

Chapter 3

**VILLAGE AT THE FOOT OF THE FORT:
SETTLEMENT SITES I–III AT LINNAALUSTE**

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Abstract

This paper examines two acts in the history of village settlement. First, village as part of the fort-and-settlement complex. Second, the disintegration of this complex and development of a new network of power relations, as well as a settlement pattern. Those events reflect the stages in the processes of the urbanization and feudalization of society. The paper is based on the archaeological research of the village of Linnaaluste in the vicinity of the hill fort of Keava in northern Estonia.¹

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Introduction

At first glance the village and the town may seem like rather distinct and opposite phenomena. One is an agrarian rural settlement and the other a densely populated area regulated with city rights. But a closer look at them reveals a lot more complex and contradictory character. Today's cities can have quarters, which operate on the basis of village life principles, and there are villages in the rural areas, which are confusingly similar with a borough. The boundaries between village and town were rather vague at the time of the formation of the early urban centres. There was a variety of intermediate forms of collective settlement at that time. One early urban structure was a fort-and-settlement centre, which consisted of the fort on top of a hill and of the settlement at the foot of it. Urbanization has not been a linear process, but tortuous and with dead ends. Only a few of the fort-and-settlement centres later became towns, many of them simply disappeared from the arena of history, and some have remained to this day as common rural villages.

The concept of village is sometimes used as relevant only for regulated villages with an open field system, best known as a medieval village system. We agree with the opinion of the Swedish archaeologist Jan-Henrik Fallgren (1993) that villages have had different forms and the regulated village was only one type. There were villages before and after the open field system and those types of villages differ in social and economic terms as well as physically from each other (Hamerow 2002, 53). The idea of communal settlement is older than the emergence of regulated villages. It is a common opinion that the open settlement pattern in the Iron Age consisted of separated single farms in Estonia until the Pre-Viking or even Viking Ages (e.g. Lang 1996; Tvauri 2012). However, recent studies indicate that the villages were already present in the Roman Iron Age (Lillak & Valk 2009). Collective and individual settlement is certainly not mutually exclusive, but has existed in parallel, although their proportions may alternate.

The rural settlements have been intensively studied in Europe for more than half a century. In early days the focus was on individual settlements and their buildings. Later the emphasis shifted to their wider cultural landscape. Issues such as settlement patterns and territorial development have become increasingly prominent in current research strategies (Hamerow 2002). There is a long tradition of research on the settlement history in Estonia (see more in Lang 2006), but the archaeological investigation of individual villages has been relatively sporadic. The results of several large-scale excavations of villages have not been published and analysed. Single features such as construction of buildings and stoves have mostly been examined, and less the general structure of villages and changes in settlement dynamics (Lavi 1997; 2005; Tõnisson 1981b). Systematic research into the late prehistoric and medieval rural settlement is lacking in Estonia.

The historical background of the village of Linnaaluste

The complex of sites under consideration in this chapter is situated in the nearest neighbourhood of the hill fort of Keava (Fig. 3.1). The name of Linnaaluste in Estonian means the foot of a fort. Today Linnaaluste is a village with 110 inhabitants and 36 farms scattered on a fairly large territory. Fragmentation of the village structure is one of the results of the modernization processes in the rural communities at the end of the 19th century. In Linnaaluste ten farmsteads were moved out from the village centre during the replacement of open field system by private fields. Before parcelling, the farms were situated close to one

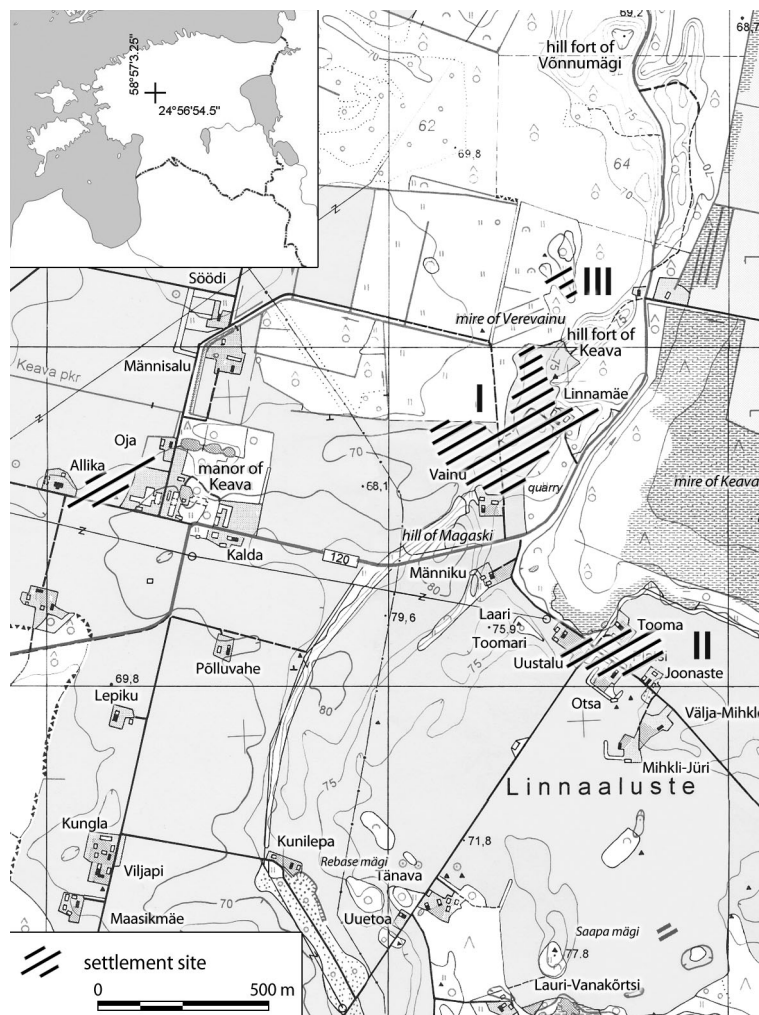


Fig. 3.1. Location map of the archaeological sites in the village of Linnaaluste (map: Eesti Kaardikeskus).

manor of Kedenpäh, i.e. Keava (Johansen 1933, 662; Sepp 2004, 37). The village of Linnaaluste first appears in the written sources in the 13th century. In the *Liber Censur Daniae* (LCD) the village *Litnanas* is marked as having 14 ploughlands. *Litnanas* pro Linnaaluste was one of the ten villages in Harjumaa, which, after the Danish conquest in 1219, were enfeoffed to the regent of Tallinn, duke Knud – an illegitimate son of Danish king Valdemar II (Johansen 1933, 26, 486, 797). Data found in LCD and the name of the village refers to the prehistoric origin of Linnaaluste village.

Before starting the research project, in 2000, very little was known about the formation and the settlement history of the prehistoric village of Linnaaluste. Surveying the hill fort of Keava in 1973, Evald Tõnisson found some potsherds (AI 4654; 4658) on the edge of a gravel quarry 250 m from the hill fort and more potsherds 200 m south from Linnamäe farm. No further investigations were undertaken in the proximity. According to Tõnisson, the hill fort of Keava was a fort constructed in the Final Iron Age, 11th to 12th century, with a contemporary settlement situated nearby (Tõnisson 1981a; Jaanits et al. 1982, 314, 332). In 1998, some potsherds (AI 6604) were found in the historical area of Linnaaluste village by Arne Kivistik, a schoolteacher interested in archaeology. From the surveys carried out in 2000 by the Chair of Archaeology at the University of Tartu, it became evident that there were two large settlement sites in the vicinity of Keava hill fort (Lang 2000b; Kõnsa & Ots 2001). One of them, named settlement site I of Linnaaluste and located at a distance of 100 m to the south-west of the hill fort, covers ca 8 ha of ground (Fig. 3.1). Another settlement site, Linnaaluste II, is situated around Tooma farm at a distance of 500 m to the south-east from the settlement site I and covers ca 4 ha. During routine field investigations in spring 2002, the settlement site III of Linnaaluste was discovered – a separate and relatively small-sized area 100 m north of Keava hill fort.

In the years 2001–2006 archaeological field work was performed in the aforementioned three settlement sites. The aims of the research were (1) to clarify the dates of the establishment and use of the settlement sites and (2) to determine their function and connection with Keava hill fort. In the discussion section of this chapter we (3) compare the settlement site of Linnaaluste to the other settlements belonging to the fort-and-settlement complexes, and we will (4) discuss the settlement dynamics. The final aim is to observe how the processes of the urbanization and feudalization of the society have acted on the grass-roots level, on the example of one particular village.

Research methods

The land under the Linnaaluste settlement sites is a private property as well as in constant agricultural use. Therefore, extensive field work opening up large areas was impossible, and instead, small trenches were dug. The excavations were carried out without the use of machinery, and all removed soil, including

the topsoil, was sieved through. In addition to the excavations, the settlement sites were studied by means of a surface survey. The extent of the settlement was found by making test pits and bore holes.

Surface survey is a common non-destructive method for studying settlement sites and also used as an alternative to excavation. In Estonia, it has usually been carried out in an unsystematic way: walking across a ploughed field, scanning the strip of ground along one's path and collecting artefacts on the surface without recording their intra-site positions (see also Renfrew & Bahn 2004, 82). At the same time, surface and subsurface work at numerous sites all over the world has demonstrated that surface artefact patterns may significantly relate to patterns of occupation in deposits and, in a more general sense, have demonstrated the validity of employing a systematic approach to the collection and analysis of surface material (Clark & Schofield 1991, 94; Matthews & Hodder 1993). While studying the settlement sites of Linnaaluste both unsystematic and systematic surface survey was used.

There are several different surface collection techniques elaborated in field archaeology (Foard 1978; Drewett 1999, 42 ff.; Lavento 2000). We used both grid and transect methods for recording. Whilst conducting the surface survey of Linnaaluste II, the examined area was first divided into squares, where the position of surface artefacts was recorded. In Linnaaluste I, a grid was not made; instead, we walked through in lines. Visible artefacts were bagged and placed into their original locations on the ground. After that, all locations were recorded. This method proved to be faster. On the map composed afterwards, however, the width of our fieldwalking transects appeared to have been a little bit irregular.

The movement of artefacts caused by (constant) agricultural use is, to some extent, dependent on the local context (Clark & Schofield 1991). Therefore, we were interested in the extent that the different periods of settlement, as well as types of artefacts were represented in the collected surface artefacts of Linnaaluste. The artefacts gathered by the surface survey were compared to those found during archaeological excavations of the settlement sites. The results of this comparison are described below, but conclusively it could be said that the surface artefacts give a more representative overview of different periods of settlement. It should be noted, though, that there were less bronze artefacts and bone items collected by the surface survey compared to the number found during archaeological excavations.³

The location of surface artefacts is affected by ploughing activity, which moves them back and forth on the surface of the field. Bigger artefacts move more, smaller ones move less. In general, the small-scale patterning of artefacts is lost very quickly by ploughing and artefact clusters increase in area while their density decreases. The shape of the clusters tends to become more circular and less distinct. The most extensive dispersion of artefacts that originally were located together takes place during the first ploughing and dispersion decelerates in the

³ The surface survey and excavations were carried out without using metal detectors.

course of subsequent ploughing (Orton 2000, 62 f.). Experiments and computer simulations have demonstrated that artefacts larger than 4 cm move the biggest horizontal distance, while the artefacts smaller than 4 cm tend to be less displaced horizontally (Boismier 1991, 17). For example, for lithics the distance from the original location can be only 2 m after 12 ploughings and an average longitudinal displacement is around five metres (Boismier 1991; Orton 2000, 62).⁴ On the studied ploughed field on the site of Linnaaluste II, four fragments of the same hand-moulded vessel were found in an area with a diameter of 14 m. Thus in the analysis of surface artefact distribution the bigger clusters should matter the most. In the case of settlement sites of Linnaaluste the distribution pattern of artefacts was analysed by 5- and 10-metre square grid.

The results of the fieldwork

Settlement site I of Linnaaluste

The settlement site I of Linnaaluste is located on the lands of Linnamäe and Vainu farms (Figs 3.1 and 3.3). The area with dark earth starts 100 m from the south-western foot of the hill fort and lies entirely on the cultivated fields. The former mire of Verevainu forms a natural border for the settlement site in its northern and north-western side. Nowadays the mire is drained and transformed into pasture. On its eastern side the settlement site has probably originally spanned up to the Keava Mire, but the eastern and southern parts of it have been destroyed by a gravel quarry. The maximum elevation difference inside the settlement site is 2 m, the highest part being near the Vainu farmstead on the foot of the Magaski hill. Erosion has brought down a part of the occupation layer from the higher areas of the settlement forming a 60 cm thick deluvial layer in the lower area of the settlement. On the level area nearer to the hill fort the topsoil layer showing marks of human activity is 20–40 cm thick.

Excavations were carried out in two places. One area of excavation (trench 2) was located at the northern edge of an abandoned gravel quarry in the north-eastern portion of the settlement site, 250 m south of the fort. During a landscape survey in 2000 some pieces of burned human bones (TÜ 884) were found there, so we assumed there had been a burial ground destroyed by the gravel quarry. The excavation (23.75 m²) at the artificial ridge indicated that soil, rather rich in finds, was not formed *in situ* but it had been pushed together by a bulldozer from

⁴ We also made an experiment to study the effect of ploughing to the dispersion of potsherds. The experiment took place in environmental conditions similar to those of Linnaaluste II, in a field on a flat landscape. Fragments of modern glazed redware and stoneware with diameters from 3 to 11 cm were used. After two episodes of ploughing by a tractor, the potsherds could be found approximately 5 metres from their original locations. Some potsherds could be found further away and one of them was located even 14 m from its original location. At the same time some sherds were still in their original location (Konsa & Lõhmus 2010).



Fig. 3.3. Aerial photo of the vicinity of the hill fort at Keava, taken by captain M. Sukk in 1936 (AI, photo No. 4029).

the area of the quarry. Against our expectations only two human teeth were found and no bones which could actually originate from the previous cemetery, although the area of the gravel quarry on the foot of the Magaski hill and the hill itself are the most likely locations for the cemetery. The owner of Vainu farmstead found a male skeleton without any grave goods while digging the foundations for a cow-house.⁵ Magaski hill has also been called Kabelimägi (Chapel-hill), to which according to oral tradition one Swedish soldier had been buried dead (EKI KN Rapla 1948). Sites with the name Chapel-hill have strong connection with burial places. The Catholic rural chapels were often built directly on top of previous prehistoric cemeteries. In folk tradition the name Chapel-hill often denominates medieval and modern era village cemeteries, even when there never had been a chapel as such (Valk 2001, 24). And this could also be the case with Chapel-hill in Linnaaluste as indicated in another folkloric source: “During the plague many dead lay on the ground and one Swedish knight buried them on a hill, and because of that they started to call it *Kabelimägi*” (i.e. Chapel-hill) (ERA II 225, 457 (7)).

⁵ According to anthropologist Martin Malve (University of Tartu) the human bones (TÜ 886) were a male shinbone, fragment of a thighbone, fragment of a pelvis and one vertebra. A part of the skeleton was left in the ground (Lang 2000b).

Structural features

Trench 1 covering 15 m² was dug into the middle part of the settlement at a distance of 400 m from the fort. Although the top layer was almost completely mixed by ploughing, under the plough layer there were some untouched features. We found remains of a stove and household pits dug up into the natural ground.

A stove with a round ground plan had dimensions of 70 × 70 cm and it consisted of a heap of granite stones (Est. *keris*), which were built over a big bottom plate of limestone (Fig. 3.4). A second, bigger limestone slab lying edgewise was the back wall of the stove. The soil above and below the bottom plate was rich in charcoal, ceramic fragments, animal bones (both burned and unburned) and carbonized grains of barley⁶. The stove was located in a 55 cm depression in the ground. At a distance of 30–40 cm from the stove, an oval shaped fireplace was discovered. The latter measured 50 × 60 cm and had been dug into the ground by 25–30 cm. The fireplace contained charcoal, burned stones, sherds of pottery, and fragments of animal bones and carbonized grains of barley. It seems likely

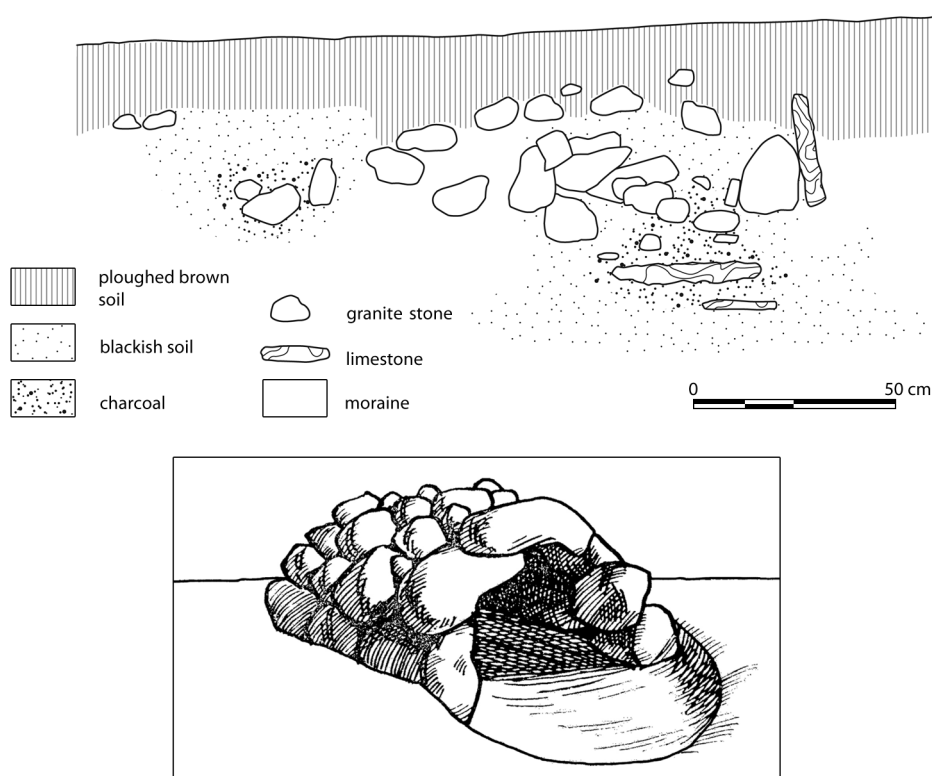


Fig. 3.4. Cross-section of *keris* stove and hearth at the Linnaaluste I (above) and reconstruction of the *keris* stove according to Zariņa 1978, 98 (below).

⁶ Identified by Sirje Hiie (Institute of History at Tallinn University).

that these two structures were separate parts of one 160 cm long stove consisting of a *keris* stove for heating the room and a hearth with an ash pit (Est. *lee*) for cooking. Charcoal from the stove and hearth was radiocarbon dated to cal. AD 640–900 (TIn-2606–2608; Fig. 3.5).

In this period primitive *keris* stoves were used in Estonia. These are reported from the settlement site of Saha (Lang 1996, 236; dated to the 7th–8th centuries) as well as from the hill forts at Iru, Rõuge, Unipiha, and others (Tõnisson 1981b). Early *keris* stoves are usually small and primitive, sometime hard to distinguish from fireplaces (Tõnisson 2008, 116, 163). An advanced type of *keris* stove, like the one found on Keava hill fort, is usually larger, with a square ground plan and with walls laid of stone (chapter 1). Flueless *keris* stoves provided the main heating in peasant houses until modern times and are still in use in smoke saunas today. During the Pre-Viking Age and later the main dwelling house in Estonia was a rectangular log cabin with an average size of 5 × 4 m. The location of stoves in the house was initially in its central part or irregular. Since the Final Iron Age the stoves were usually situated in the corner of the room or beside the wall near the corner (Tõnisson 2008). Unfortunately no foundations of the buildings had survived in the trench of the Linnaaluste.

The hearth was the heart of the house. It was a practical as well as a magical place where several supernatural creatures could live. In the folklore of many Finno-Ugric peoples (including Estonians) the house-spirit lived in the hearth and behind the stove (Paulson 1963, 148 ff.). Food offerings were placed there. Grains found under the bottom plate of the Linnaaluste stove refer exactly to this kind of ritual behaviour. Since charcoal was also found under the bottom plate, it is possible that a fire was made in the depression dug into the ground prior to building a stove in it, or charcoal taken from other stoves was placed there and offerings were made like grain to the house-spirit, a fire sacrifice or a sacrifice for the good of the building. A more pragmatic explanation is also possible, though, that the stove was built into a previous household pit. Cellar-like household pits were used

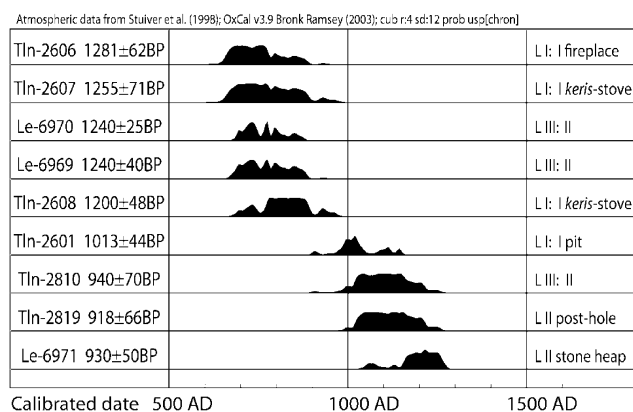


Fig. 3.5. Radiocarbon dates from the settlement sites at Linnaaluste.

for preserving food and grain. The chronicle of Henry of Livonia, which depicts the eastern Baltic crusade from the beginning of the 13th century describes a siege of Bishop Albert by the Livonians. During the siege Bishop Albert accidentally discovered local inhabitants' household pits full of foodstuff:

Then, proceeding to Holm, they [Livonians] besieged the bishop and his man. Since those who were besieged there had food neither for themselves nor for the horses, they were so put to it that they finally dug up the earth and found a great deal of grain and foodstuffs in various pits (HCL 2003, IV: 3).

In addition to the stove there were two household pits in trench 1. One of the pits had a diameter of 1.5 m and a depth from the current ground level to 80 cm, being dug 45 cm into the original ground. Although there was intensive black earth inside the pit, it contained relatively few finds: 7 potsherds, 27 fragments of animal bones and some granite stones. Charcoal pieces were abundant, and below the plough layer 40 cm from the current ground level the pit contained a 3 cm thick charcoal layer. The layer looked like a one-time deposit created by throwing the leftovers from cleaning the stove into the pit (Rasson 2006, 441). The second pit had an upper diameter of 1.85 m and bottom diameter of 1 m and a depth of 57 cm. A number of finds were obtained – this was the highest concentration of finds in the whole excavated area. The total count is 55 potsherds, 23 bone fragments, a clay daub, a whetstone and a fragment of a cow's metatarsal bone with working traces, probably used as an awl. Fragments of fine-tempered carinate vessels, characteristic of north and north-west Estonia mostly in the 7th–8th centuries were found from both pits. However, the charcoal from the second pit was radiocarbon dated to cal. AD 940–1160 (TIn-2601; Fig. 3.5). The time difference between pottery and radiocarbon dates could indicate that the pit was filled with rubbish or soil containing mixed material from a different time period.

Surface survey

In addition to the excavations, the surface survey proved to be informative as well. An area of 8000 m² in the middle part of the settlement site was studied. Some clay daub pieces were found, meaning there could have been buildings, although none could be detected visually. Some of the pieces of burned clay had impressions of wood and had a triangular cross-section (Fig. 3.6). In living quarters thermal insulation of log walls was accomplished using moss; clay is thought to have been used for other buildings (Lavi 1997, 106). Clay daub pieces found in heated living quarters have been associated with stoves and hearths. These might originate from the bottom of a clay hearth which was built on top of a wooden bar floor, the clay spark or smoke hood shielding above the hearth, or the clay plaster used to cover the timber parts of the building around the hearth to reduce fire hazard (Lõugas 1968; Ramqvist 1983; Tvauri 2001).

The distribution of ceramics was analysed by weight in 10 × 10 m squares. We found a ca. 90 m long area with clusters of high concentration of ceramics (Fig. 3.7). An observation was made during Uderma settlement excavations: the

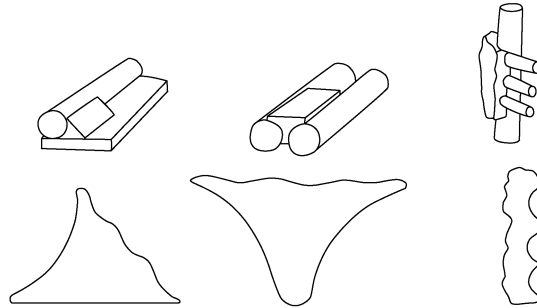


Fig. 3.6. Main types of impressions on daub from Linnaaluste I and III (based on Ramqvist 1983, 149, fig. 5: 9).

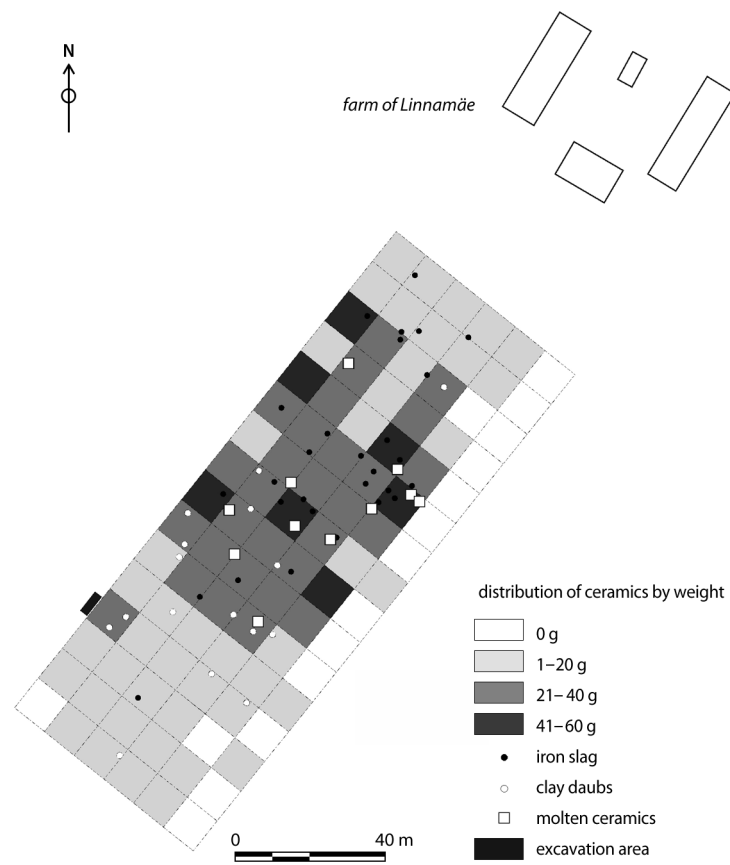


Fig. 3.7. Plan of surface survey on the settlement site I at Linnaaluste.

concentration of finds and especially ceramics and clay daub pieces is higher around heated dwelling houses. Uderna heated house No. 1 was surrounded by a 150 m² (including the house itself) area of high concentration of finds with most of them nearer to the house itself, especially to its long sides (Kivi 2009, 12). In Linnaaluste the clay daub distribution was partly the same and slag distribution was exactly the same as ceramics. Fragments of ceramics deformed by overfiring were also found in the same area.

Surface prospection resulted in 95 g (13 pieces) of molten ceramics. Molten ceramics can be produced in a variety of ways but in any case it takes a rather high temperature. An earthenware clay body starts to melt at around 1200 °C (Brorsson 2005, 19). Estonian red clay melts at about 1050–1100 °C.⁷ With a medieval pottery kiln it is fairly easy to reach this temperature, overfired and discarded ceramics are often found around these kilns (Tvauri 1999; Tvauri & Metsallik 2006). The Viking Age pottery of Linnaaluste, however, was fired in an underground kiln under conditions of reduction (oxygen-poor atmosphere). The temperature in such a kiln usually remains around 800–900 °C. Live experiments also have not reached more than 1000 °C in this type of a kiln (Kriiska et al. 1991). Another possibility of overfiring occurs when a building is on fire. Nowadays it is thought that the temperature in a building on fire can go up to 1100–1200 °C. An experimental burning of a reconstructed Danish Iron Age house resulted in a maximum temperature of 1126 °C inside the burning house (Christensen et al. 2007, 68). This is high enough to cause ceramics to melt, but it was reached only momentarily and very locally. The clay pottery placed on the shelves and the floor of the reconstructed house did not suffer significant damage from the fire (op. cit., 114 ff.). Another possibility is that a piece of pottery fell into a hearth accidentally and was exposed to heat repeatedly for a long period of time. This process can also result in the same. All of these methods connect ceramic distribution to household. Excavations in Linnaaluste settlements I and III also yielded molten ceramic fragments from hearths and a household pit.

Therefore the distribution of pottery, clay daub pieces and molten ceramics show the locations of households in the locations of their concentration. The clusters of the strongest concentration which included molten ceramics might indicate heated buildings. One cluster with a strong concentration of finds was located away from the others and near trench I. This was probably a household containing a heated dwelling house, the hearth and household pit which was excavated in trench I.

Finds

Finds were analysed according to their functional categories, as was done with finds from Keava hill fort (chapter 2). From different find categories (Table 3.1) most numerous were artefacts relating to handicraft. Half of them were bone

⁷ According to an oral communication from ceramicist Jaana Ratas.

Table 3.1. Archaeological artefacts from the settlement site I of Linnaaluste

Finds	Unsystematic surface survey (TÜ 881-884; 956; 957; 985-987; 1170; 1761)	Systematic surface survey (TÜ 1398)	Trench 1 (TÜ 1024)	Trench 2 (TÜ 1025)	Total
<i>Artefacts relating to handicraft</i>					49% (20)
Polishing stones		1	1		2
Bone points			1	4	5
Rib knives				1	1
Antler chips				2	2
Bone fragments with working traces				10	10
<i>Multipurpose items</i>					25% (10)
Iron knives	2	1		1	4
Whetstones	1	4	1		6
<i>Items relating to construction, furnishing and household</i>					7% (3)
Grinding stone		1			1
Quern stone	1				1
Nail	1				1
<i>Horse equipment</i>					7% (3)
Horseshoe		1			1
Horseshoe nail				1	1
Ice-shoe	1				1
<i>Ornaments</i>					7% (3)
Beads		1		1	2
Bronze chain			1		1
<i>Personal belongings and items related to clothing</i>					5% (2)
Spiral of bronze wire				1	1
Belt buckle		1			1
Total	6	10	4	21	41

fragments with working traces (for a detailed analysis see chapter 4). Multipurpose items were also quite numerous. Some of these might be from the younger periods, since the shapes of knives and whetstones of different eras are hard to tell from each other. Only a few finds represented items related to household, horse equipment, ornaments, and personal belongings. Pottery, slag, clay daub pieces and burnt clay are not included in this table. The find types from the surface and from the excavated area were to some extent different. The finds from the excavated area lack items relating to construction, furnishing and household. But the excavated area yielded smaller bone items, such as bone points and rib knives (chapter 4, figs 4.8–9), items not represented in the surface finds. Compared to small items

found in the excavations the surface finds contained bigger items as well, such as a grinding stone and part of quern stone.

Surface survey and excavations in total have resulted in about 8.5 kg (2657 sherds) of ceramics from the Linnaaluste I settlement site (Fig. 3.8). The majority (70%) of sherds found in the trenches belongs to fine-tempered hand-made vessels. According to the typology of north-western Estonian pottery (see Lang 1996), the following types were presented among the pottery of site I of Linnaaluste:

Among the fine-tempered pottery (A) there were sherds originating from carinated vessels (type AI: a), from the vessels with curved shoulders (AI: b) and there were also types with a characteristic right-angled step between the neck and the shoulder of the vessel (AII). Several low platter-shaped bowls were also present (AIII: b). The vessels often had a black polished surface bearing a fine decoration. The pottery of this kind was mainly used as tableware. Vessels were decorated with parallel and zigzag lines and in one case with an ornament consisting of dots and circles. One sherd with line decoration had an imprint of a grain.

Of the coarse-grained pottery (B) the pots with an S-shaped profile (BII: a) were most common. There were sherds of type BII: b, some of them decorated with pits below the rim. Some pots had also carinated shape (BI: a). One potsherd of a pot with curved walls (BIII: b) was also found. Hand-moulded pots with coarse-grained temper were mainly used for cooking and storage purposes.

According to Lang (1996), most of these types belong to the period of late 7th – early 11th centuries. Similar types are also found in south-west Finland, on the Estonian island of Saaremaa, in Daugava Livonian settlements and international trading centres of the Viking Age, like Birka and Novgorod (Lang 1996; Tvauri 2012). In general, the ceramics of Linnaaluste is very similar with that of north and north-west Estonia. Some differences are observable, however. The high percentage (65–70%) of fine-tempered pottery at Linnaaluste is remarkable, as it is known that such ceramics do not usually exceed 43% in the settlements (except for site III of Kuusalu with 64%) and 60% in the hill forts of that time

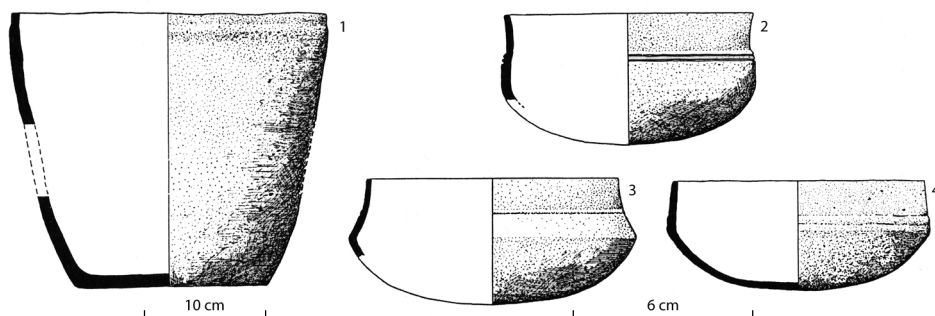


Fig. 3.8. Reconstructions of pottery from Linnaaluste I (TÜ 1025: 78, 312, 61, 328). Drawing by Andres Tvauri.

(Lang 1996, 108, 478). It is noteworthy that even the so-called coarse-grained pottery has been carefully made and it was not often easy to differentiate between these two groups. Also, the ceramics' variation in types and decoration at Linnaaluste was smaller than, for instance, at Iru. Generally, when comparing the ceramics from Linnaaluste to other hill forts it is closest to ceramics from Iru. For example a potsherd was found from Linnaaluste with an ornament of dots and circles. Until now this type only occurred on the pottery of the Iru hill fort (Lang 1996, 80).

The net decoration pattern of the 11th–12th centuries was represented on six sherds originating from fine-tempered pottery of Linnaaluste. Wheel-moulded pottery sherds formed 2.5% of the total amount of ceramics. This contained sherds from both Final Iron Age and Middle Ages. A small amount (25 sherds) of modern era glazed red earthenware ceramics was also present. Four sherds from tripod covered with brown or green enamel belonging to 16th–18th centuries were collected during fieldwalking. Wheel-made pottery and modern era red earthenware had the highest concentration in the darker area at the north-western part of site I of Linnaaluste, on the edge of the Verevainu Mire. The area is also rich in finds of iron slag (Lang 2000b). The meaning of name Verevainu, i.e. Meadow of Blood, could refer to natural ore, as the water on the places of iron ore has red blood-like colour. Hence the *vere*-toponym is often interpreted as an indication of natural iron ore (Lavi 1999).

Settlement site III of Linnaaluste

The settlement site III of Linnaaluste is situated on a low (2.5 m high) north–south orientated ridge used as a pasture today. The site is located 200 m north-east of the site I of Linnaaluste, and 100 m north of the Keava hill fort (Fig. 3.1; 3.3). The sites III and I of Linnaaluste are separated from each other by the mire of Verevainu. The occupation layer was found on an area of 100 × 50 m. Test pits proved that the thickness of the layer varied a great deal. In the middle part of the ridge the occupation layer was very thin or even absent. In some places the natural limestone bedrock became visible already at a depth of 15 cm from ground level. The thickest layer is to be found at the slopes of the ridge.

Excavations were carried out at three places. Trench 1 (15 m²) was situated on the northern and uppermost part of the settlement area. Trench 2 (5 × 1 m) was dug into the slope of the western part of the site, 17 m south-west from the first excavation area. Trench 3 (32 m²) was on the eastern slope of the ridge.⁸

In trenches 1 and 3 the occupation layer was 20–40 cm thick on the average, but in trench 2 beneath the uppermost erosion layer (30–40 cm) there was a

⁸ The excavations in trenches 1 and 2 were directed by Marge Konsa and Laura Loolaid from the University of Tartu in 2002. The third trench was opened by Jüri Peets from the Institute of History at Tallinn University in 2004.

25–60 cm thick black layer extremely rich in charcoal. Two radiocarbon dates from this layer gave a result of cal. AD 670–890 (Le-6969–6970; Fig. 3.5). The third charcoal sample from the same trench was dated to cal. AD 980–1260 (TA-2820; Fig. 3.5). The latter dates the human activity on the site to the Late Iron Age.

The black layer with charcoal contained iron slag (216.6 g) and microscopic pieces of iron. Those finds indicate that we were probably dealing with remains of an ancient smithy. Jüri Peets (2007) found particles of black iron oxide, characteristic of a blacksmith's activities, in small quantities on the whole ridge. The concentration was slightly higher on the eastern slope, in trench 3. Other signs of ironwork were absent, however, and charcoal was present only as very small particles. Peets (2007) suggests that the smithy was located somewhere on top of the ridge and has been destroyed by agriculture and amelioration, and the archaeological material has been carried down onto the slope.

Structural features

In the south-eastern part of trench 1 there was an area with a number of pieces of clay daub and burned clay (Fig. 3.9). This structure had a shape of an oval

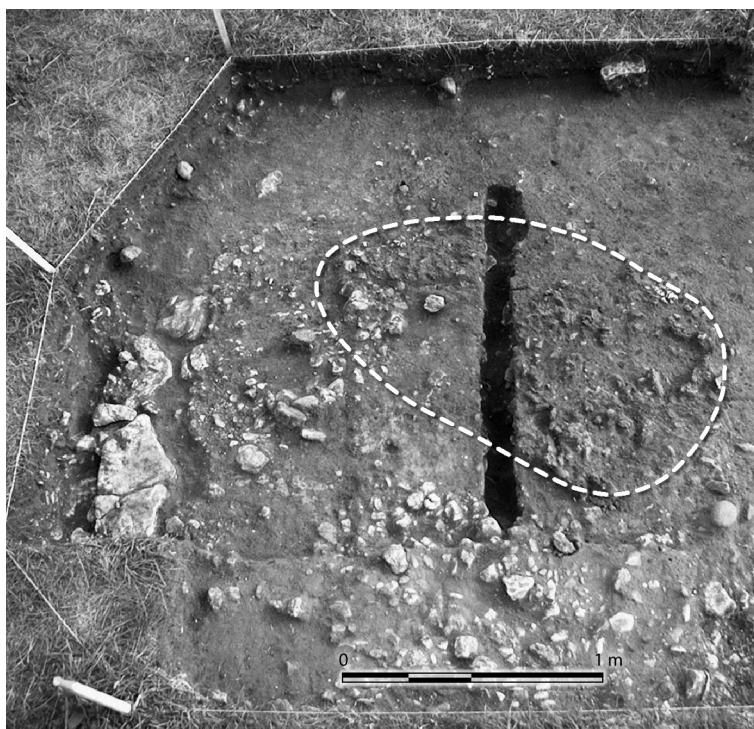


Fig. 3.9. Remains of a clay stove in trench I at the settlement site III of Linnaaluste. Photo by Valter Lang.

measuring 1.7×1 m and had been dug 10–15 cm into the original ground. The area contained ca 5.8 kg of burnt clay fragments of varying sizes and shapes. The largest pieces measured 7 cm. According to the shape and measurements of impressions on the daub some part of the feature was made of poles or smaller logs covered with clay. The structure contained 23 potsherds, including one melted potsherd, two pieces of slag and 21 pieces of animal bones and a few pieces of charcoal. We were probably dealing with the remains of a vaulted clay stove, although its exact construction is unclear.

In the same trench a 70 cm deep pit for household refuse was discovered (Fig. 3.10: 1). The pit was 180 cm wide and extended up to 35 cm into the original ground. Finds are typical for household refuse: broken or spent artefacts, animal bones representing food refuse, fired and broken stones from *keris* stove, and charcoal. It contained sherds of hand-made pottery of the Viking Age, pieces of clay daub and in addition, some fragments of crucibles for casting metal were also found.

Trenches 1 and 2 also contained two stone heaps. In trench 1 the pile of stones was 1 m in diameter and stones were partly burned (Fig. 3.10: 2). In the western part of trench 2 at a depth of 60 cm a structure consisting of burnt stones was discovered. These burnt stones could originate from a *keris* stove. Whilst the stones started to crumble and break from constant heat they were thrown away.

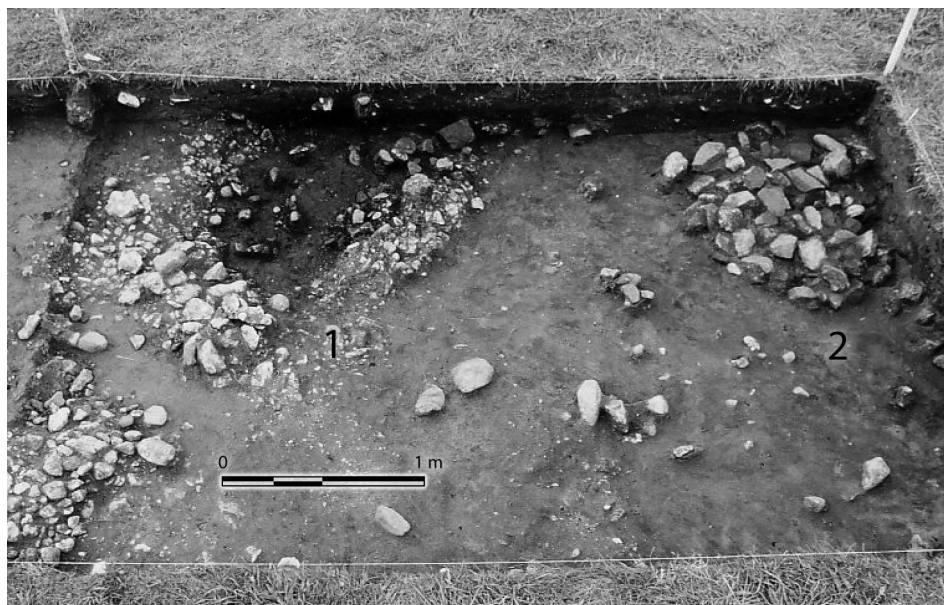


Fig. 3.10. Trench I at the settlement site III of Linnaaluste. 1 refuse pit, 2 stone heap. Photo by Valter Lang.

Finds

The oldest finds are debris of flint and quartz. These were collected mainly from trench 3 indicating the Stone or Bronze Age settlement around there (chapter 9). The rest of the finds (Table 3.2) belong mainly to the Viking Age. The overall functional composition of find assemblage is similar to the site I of Linnaaluste. In site III, too, the biggest find category is artefacts relating to handicraft, but in addition to the bone working remains of bronze casting are also present here. The second largest group of finds comprises knives and a whetstone representing the group of multipurpose items. The only ornament was a pendant made of an eagle talon, which probably had a symbolic meaning for the owner (chapter 4). Besides the clay daub and pottery there were no other items relating to construction, furnishing or household.

The pottery (1124 sherds) found from the trenches was quite uniform and similar to the Pre-Viking and Viking Ages pottery of site I of Linnaaluste. Only a few potsherds (4%) were decorated: simple horizontal lines, zigzag and cord impressions were present. The inside surface of some of the potsherds found from the household refuse pit was covered with organic carbonized matter.

In summary, the archaeological investigations clearly indicated that site III of Linnaaluste belongs to the Pre-Viking and Viking Ages (ca 8th–11th centuries),

Table 3.2. Archaeological artefacts from settlement site III of Linnaaluste

Finds	Trench 1 (TÜ 1114)	Trench 2 (TÜ 1115)	Trench 3 (TÜ 1327)	Total
<i>Artefacts relating to handicraft</i>				61% (11)
Polishing stone	1			1
Bone points	1			1
Rib knives	1	2		3
Bone fragments with working traces		1		1
Antler chips		3		3
Metal needle	1			1
Crucible	1			1
<i>Multipurpose items</i>				22% (4)
Knives			3	3
Whetstone			1	1
<i>Horse equipment</i>				5.7% (1)
Horseshoe nail	1			1
<i>Ornaments</i>				5.7% (1)
Pendant		1		1
<i>Personal belongings and items related to clothing</i>				5.7% (1)
Metal plaque	1			1
Total	7	7	4	18

being contemporary with settlement site I. Data collected with the excavations indicate that this was the metal working zone of the village of Linnaaluste, containing a smithy and a place for bronze casting. Due to the fire hazard this place was isolated and located at some distance from the rest of the settlement.

Settlement site II of Linnaaluste

The occupation layer of site II (4 ha) is situated on the lands of Uustalu, Tooma, Platsi and Joonaste farms (Fig. 3.1).

Surface survey had been done on the settlement site for many years, which resulted mostly in finding ceramics. A small trench was dug here and surface prospection performed. The 13 m²-trench was made between the farms of Platsi and Tooma, north of a village road. The uppermost and major part of the 40–50 cm thick layer had been mixed by ploughing and contained finds of different, both late prehistoric and medieval, times. It was only in one small area (2 m²) where a pile of stones was discovered. After the removal of this irregular stone pile a patch (130 × 80 cm) came to light. A depression filled with black earth reached 40 cm into the original ground. In the centre of this depression there was a post hole (30 cm in the diameter) wedged with stones. The link of this feature to any building structure remained unclear. According to the radiocarbon analysis the posthole dates from cal. AD 1010–1260 (Tln-2819; Fig. 3.5). Radiocarbon date from the smaller stone heap, which was probably the remains of possible fireplace or hearth, is cal. AD 1120–1280 (Le-6971; Fig. 3.5). Thus the revealed structures belong to the 11th–13th centuries.

Numerous sherds originating both from hand- and wheel-moulded pots were found from the excavation area (Fig. 3.11). Although one portion of these potsherds resembles those found from the hill fort of Keava, the larger part of the ceramics consists of simple 14th–15th-century wheel-made pottery. One fragment of medieval stoneware imported from what is today Germany was also found. Other finds include bronze pincers, a small whetstone, bronze spirals, a fragment of a bronze plaque and a bead of bone. The majority of these finds belong to the Final Iron Age and Middle Ages, some also to the modern era, as for instance a silver pin of a ring-shaped brooch.

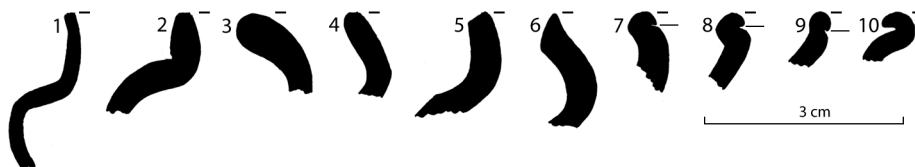


Fig. 3.11. Profiles of hand-moulded (1–2) and wheel-made pottery (3–10) from settlement site II at Linnaaluste (TÜ 1228: 180, 238, 20, 25, 205, 103, 24, 16, 2, 11). Drawing by Andres Tvauri.

Surface survey

During the surface survey at settlement site II of Linnaaluste, we collected and recorded all archaeological finds from an area of 2750 m² (25 × 110 m) between the Tooma farm and the village road that had been ploughed (Fig. 3.12). One of the tasks was to compare the material gathered both from the excavated area and the surface of the field.

The number of different types of finds remained similarly small both for the excavated area and the field surface (Table 3.3). In addition to potsherds, fragments of animal bone, clay daub and some tools and ornaments were recorded in both cases. Still, as several bronze artefacts and pieces of such were discovered in the excavation plot, there was only one small spiral of bronze wire among the finds of the surface. At the same time, many more pieces of iron slag were found from the field surface. As the removed soil was sieved in the course of excavation, it is natural that the number of potsherds collected during this (609) was higher than that of potsherds collected during the field survey (580); nevertheless, the total

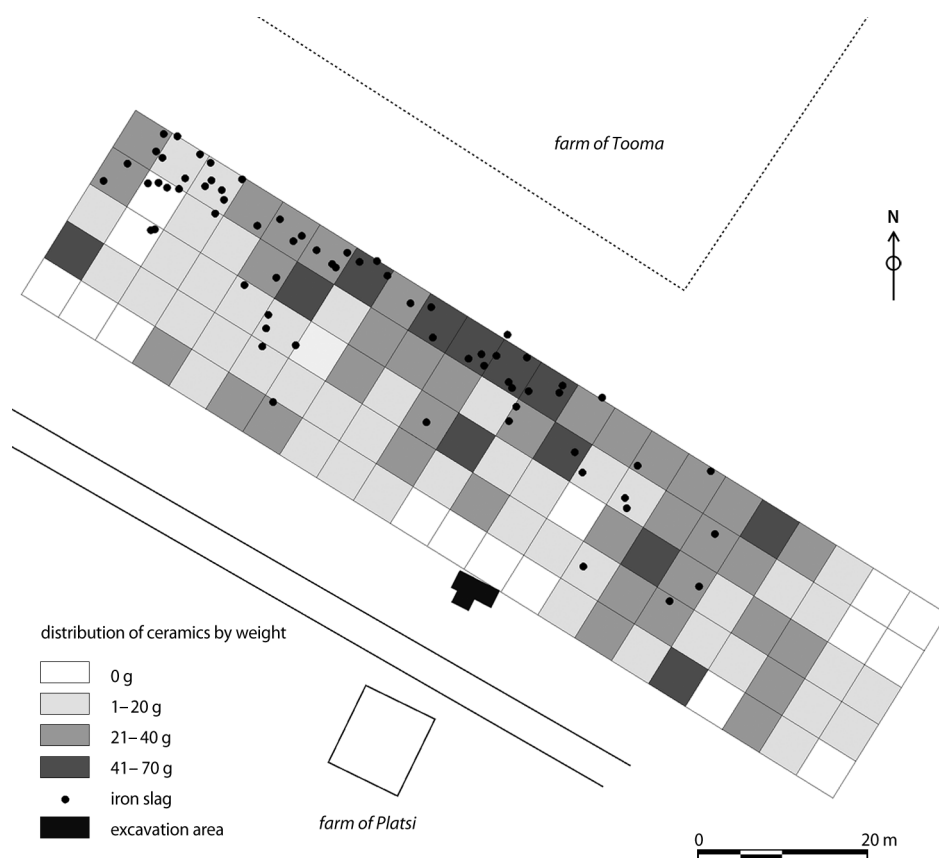


Fig. 3.12. Plan of surface survey on settlement site II at Linnaaluste.

Table 3.3. Archaeological artefacts from settlement site II of Linnaaluste

Finds	Unsystematic surface survey (TÜ 885; 958; 959; 1171; 1286; 1287; 1399; 1400)	Systematic surface survey (TÜ 1327)	Trench (TÜ 1228)	Total
<i>Horse equipment</i>				<i>32% (14)</i>
Horseshoe	1	1	1	3
Horseshoe nail		7	4	11
<i>Personal belongings and items related to clothing</i>				<i>30% (13)</i>
Spiral of bronze wire		1	3	4
Metal button	1	1		2
Bronze plaque			1	1
Bronze tweezers			1	1
Flint		4		4
Clay pipe		1		1
<i>Multipurpose items</i>				<i>18% (8)</i>
Iron knives		2		2
Whetstones	4	1	1	6
<i>Items relating to construction, furnishing and household</i>				<i>9% (4)</i>
Grinding stone		1		1
Cramp	1			1
Nail		2		2
<i>Ornaments</i>				<i>9% (4)</i>
Beads		1	1	2
Bronze sleigh bell			1	1
Silver brooch pin			1	1
<i>Artefacts relating to trade</i>				<i>2% (1)</i>
Coin		1		1
Total	7	23	14	44

weight of excavated sherds remained smaller (2068 g and 2275 g respectively). In both cases the majority of pottery belonged to the Final Iron Age and Middle Ages; even the share of hand-moulded pottery was more or less the same (5% or 103 g from the excavated area and 6% or 137 g from the field). Fragments of vessels decorated with a net pattern, characteristic of the Final Iron Age, were observed in both areas; yet, among the surface finds there were also sherds decorated with bracelet stamps. Some bigger differences were observed in the materials of early modern era: potsherds of this period formed 4.7% among the pottery of the field surface but were around 1% in the excavated plot. As clear evidence of the early modern era was absent in the excavation, it was supposed that there had been some break in the continuity or location of settlement after the Livonian War (1558–1583). The surface finds do not support this opinion, the more so as we also found a ¼ öre of Swedish origin minted in 1635. Comparing

archaeological evidence of the excavated plot and the entire field surface, one could notice that by systematic field survey it is possible to obtain a better overview of the sequence of finds than in the case of a small-scaled excavation.

The distribution of pottery on the field surface was not uniform, as relatively small numbers of potsherds were found in the south-eastern part of the study area, where the occupation layer was thinner. At the same time, a clear concentration (with a diameter of ca 20 m) of ceramics became visible on the northern edge of the field; it is possible that there had been a household. The main portion of iron slag (627 g) was mostly concentrated in the northern and north-western corner of the field indicating the existence of some ironworking there.

Archaeological investigations indicated that the oldest finds from site II of Linnaaluste belong to the Final Iron Age. The village was formed after the disintegration of the fort-and-settlement complex, being contemporary with the phases IV and V on the hill fort (late 11th century – 1224). The village continued its existence after the final destruction of the hill fort, and has been inhabited to this day.

Discussion

In the Iron Age settlement history of the village of Linnaaluste at least two great changes have taken place. First was the appearance of the village next to the hill fort of Keava and the formation of the fort-and-settlement centre. The second change was the disintegration of the aforementioned complex and development of a new network of power relations, as well as a settlement system. These events are not characteristic of Linnaaluste only; they are part of a general trend expressed by the processes of urbanization and feudalization of the society. In the following discussion these topics will be tackled from the perspective of the settlement next to the fort.

The role of the settlement site in the fort-and-settlement complex

The permanent agricultural activity around the hill fort of Keava is according to the palaeo-ecological evidence traceable from ca. 600 BC. The rate of human impact upon environment increased notably around AD 350–500 (chapter 9). At the end of this period the first fortifications on the hill fort were erected. The areas in the vicinity of the hill fort were used for arable and pastoral farming. There are no signs of permanent habitation in the hill fort and no data of the open settlement nearby during this time period. Based on the radiocarbon data and on the archaeological finds, the settlement site consisting of two separate parts (Linnaaluste I and III) formed at the foot of the hill in the late 7th or 8th century. The majority of finds of the settlement site I/III of Linnaaluste belong to the Pre-Viking and Viking Ages up to the early 11th century. The settlement site is contemporary with the phases II and III on the hill fort, dating to the 8th–11th centuries. It has been presumed that the hill fort was used as a refuge during

phase II and was permanently inhabited by a small group of people during phase III in the 10th–11th centuries (chapter 1).

The specifics of formation of the fort-and-settlement complex in the case of Keava/Linnaaluste remain unclear. The dwelling place of the first builders of the hill fort and those who used the nearby areas for agricultural activity remains unknown, as well as the specifics of how exactly the settlement on the foot of the hill fort was formed. It is, however, possible to compare Linnaaluste to other sites of the same type, belonging to fort-and-settlement centres.

There are more than 20 sites in Estonia, in which a settlement site has been located right next to the contemporary fort and which, therefore, can be named fort-and-settlement complexes. 16 settlements of these complexes have been archaeologically investigated (Tvauri 2012, 39 ff.). Fort-and-settlement complexes existed for around four centuries, from the late 7th up to the 11th century. It was a period of development of early towns in all of northern and eastern Europe. Only few Estonian Viking-Age fort-and-settlement complexes (e.g. Iru, Tartu, Rõuge) can be compared with early towns – those, whose number of inhabitants was numerous, at whose excavations objects referring to trade and handicraft have been found and which were centres of large territories (Lang 2004). Keava/Linnaaluste does not fit these parameters because the hill fort had no permanent settlement. At the same time, a numerous population is indicated by the extensive area of the settlement site. Which was the settlement type of Linnaaluste? Was it a rural or more an early town-like settlement? Should we call it a grand village or a central settlement site?

An analysis of the functional categories of artefacts might be a good way to cast some light on the nature of everyday activities of the villagers and their livelihood. In the following, Linnaaluste will be compared to Tartu and Rõuge, two settlements belonging to fort-and-settlement centres and resembling early town-like formations, whose material has already been analysed in terms of functional categories of artefacts (Tvauri 2001). In all three cases – Linnaaluste (I/III 49/61%), Tartu (40%) and Rõuge (36%) – the most numerous categories of artefacts are those connected to handicraft (Fig. 3.13). The second most numerous category in Linnaaluste (I/III 25/22%) is that of multipurpose items, which are in third place by their number in Tartu (14.5%) and Rõuge (14%). In the third place in the case of Linnaaluste are artefacts relating to construction, furnishings and household, which are on the fourth place in Tartu (12.3%) and fifth in Rõuge (5.5%), respectively. 11% of artefacts in Rõuge, 4.4% in Tartu and 5–5.7% in Linnaaluste consist of personal items. The number of finds related to horses was modest in all concerned settlement sites (Linnaaluste I/III 7/5.7%; Rõuge 2%; Tartu 1.4%). Of the artefact types missing in Linnaaluste, in Tartu (5%) and Rõuge (1.5%) weapons had been found. Some coins referring to trade have been found in Rõuge, and one silver coin in Tartu as well. The artefacts related to the agriculture constituted less than 1% in Tartu and Rõuge.

The greatest difference in the material of the settlements appears in the case of ornaments, which form a modest part of the archaeological material of Linnaaluste (I/III 7/5.7%), but take the second place in number in the case of both Tartu (15%)

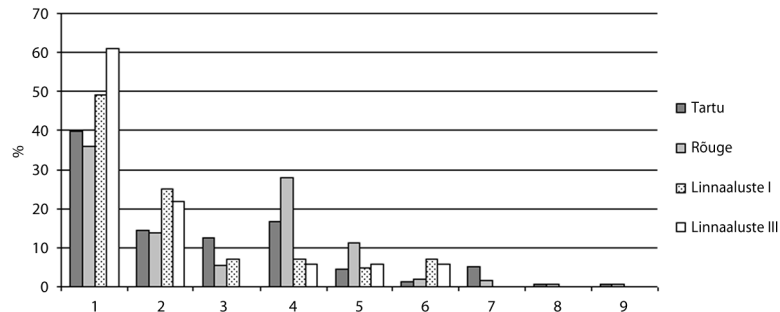


Fig. 3.13. The functional categories of artefacts from Tartu, Rõuge and Linnaaluste settlement sites. Data from Tartu and Rõuge are based on Tvauri 2001. 1 artefacts relating to handicraft, 2 multipurpose items, 3 items relating to construction, furnishing and household, 4 ornaments, 5 personal belongings and items related to clothing, 6 horse equipment, 7 weapons, 8 artefacts relating to trade, 9 artefacts relating to agriculture and stock-breeding.

and Rõuge (28%). One might assume that the small percentage of ornaments in Linnaaluste was caused by the limited financial means or some specific cultural characteristic of the inhabitants. But from another point of view, the aforementioned difference may simply arise from different research methods used to investigate the settlements. Namely, when artefacts collected by archaeological excavation are compared to those found during surface survey, it appears that the number of ornaments is smaller among the latter – but most of Linnaaluste artefacts, in contrast to Tartu and Rõuge, have been collected by means of surface survey.

In general, the analysis of the functional categories of artefacts seems to assert the great importance of handicraft in the settlements near the fort. Archaeological material of Linnaaluste shows that bronze casting, bone carving, leatherworking and smithery happened in the settlement. In addition to these types of handicraft, artefacts connected to carpentry and textile working, have been found from other settlements near the fort. From contemporary open settlements (e.g. Saha, Aindu), artefacts relating to handicraft have also been found, but in lesser proportion than from settlements near the fort. There is a remarkable difference concerning artefacts of handicraft from Viking Age sites compared to later ones. For example in Linnaaluste II there were no items relating to handicraft, although there were slag finds referring to blacksmithing. In other contemporary sites, the difference foremostly appears in the artefacts referring to bone carving and bronze casting. In the Viking Age settlement of Linnaaluste these artefacts formed a majority of all items of handicraft. In medieval rural settlements of Estonia only a few bone artefacts have been found, and these have been evidently manufactured in towns (chapter 4). Amongst other types of handicraft, the difference between the Viking Age and later period artefacts is not that remarkable. For example, from Uderna Late Iron Age to Early Modern Age settlement, several artefacts connected to woodworking as well as those showing leatherwork, smithery and textile work, have been found (Kivi 2009).

Although the proportion of artefacts relating to handicraft in the described settlements is comparable to that of early towns in other countries, only a few imported goods as well as those referring to trade have been found from Estonian settlements, and none from Linnaaluste. Nevertheless, evaluating the importance of different subsistence activities by analysing the functional categories of artefacts does have its problems. Artefacts connected to trade in the early towns of Scandinavia and north-western Russia have primarily been found as grave goods in burials, which have not been discovered from Estonian fort-and-settlement complexes at all (Lang 2004). Also, the fact that the deposition of different types of artefacts in settlements has not been equable must be taken into account. For example, working with different types of handicrafts leaves behind more items than agricultural activities – therefore, the importance of agricultural activities in the inhabitants' lives cannot be deduced by the number of artefacts relating to them. In the archaeological material of the Linnaaluste II, which very likely was a common rural village whose main subsistence was agriculture, artefacts connected to agricultural activities are missing completely.

On the other hand, research into human impact on the natural environment seems to confirm the assumptions made about the nature of Linnaaluste settlement based on archaeological findings. According to the palaeo-ecological research (chapter 9), the indicators of permanent farming in the pollen diagram of the Verevainu Mire decreased in the Pre-Viking Age. At the same time the landscape remained open. It may be that the new settlers established the fields farther from the settlement or that farming was not so important to them any more. According to the analysis of animal bones, Linnaaluste is one of the rare Viking Age settlement sites where the sheep/goat bones constitute nearly half of all the bones of domestic animals (chapter 5). It is likely that Linnaaluste was not a farming community, but that they still practiced animal husbandry and in particular sheep/goat breeding. This would also have kept the landscape open. It was common practice to keep numerous herds of sheep in non-agrarian hill forts, as an examination of the animal bones and coprolites found from hill forts shows (chapter 5; Mäesalu et al. 1991).

In conclusion, therefore, we can say that the archaeological material of Linnaaluste resembles that of those hill forts where handicraft was produced, and animal husbandry was one of the subsistence activities, but where other agricultural activities were of lesser importance. The lack of artefacts referring to trade does not allow us to think of Linnaaluste as an early town, but the existence of a stronghold as well as the numerous population show the importance of the site in the local settlement system, and its role as a local centre. The type of the settlement at the foot of the fort was surely collective in its nature, although we have no idea how the social system was organized and regulated. Therefore, before investigating the structure of these settlements more thoroughly, there is little difference whether we use the word *village*, *grand village* or *central settlement next to hill fort* to describe this type of settlement. The definition greatly relies upon how the investigators define to themselves the meaning of *village*. What is quite clear, nevertheless, is that the villages at the foot of the fort differed from later agrarian regulated villages with open field system like Linnaaluste II.

Disintegration of the fort-and-settlement centre

We have previously assumed that the active use of the site I of Linnaaluste was discontinued after early 11th century and that the settlement site was shifted 500 m to the new location (Konsa et al. 2002). For now it is clear that the process was more complicated than just the relocation of the buildings. It was rather a restructuring of the whole settlement system.

The amount of post-Viking Age material from the Linnaaluste I/III sites is drastically reduced but there are still some artefacts referring to later settlement. Some Final Iron Age and medieval pottery fragments have been found from the settlement site of Linnaaluste I, and it is possible that some difficult-to-date artefacts are from the later periods as well. In addition, both Linnaaluste I and III settlements have yielded a later-period radiocarbon date (Fig. 3.5). This data gives us reason to believe in some continuity of settlement in the Linnaaluste I/III site. It is possible that the smithy continued to be in use and that some households were left on the previous village site. Also, more Final Iron Age artefacts have been found during surface survey nearby. The occupation layer containing prehistoric and post-medieval ceramics was discovered next to Keava manor in the land of Allika and Oja farms (TÜ 1063; 1285). This could be related to the Kedenpe village mentioned in the written sources. It is possible that the village used to extend to where the latter manor land was, but its remains have been destroyed. Another spot of occupation layer is situated on the lands of Lauri-Vanakõrtsi farm, about 800 m south-south-east from the historical centre of the Linnaaluste village. There, from an area of 80 × 80 m, a number of Final Iron Age and mediaeval artefacts was found: hand-made and wheel-produced pottery and some iron slag (TÜ 1280). It is likely that the remains belong to a single farm place.

Additional information about the state of settlement in the Final Iron Age can be found in written sources. Among the sites named in the LCD in the 13th century, beside the 14-ploughland Linnaaluste granted to duke Knud, a 6-ploughland place called *Veri* is mentioned (Johansen 1933, 661). It is unclear what kind of settlement unit it was because the LCD contains only the list of the tax units without closer description of their physical form. Thus, the name *Veri* could mark village, hamlet, prehistoric manor or farmstead.

The exact location of the site of *Veri* is also unclear. In the enfeoffment of the Teutonic Order to knight Diedrich von Vitinghof (from 1410) the villages *lyddendal* (Linnaaluste), *veer lancke* and *kedenpe* (Keava) have been named together (Inland 1838; Sepp 2004, 36). A description like this most likely points to these being different settlement units situated close to one another. If the village of *Kedenpe* was probably located on the site of the later manor of Keava, then the village of *Veri/Veer*, in Paul Johansen's (1933, 662) opinion, might have been situated somewhere around the Keava hill fort. The hypothesis is supported by a document from 1470 mentioning the villages of *Fere* (*Veri/Veere*) and *Lauwe* (Lau) (today a neighbouring village north of Linnaaluste) having a common border (ibid.). A strong argument is the linguistic similarity of the name *Veri/Veere* to

Verevainu Mire located next to the Keava hill fort. Another connection is created by the name of Magasi hill, which in addition to Kabeli hill has been called *Viru* or *Veere* hill (EKI KN). Therefore, it is likely that the *Veri/Veer(e)* village consisted of the farms left on the Linnaaluste I site after the relocation of the village's heart to the site of Linnaaluste II. In the written sources, the name of *Veri/Veere* remains in use until the end of the 16th century (Johansen 1933, 662). *Veri/Veer* village could have been abandoned because of the Livonian War. Although military activity did not go through the area, one of the results of the war was a general depopulation, and the disappearance of *Veri/Veer* village might have been a result of this. Still, some Early Modern Age artefacts have been found from the Linnaaluste I settlement site. These might mark a single household in use after the Livonian War. However, a small number of potsherds in the field topsoil can be the result of the manuring, especially when the farmyard waste was used to make manure (Gerrard 1997). According to a map from the 19th century, the area of Linnaaluste I was used as a farmland and had no buildings on it (Fig. 3.2). The Vainu and Linnamäe farms were built there only after the beginning of the 20th century.

Thus, we can see that in the 11th century an earlier central settlement disintegrated into smaller separate units. As a result of this disintegration, a village almost half the size of the previous fort-settlement, Linnaaluste (II), was established as well as a village in the area that would later be Keava manor. A smaller settlement unit of *Veri/Veer* might have been located in the area of the previous fort-settlement. In addition to the villages there were probably some separate farmsteads.

The dislocation of the village centre was a rather common phenomenon in Europe during the Iron Age. According to studies in Denmark, the villages were on constant move until the Medieval Period, changing their location in the extent of about 100–200 m per century. The most extensive dislocations took place during the development of early town-like centres in the 8th century (Hvass 1997). In many cases, the dislocation was minor. About half of the medieval villages in southern Scandinavia are located less than 500 m from their Pre-Viking or Viking Age predecessors (Callmer 1986). Mobility of the villages stopped with the formation of stable regulated villages in the 9th–13th centuries. According to Christopher Taylor (1983), it is probable that settlement mobility, in the broad historical sense, is normal and that static settlement is an aberration. In this context it would be interesting to know why the regulated villages became static.

Considering these background data, one cannot say that the dislocation of the village centre of Linnaaluste was unusual – it was a moderate movement in the borders of the same settlement unit. More important are structural, functional and social changes accompanied by the disintegration and fragmentation. According to Callmer (1986), the disintegration processes are obvious answers to serious intergroup failures in organization both with economical and social aspects. The previously functional fort-and-settlement complex broke down and the power relations were re-structured. The hill fort was re-built stronger and it probably

became a property of a single noble family (chapter 11). Instead of a nucleated settlement unit showing the characteristics of urbanization, an agricultural settlement system consisting of rural villages, hamlets and single farmsteads developed.

The disintegration of the fort-and-settlement complex was a general trend coinciding with the processes in Europe, such as the formation of the regulated villages and systems of open fields and common farming practices. Although the incipency of these phenomena has been explained in different ways, a common characteristic is a general rise of the power of nobility. The idea of settlement reforms was to get and maintain better control over the land. The farms were firmly fixed to the land on behalf of the taxation. The landscape was divided into units of land, defined by measures of rents, services, renders, and dues. This structuring of social space was a significant part of the means by which society was constituted. Structuring of relations in space was part of the very essence of feudalism (Saunders 1990).

Summary

The earliest signs of the existence of Linnaaluste settlement site appear in the Pre-Viking Age. In this period, an extensive settlement with permanent buildings next to a stronghold developed. A smaller area connected to metalwork was located further away from the main village – there, smithery and metal casting was carried out. Since there are few signs of trade and the hill fort was not permanently inhabited, the settlement site cannot be called an early town. At the same time, it was not a typical agrarian settlement either, rather a central one with certain characteristics of urbanization. The settlement area was greater than in usual open settlements, it was secured by a fort, the proportion of activities of handicraft was greater and that of agricultural ones smaller. In the last centuries of the Late Iron Age the hill fort was further fortified and it became a centre of power. The previous fort-and-settlement complex was disintegrated and the settlement restructured, the former grand settlement site broken into several smaller settlement units. A new village was built further away from the hill fort and developed into an agrarian, regulated village under the control of the hill fort. Although the physical relocation of the village was marginal, the structural and functional changes were fundamental to its nature.

Central villages by hill forts essentially contained an idea of urbanization, where the purpose of collectivity was bigger profits, communication and creativity. In the case of Linnaaluste, the existence of the hill fort in that period was certainly important, but not as a dominant feature. The nature of a regulated village was defined by relations of taxation and land ownership in the feudalizing society. This structure of a village could only exist in cooperation with the ruling nobleman, in the case of Linnaaluste, the owner of the hill fort. Collectivity and communal subsistence strategies, as well as a communal way of living, were survival strategies for a village in this system.