

Excursion to prehistoric sites on Saaremaa

April 26th 2025

10.30 busses leaving for excursion to visit Viking sites in Saaremaa

10:55-11:30 – Salme, site of two pre-Viking Age ship burials

12:00-12:20 – Viidumäe, 6th-9th century sacrificial place

13.00-14.00 – lunch break at Kaali

(if we have time: short tour to Kaali meteorite crater and Bronze Age-preRoman Iron Age fortification/shrine)

14:30-14:50 – 7th-14th century hill-fort at Pöide (Kahutsi)

15:00-15:15 - 7th-10th century harbour site at Tornimäe

16.00 - arriving back to Kuressaare to visit Kuressaare Castle

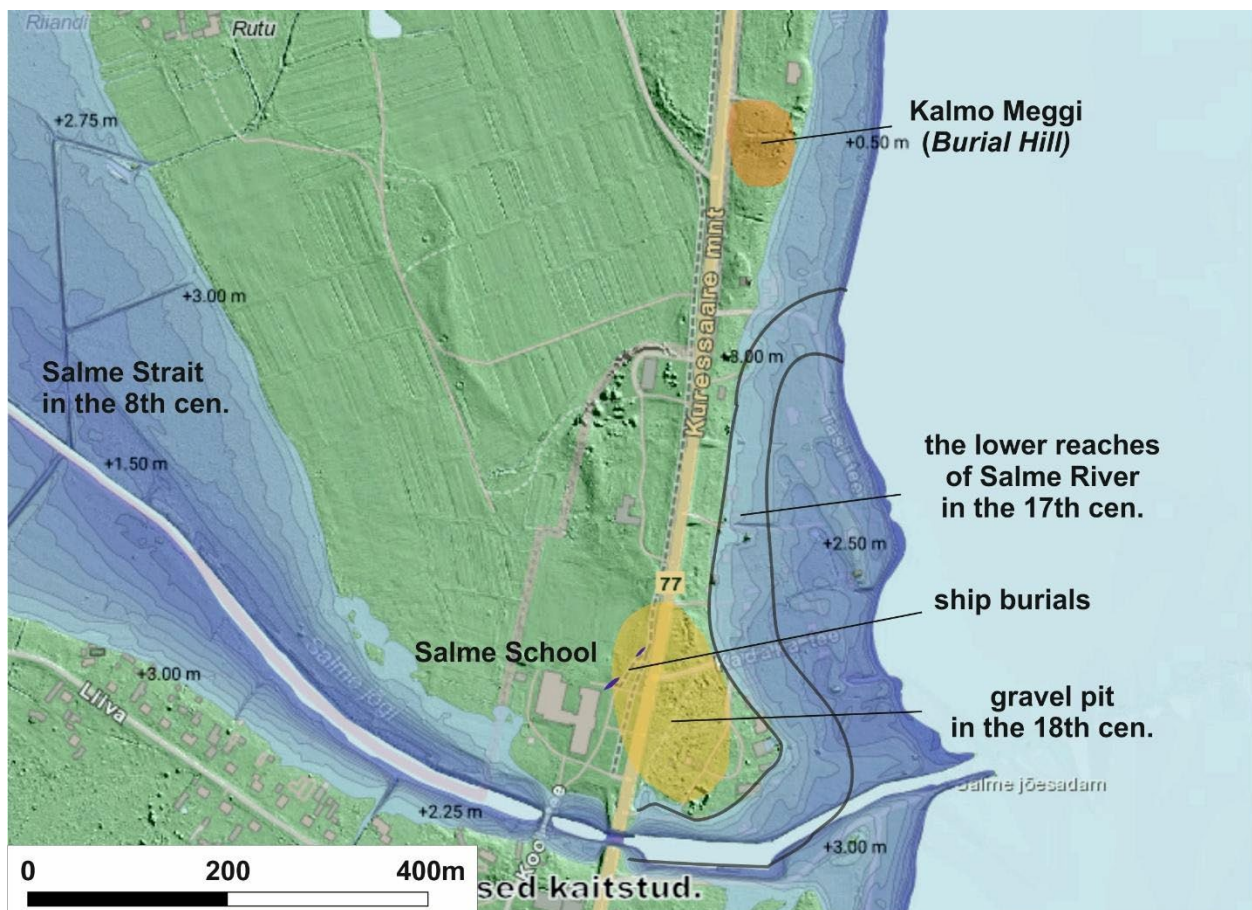
16.00-18.00 excursion in the castle and walk back to the hotel



THE BOAT BURIALS OF SALME

On the map from 1650, the river of Salme was depicted as a strait between the islands of Kuressaar and Sõrve. 'Salm' in Estonian means small strait, especially between two islands. In the early 2000s, during a research project focused on prehistoric harbours, the area around the Salme school was identified as a possible site for a prehistoric harbour. Unfortunately, the archaeological research was complicated due to this area being affected by the battles of the Second World War, as well as by terrain levelling works from the later decades. Therefore, the archaeologists were not able to locate the presumed harbour site.

At the end of the 2000s, two boat burial graves were discovered during roadworks, and were thereafter excavated by Marge Konsa and Jüri Peets in 2008-2012. The graves were characterized by both local and foreign features, and most of the warriors buried there were of Scandinavian origin. It is commonplace to find graves near prehistoric harbour sites of Saaremaa, frequently with burials otherwise uncommon in Saaremaa.



Salme I

The first boat of Salme was discovered during roadworks when human bones with single artifacts from the 7th-8th century came to light. Six lines of boat rivets were recorded as well. The dead had been buried in a clinker-built boat, which wooden parts were almost totally decayed. The stern was ruined by the construction works. The boat had been 11.5 m long and 2 m wide, with about 40 cm draught.

Remains of seven different individuals were found from the first boat of Salme. The bones were completely intermingled and represented only fragments of skeletons. Several researchers have explained the fragmentation of bones with later construction works at the site, or even by the possible sitting position of the deceased (Allmäe et al 2011). It should be taken into account, though, that fragmented and intermingled bones characterized most of inhumation burials of Saaremaa up to the Middle Ages.

Salme II ship



The second ship of Salme was found in course of the same roadworks in 2010, when other artifacts were unearthed. Its length was 17-17.5 m and it was 3 m wide. Comparing with similar, but better-preserved boats from e. g. Kvalsund, Ladby, or Frombork, one can conclude that the draught of the second vessel of Salme may have been 0.5-0.9 m and the height of the broadside from the bottom of the boat 0.8-1 m. The contour of a dark layer of humus, which was preserved under the boat, indicated a vertical keel.

Accordingly, the ship must have had a sail. The second vessel of Salme is the oldest archaeologically excavated sailing ship in the Baltic Sea region.

About a century ago, there may have been a hollow in the ground upon the burials in the one-time boat, which was filled up with soil, pebbles, and waste in the 20th century. It seems likely that the hollow indicated a burial chamber that had collapsed when the wood decayed. The position of burials, as well as colour differences in soil seem to point to the one-time time existence of the burial chamber, too. The custom of bringing the dead to a burial house, where they were deposited close to each other and where the remains of the skeletons intermingled in course of time was characteristic for prehistoric Saaremaa. Collective burials were rare in Iron Age Scandinavia, even though ship burial as such can be considered Scandinavian.

The ship burial II of Salme included remains of 34 different persons. They had been buried in three, partly four layers, which were sometimes separated from each other by a several-dozen-centimetres- thick layer of sand. The whole burial area (or the burials inside the chamber) was covered with a layer of stones similar to other stone graves and burial houses of Saaremaa (Mägi 2021).

Burials



All 41 of the dead buried in the Salme vessels were male and warriors, as is evident from their belongings and wounds found in their skeletons. They were in their prime years, strong and tall. Better offerings and belongings were found from the second ship, which

was also preserved better. From there, 40 swords or fragments of swords were found, including 10 completely preserved one-edged blade swords. Several pieces of armoury were decorated with elaborated Nordic animal style ornaments. Some of the ornamented details were similar to the ones found from the contemporary Valsgärde grave in Mid-Sweden, others to the findings from the southwest of Finland. There were no big flat crossbow brooches or dress pins that were characteristic for warriors in Estonian and Finnish coastal areas, but some simple fibulas made of iron were recorded. Such simple iron fibulas were common in Finland, but also quite widespread in Middle Sweden.

Other noteworthy finds were 91 arrowheads and 251 gaming pieces made of whale- and walrus bone. There were also remains of at least six dogs, of falcons, as well as of some other animals and birds.

aDNA analysis of the Salme individuals indicated the kinship of the several men buried there. For example, four skeletons laid down beside each other belonged to four brothers.

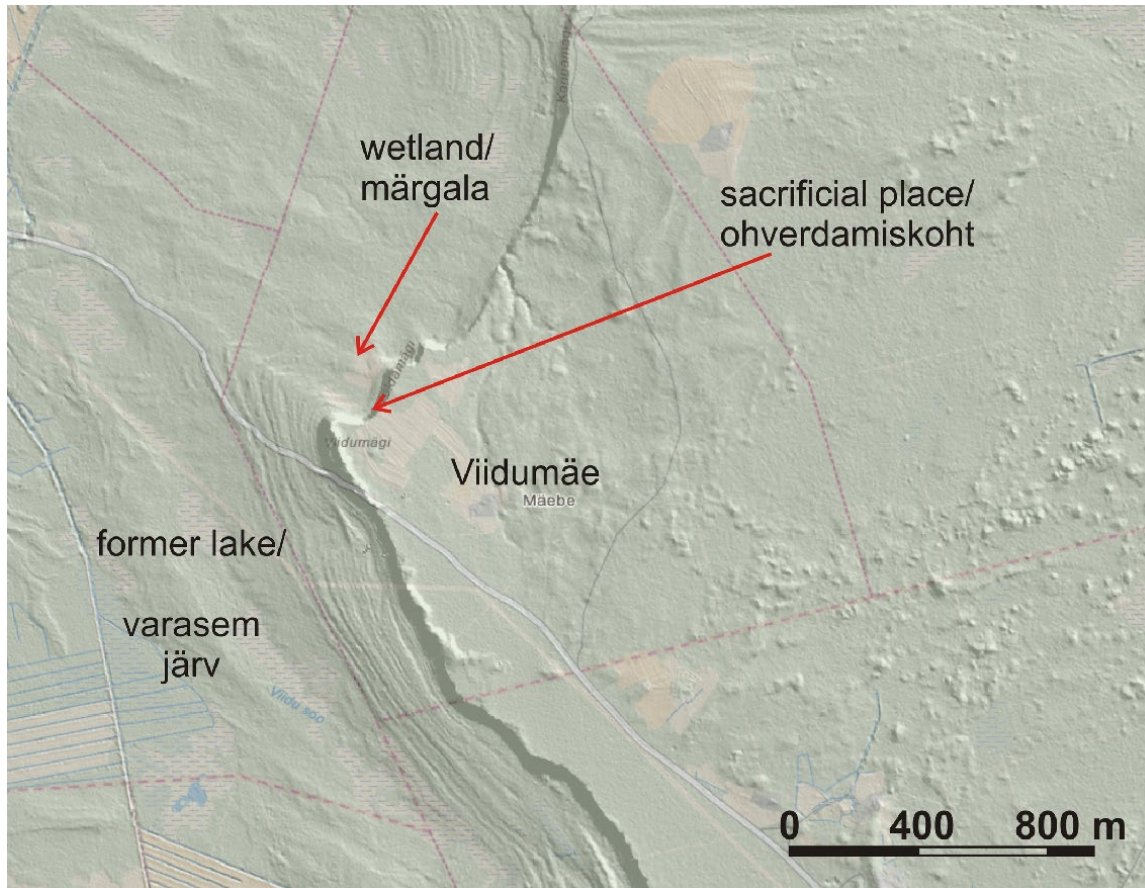
During the Viking Age, the boat and ship of Salme were located nearly on the beach. Especially in the Middle Ages, the beach was covered by sand dunes.

According to different opinions, the burials were deposited there either all at once or during a somewhat longer period, for example during several decades. The vessels were probably halfway dug into the ground, but not covered with soil. Despite that, the burials were never looted. Considering the weather of Saaremaa, a wooden ship can hold together for 50-70 years.

For more information, have a look here:
<https://osiliana.eu/en/salme-ship-burials/>



VIIDUMÄE SACRIFICIAL PLACE



The sacrificial site at Viidumäe was found by illegal detectorists who managed to almost completely loot it before archaeologists were able to register it in 2014. At least, several dozen photos of artifacts sold to the black market were shared, and have been proven useful for interpreting the site. A number of artifacts were also found during archaeological excavations.

The shrine or sacrificial site of Viidumäe with its high cliff that in its time encircled a small body of water is naturally a remarkable and beautiful place. On the other side of the cliff, there used to be a big lake that was connected to the sea. Arable lands in the vicinity were rare, but at the distance of 4-5 km began fertile lands with plenty of archaeological sites. Not far from the sacrificial site, especially on the higher lake shore, there are many stone cairns, part of them presumably graves.

Most of the finds at Viidumäe were unearthed from the steep slope or from the foot of the cliff, from quite big area (0.8-1.2 ha). Five small excavations were made in different locations at the Viidumäe site in 2014-2016 (Marika Mägi, Indrek Jets, Riina RiieI-Mürk). Unusually many

arrowheads were found, most of them from areas at the foot of the cliff. Dress pins and other jewellery, some of them of silver, had been stuck into the sandy layer covering the slope of the cliff. Some fragments of ornaments and weapons (spearheads, angons, one-bladed swords) were found in the area where once was the aforementioned small body of water. Most of these finds are dated to the 6th-9th century, but from the peripheral parts of the site some 12th-14th-century artefacts also came to light.

At a particular area near the cliff-foot, a collection of inhumated but totally intermingled human bone fragments were found in a low hollow once dug into the ground. Single human bones were sporadically found also elsewhere in the same area. Close to the bones, there was recorded a semi-circular man-made stone platform at the foot of the cliff.

The 2 x 1 m hollow filled with fragmented human bones was accidentally discovered due to an iron nail and two arrowheads. As indicated by gnaw marks of wild animals, the bones had been laying on the ground during some period, before they had been collected to the hollow.

The fragmentary bones belonged to at least 13 different individuals, including males, females, and children (4-10 years old). Even six of the individuals had marks of violence on their bones. Some of them were clearly executed, for example by beheading. ¹⁴C analyses taken from six different individuals showed that they died between the second half of the 7th century and the end of the 8th century, or in the 9th century.



In the wet area, remains of a burnt-down wooden platform or a construction upon the body of water were discovered. ¹⁴C analysis from the wood indicated two periods: the 5th and 6th centuries, and the 14th century. Around this construction, numerous pre-Viking Age weapons were found, that had probably been thrown into shallow water as offerings.

The location of the site, the conspicuous shape of the cliff, and the clearly sacrificed artefacts insist that the site was a shrine and/or a sacrificial place. Violently killed people whose remains had been left on the ground and collected together only later, presumably indicate the custom of human sacrifice. Stories of one-time big offering places in Saaremaa, where among others humans were sacrificed, are also known from the local folklore.

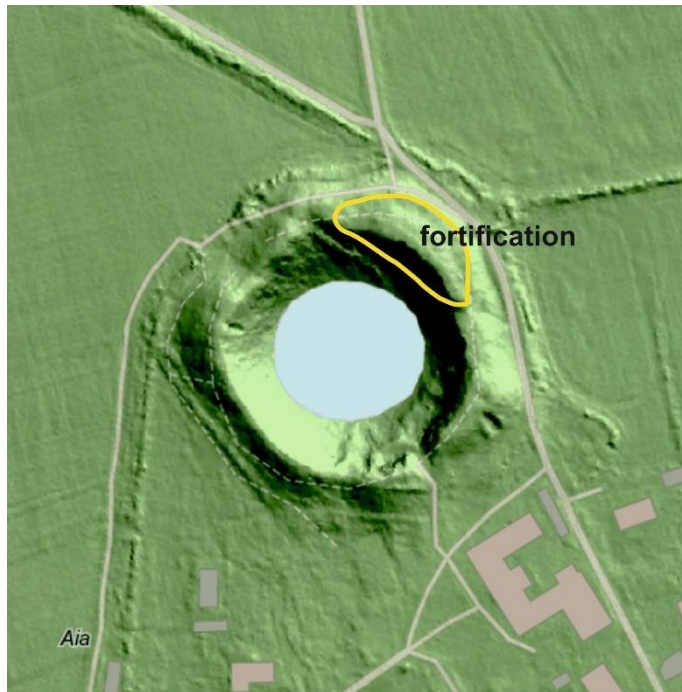


For more information, have a look here:

<https://osiliana.eu/en/viidumae-sacrificial-site/>



KAALI METEORITE CRATERS AND CULT SITE



Kaali is mostly known for its meteorite craters, of which the biggest crater is surrounded by the eight smaller ones. The fall of the meteorite is dated quite differently. According to the latest knowledge, it must have happened during the second half of the Bronze Age or at the end of it, around 1600-1800 BC. To put it simply, the devastating effect of this event on already densely populated Saaremaa can be compared with the catastrophic results of a nuclear bomb. The meteorite flew towards Saaremaa from the East, and must have been visible from all coasts of the northern half of the Baltic Sea. It is believed that the survivors may have interpreted the event as the death of the Sun, that more that the dust caused by the explosion presumably overshadowed the daylight, perhaps for several days.

Even though the lake of Kaali is nowadays thought of mostly as an ancient holy site, it was not known as such in local folklore until the beginning of the 19th century. The idea of the holiness of the site was first invented by Baltic German scholars in the 19th century, and spread from their writings to the local population, thus creating secondary folklore.

Archaeological excavations in and around the Kaali Lake were conducted 1976-1979 by Vello Lõugas. Unfortunately, the results were poorly documented and only briefly

published. A fortified settlement site with a semi-circular layout was discovered on the northeast side of the main crater. Ceramics and single metal items dated the earlier use of the site to the second half of the Bronze Age, the 8th-6th century BC, while most of the finds seem to belong to the pre-Roman Iron Age, 500 BC – 50 AD, and, according to Lõugas, possibly also to the 3rd-4th century AD. ¹⁴C analyses taken from the settlement site of Kaali also denote the period from the end of the 6th century until the 4th century BC, thus the end of the Bronze Age and the pre-Roman Iron Age. The unusual location of the site speaks for the theory that it probably was a sacred complex.

The area of the fortified settlement was altogether 800 m² and as is seen from the remained part, when viewed from the outskirts of the crater wall, it used to be surrounded by a limestone drywall, 2 m wide and 2.5 m in height. The excavation area in the middle of it was around 135 m². At least two square stone platforms were discovered from the yard.



Stone platform inside the fortified settlement of Kaali.



Excavations in the middle section of the fortified settlement.

In 1978, a small-scale excavation was conducted in the lake of Kaali, which was pumped dry for this reason. The works stopped when the depth of the digging was around 4 m, due to crisscrossed tree trunks that had fallen into the lake. According to dendrochronological analyses, the lowest tree trunk was an oak that had started to grow in the year 1181 and had fallen into the lake in 1426.

Probably in the pre-historical period, perhaps even in the same time when the presumable fortified settlement was in use, the lake of Kaali was surrounded by a massive stone wall, which foundation was 2.3-2.8 m wide. In 1979, a 10 m long excavation cutting through it indicated that there was no cultural layer outside the wall. However, plentiful bones of domesticated animals (oxen, horses, pigs, lambs, and dogs), mainly skulls and teeth, were found from the inward area, probably indicating one-time offerings. Prehistoric pottery was found on the level above the animal bones, and by this, Lõugas dated the building of the circular wall to around the beginning of our era.



The circular stone wall and the earlier foundation under it.

The Kaali complex has been interpreted and dated differently. The fortification used for a long time has been interpreted as a Bronze Age fortified settlement. Modern archaeologists define it as a cult site from the end of the Bronze Age and the beginning of the Iron Age.

For more information, have a look here:

<https://osiliana.eu/en/kaali/>



PÖIDE HILL-FORT



Pöide hill-fort in 2024 during the excavations.

Pöide hill-fort was one of the biggest prehistoric and medieval fortifications in Saaremaa. The present height of the walls is 5-6 m from the courtyard, and 10-11 m from the outside. Up to the 18th century, stone walls of the fortification reached ca 5 m above the present walls, but were all removed for other buildings. Depressions on the top of the hill-fort's rampart date to the World War I, and had military purpose. The hill-fort courtyard is 85 m long and 55 m broad, and in the middle of it is a hollow, one-time well. The thickness of cultural layer is 0.2-0.3 m in the middle of the courtyard.

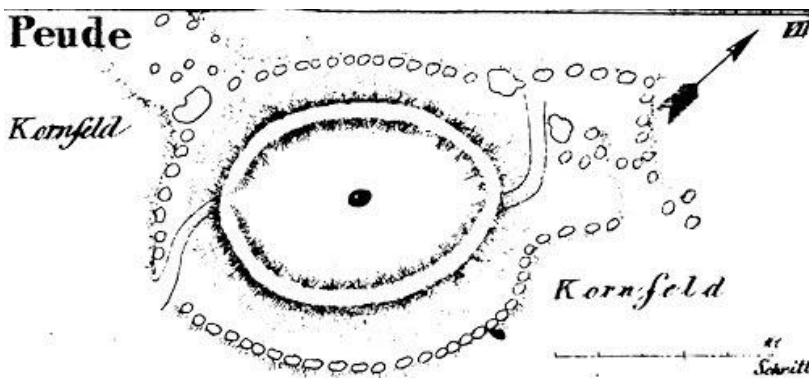
Archaeological excavations were carried out here 1990-93 under the supervision of Vello Lõugas. The excavation area (160 m²) aside the NE-entrance of the hill-fort mainly embraced the courtyard aside the wall, but also cut the wall with one corner. Two building layers of houses with stoves were uncovered, built almost directly on top of each other.

New excavations were started in the middle of the courtyard in 2024, and will be followed in 2025. These are organized by Foundation Osiliana, under the supervision of Marika Mägi. Remains of at least one building with an oven have been uncovered so far.



Excavations at Pöide in 2024.

The first hill-fort was built approximately in the 7th century, before the Viking Age, and stayed in use until the 9th century. The presently visible remains of the hill-fort originate from the 12th-14th century, when it was built of dry-laid stone wall. Additional circular rampart, removed in the early 20th century, surrounded the central castle. Buildings have been both inside and outside the ramparts, forming a settlement complex as was characteristic to 12th-13th-century Saaremaa, and was called “town” (*urbs*) in chronicles.



The hill-fort of Pöide in 1842.

The Pöide hill-fort presumably functioned as political centre of surrounding district, where local chieftain or chieftains together with their families and retainers resided at least part of the year. A garrison, guarding the hill-fort, may have permanently stayed in the fortification. Viking Age finds have also been found in the midst of the present Iruste village – perhaps

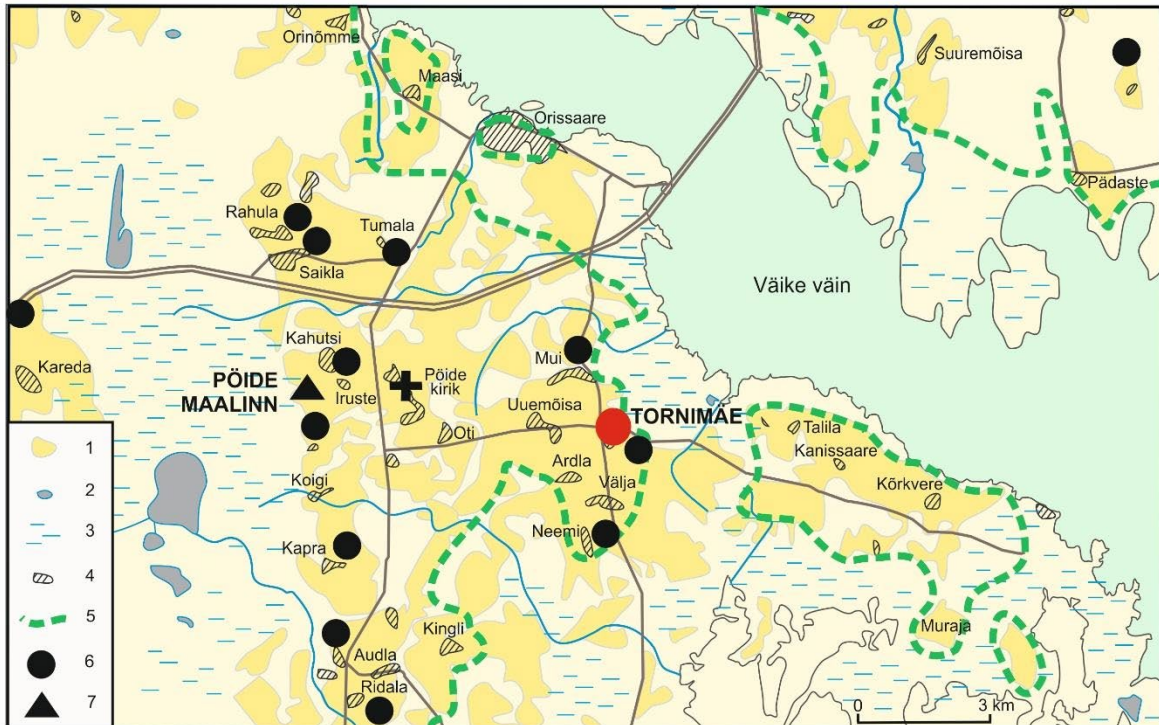
once the site of a manor belonging to the same chief as the hill-fort did. Ceramics similar to the ones at Pöide hill-fort have also been uncovered at Tornimäe – an early and middle Viking Age harbour site 7 km away from the stronghold.

For more information, have a look here:

<https://osiliana.eu/en/poide/>



TORNIMÄE HARBOUR SITE



Viking Age cultural landscape around the Tornimäe harbour. The map is re-drawn from cadastral maps from the late 17th century. 1 – arable land, 2 – lakes, 3 – wetland, 4 – 17th-century settlement, 5 - coastal line in the Viking Age, 6 – stone graves, 7 – hill-fort.

Harbour sites from Viking Age Estonia have been archaeologically investigated mostly on the island of Saaremaa and excavated more thoroughly in four places – at Tornimäe, at Viltina, at Pällamõisa by the bay of Sutu, and most lately at Mullutu.

The harbour of Tornimäe (Est. Tower Hill; on historical maps also Linnamägi, Town Hill)) was located at a strategically well-chosen place, from where the Suur Strait (between present-day islands Saaremaa and Muhu) and the strait between the main island (former Kuresaar) and Kõrkvere (present peninsula) could be well observed. It was a suitable landing site for Viking Age vessels and from there, one could easily control the traffic along the water routes from Gotland to the Gulf of Finland. Although Tornimäe can be considered connected with the Eastern Way, *Austrvegr*, its finds are mostly local or originate from the nearest regions, thus not indicating wide-scale international trade.



The Tornimäe harbour was abandoned around the year 1000, which may be caused by the crises in the Viking Age eastern trade, or may also be prompted by the land-mass elevation. The posterior harbour was located several hundred meters closer to the sea than the original Viking Age one. In medieval times, the most important tax collection centre of East Saaremaa, known as Uuemõisa, was founded near Tornimäe.

In the early 19th century, local peasants reported of wooden palisade remains along the slope of the Tornimäe hill. The site was first excavated in the 1960s. Due to the fact that exact maps with contour lines were unavailable during the Soviet time, the excavation leader, archaeologist Aita Kustin interpreted the site as ordinary Viking Age settlement, without realizing its location on one-time coast.

In the beginning of the 2000s, Marika Mägi carried out additional excavations on Tornimäe. The excavation cut remains of a log house and some scattered fireplaces. Probable hearths were already discovered during the excavations of Kustin. However,

not a single building with oven, characteristic to Estonian prehistoric settlements, has been recorded in Tornimäe so far. It may be that there were none since the site was only in seasonal use, and during the summer months when the sea was navigable, there was no need for heating. When the sea wasn't sailable anymore, inhabitants left the harbour site as well.

The cultural layer of the Tornimäe site was intense, even though later farming had heavily impacted it. Potsherds were the most abundant finds, but also numerous metal artifacts like jewellery, weapons, and tools came to light. Additionally, boat rivets and possible bead-making items, as well as some tools denoting other handicrafts were found. A great number of bones of domesticated animals and fish were recorded, suggesting that the site also functioned as a fishing harbour. Items demonstrating foreign relations consisted only of some foreign potsherds and ornaments.

The material found at Tornimäe is remarkably similar to the finds at the Pöide hillfort that is located 7 km away from it.



Potsherd from the Tornimäe harbour site.



Archaeologically detected prehistoric harbour sites in Saaremaa.

For more information, have a look here:

<https://osiliana.eu/en/tornimae-harbor-site/>

