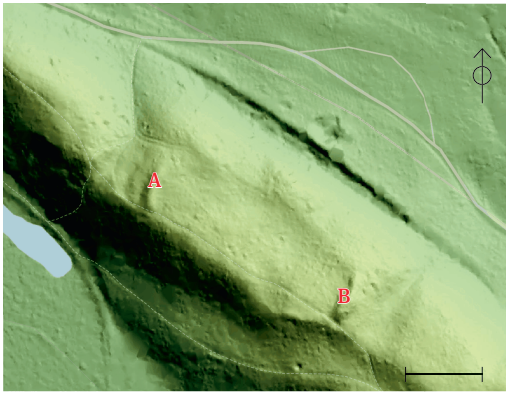


**Fig. 1.** The hill forts of Sinialliku. A – Sinialliku I hill fort, B – Sinialliku II hill fort.

**Jn 1.** Sinialliku linnamäed: A – Sinialliku I linnamägi; B – Sinialliku II linnamägi.

*Drawing / Joonis: Maris Niinesalu-Moon, Map / Aluskaart: Land Board / Maa-amet*

<sup>1</sup> The size estimations of hill forts are based on the map application XGIS2 of the Estonian Land Board. <https://xgis.maaamet.ee/xgis2/page/app/maainfo>. Formerly presented data (Tõnisson 2008) are based on approximate estimations from the time period when exact maps were not available and should not be regarded as fully reliable.



**Fig. 2.** *Sinialliku II hill fort with its end ramparts. A – north-western rampart, B – south-eastern rampart.*

**Jn 2.** *Sinialliku II linnamägi koos otsavallidega: A – loodevall, B – kaguvall.*

*Drawing / Joonis: Ragi-Martin Moon, Map / Aluskaart: Land Board / Maa-amet*

3–4 m on its outer side where it gradually transfers into a slope. The rampart is only ca. 26 m long, and is missing in the northern half of the ridge where the flat plateau continues. Evidently, construction work has remained unfinished here.

The south-eastern rampart is ca. 28 m long, whereby ca. 5 metres of the structure are missing in its northern part. The height of this rampart, made of yellow sand, is 1.5–2 m on the inner side and 4–6 m when measured from the bottom of the moat in front of it. The width of the moat is 22–23 m in its southern, and 10 m in its northern end. The southern end of both ramparts is also missing in the extent of ca. 3 metres before the hill slope. The rampart is missing to an extent that is unnecessarily large for a gateway. It is possible

that the construction of a gateway has been planned here. Considering the relief – presently, a path along the south-western edge of the plateau is passing through the supposed gateway sites – these units of missing rampart, too wide for an actual gateway, seem to have been planned for gates but for some reason the construction did not begin.

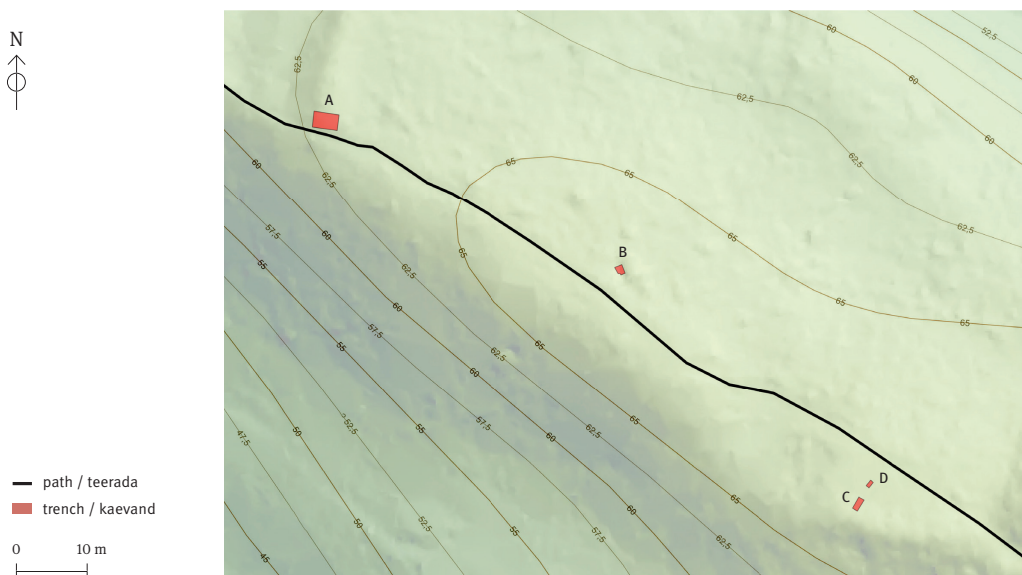
The south-eastern rampart continues also on the other side of the supposed gateway, on the southern side of the hill plateau, being considerably smaller and lower there. Its height gradually decreases towards the north-west, correspondingly to the increasing height and steepness of the hill slope, and the rampart disappears in the distance of ca. 25 m from the gateway. The long sides of the hill fort plateau are protected by steep slopes with the relative height of ca. 20 metres.

It must be noted that the natural preconditions for defending Sinialliku II hill fort are even somewhat better than for its immediate neighbour: its north-western end is, differently from Sinialliku I, besides the rampart protected also by a steep slope.

## TRENCHES

In the summer of 2021 three trial trenches were made on the stronghold site: no. 1 on the southern end of the north-western rampart, no. 2 on the south-eastern part of the plateau, and no. 3 at the end of the gradually lowering small rampart north-west of the south-eastern gateway (Fig. 3). Fieldwork was supervised by PhD student Maris Niinesalu-Moon (TÜ). Soil was sieved on 6 mm eye meshes, but no finds were gained.

Trench 1 (2 × 3 m) was located in the southern end of the north-western rampart and on the adjacent flat pathway area south of it (Fig. 4). The rampart consisted of yellow fine gravel (particles 2–3 cm in diameter) which contained a few tiny pieces of charcoal. Beside the light gravel of the rampart body a 15–20 cm thick layer of dark brown soil, which contained bigger sporadically located charcoal particles (up to 2–4 cm in diameter) appeared in the depth of 10–40 cm from the ground level. The rampart body and adjacent brown soil lay both on intact mineral ground – red sand which appeared 35–40 cm below ground level in the path area – and transferred gradually into fine gravel. All soil of humus contents, which had formed



**Fig. 3.** The trenches of 2021 on Siniälliku II hill fort. A – trench 1 on the north-western rampart, B – trench 2 at a fallen tree, C and D – trenches 3a and 3b at the end of the south-eastern rampart.

**Jn 3.** 2021. aasta kaevandid Siniälliku II linnamäel. A – kaevand 1 loodevallil, B – kaevand 2 langenud puu juures, C ja D – kaevandid 3a ja 3b kagupoolse valli otsa läheduses.

*Drawing / Joonis: Ragi-Martin Moon, Map / Aluskaart: Land Board / Maa-amet*

after the glacial period had been removed before the rampart construction. The origins of the dark brown soil with charcoal contents remained unclear, but due to the lack of major brands lying parallel to the end of the rampart it seems that the charcoal particles are not remains of fortifications from the top of the rampart. Radiocarbon date from charcoal collected from the bottom of the dark layer gave the result  $910 \pm 30$  BP, calibrated age (with 95.4% probability) 1040–1214 AD.<sup>2</sup>

Trench 2 (1.8 × 1.2 m) was made in the place where a storm had rooted out a big tree. Intact mineral ground began in all profiles at the depth of 15–18 cm. Sieving the soil did not reveal any traces of human activity.

Trench 3 consisted of two separate parts – 3a and 3b. Trench 3a (200 × 60 cm) was made perpendicular to the lowering end of the rampart that had no definite border, but could be observed as a higher zone at the edge of the hill fort plateau. The former rampart body had disintegrated due to erosion, possibly caused by ploughing. The southern end of the trench reached the higher part of the rampart.



**Fig. 4.** The bottom of trench 1 and profile of the northern end of the north-western rampart, view from the south.

**Jn 4.** Kaevand 1 põhi ja loodevalli põhjaotsa profiil, lõunast.

*Photo / Foto: Heiki Valk*

<sup>2</sup> Poz-149632. With 68.3% probability, 1047–1084 (28.6%), 1096–1102 (2.8%), 1125–1179 (30.0%), 1191–1204 (6.8%) AD. All radiocarbon samples were calibrated with OxCal 4.4 programme (Bronk Ramsey 2009) and IntCal 20 calibration curve.



Fig. 5. Fallen stones and brand 3 in trench 3a.  
 Jn 5. Kivilasuja tukk 3 kaevandis 3a.  
 Photo / Foto: Maris Niinesalu-Moon

Digging the trench revealed four brands, all crossing it and lying parallel to the axis of the rampart, and an assemblage of stones. The first brand (diam.  $9 \times 3$  cm) appeared in the depth of ca. 30 cm from the ground level and brand no. 2 (diam. ca. 5 cm) lay just under it. In the northern half of the trench fallen granite stones with the diameter of 10–20 cm appeared in the depth of 40–60 cm from the ground level (Fig. 5). Some of them had been in fire but there were no charcoal fragments between them. In the southern part of the trench two more brands – no. 3 ( $37 \times 6 \times 4$  cm) and no. 4 ( $42 \times 7-9 \times 3.5$  cm) appeared in the depth of ca. 50 cm. Radiocarbon analysis from the outer preserved tree rings of brand no. 2 gave the result  $965 \pm 30$  BP, calibrated age with 95.4% probability 1024–1159 AD.<sup>3</sup>

From trench 3b ( $1 \times 0.5$  m), the prolongation of trench 3a after a gap of 1.2 m, also some burnt stones and charcoal particles, but no brands were found. Intact mineral soil appeared at the depth of 40 cm.

Since no traces of a cultural layer could be observed on the hill fort plateau, neither in the trenches nor elsewhere, activities related to constructing the hill fort had been limited

with making the ramparts. Both ramparts with their missing north-eastern parts, as well as the broad gateway sites show that the construction of fortifications has remained unfinished. Such status of the gateways is referred to also by the lack of traces of a higher rampart body in their vicinity. There were no traces of *summitas castris* – a tower-like fortified place, noted in connection with Estonian hill forts, including Viljandi, in the chronicle of Henry of Livonia (Tõnisson 1981).

## DISCUSSION

The radiocarbon dates show that Sinialliku II hill fort belongs to the final stage of the Iron Age whereby their overlapping part remains between 1040 and 1159 AD. This fits well with the large volume of ramparts, characteristic for the final period of prehistory.

### The two hill forts of Sinialliku

It remains unclear why two hill forts of Sinialliku, dated to the same period – late 11th and 12th centuries –, lie so close to each other. The two strongholds were probably not of simultaneous use – the summed size of their plateaus would make over 9600 m<sup>2</sup> which means that the ‘double fort’ would be one of the largest in southern Estonia – approximately of the same

<sup>3</sup> Poz-149633. With 68.3% probability 1031–1048 (15.0%), 1083–132 (42.4%), 1137–1151 (10.8%) AD.

size as Otepää, the largest stronghold of the region (Tõnisson 2008, 307–309). The temporal relations between two closely located hill forts may be explained in various ways.

First, we cannot exclude that Sinialliku II hill fort is older than its neighbour, i.e. it dates from the 11th century. Stopping the fortification activities can be explained by some unexpected event, which strongly affected the community, reducing its capacity to build and maintain such a large hill fort.

Second, it seems possible that Sinialliku II was founded in the time when its neighbour had temporarily fallen out of use. Provided that Sinialliku I was in use in the late 11th and 12th centuries, it cannot be excluded that the reason for constructing another stronghold close by was the temporary destruction and desertion of the original site. We even cannot fully exclude the possibility that Sinialliku I was in use for a period of time also in the 13th century, since the latest radiocarbon date<sup>4</sup> refers to time ranges 1045–1085AD (7.7%), 1092–1104 (1.2%) or 1120–1288 AD (86.6%) (with 95.4% probability) or to 1175–1272 AD (with 68.3% probability). It remains unclear, however, why the new stronghold remained unfinished and why the old site was taken into re-use again. In any case the desertion of the half-finished site gives grounds for various hypotheses, referring to possible contradictions within the community related to the hill fort.

When interpreting the sites we must consider also a third possibility – that Sinialliku II is later than Sinialliku I and that its construction started only after the desertion of its predecessor. Although the radiocarbon dates refer to the 11th and 12th centuries, we cannot exclude that the construction of the hill fort took place somewhat later, i.e. that charred timber from the rampart originates from a re-used log and that constructing the stronghold took place only in the period of crusades.

### The hill forts of Sinialliku and Viljandi

It is also important to consider the relations of Sinialliku hill forts to the hill fort of Viljandi (Tõnisson 2008, 275–277), which lies in the distance of only 5 kilometres and was located in a considerably better geographical position, i.e. at the crossing of major roads, including a long-distance waterway. Viljandi was, according to Henry of Livonia, the central hill fort of Sakala province in the period of crusades. It was sieged by the crusaders even twice – in 1211 and 1223 (HCL XIV: 10, 11; XXVII: 2).

All the three adjacent hill forts under discussion are of considerable size – Viljandi ca. 6500 m<sup>2</sup>, Sinialliku I ca. 4000 m<sup>2</sup> and Sinialliku II ca. 5600 m<sup>2</sup>. Since such large strongholds needed extensive hinterlands for maintenance – both in population and economic capacities –, conflict of interests between Viljandi and Sinialliku seems to have been unavoidable (Valk 2014, 335–344). Competition between the two centres might have been the reason for the abandonment of Sinialliku I before the crusades. Most likely, it was subjected by and became subordinated to Viljandi.

Assuming Sinialliku II dates from the era of Crusades, the construction of the hill fort might relate to the big Estonian uprising of 1223, when several hill forts were re-fortified in south-eastern Estonia (Lang & Valk 2011, 306–313; Valk 2014, 357–360). In Sakala province the re-use of Tõrva hill fort (Tõnisson 2008, 280–281) can be observed during the crusades and the massive ramparts of Vooru hill fort (Tõnisson 2008, 279–280) may also have gained their final height during the uprising. The construction of Sinialliku II hill fort might fall into

<sup>4</sup> TA-345 820±60 BP.

the same context. In such a framework it seems possible that the crusaders' counter-attack (HCL XXI: 2) came earlier than expected – when Sinialliku II hill fort was not ready for defence yet. Evidently, after subordination and accepting Christianity the Estonians were forced to abandon and destroy their strongholds, if these were not taken over by the crusaders.

### **Organization of work**

In the case of Sinialliku II stronghold the unequal readiness of different parts of the ramparts over time periods must be stressed. While the body of the north-western rampart has been constructed to the extent of ca. 50%, the heaping up of the south-eastern rampart was almost finished. Nevertheless, trial trenches on its top gave no evidence of burnt remains of timber fortifications. The third, low rampart unit north-west of the south-eastern gateway has, however, been fully finished: even timber fortifications were constructed on its top and the heap of stones can be regarded as 'ammunition' which had fallen to the plateau during the fire.

The different stage of readiness of rampart units might give some information about the organization of work. As a possible interpretation we can suggest that constructing the rampart was divided between separate teams, probably communities, i.e. kins or groups of villages, each having a definite unit to be done, and probably the teams did not work synchronously. Such organization of work makes it possible to suggest that the stronghold was built and possibly possessed by a group of local communities, and that construction activities were not organized 'from the top', i.e. by the power of a higher central authority.

### **CONCLUSIONS**

The discovery of a large unfinished 11th or 12th century hill fort in the immediate vicinity of Sinialliku I hill fort, dated between the late 11th and early 13th century, rises several questions about the temporal relations of the monuments and their historical context, as well as about the society behind them. Most likely, the two strongholds were not planned to be simultaneous, but the newly found unfinished hill fort dates from the period when Sinialliku I was not in use. The different stage of readiness of the ramparts of Sinialliku II hill fort sheds new light upon the organization of work at constructing the hill fort. It seems likely that different parts of the rampart were the responsibilities of different communities who had great autonomy at deciding the time for their activities.

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## SINIALLIKU II LINNAMÄGI VILJANDI LÄHEDAL – HILJUTI AVASTATUD LINNUSEKOHT

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Sinialliku II linnamägi avastati 2020. aasta sügisel Maa-ameti reljeefikaardil tähelepanu äratanud paiga kontrollimisel. Muistis asub aastatel 1967–1969 arheoloogiliselt uuritud, 11. sajandi lõpu ja 13. sajandi alguse vahemikku dateeritud, kuid risticõdade ajaks ilmselt maha jäetud Sinialliku I linnamäest 700 meetrit kagus, loode–kagu suunalisel seljakul, mis kujutab endast eelnimetatud linnuse asukohaks oleva seljaku jätku (jn 1). Loodes on linnuseala sellest eraldatud laia loodusliku vagumusega, kagus vallikraaviga. Linnuse ligi 5600 m<sup>2</sup> suuruse, u 110 m pikkuse ja 50–52 m laiuse õueala mõlemas otsas on vall (jn 2). Ehitustööd on ilmselt pooleli jäänud, sest õueala suhtes ligi 1 m kõrgune loodevall on vaid u 26 m pikkune, kulgedes risti üle platoo kõigest ligi poole selle laiuse ulatuses. Õuepinna suhtes 1–2 m kõrgust kaguvalli on rohkem välja ehitatud ja puudu on vaid ligi 5 m pikkune põhjapoolne vallioots. Mõlemad vallid lõpevad läänes ligi 3 m enne mäenõlva. Maapinna reljeefi põhjal otsustades võis mõlema valliootsa ja nõlva vahele olla kavandatud väravakoht, mis on jäänud välja ehitamata. Vall jätkus ligi 25 m ulatuses ka kagupoolsest väravakohast loodes, muutudes siin sujuvalt madalamaks vastavalt mäenõlva kalde ja kõrguse suurenemisele. Kui kaguvalli ees olev vallikraav on väravakoha juures 20–23 m laiune ja valliharja suhtes 6 meetri sügavune, siis vallikraavi põhjapoolne ots on vaid ligi 10 m laiune ja 4 m sügav.

Arheoloogilised uuringud Sinialliku II linnamäel toimusid 2021. aasta suvel. Proovikaevandid tehti loodevalli edelaotsa kõrvale, õueala kaguossa ja

kaguvärava lähedal oleva madala, loodesse suunduva vallilõigu lõppu (jn 3).

Loodevalli edelaotsa tehtud kaevand 1 (3 × 2 m) lõi kas vallikuhjatise otsa ning valli ja nõlva vahele jäävat u 3 m laiust tasast ala. Vall (jn 4) oli kuhjatud peenest kruusast, milles leidus veidi väikseid söekübemeid. Vallikehandi otsa all ja kõrval leidus 2–5/8 cm pakuse ribana tumedamat, kuni 2–4 cm läbimõõduga sötükke sisaldavat pinnast, millest võetud radio-süsinikudateeringu tulemuseks oli 910±30 BP (kalibreeritud vanus 95,4% tõenäosusega 1040–1214 pKr). Nimetatud pinnaseladestuste all algas maapinnast u 30 cm sügavusel punane peen, söeosakesi mitte sisaldav liiv, mis läks üle kruusaseks liivaks. Tegemist oli inimtegevusest puutumata loodusliku mineraal-pinnasega, mille pealt algne, pärast jääaega kujunenud mullakiht oli linnuse ehitamise ajal eemaldatud.

Kaevand 2 (1,8 × 1,2 m) linnuseõue kaguosas ümbritses tormis juurtega üles kistud puu juurte- auku. Kõigis profiilides algas looduslik mineraalpin- nas 15–18 cm sügavusel ning juurtega üles tõstetud, samuti kaevandi servades olnud pinnase söelumisel ei leitud vähimaidki märke kultuurkihist.

Kaevand 3 tehti piirkonda, kus mäe edelaküljel olev madal vall oli muutunud vaevumärgatavaks kõrgendikuks linnuse õueplatoo serval. Kahest eraldi osast koosneva kaevandi (3a ja 3b) nõlvapoolses osas (2 × 0,6 m) tuli nähtavale 4 valliga paralleelset tukki, mis ilmselt pärinevad vallil olnud ja põlenud kaitse- rajatistest. Kaevandi õuepoolses osas tuli nähtavale kompaktne 10–20 cm läbimõõduga, osalt tuld saanud

kivide lasu (jn 5). Nähtavasti on tegemist valli puust kaitserajatisel olnud ja selle põlemisel õuele varisenud heitekividega. Ühest vallitukist võetud radiosüsinikuproov andis tulemuseks  $965 \pm 30$  BP, kalibreeritud vanusega (95.4% tõenäosus) 1024–1159 pKr.

Lõpetamata vallid, ebahütlase laiuse ja sügavusega kagupoolne vallikraav ning välja ehitamata väravakohad viitavad sellele, et linnuse ehitamine on pooleli jäänud.

Jääb selgusetuks, miks paiknevad samasse aja-perioodi – 11.–12. sajandisse kuuluvad Sinialliku I ja II linnamägi üksteisele sedavõrd lähedal, s.t miks on ühe linnusekoha kõrvale hakatud ehitama uut linnust. Mõlema linnuse samaaegset kasutust ei saa, arvestades õuealade enam kui 9000 m<sup>2</sup> suurust kogusummat, pidada tõenäoliseks, sest sel juhul oleks linnuste summaarne õueala Lõuna-Eesti suuri-maid, samas suurusjärgus Otepäega.

Linnuste lähestikku paiknemise seletuseks võib välja pakkuda mitmeid oletusi. Esiteks ei lase radiosüsinikudateeringud välistada võimalust, et Sinialliku II linnust on ehitama hakatud 11. sajandil, enne I linnuse rajamist. Teiseks on võimalik, et uue linnuse ehi-

tamist on alustatud olukorras, kus vana on sõjategevuses hävinud. Sellisel juhul võib juba alustatud töö katkestamist ja tagasipöördumist vana linnuse juurde pidada märgiks tõsistest vastuoludest linnust kasutunud kogukonnas.

Kolmandaks ei saa välistada sedagi, et Sinialliku II linnus on mõnevõrra hilisem kui seda näitavad radiosüsinikudateeringud ning et ehitamist on alustatud alles ristsõdade ajal – siis, kui Sinialliku I linnus oli juba maha jäetud. Võimalik, et uut linnust hakati rajama 1223. aasta ülestõusu ajal ja et ehitustööde poolelijäämist tingis poliitilise olukorra ootamatult kiire muutumine. Igal juhul viitab Sinialliku ja Viljandi lähedus nende asustuslike tagamaade kattuvusele ja paratamatule konkurentsile linnuste vahel, mis võis Siniallikule saatuslikuks saada.

Sinialliku II linnuse vallilõikude erinev valmidusaste viitab sellele, et linnuse ehitamine oli jagatud erinevate üksuste või kogukondade (suguvõsad või külade rühmad) vahel ning et need täitsid oma ülesandeid eri tempos. Ühtse ehitusrütmi puudumine viitab ehitustööd koordineeriva kõrgema keskviimu puudumisele.