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**A REVIEW OF NEOLITHIC MULTI-ROOM
HOUSEPITS AS SEEN FROM THE MESKÄÄRTTY
SITE IN VIROLAHTI PARISH, EXTREME
SOUTH-EASTERN FINLAND**

A three-room housepit at the Meskäärty site is located in an area where housepits are generally rare. Stone Age dwelling structures of comparable proportions are known mainly from coastal Ostrobothnia on the Finnish west coast. The ceramics associated with the Meskäärty housepit are Late Comb Ware and Late Corded Ware, both of which exhibit similarities with the pottery found on the Estonian north coast. AMS-dates on carbonized organic remains attached to the sherds point to a period between the late 4th millennium and the late 3rd millennium cal BC.

The objectives of this article are twofold. First, the Meskäärty site is introduced, followed by a review of organic tempered ceramics around the south-eastern coast of Finland and the appearance of multi-room housepits in Finland. Some hybrid-like characteristics displayed by ceramics found in the extreme south-east of Finland suggest that the amalgamation of local pottery-making traditions and the Corded Ware tradition took place already before the emergence of Final Neolithic Kiukainen Ware. This article argues that the appearance of multi-room housepits in Finland is closely synchronous with the spread of the Corded Ware Culture to the north-eastern Baltic Sea. Therefore, the change in the house-building tradition towards larger, more oblong and multi-room housepits is seen as a consequence of cultural contacts.

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Introduction

In the autumn of 2007, a large housepit consisting of three rooms encircled by a bank was found in the archaeological survey of Virolahti Parish (Fig. 1). In Finland, such structures are previously known mostly from central and northern Ostrobothnia and to a lesser extent from the inland Lake District. Multi-room housepits are also known from the Republic of Karelia in Russia, but not previously from the coastal area of southern Finland.

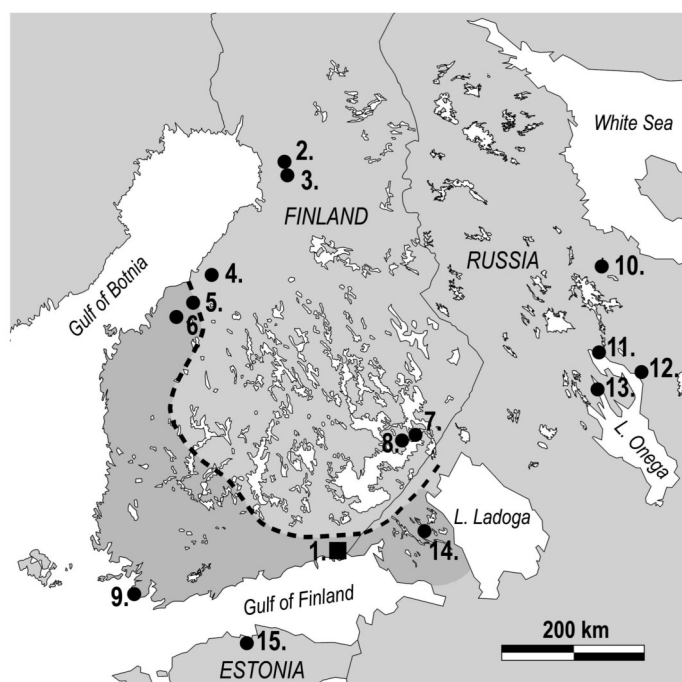


Fig. 1. The location of the Meskäärty site and other sites mentioned in the article. The dashed line shows the traditional northern limit of the Corded Ware Culture in Finland. The dashed line in Russia between the Finnish border and Lake Ladoga is based on the distribution of Corded Ware Culture finds (after Huurre 2003, 236). The area of ‘Middle Zone Ceramics’ follows approximately the northern limit of the Corded Ware Culture on both sides of the dashed line (see Carpelan 1979, fig. 1). Sites in Finland: 1 Meskäärty (Virolahti), 2 Voima-Kuusela, Purkajansuo/Korvala, and Kuuselankangas (Yli-Ii), 3 Mäntyselkä N2 and Teeriselkä (Haukipudas), 4 Hevoskorpi (Kannus), 5 Kangas (Kaustinen), 6 Hundbacken (Pedersöre), 7 Martinneimi 3 (Kerimäki), 8 Kankaanlaita (Kerimäki), 9 Senatsberget (Taalintehdas). Sites in Russia: 10 Sumozero XV, 11 Voinavolok XXVII, 12 Chelmuzhkar Kosa XXI, 13 Pegrema II. Parishes mentioned in the text: 14 Räisälä (Russia, Ru. Mel’nikovo), 15 Jõelähtme (Estonia).

The Meskäärty site is located on top of a small moraine hillock. A local farmer was in the habit of extracting coarse sand moraine from the site for building land-drains in his fields, and consequently the northernmost room of the housepit has been almost totally destroyed. Due to moraine extraction on the site, several finds were easily collected from the brink of the sandpit.

Meskäärty is a unique site on the coast of the Gulf of Finland for several reasons. First, Meskäärty is the only known multi-room housepit found in the area. Second, the ceramics found at the site display a number of atypical features as compared to both the material usually found in Finland and material associated with housepits. Third, the dating and interpretation of the site are of great importance for the understanding of Late Neolithic cultural development around the eastern part of the Gulf of Finland.

The objectives of this article are twofold. These are to introduce the Meskäärty site and to evaluate Late Neolithic phenomena as seen from the Meskäärty site. The article begins with a description of the Middle and Late Neolithic cultural contacts observable in the material culture of the extreme south-eastern corner of Finland. Next, the Meskäärty site is introduced through a description of the dwelling structure and finds and by presenting an AMS-date for the site. Lastly, the cultural aspects of multi-room housepits and Middle/Late Neolithic cultural contacts are discussed in a wider context.

This article is based purely on material and data gathered on surveys and during an excursion to carry out 3D documentation of the Meskäärty site during the years 2007–2008. Much of this article could have been written without introducing any specific site. Nevertheless, writing on this type of subjects is always easier with concrete data on hand.

Overlapping cultures in the south-eastern corner of Finland

One of the main characteristics of the Middle and Late Neolithic¹ materials found in the south-eastern corner of Finland is the presence of artefacts deriving from different areas. In this region, several overlapping cultural elements are on the fringes of their distribution. This has been recognized in previous studies (see e.g. Äyräpää 1952b, 22–23; 1973, 207; Edgren 1997, 155; Mökkönen & Seitsonen 2007).

Middle and Late Neolithic materials found on the south-east coast of Finland bear witness to lively contacts and some degree of interaction in all directions. Northern influences are most clearly seen in asbestos-tempered Kierikki and Pöljä ceramics, the main distribution of which is in the inland Lake District and in coastal Ostrobothnia north of the city of Vaasa (e.g. Carpelan 1999). However, these ceramics are also well in evidence on the shores of the Gulf of Finland, east of the Kymi River estuary (Pesonen 1999).

Eastern influences are represented by Eastern Pit-Comb Ware, which is occasionally found on the Finnish coast east of the Kymi River (Miettinen 1998, 42). Otherwise, Eastern Pit-Comb Ware is found in the Vuoksi River Basin in Eastern Finland (Carpelan 1999, 257, fig. 3; Kokkonen 1978; Pesonen 1999). There are also some other artefacts of eastern origin, for example, an anthropomorphic flint figurine found at the Mattilan VPK-talo dwelling site in Virolahti parish (Kivikoski 1961, 58; Huurre 1998, 294–295; Mökkönen & Seitsonen 2007, 23).

The southern influences include material common in Estonia, on the southern shore of the Gulf of Finland. Some similarities between the Late Comb Ware found on the Finnish south coast and pottery found in the eastern Baltic have

¹ In Finland the Middle Neolithic Stone Age is dated to ca. 4000–2300 cal BC and the Late Neolithic Stone Age to ca. 2300–1800 cal BC (e.g. Carpelan 2002).

been noted in earlier studies (Rauhala 1977, 41). However, 'Estonian' influence in south-eastern Finland dates mostly to the Late Neolithic period. The Estonian types of battle-axes (see Äyräpää 1952a, 82, 88, 94; Jaanits 1973, 62, 73) and sharp-butted axes (Luhio 1948, 102–103; Miettinen 1998, 52–54; Rosén 1950; Soikkeli 1912, 291) are represented in the finds, and especially the latter are well represented. 'Estonian' influence on Middle and Late Neolithic pottery has been suggested on several occasions. In the late 1970's Christian Carpelan coined a Late Neolithic ceramic type called 'Intermediate Zone Late Stone Age Ware' or 'Middle Zone Ceramics' (*Fi. välivyöhykkeen keramiikka*), which is understood to be an inland parallel to the Kiukainen Ware found in coastal areas. It is distributed from southern Ostrobothnia – via Tavastland (*Fi. Häme*), Eastern Uusimaa and south-eastern Finland – to the Karelian Isthmus (Fig. 1). This area matches the area between the main distributions of the coast-oriented Kiukainen Ware and the inland Asbestos Ware traditions. This pottery type is still poorly studied, but Carpelan supposes that the influence of East Baltic Late Corded Ware and Early Textile pottery played a notable part in its formation (Carpelan 1979, 14–15; see also Carpelan 1999, 266–268.)

As viewed from south-eastern Finland, the 'western' influences refer to the appearance of ceramic types found mostly in the western part of the Gulf of Finland. All of these Middle and Late Neolithic ceramic types – Jäkärälä Ware, Pyheensilta Ware, and Kiukainen Ware – are also represented on the south-eastern coast of Finland (see Pesonen 1999). This area is clearly a kind of contact zone between different cultural influences (see Äyräpää 1952b, 22–24; Edgren 1997, 155; Mökkönen & Seitsonen 2007) – an area where many cultural traits overlap outside their respective core areas.

Meskäärty – a three-room housepit

The Meskäärty site is exceptional. The site is located in an area that is poorly represented in the distribution maps of housepits (Pesonen 2002a). In addition, Stone Age structures of such large proportions have not been previously found on the coasts of the Gulf of Finland. Furthermore, the ceramics found at the site also represent types other than the ones one would primarily expect to find in this context.

The Meskäärty housepit is located on top of a small moraine hillock, completely covering its summit. According to the radiocarbon dates (see below), the site has been in use approximately from 3360 to 2100 cal BC. Based on recent shoreline displacement studies (Miettinen 2002), the Meskäärty site was originally located on the seashore by a small inlet (Fig. 2). Later, as a consequence of land uplift, the inlet dried up or formed a small freshwater pond. The threshold of the inlet lays roughly at the elevation of 11 m asl., which corresponds to sea level at ca. 2300 cal BC. Therefore, it is probable that during the later dwelling phase the site was no longer located by the seashore.

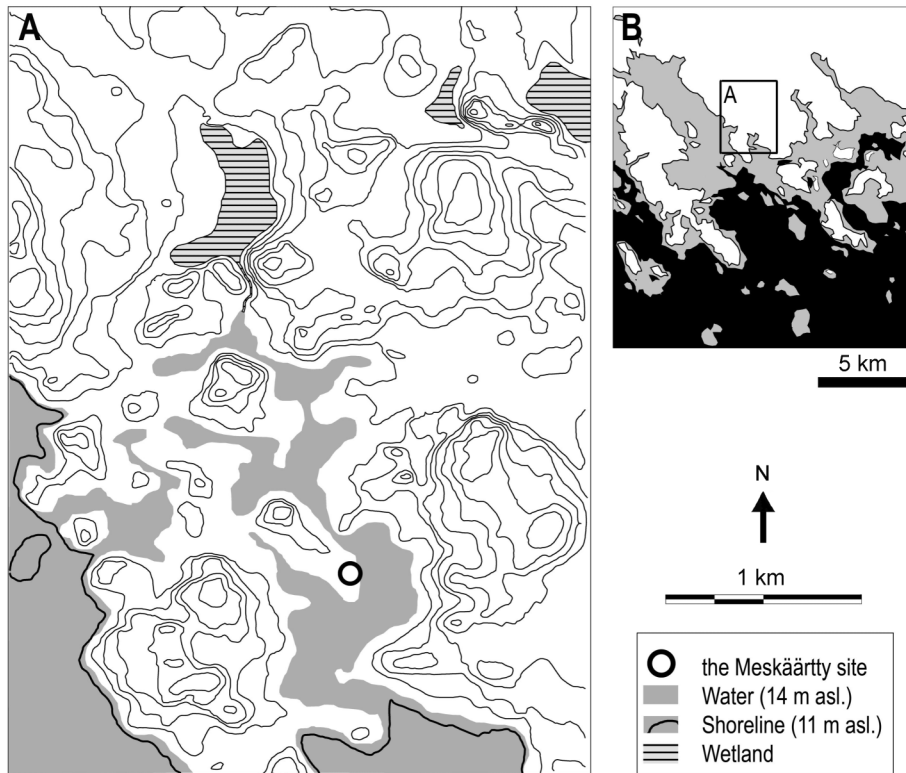


Fig. 2. Topographic location of the Meskäärty site. (A) Contours at 2.5 m intervals show the topography of the site ca. 3000 cal BC (shoreline at 14 m asl.) and 2300 cal BC (shoreline at 11 m asl.). (B) The location of map (A) on a smaller scale map. Black = the present Gulf of Finland; grey = the sea at 14 m asl.

The Meskäärty housepit is a large one. The overwhelming majority of housepits known from Finland are less than 10 m in diameter (see Pesonen 2002a). The length of the preserved housepit, measured from the edge of the gravel pit to the outer rim of the southern embankment, is ca. 35 m (Figs 3 and 4). The original length of the housepit has been, by rough estimate, nearly 45 m. The maximum breadth of the housepit, as measured between the outer rims of the embankment, is ca. 20 m.

The Meskäärty housepit has three separate rooms connected by corridors. Most of the northernmost room has been destroyed by the gravel pit. The middle room (No. 1 in the maps) is the broader of the two preserved rooms. It measures approximately 10 × 10 m, taking into account that the outer embankment has partly collapsed inwards. Consequently, the present shape of the room is a rounded square, although the original shape of the floor has most probably been a square. This room is also very deep, ca. 0.9 to 1.5 m in depth as measured from the top of the embankment.



Fig. 3. Three-room housepit at the Meskäärty site. The photo was taken from the top of the embankment facing SE. The rooms are numbered (see Figs 4 and 5). Photo by Teemu Mökkönen.

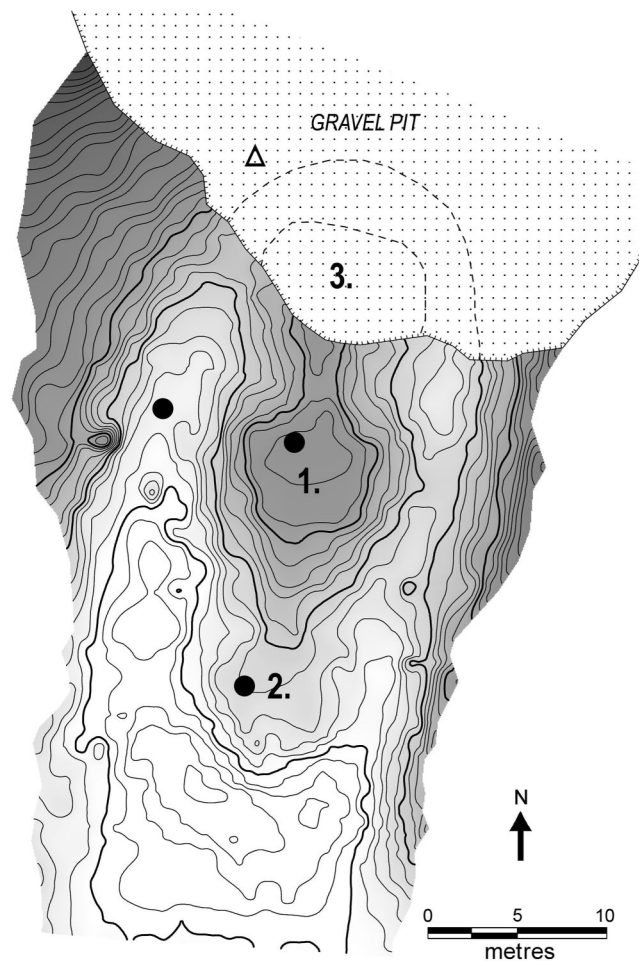


Fig. 4. The Meskäärty housepit. Contours at 10 cm intervals. The rooms are numbered, shovel test pits are marked with black dots, and the triangle marks the approximate find location of the sharp-butted axe. Mapped by T. Mökkönen, K. Nordqvist, H. Nordqvist, and W. Perttola. Layout by Teemu Mökkönen.

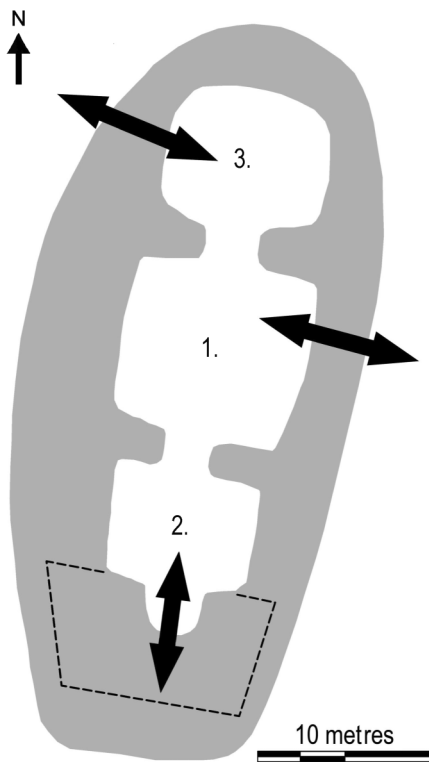


Fig. 5. Schematic interpretation of the Meskäärty housepit. Double-headed arrows mark the doorways. The flat area on the southern embankment is outlined with a dashed line. Drawing by Teemu Mökkönen.

The floor space of the southern room (No. 2 in the maps) is slightly smaller than that of the middle room. Its quadrangular flat floor area is ca. 7×6 m in size, and the depth varies between 0.5 to 0.9 m. At the southern end of this room there is a nearly semi-circular depression directly connected to the room. The depth of this depression varies between 0.4 to 0.7 m. The depression, located on the central axis of the end wall, is apparently one of the doorways (Fig. 5).

The size of the northern, almost totally obliterated room is not known (No. 3 in the maps). According to the landowner and his father, the northern room was nearly as big as the middle room.² On the basis of an estimate made after the measuring, the third room may have been as deep as the middle room but slightly smaller. The floor area has presumably been some 10×9 m in size.

The rooms are connected by corridors. According to observations made on the surface, these corridors were about 3 m wide and about 2 m

long, the latter corresponding also to the supposed thickness of the wall separating the rooms.

A continuous embankment surrounds the housepit. The width of the embankment generally varies between 3 and 6 m. On average, it is narrower on the eastern side, where the terrain also descends steeply immediately outside the housepit. On the western long side, the embankment is nearly twice as thick as on the eastern side. At the southern end, by one of the doorways, the embankment is almost 10 m wide. At this location, on top of the embankment, there is a large flat area. This area is so distinguishable that it might have had some special function – possibly that of an above-ground storeroom with a passage connecting it to the semi-subterranean residential blocks.

² Personal communication with Reiska Järvenkylä (the present landowner of the Meskäärty site) and Hannu Järvenkylä (previous landowner, Reiska's father) at the Meskäärty site, 03.11.2007.

There are three entrances to the Meskäärty housepit, one in each room. The most obvious one on the southern short end, already mentioned above, is located on the longitudinal axis of the housepit. Two other doorways are visible as shallow areas in the embankment. In the middle room the doorway opens to the east, and in the northern room to the west. The existence of the latter doorway is probable, even though half of the doorway has been destroyed.

On top of the western embankment there are also other structures: three round depressions ca. 2 m in diameter and 30 cm in depth. These are presumed to be the remains of storage pits dug into the wider embankment. Similar storage pits have been excavated at the Kärmelahti site in the Lake Saimaa area (Katiskoski 2002, 173) and at the Kuuselankangas site in Northern Ostrobothnia (Halinen et al. 1998). In addition, there is a pit-like hollow in the outer rim of the western embankment next to the middle room. It might be part of the original structure, although it might also originate from some other post-occupation event, i.e., a windfall or the digging of a burrow. If it is part of the original structure, it may have had something to do with the ventilation of the house (see the Vuollerim housepit in Loeffler & Westfal 1985, 430). As another, possibly more probable alternative, it might have something to do with storage.

Finds from the Meskäärty site

The majority of finds were collected from the brink of the gravel pit. They concentrated in the housepit and the embankments, where the heavily stained cultural layer is also deepest (ca. 30–40 cm in depth). Some finds associated with thinner cultural layers were also noted outside the housepit. Stones clearly cracked by fire were not observed.

Ceramics

The number of pottery sherds found at the Meskäärty site is low. The material consists of only 52 sherds, all from the edge of the gravel pit right next to the partly destroyed housepit. Looking at the density of the fabric, there are two categories of ceramics – porous ceramics with organic temper and more dense ceramics. However, all the pottery found at the site is, more or less, made from clay mixed with organic temper and sand. There is only variation in the proportions of the used tempers and in firing, and no definite border separating the two categories can be defined.

The dominant sherds are *porous ceramics*. Most of these are thick sherds with a striated inner surface made of clay mostly mixed with organic matter and, to a lesser extent, with sand. The identifiable organic materials seen as imprints in the sherds are shells, grass and bones crushed into tiny pieces. The outer surfaces are rough – not smoothed like the striated inner surfaces. The inner surfaces of the

ceramics are grainy, too, due to imprints that are the traces of organic materials burned out during the firing of the vessels or dissolved over the course of time. These sherds are for the most part undecorated. Only one sherd has some decoration, which consists solely of small shallow round imprints (5 mm in diameter) running in horizontal rows on the outer surface (Fig. 6).

Among the porous ceramics are three sherds exhibiting a small amount of profiling with no sharp shoulders.³ These sherds are undecorated and tempered mainly with grass and to a lesser extent with crushed shell and sand. In these sherds, both surfaces are porous, the inner surfaces are striated, and the firing is of poor quality.

The porous ceramics include one straight rim sherd without any thickening or protruding rim border. This undecorated sherd cannot be confused with a coil end since there is black charred encrustation on the top of the rim as well as on the inner surface. The charred organic remains on the inner surface of this sherd have been radiocarbon dated to 3370–3100 cal BC (Hela-1613, 4535±35 BP). This date is confirmed by another radiocarbon date on carbonized organic remains found attached to a sherd of similar porous undecorated pottery (Hel-1615, 4520±40 BP). The dates are practically coeval (Table 1). Together, these dates, combined through a calibration program, point to the period 3360–3100 cal BC (2 sigma). Despite the minute size of the dated samples (0.4 and 0.6 mg), the two

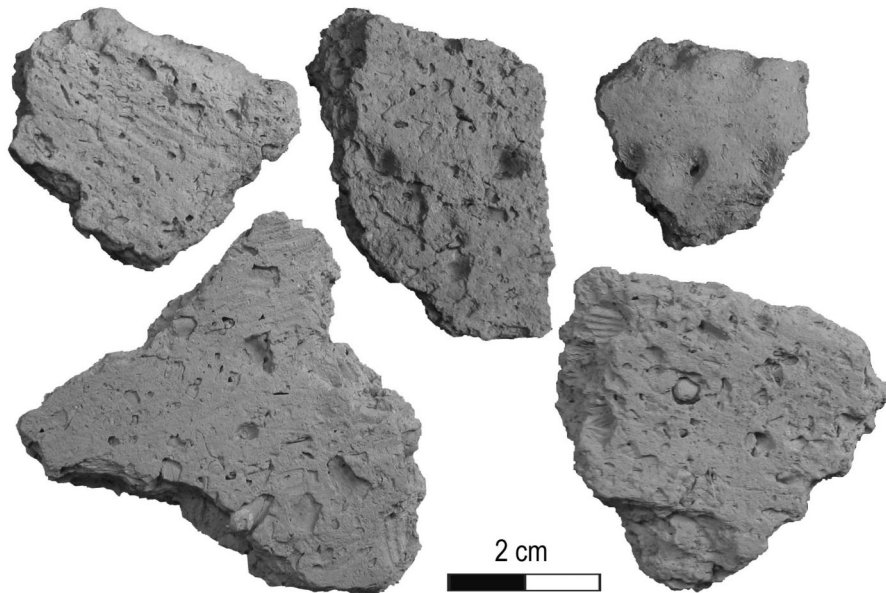


Fig. 6. Ceramics from the Meskäärty site. A dated sherd of Late Corded Ware farthest right in the upper row. Other sherds are Late Comb Ware. Photo by Teemu Mökkönen.

³ The National Museum of Finland, Archaeological collections (NM) 37112: 6, 20, 24.

Table 1. Radiocarbon dates from the Meskäärty site

Lab. No.	¹⁴ C-years	Calibrated date 1 sigma (cal BC)*	Calibrated date 2 sigma (cal BC)*	δ 13C	Catalogue number	Sample material	Ceramic type
Hel-1613	4535±35	3360–3110	3370–3100	–25.1	NM 37112: 1	Charred organic remains	Late Comb Ware
Hel-1614	3820±45	2350–2150	2460–2130	–25.0	NM 37112: 2	Charred organic remains	Late Corded Ware
Hel-1615	4520±40	3350–3110	3370–3090	–27.5	NM 37112: 3	Charred organic remains	Late Comb Ware

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

identical dates indicate that the results are correct. This pottery is considered to be identical with the type of Late Comb Ware found in Estonia, an interpretation also accepted by Professor Aivar Kriiska (pers. comm., 06.02.2008).

Two other rim sherds with only the inner surface remaining are also counted as Late Comb Ware. This identification is based on the porosity and poor firing of the sherds. One of the sherds has a straight rim⁴ and another has an inwards-thickening rim⁵. The latter originates from a vessel ca. 20 cm in diameter.

The date of the Meskäärty sherds is rather late as compared to Late Comb Ware in Finland. On the basis of five AMS-datings on birch bark pitch or crust on Late Comb Ware sherds, Pesonen dates Late Comb Ware to ca. 3800–3400 cal BC (Pesonen 2004, 91; see also Leskinen 2003, 20–21). In setting these limits, Pesonen has left out one date of his series because it is considerably younger than any other Comb Ware date from Finland. This particular date, 3500–3020 cal BC (2 sigma, Hela-358, 4550±60 BP), derives from the Häyrynmäki site in Viipuri, on Karelian Isthmus. The dates from Meskäärty and from the Karelian Isthmus in Russia are clearly younger than dates obtained from other parts of Finland. This is not very surprising, since direct AMS-dates on Estonian Late Comb Ware are even younger. Late Comb Ware found at the Loona site on Saaremaa has been dated to 2920–2480 cal BC (2 sigma) (Kriiska et al. 2005; Kriiska & Tvauri 2007, 63–64; Lõugas et al. 1996), and even dates as young as 2000–1900 cal BC have been applied to Late Comb Ware (Kriiska 2001; Lang & Kriiska 2001, 92; see also Lang 2006, 122).

These dates might indicate that there is considerable regional variation in the dating of Late Comb Ware. For the present this notion is, however, based on a limited number of AMS dates. Another relevant viewpoint is the question of

⁴ NM 37112: 23.

⁵ NM 37112: 19.



Fig. 7. An imprint of the mussel *Cerastoderma glaucum* (Lagoon cockle) in Late Comb Ware. Photo by Teemu Mökkönen.

defining a pottery style – what sort of pottery can reasonably be classified as Late Comb Ware? Nevertheless, in the traditional Finnish Neolithic chronology Late Comb Ware is reckoned to last for the most part until 3200 cal BC, and in some regions until ca. 2800 cal BC (Carpelan 1999; see also Siiriäinen 1974, 1978, 1987). Carpelan's scheme covering the Stone Age chronology of Finland suggests that the use of Late Comb Ware continues longer in the 'Middle Zone', i.e. in south-western Finland in the region between the coastal area and the interior Lake District (Carpelan 1979, 11; 1999, 273).⁶

One porous sherd contains an imprint of a whole mussel (Fig. 7). According to Ilmari Valovirta, this mussel belongs to the family *Cardiidae*, and the specific species is presumably *Cerastoderma glaucum* (*Engl.* lagoon cockle), which is a common mussel all around the Baltic Sea (Valovirta, pers. comm., 03.03.2008). The mussel in question lives both in brackish water and in salt water. Similar mussels have also been used as temper in Jäkärä Ware in south-western Finland (Edgren 1966, 109). In contrast to these observations from Finland, the shells used as temper in Narva Pottery on the northern shore of Estonia are fresh-water clams, namely *Unio tumidus* (*Engl.* swollen river mussel) and *Anodonta cygnea* (*Engl.* swan mussel) (Kriiska 1996).

The *more dense ceramics* are represented by only 10 sherds. One of the dense sherds is decorated with two parallel horizontal rows of small round imprints (Fig. 6).⁷ On the outer surface, between the rows of imprints, there is a fibrous impression, the likes of which are considered the best characteristic for defining Late Corded Ware in Estonia (Kriiska 2000, 64, 70; Kriiska & Nordqvist 2007, 35). The inner surface is smoothed and striated. In this well-fired sherd, the tempers used are fine sand and a small amount of bone crushed into tiny pieces. Charred organic remains from this sherd were dated to 2460–2130 cal BC (2 sigma, Hela-1614, 3820±45 BP).

In addition to the sherd mentioned above, there is another sherd that might also be identifiable as Late Corded Ware.⁸ This 10 mm thick rim sherd has a rim thickening ca. 1 mm inwards. The top of the rim is slightly wavy. The fabric of the sherd is porous, but both surfaces have been smoothed. On the outer surface

⁶ Actually, no unambiguous data, such as radiocarbon dates that would support the assumption of Late Comb Ware being longer in use in the 'Middle Zone', are presented in Carpelan's papers. According to Carpelan, this idea is not based on any precise dating, but rather on reasoning (Carpelan, pers. comm., 19.04.2008).

⁷ NM 37112: 2.

⁸ NM 37112: 22.

of this well-fired sherd there are two imprints, possibly marking the presence of fibrous materials when the vessel was being shaped.

The Corded Ware Culture is dated in Finland to ca. 3200/3100–2350 cal BC (Carpelan 1999, 2004; Carpelan & Parpola 2001). The dated Late Corded Ware in the Meskäärty material (2460–2130 cal BC) is slightly younger than other material connected to Corded Ware in Finland. In Estonia, on the southern shore of the Gulf of Finland, dates show that Corded Ware as well as Late Comb Ware remained in use considerably longer than in Finland – even up to the beginning of Bronze Age ca. 1800 cal BC (Kriiska 2001; Lang & Kriiska 2001).

The other undecorated sherds made of more dense clay fabric cannot be classified due to their small size and lack of characterizing traits. Among them are sherds made of denser clay in which the main temper is fine sand but a small amount of organic matter (mainly shells, lesser crushed bone) is also present. One sherd has a smoothed and polished outer surface and another has both surfaces polished. In addition, there are two denser sherds that are unique in the Meskäärty material. One of these is light brown in colour, small and thin, only 5 mm thick sherd made of sand-tempered clay mixed with nearly invisible flecks, probably of crushed bone. Another unique sherd is coarser. Its clay mass is tempered with coarser quartziferous sand mixed with mica.

To sum up, Late Comb Ware and a few sherds of Late Corded Ware were identified in the Meskäärty ceramic material. Both ceramic styles bear a close connection to the material found on the southern shore of the Gulf of Finland. Among the undecorated sherds with clay paste similar to Late Comb Ware are three pieces with slight profiling. The presence of profiling is a trait that is not known from Late Comb Ware in Finland. Instead, profiled vessels appear alongside Corded Ware in Pyheensilta Ceramics (e.g. Vikkula 1984). Regarding the quality of clay paste and firing, no clearly distinctive groups may be distinguished.

An early sharp-butted axe

Around the year 2000, the landowner once again extracted moraine from the site. When the moraine load was spread, a shaft-hole axe was found. According to the landowner, the load containing the axe derived from the western wall bank of the housepit's northernmost room (the Järvenkyläs, pers. comm., 03.11.2007). In 2003 the axe was classified as a battle-axe in a local history book (Lommi 2003, 17). The axe has not been catalogued as part of a museum collection and is still in the landowner's possession.

At the beginning of November 2007 the axe was sketched and photographed during an expedition carried out for the purpose of measuring the housepit. The axe is heavily eroded and a small piece of its butt has split away (Figs 8 and 9). It measures 20 cm in length and 7 cm in maximum breadth. The cross-section is nearly segment-shaped or nearly trapezoid, the back is slightly curved, the blade is strongly curved backwards, and there is a small shaft-hole ridge and polished facets on both sides.



Fig. 8. An early sharp-butted axe from the Meskäärty site. Photo by Teemu Mökkönen.

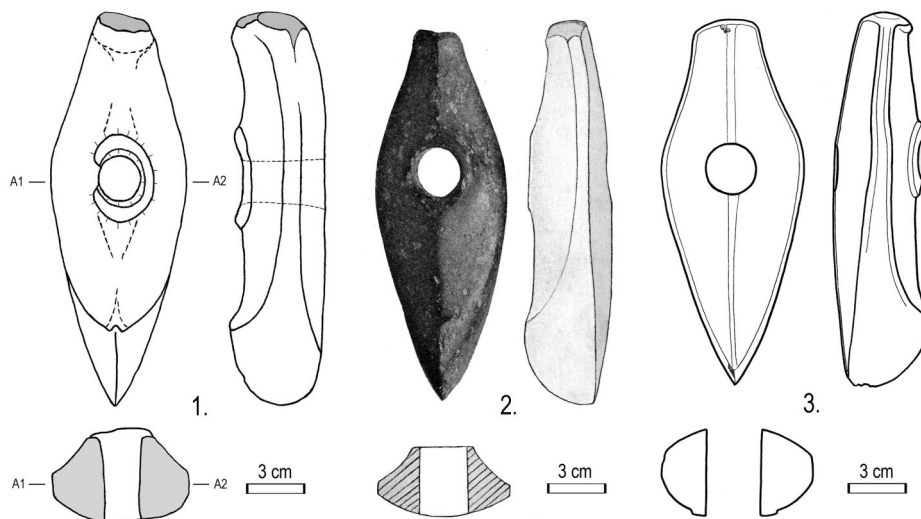


Fig. 9. Early sharp-butted axes. Find locations: 1 the Meskäärty site (Virolahti, Finland), 2 Räisälä Parish (Mel'nikovo in Russian, Karelian Isthmus), 3 Jöelähtme Parish (Estonia). The Räisälä axe from Äyräpää 1952b. The Jöelähtme axe from Jaanits 1973. Drawing of the Meskäärty axe by Teemu Mökkönen.

The Meskäärty axe resembles both a battle-axe and a sharp-butted axe. Two nearly identical axes have been found – one on the Karelian Isthmus in the former Finnish parish of Räisälä (nowadays Russian Mel'nikovo) (Äyräpää 1952a, 89–90, fig. 15) and another in Jöelähtme on the northern shore of Estonia (Jaanits 1973, 70–71, fig. 23). The most prominent difference between these axes is in the shape

of the cross-sections. In the Räsälä axe the cross-section is more trapezoid and more angular than in the Meskäärty axe. In the Jöelähtme axe the cross-section is oval, even though it is otherwise similar in appearance to the two other axes.

All these axes have many traits in common with the Baltic Karlova-type of battle-axes, of which the strongly backwards curved blade is the most evident. On typological grounds the Räsälä axe has been considered the oldest type of sharp-butted axe (Äyräpää 1952a, 89). Jaanits has considered the Räsälä axe and the Jöelähtme axe to represent an intermediate stage in the development from Karlova-type battle-axes to sharp-butted axes (Jaanits 1973, 70, 74). Hence, the Meskäärty axe is the third known example of an early sharp-butted axe.

Most of the sharp-butted axes found in Finland are made of uralite porphyrite, which is considered to be an import from Estonia (e.g. Europaeus 1922, 107; Jaanits et al. 1982, 114; Laitakari 1928, 24; Luho 1946, 61–62; Soikkeli 1912, 290–291). However, the Meskäärty axe is probably made of diabase (Kinnunen, pers. comm., 07.01.2007; Lehtinen, pers. comm., 04.01.2007).⁹ Diabase is the most extensively used rock in Finnish types of battle-axes – olivine diabase from the Satakunta region in south-west Finland being the most common – but notably rare in sharp-butted axes (Laitakari 1928; Luho 1946). Only 8 (11%) of the 71 studied sharp-butted axes found in Finland and in ‘Ceded Karelia’¹⁰ are made of diabases (Laitakari 1928).

In Finland, the distribution of sharp-butted axes is nearly congruent with the distribution of battle-axes, but on the Karelian Isthmus and in Russian Karelia sharp-butted axes are dispersed far beyond the border of battle-axes (Huurre 2003, 229; Luho 1946, 62; Rosén 1950, 75). This indicates that during the Late Neolithic, not only axes but also other cultural influences spread beyond the traditional north-northeast limit of the Corded Ware culture.

The relatively high number of sharp-butted axes found in the coastal areas of Kymenlaakso Province, i.e., in the area between the westernmost estuary of the River Kymi and the Finnish-Russian border, has been seen to indicate contacts with Estonia (Carpelan 1999, 265; Huurre 2003, 229; Miettinen 1998, 54). In Virolahti Parish these contacts are also manifested by an early variant of the Karlova type battle-axe that is considered to be of Estonian origin (Äyräpää 1952a, 82, 88, fig. 2; Jaanits 1973, 62). This axe, unique in Finland, was found in the village of Ylä-Pihlaja, about six kilometres east of the Meskäärty site.

Following the research history of Late Neolithic axes, the Meskäärty axe may be described as an early sharp-butted axe. But what does this actually mean? Does this typological notion bear a chronological meaning, too? With respect to Finnish battle-axes, all of the types created through typology do not actually bear

⁹ The definition of the rock is based on a digital photo and the specific gravity of the axe.

¹⁰ Ceded Karelia consists of the Karelian Isthmus and Ladoga Karelia. That is the area that was ceded to Russia in the truce agreement between Finland and the Soviet Union in 1944. Currently, this area is divided between two Russian administrative districts. The northern part is under the administration of the Republic of Karelia and the southern part belongs to the Leningrad Oblast.

any clear chronological significance (Edgren 1992, 93; cf. Carpelan 2004, 56). In Finland, it has been supposed that sharp-butted axes are predominantly of younger date than proper battle-axes (Luho 1946, 62; 1948, 102–103). On the other hand, it has also been stated that the sharp-butted axes are partly older than the beginning of the Late Neolithic Kiukainen Ware (Luho 1948, 103). Carpelan has suggested that the sharp-butted axe type appears in Finland during the 25th century cal BC, i.e., the final stage of the Corded Ware Culture (Carpelan 2004, 56; see also Europaeus 1922, 106–109). Nevertheless, the period when sharp-butted axes are predominant is contemporaneous with the Late Neolithic cultures, which, in the southern part of Finland, are considered to be mostly younger than the Corded Ware Culture (e.g. Edgren 1992, 107, 110, 115; Meinander 1954, 78, 156).

In Estonia, the dating of sharp-butted axes runs parallel to Finland and vice versa. There, the oldest sharp-butted axes are considered to be of similar age as the late battle-axes of the Karlova type (Jaanits et al. 1982, 113, 116). This notion is based on the typological similarities between the two axe types, and hybrid axes are consequently considered the oldest type of sharp-butted axes (Jaanits 1973; Äyräpää 1952a, 89). Likewise, it has been presumed that at the time sharp-butted axes were introduced, pottery had not yet changed from the earlier to the later phase of Corded Ware (Jaanits et al. 1982, 117).

Recently, new AMS-dates from Estonian Stone Age burial sites have been published (Kriiska et al. 2007). Among the dated burials are two graves with battle-axes. The lower jawbone (*Lat.* mandibula) of the Karlova burial with a Karlova type battle-axe was dated to 2460–2130 cal BC (2 sigma). In the Kunila burial site, the lower jawbone from a grave with a sharp-butted axe (see Johanson 2006, 128, table 1; Kriiska et al. 2007) was dated to 2580–2340 cal BC (2 sigma). In the light of these dates, it is obvious that the Karlova type battle-axes and sharp-butted axes have partly co-existed.

Previously, sharp-butted axes and ceramics have not been found in the same undisturbed context, and therefore the connection between this axe type and the ceramics has not been recognized in Finland (Huurre 2003, 232; Meinander 1954, 155–156). In the case of the Meskäärty site, this question cannot be solved unambiguously. At Meskäärty the date of the Late Comb Ware (3360–3100 cal BC, 2 sigma) is far too early for sharp-butted axes. Instead, the date of the Late Corded Ware (2460–2130 cal BC, 2 sigma) found at the Meskäärty site could be suitable for dating the axe. This date is congruent with the calibrated date of the eponymous Karlova burial site mentioned above. However, it is not certain, even though it is very probable, that the axe and the Late Corded Ware derive from the same temporal context.

Lithics and bones

The lithic material from the Meskäärty site is small. The quartz artefacts consist of 14 flakes and one bi-polar core that was found in a shovel test pit made inside the southernmost room of the housepit. In addition to quartzes, two scrapers

made of red porphyrite were found (Fig. 10), one of which came from a shovel test pit in the middle room. Red porphyrite is a local raw material that occurs in the local granitic bedrock. The lithics also include several flakes of porphyritic rocks.

The use of porphyrite as a raw material for flaked artefacts dates mostly to the Late Neolithic in Finland (Heikkurinen-Montell 2005; Hertell & Manninen 2005; Meinander 1954, 120–121; 1957), even though such artefacts were also used earlier in south-west Finland around the time of the ‘Jäkärälä Group’ (according to Asplund (1995) ca. 4300–3000 cal BC, for even wider date range see Asplund 1997), named after a distinctive pottery style.

In addition, a few pieces of burnt bone were collected from the brink of the sand pit. Since this material has not been properly studied, it will be passed over here, only noting that it includes a few seal radii (K. Mannermaa & K. Salo, pers. comm., 07. and 22.05.2008).

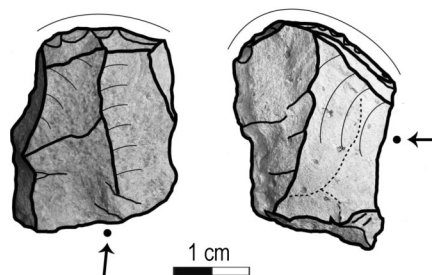


Fig. 10. Porphyrite scrapers from the Meskäärty site. Photo and drawing by Teemu Mökkönen.

Organic tempered ware in Kymenlaakso Province

The use of organic temper is a common feature in Late Neolithic ceramics. However, the use of porous fabric is not solely a Late Neolithic phenomenon. Porous, ‘organic’ tempered clay fabric also appears in Middle Neolithic Typical Comb Ware, particularly style II:2 (Leskinen 2003, 13–14). In Finland, the use of organic temper is most common in Late Comb Ware, Pyheensilta Ceramics, and the so-called ‘Middle Zone Ceramics’, even though it is also known from other Late Neolithic pottery types. These include bone, egg-shell, shell and feather-tempered variants of Pöljä ceramics and Kiukainen Ware (e.g. Carpelan 1979, 15; Huurre 1984, 45–46; Pesonen 2004, 90; Vikkula 1984). As for organic temper, it must be noted that limestone temper has been included under the term ‘organic temper’ in earlier studies, at least in the case of Late Comb Ware (Europaeus-Äyräpää 1930, 183–187; Leskinen 2003, 13; Pesonen 2004, 92–93).

As an overall impression, it has been stated that the use of organic temper characterizes Neolithic ceramics found in southern and western Finland while sand and crushed stone were used in southern as well as in eastern Finland (Pesonen 2004, 92–93). Nonetheless, there are exceptions. In Kainuu Province in northern Finland, organic temper came into use already during the Typical Comb

Ware Period (Huurre 1986, 59; Lavento 1992, 36; 2004, 69). There, the organic tempered ceramics could be predominantly classified as parallels to Typical Comb Ware, Pyheensilta Ware, or Kierikki/Pöljä ceramics (Huurre 1984, 45–46; 1986, 59–60; Lavento 2004, 69; see also Edgren 1964). In this case, the Russian typological scheme for Neolithic ceramics (see Zhul'nikov 1999; 2003; 2007) could be applied just as well as the Finnish one, if not even better. In addition to Kainuu Province, local trends in ceramics not conforming all that well to common typologies are also known from other regions.

The existence of porous, organic tempered pottery in Kymenlaakso Province on the south-eastern coast of Finland is noted in studies on Late Neolithic pottery. In his study on Corded Ware pottery in Finland, Torsten Edgren discussed vegetable imprints on Corded Ware sherds found at the municipalities of Vehkalahti (nowadays part of Hamina) and Virolahti (Edgren 1970, 33, fpl. 344, 349). This is not typical of Corded Ware pottery in other areas of Finland. In his study of Kiukainen Ware, C. F. Meinander connected the porous and roughly made ceramics found at the Ravi site in Säkkijärvi (nowadays just over the border on the Russian side) to Kiukainen Ware, even though he defined the sherds as atypical Kiukainen Ware (Meinander 1954, 73, 151). Likewise, Kiukainen Ware found in Kymenlaakso Province is not considered 'pure' Kiukainen Ware but rather some sort of hybrid pottery – at least when comparing eastern finds to Kiukainen Ware found in south-western Finland (Miettinen, T. 1998, 54).

Only a few excavated sites from the south-eastern coast of Finland have been published. Among these, shell-tempered Late Comb Ware is known from the Niskasuo dwelling site in Kotka (Kokkonen 1978, 30). Another interesting site is Kvarnbacken in Liljendal, located ca. 15 kilometres west of the most western estuary of the Kymi River. This site has produced porous un-profiled ceramics with fur/hair temper. These sherds have been decorated only with roundish imprints and double dots, the first of which occur also on top of the rim. These sherds are not defined as belonging to any particular pottery type, but because the sherds show some resemblance to Pyheensilta ceramics, they are called 'Pyheensilta ceramics' in the appendix (Rauhala 1977, 41–42, kuvaliite 12). Recently, pottery resembling western Finnish Pyheensilta ceramics has also been found from the former municipality of Johannes (*Ru. Sovetskij*) located on the Karelian Isthmus, by the Gulf of Finland in Russia (Carpelan et al. 2008).

To me, it appears that the use of organic temper in Kymenlaakso Province has a character all of its own. Corded Ware with organic temper is a rarity in Finland, and the Late Neolithic organic tempered wares found in Kymenlaakso have been difficult to fit into current typologies of ceramics. This is not surprising, since Late Neolithic ceramics are a poorly studied subject in Finnish archaeology. The question, what are the relations between Late Comb Ware with slight profiling found at the Meskäärty site, 'pottery resembling western Finnish Pyheensilta ceramics', and 'Middle Zone Ceramics', is one that needs to be answered in the future.

Large multi-room housepits in Finland and the Republic of Karelia

This section offers a short incursion into the dating and distribution of multi-room housepits. This is not a comprehensive review but merely a report on different types of semi-subterranean structures, prepared in order to gain a better understanding of large multi-room dwelling structures.

First of all, it must be noted that different names are used for quite similar types of Stone Age structures. In this presentation, multi-room housepits are discussed in more detail while structures such as settlement embankments and large rectangular enclosures, also known as ‘Giant’s Churches’ (*Fi.* jätinkirkot, *Sw.* jättekrykor, see Okkonen 2003) or simply as megastructures (see Núñez 2004), are mentioned only in passing. The grouping of semi-subterranean structures into housepits, settlement embankments, and ‘Giant’s Churches’ is partly artificial. The grouping principle is based on the soil type on which the structures have been erected. Housepits lie on sandy soils, settlement embankments on very stony moraines or boulder fields, and ‘Giant’s Churches’ mainly on boulder fields (Okkonen 2003, 28–30, 101–103; Pesonen 2002a, 13–14). All of these structures with their different names are actually manifestations of similar building traditions (Kotivuori 1993, 21; Okkonen 2003, 28). To be sure, different kinds of structures have their own characteristics, specific distribution, functions, and dating. Nevertheless, for example, the structural difference between large housepits, settlement embankments and regular ‘Giant’s Churches’ is small, virtually non-existent (see Mökkönen et al. 2007, 20–22, note 10).

Multi-room housepits are most typically found in Ostrobothnia, and to a lesser extent in the Finnish interior. Some examples are also known from the Republic of Karelia in Russia (Zhul’nikov 2003). Multi-room housepits, as considered here, include structures with walls, detectable on the surface without excavations, separating the rooms, as well as structures resembling terrace houses, where several housepits are connected to each other by corridors. Consequently, the picture presented here is far from the general picture of the internal division of space in semi-subterranean structures. As an example, there are housepits where the visible walls separating the rooms are missing but where the presence of separate rooms is attested to by several entrances or verified by data obtained in excavations. In some excavated housepits the internal division has been verified either through evidence of a log wall (Costopoulus 2005, 7) or with the help of the distribution of artefacts and stained soil (Pesonen 2006, 201–202). Nonetheless, this article concentrates only on cases in which the separate rooms are visible above ground.

Ostrobothnia

All three types of structures mentioned above are found in the Ostrobothnian Stone Age coastal area. This area is known for its numerous large structures

dating to the Neolithic Stone Age. Of these, the large settlement embankments and ‘Giant’s Churches’ are known solely from this area.

The largest settlement embankments in northern Ostrobothnia are the Mäntyselkä N2 site in Haukipudas Parish (where the floor area encircled by the embankment is ca. 25 × 12 m in size) and the Hevoskorpi site in Kannus Parish (ca. 20 × 15 m) (Pesonen 2002a, 27–28; Okkonen 2003, 101–103, 226). The largest ‘Giant’s Churches’ are even bigger, reaching 60 m in length and 35 m in width (Forss 1996, 26; Hergård & Holmblad 2005, 76–77), but in general they are smaller, being 20–40 m in length and 10–30 m in width (Hergård & Holmblad 2005, 78; see also Forss 1996).

‘Giant’s Churches’ and settlement embankments are mainly distributed in the Late Neolithic coastal area in central and north Ostrobothnia. There, these structures are usually connected with Pöljä-type asbestos ceramics. According to land uplift dating, the settlement embankments date to 2700–2000 cal BC and the ‘Giant’s Churches’ roughly to 3000–2000 cal BC (Okkonen 2003, 121–124; see also Forss 1996; Hergård & Holmblad 2005).¹¹ During the 3rd millennium cal BC, more elongated and larger dwelling structures came into use. At the same time, terrace houses, e.g., rows of pithouses interconnected by passages, appeared as well. These houses can be of considerable length, measuring over 50 m from end to end (Núñez & Okkonen 2005, 29).

Two terrace houses have been excavated, both located in Yli-Ii Parish in North Ostrobothnia. The first of these, the longest known terrace house in Finland, forms part of the Voima-Kuusela site (Fig. 11). It consists of seven interconnected housepits encircled by an embankment and forming a terrace house ca. 9 × 64 m in size. The house is partly excavated and the finds included Kierikki Ceramics (Franzén et al. 1998). A charcoal pit inside the house dates to 3500–3100 cal BC (2 sigma, 4580±60 BP, Beta-12092) (Franzén et al. 1998; Pesonen 2002a, 17). Another excavated terrace house is located nearby on the Purkajansuo/Korvala site. At this location, four interconnected housepits form a 40-m long terrace

¹¹ Recently, the appearance of ‘Giant’s Churches’ has been dated even earlier, as starting from 3500 cal BC (Núñez 2004, 358–359; Núñez & Okkonen 2005, 33; see also Núñez & Okkonen 1999, 107–108). According to Milton Núñez and Jari Okkonen (2005, 33) this early date, based on shore-displacement studies, is supported by radiocarbon and OSL dates. However, the two mentioned conventional radiocarbon dates on charcoal found in a pile of fire-cracked rocks at the Kettukangas site in Raahe parish and published by Forss (1998) give a date of 3350–2500 cal BC (probability 2 sigma; Hel-4032, 4520±110 BP; Hel-4033, 4280±120 BP). The other cited dates are from two piles of fire-cracked rocks at the Kastelli site in Raahe Parish (Okkonen 2003, 107, 192). The AMS dates on charcoal found in the piles fall between 2900–2490 cal BC (probability 2 sigma; Hela-521, 4185±60 BP; Hela-522 4125±70 BP) and the OSL and TL dates average ca. 2500 cal BC (Okkonen 2003, 192). In my opinion, these dates do not actually support the early beginning of building ‘Giant’s Churches’. On the contrary, taking into account the old wood effect and the dates themselves, the quoted direct dates on samples obtained through the excavations points to a rather later date. Based on the data at hand, I therefore prefer to date the *terminus post quem* of the ‘Giant’s Churches’ to the very late 4th millennium/very early 3rd millennium cal BC.

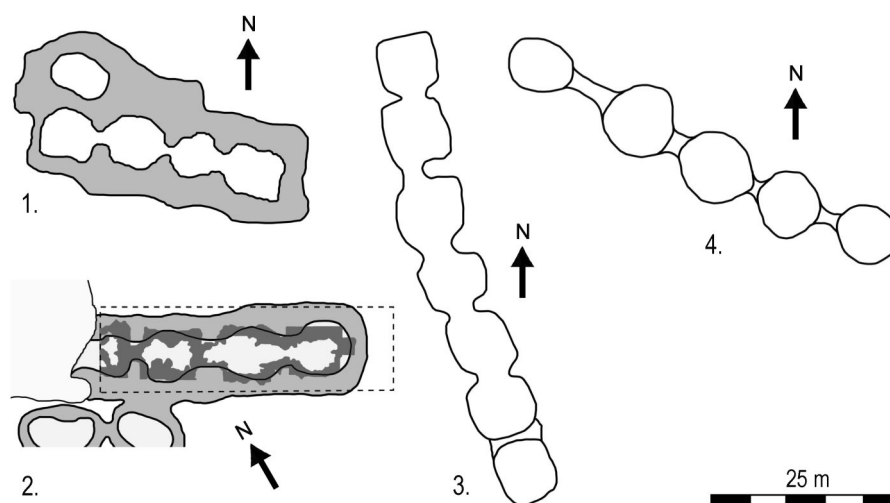


Fig. 11. Multi-room housepits from Ostrobothnia. Sites: 1 Teeriselkä (Haukipudas, after Okkonen 2003, fig. 114), 2 Purkajansuo/Korvala (Yli-Ii, after Schulz 2000), 3 Voima-Kuusela (Yli-Ii, after Franzén et al. 1998), 4 Kangas (Kaustinen, after Halinen 1997). Excavation areas are outlined with a dashed line. The stained soil inside the housepits is marked in dark grey. Redrawing by Teemu Mökkönen.

house associated with Pöljä Ware (Schulz 2000; Pesonen 2002a, 17). Hans-Peter Schulz has dated the terrace house on the basis of shore displacement chronology to ca. 3250–3200 cal BC. This date is in accordance with a date on charred organic remains attached to a rim sherd of Pöljä Ware, which gave a result of 3360–2930 cal BC (2 sigma, 4475±60 BP, Hela-136) (Schulz 2000, 29). According to radiocarbon dates from these two terrace houses, it seems reasonable to propose that the emergence of the terrace house took place during the very late 4th millennium calBC.

In addition to the sites mentioned above, there are several other sites with unexcavated terrace houses in Ostrobothnia. At the Teeriselkä site in Haukipudas Parish, four interconnected housepits form a terrace house ca. 32 × 8 m in size (Okkonen 2003, 227, fig. 114). In Central Ostrobothnia, two rows of three interconnected housepits are known from the Hundbacken site in Pedersöre Parish. The total size of these terrace houses is ca. 40 × 12 m (see Miettinen et al. 1998, 167). Several excavations have been carried out at the site. The finds include Late Comb Ware pottery, which is not, however, associated with the terrace houses (Miettinen 1982, 16). In addition, one relatively long terrace house is known from the Kangas site in Kaustinen Parish, where five housepits connected by passages form a terrace house over 50 m long. The size of the interconnected roundish/oval housepits varies between approximately 5 and 10 m (Halinen 1997, fig. 3; Miettinen et al. 1998, 77). The upper parts of the dwelling

site are synchronous with Typical Comb Ware. The terrace house lies at a lower elevation and might, based on shore displacement chronology, be synchronous with Late Comb Ware or Kierikki/Pöljä asbestos ceramics.

The Finnish inland

A number of large housepits with separate rooms are known from the interior regions of Finland. The only excavated example, the Martinniemi 3 site in Kerimäki Parish, is located in the Ancient Lake Saimaa area. This is a housepit with two rooms measuring 13×9 m and 4.5×4.5 m (embankments not included). It is associated with Kierikki and Pöljä type asbestos ceramics (Halinen et al. 2002; 2003). Unfortunately, there are no radiocarbon dates available, but the Pöljä ceramics are roughly dated to 3500–2600/1900 cal BC (Pesonen 2004). It is possible that the housepit had three rooms. Because a road now runs through the site, it cannot be said for certain whether the entrance of the housepit actually was a corridor connecting the housepits on both sides of the road. If this is the case, the original length of the housepit was ca. 37 m. The same site also contains another multi-room housepit. This three-room housepit, smaller than the excavated one, is ca. 30 m in length. A unique feature of this housepit is the presence of a curved corridor connecting the smaller housepit to the larger central depression (Fig. 12). As far as I know, this is the only example of a curved corridor in Finland. Similar structures are known from Neolithic sites around Lake Onega (see Zhul'nikov 1999; 2003).

A few more examples are to be found in the Ancient Lake Saimaa area. Actually, all the other examples are two-room types. The Laitasaari site in Outokumpu parish contains a double housepit ca. 18×7 m in size (Pesonen 2002b). The site has not been excavated, but Typical Comb Ware, Typical Comb Ware with asbestos temper, and Pit-Comb Ware were found at the site during a survey, not, however, in association with the housepit. The Kankaanlaita site in Kerimäki parish contains one double housepit in which two roundish depressions ca. 5 to 6 m in diameter are connected by a passage and surrounded, at least on the shore side, by an embankment. The total size of the double housepit as measured from outer rim to outer rim of the embankment is approximately 16×9 m (Moisanen 1991a, b). This particular housepit has not been excavated.

Furthermore, there are a number of possible double housepits in the Finnish inland. Two housepits ca. 5×4 m in size found during a survey at the Hietaniemi site in Juva Parish may be connected (Sepänmaa 1994). The Naarajärvi site in Pieksänmäki Parish has been excavated and interpreted as a double housepit ca. 25×13 m in total size (Matiskainen & Jussila 1984, 33). Other researchers have questioned this interpretation and considered the site to represent two separate structures with different occupation periods (Núñez & Uino 1997, 137–138). The site is associated with Typical Comb Ware.

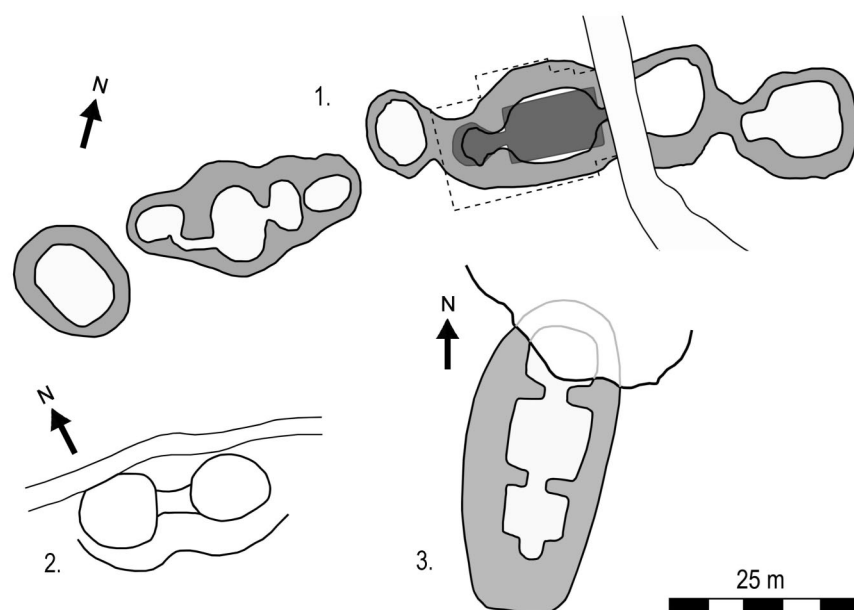


Fig. 12. Multi-room housepits from the Finnish inland and south-eastern Finland. Sites: 1 Martinniemi 3 (Kerimäki, after Jussila 1993, Halinen 2000, and Halinen et al. 2002), 2 Kankaanlaita (Kerimäki, after Moisanen 1991a), 3 Meskäärty (Virolahti). Excavation areas are outlined with a dashed line. The stained soil inside the housepits is marked in dark grey. Redrawing by Teemu Mökkönen.

The Republic of Karelia and the Karelian Isthmus in Russia

In the Republic of Karelia, the known examples of excavated multi-room housepits date to the 4th, 3rd and early 2nd millennium cal BC. The oldest example is the Pegrema II site, where three interconnected housepits have been excavated. Of these, the middle room is larger than the two other rooms (Fig. 13). The total size of the housepit complex is ca. 28×8 m. The site is associated with Rhomb-Pit Ware and dated by three radiocarbon dates to 4250–2900 cal BC (2 sigma) (Zhul'nikov 2003, fig. 15, tab. 2).

Other Russian Karelian examples are younger. At the Chelmuzhkar Kosa XXI site two housepits are connected by a passage. One of the pits is 12×5.7 m and the other 8×5.1 m in size. The larger housepit is intersected at the outer end by an obviously younger housepit. This housepit is associated with Oravnavolok XVI type ceramics. A third example is located at the Sumozero XV site. This is a housepit with three interconnected rooms. The middle room is the largest, measuring 11.3×7 m in size. The whole housepit complex measures ca. 22×6 – 8 m in size. This housepit is unexcavated (Zhul'nikov 2003, figs 31, 47, table 2).

The last Russian Karelian example to be mentioned is not actually a multi-room housepit but three separated housepits of similar size arranged next to each other as a terrace house. It is typical that the housepits are located in a row, side

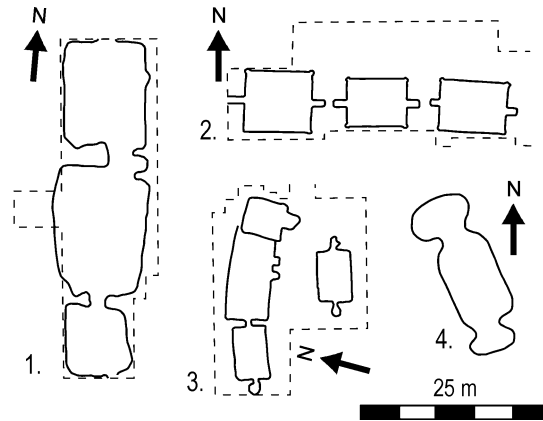


Fig. 13. Housepits from the Republic of Karelia. Sites: 1 Pegrema II (after Zhul'nikov 2003, fig. 15), 2 Voinavolok XXVII (after Zhul'nikov 2003, fig. 25), 3 Chelmuzhkar Kosa XXI (after Zhul'nikov 2003, fig. 31), 4 Sumozero XV (after Zhul'nikov 2003, fig. 47). Excavation areas are outlined with a dashed line. The stained soil inside the housepits is marked in dark grey. Redrawing by Teemu Mökkönen.

by side, but here the terrace house-like impression is enhanced by symmetrical and nearly interconnected entrances. The site in question, Voinavolok XXVII, is located at the northern end of Lake Onega. The size of the three housepits varies between $8.4\text{--}7.2 \times 7.6\text{--}6$ m. The overall impression, including the size, closely resembles the general picture of the Purkajansuo/Korvala site in northern Ostrobothnia. These dwellings are associated with Voinavolok XXVII type ceramics. Two radiocarbon dates date the site to 3150–2550 cal BC (Zhul'nikov 2003, fig. 25, table 2).

On the Karelian Isthmus, the first housepits were discovered in 1999 (Lavento et al. 2001). No multi-room housepits have been found on the Karelian Isthmus during fieldwork carried out in 2004–2007 (see Lavento et al. 2006; Mökkönen et al. 2006; 2007). There are some sites where housepits have one or two entrances and sites with elongated housepits, but interconnected housepits are still unknown.

The Meskäärty housepit in relation to other multi-room housepits

The Meskäärty housepit is a large one. The original size, as measured from outer rim to outer rim of the embankment, has been approximately 45×20 m. Dimensions comparable to the Meskäärty housepit are usually found only among the Ostrobothnian 'Giant's Churches' and in terrace houses. However, it must be noted that the Meskäärty housepit is larger than most of the 'Giant's Churches' (for measurements see Núñez 2004, fig. 6; Núñez & Okkonen 2005, fig. 6). Furthermore, on comparing the Meskäärty housepit with Neolithic longhouses found in south Scandinavia (Larsson 1998; Nielsen 1998), in central Europe (Grygiel & Bogucki 1986; Last 1996; Whittle 1996, 163; 2001, 157) and in

western Europe (Grogan 1996, 2002), the Meskäärty housepit turns out to be of a remarkably large size – larger than most of the longhouses. Actually, Neolithic semi-subterranean dwelling structures as large as the Meskäärty housepit and the Ostrobothnian examples on the Finnish west coast are not known from elsewhere in the Nordic countries.

Based on the dates obtained from Yli-Ii, the emergence of multi-room housepits took place during the very late 4th millennium calBC – approximately between 3300–3000 cal BC. In the Lake Saimaa area, the two multi-room housepits located in Kerimäki Parish referred to above are dated on the basis of land uplift chronology (Jussila 1999) approximately to the period 3100–2750 cal BC. One of these housepits, the one at the Martinniemi 3 site, is associated with Kierikki and Pöljä ceramics. The oldest date of the Meskäärty housepit, ca. 3360–3100 cal BC, falls approximately within the same period.

The question of the first appearance of multi-room housepits in the Republic of Karelia in Russia is a difficult one. The oldest example, located at the Pegrema II site, is associated with Rhomb-Pit Ware. The three dated charcoal samples from the site date to ca. 4250–2900 cal BC (Zhul'nikov 2003, fig. 15, table 2), but in general, the Rhomb-Pit Ware in this area dates to ca. 4000–2900 cal BC (Kosmenko 2004, 53).

The question of the first multi-room housepits can also be approached differently. Another excavated site in Yli-Ii, Kuuselankangas, lies at a higher elevation than the terrace houses. At Kuuselankangas, the non-interconnected housepits are associated with Typical Comb Ware and Kierikki ceramics. The youngest excavated housepit at this site is dated by two radiocarbon dates on chewing resin quids found inside the housepit to 3700–3300 cal BC, i.e., to the same period as Kierikki ceramics (Halinen et al. 1998). A comparison of the dates from the Voima-Kuusela site and the Kuuselankangas site suggests that the tradition of multi-room housepits did not begin at the same time as the first appearance of Kierikki ceramics but came along later, while Kierikki ceramics were still in use.

In conclusion, it appears that the oldest terrace houses and other multi-room housepits date to the Middle Neolithic period. The dates obtained from the terrace houses in Yli-Ii are nearly coeval with other dates from the Lake Saimaa area and the Meskäärty site. On the basis of these dates, I am of the opinion that multi-room housepits emerged approximately simultaneously in different parts of Finland between 3300 and 3000 cal BC.

Discussion

The Meskäärty site is anomalous with respect to the general distribution of large multi-room housepits and the material found at the site. Therefore, there are many issues to be considered. Firstly, the questions concerning ceramics will be discussed. Next, a number of ideas about the origin of the multi-room housepits will be presented.

The *ceramics* found at the Meskäärty site are comparable to the material mostly found in Estonia, i.e., Late Comb Ware and Late Corded Ware. The recovered sherds of Late Comb Ware exhibiting some profiling are of great interest. I presume that this is a trait adopted into Late Comb Ware from Corded Ware. The material itself and the dating support the evidence for Neolithic contacts between Kymenlaakso Province and the southern coast of the Gulf of Finland, already noted in previous studies. The collation of earlier studies on ceramics shows that Kymenlaakso Province has produced Middle and Late Neolithic ceramics that do not match existing Finnish pottery typologies.

In Finland, Kiukainen Ware is presumed to represent a cultural context in which the Comb Ware tradition and the Corded Ware tradition were amalgamated (e.g. Meinander 1954). A similar idea is also built into ‘Middle Zone Ceramics’ (Carpelan 1979, 1999). In Estonia, Late Comb Ware and Late Corded Ware co-existed up to the beginning of the Bronze Age (Lang & Kriiska 2001). The final stage of the Neolithic is poorly studied in Estonia (Kriiska & Tvauri 2007, 87), a fact that also holds true for coastal south-eastern Finland. However, during the Late Neolithic the amalgamation of the two cultural traditions is supposed to have taken place in Estonia as well (Kriiska & Tvauri 2007, 87).

Even though I find Estonian typology useful when referring to ceramics found at the Meskäärty site, something bothers me. One reason for being suspicious lies in the strong ethnic connotations – the Corded Ware tradition is associated with Indo-European ethnicity and the Comb Ware tradition with local ethnic groups (e.g. Carpelan & Parpola 2001).¹² This is problematic, especially when discussing late developments. As concerns ceramics, it must be noted that there are chronological changes within the tradition referred to as Late Comb Ware (Kriiska & Tvauri 2007, 63–64). Correspondingly, the Late Corded Ware found in Estonia has its own characteristics – such as the use of organic tempers in north Estonia and larger, roughly made vessels – that differ from earlier Corded Ware (Jaanits et al. 1982, 109–111; Kriiska 2000; Kriiska & Tvauri 2007, 84). Because of the strong ethnic connotations and the typological labels used on ceramics, one may ask, is there room for recognizing assimilation?

In Finland, there are two areas where Corded Ware and other concurrent cultures interacted, namely Ostrobothnia and the north-eastern coast of the Gulf of Finland (Carpelan 1999; 2004). This is of particular interest, since Corded Ware occurs in these areas together with other contemporaneous ceramics (Carpelan 2004, 50–51, 59; Edgren 1997, 155; see also Äyräpää 1952b, 22–23; 1973, 207). Furthermore, in extreme south-eastern Finland examples of hybrid-like pottery have been recovered in excavations as early as 1961. These examples derive from an excavation conducted by C. F. Meinander at the Mattilan VPK-talo site in Virolahti. Though a research report was never submitted, this excavation

¹² In Finnish archaeology there has always been a nearly total consensus that the Finnish Corded Ware Culture represents an immigration (e.g. Carpelan 1999; Edgren 1999; Siiriäinen 1981; cf. Luoto 1986; see also Asplund 1995).

is well known due to the anthropomorphic flint figurine found at the site. In the find catalogue¹³ Meinander described some hybrid-like forms, such as vessels shaped and decorated according to the Corded Ware tradition but made of fabric reminiscent of the Comb Ware tradition, Comb Ware with decorations made with twisted cord, and asbestos-tempered sherds resembling Pyheensilta Ceramics and Late Comb Ware. The only reference to this material is in Torsten Edgren's study on Corded Ware in Finland. In the appendix, Edgren wrote: "*The pottery found at the VPK-talo site is of great interest because it includes obvious hybrid forms between Corded Ware and Comb Ware that make it difficult to classify the material*" (Edgren 1970, 78, appendix 1, fpl. 349, my translation). It seems that this observation has later been forgotten. The VPK-talo material has not been brought up in discussions on the assimilation of Comb Ware and Corded Ware traditions dating earlier than Kiukainen Ware (see Carpelan 1999, 262; Carpelan 2004, 59; Edgren 1997, 1999, 289).

The examination of the ceramics from VPK-talo showed that there are not such clear hybrid forms as would be expected. For example, the asbestos-tempered sherds turned out to be Kierikki ceramics. However, the presence of Late Corded Ware and a number of other traits in the material renders the proposed existence of hybrid forms reasonable. In the Comb Ware, there are a few characteristics that might be interpreted as influences from Corded Ware tradition. These include the use of grog (chamotte) as temper, twisted cord decorations (see also Edgren 1997, 166), and the fibrous impressions occasionally found on the vessels' surfaces.

The early merging of Corded Ware and local traditions in south-eastern Finland is not a new idea. Over fifty years ago, Aarne Äyräpää suggested that the fusion of the Corded Ware Culture and the Comb Ware Culture began first in the areas where these cultures overlapped (Äyräpää 1952b, 22–24), i.e., in Ostrobothnia and south-eastern Finland. Äyräpää based his view on the existence of Corded Ware sherds on sites where most of the material was associated with the Comb Ware tradition, and on the distribution of genuine battle-axes and battle-axe imitations. Following the recently published late dates connected to Late Comb Ware, it appears possible that these cultures really co-existed also on the northern shore of the Gulf of Finland. Therefore, Äyräpää's idea is worth reconsidering.¹⁴

The research history of pottery should not constrain interpretations. There is great variation in the temper, decoration, surface treatment and shape of the vessels in Late Neolithic pottery. The 'types' or 'styles' of non-asbestos tempered

¹³ NM 15329.

¹⁴ Lately, an idea similar to Äyräpää's (1952b) has been put forward in an article dealing with the results of a recent survey in the former municipality of Johannes, located by the Gulf of Finland on the Karelian Isthmus (Carpelan et al. 2008, 206). Like Äyräpää (1952b), that article presents the same arguments for close relations between the Corded Ware population and local hunter-gatherers. In the article, the fusion of the two cultural groups is presumed to have taken place before 2700 cal BC (Carpelan et al. 2008, 206). Unfortunately, no basis is given for this date in the article.

pottery that are still in use today were created over fifty years ago. Besides, the definitions of Kiukainen Ware and Pyheensilta ceramics were first drawn up on the basis of the material of a single dwelling site. Since it is obvious that the variation in Late Neolithic ceramics is too extensive to fit into present typologies, the anomalous ceramics should not be forced into the mould. For instance, there are good grounds for asking whether it is reasonable to call the atypical examples found in south-eastern Finland ‘Kiukainen Ware’, and if not, what should they be called?

A second subject for discussion concerns *the origin of multi-room housepits*. I will begin the discussion from Ostrobothnia, since this is the only area in Finland where this matter has been studied before. Judging from the radiocarbon dates obtained from terrace houses in Yli-Ii (northern Ostrobothnia) referred above in this article, it seems that the building of terrace houses dates roughly to the very late 4th millennium cal BC, between ca. 3300–3000 cal BC. This date serves as a basis upon which I will pursue this question further.

The rise of larger dwelling structures in coastal Ostrobothnia has been explained through positive feedback on available resources caused by isostatic uplift (Núñez 2004; Núñez & Okkonen 1999; 2005; Okkonen 2003, 221–222). However, I find this explanation too simplistic. I do not question the existence of such feedback or the positive effects of it. Nonetheless, I doubt whether this factor was the principal cause for the changes seen in Stone Age structures during the late 4th and 3rd millennium cal BC. First, the environmental phenomenon causing the rise in abundance of natural resources already began ca. 3800/3700 cal BC (Núñez & Okkonen 1999; Núñez 2004, 360), that is, approximately five hundred to seven hundred years earlier than the changes seen in the culture. Second, large village-like dwelling sites with several clustered housepits of nearly equal size associated with Typical Comb Ware were present in coastal Ostrobothnia well before the occurrence of large structures (see Pesonen 2002a with references). One may ask, if this cultural change towards a more complex society with larger dwellings and other structures was driven by environmental factors, why did it not take place earlier?

Secondly, Neolithic coastal Ostrobothnia did not exist in a vacuum. The exotic goods – such as amber, flint and copper – found there bear witness to the presence of lively contacts (see e.g. Núñez 2004; Núñez & Okkonen 2005). In this respect, I would rather look for the causes behind the cultural changes in possible contacts with other cultural traditions (see also Núñez 2004, 360).

In his dissertation on Stone Age and Early Metal Period stone structures in coastal Ostrobothnia, Jari Okkonen speculates about the ideological changes connected to transitions in building traditions as follows: “*It is tempting to think that the roots of this new world view have something to do with the Corded Ware Culture and with the contacts that the Ostrobothnian communities had especially with the southern shores of the Baltic and possibly beyond.*” (Okkonen 2003, 223, my translation). Carpelan has recently demonstrated that the influences of Finnish Corded Ware are clearly visible in Ostrobothnia during the first quarter of the 3rd millennium cal BC (Carpelan 2004, 59). Although Okkonen does not

elaborate on the background of his notion, I find this matter worth considering for reasons relating to changes in house building traditions.

In Finland, the predominant occurrence of housepits begins simultaneously with Typical Comb Ware (ca. 4000–3500 cal BC, according to Pesonen 2004), although some examples of Mesolithic housepits are known. This tradition is clearly based on separate housepits, occasionally forming village like clusters (see Pesonen 2002a with references). In sites with clustered housepits, the dwellings are often located side by side but are not interconnected. Because the change in the building tradition towards larger, more oblong and multi-room structures took place simultaneously with the spread of the Corded Ware Culture up North (ca. 3200 cal BC onwards), I will next explore the possible relationship between these two events more closely.

The Corded Ware culture is mainly known through burials. However, there are also examples of dwelling structures. Because Corded Ware spread to Finland via the eastern shore of the Baltic Sea, only the houses of that area are considered here. Several Late Neolithic rectangular or oval-shaped houses with post-structures are known from the south–south-eastern shores of the Baltic Sea (Loze 1979, 58; Rimantienė 1992 and Saltsman 2004 with references). Most of these were erected above ground but some examples with a sunken floor are known. Some houses contain several rooms. Two longhouses with a sunken floor and post structures found at the Pribrezhnoye site near Kaliningrad are connected to the Baltic Coastal Culture.¹⁵ These houses are 12.5 × 4.5 m and 13.2 × 3.7 m in size and on average 0.5 m deep (Saltsman 2004). Charcoal samples associated with the houses have been dated to 3340–2670 cal BC (Saltsman 2004, 135, 138). There are also other examples from the Baltic countries. In Lithuania, a house with post construction 15 × 4 m in size found at the Šarnelė site is associated with the oldest phase of the Corded Ware Culture (Butrimas 1996). The site is radiocarbon dated to ca. 3100–2550 cal BC (Butrimas 1996; Rimantienė 1992). The northernmost house connected to Corded Ware is in Estonia. There, at a site near Lake Võrtsjärve, elongated houses with fireplaces have been associated with Corded Ware (Jaanits et al. 1982, 105–106).

Right around the time when Corded Ware spread to Finland (ca. 3200 cal BC), cultural influences from Russia were also reaching the Finnish interior and the coastal areas in the north and the south-east that were not intensively settled by

¹⁵ The ‘Baltic Coastal Culture’ is an epithet that covers several similar cultures on the south coast of the Baltic Sea. Other names used for this cultural entity are Rzucewo Culture, Bay Coast Culture, Pamarių Culture, Baltic Haff Culture and Haffküstenkultur. It spread over the coastal areas of Poland, Kaliningrad and Lithuania. The Baltic Coastal Culture is a hybrid culture in which the elements of Corded Ware, Globular Amphora, Nemunas and Narva culture are present. The beginning of the Baltic Coastal Culture is congruent with the beginning of Corded Ware, that is, ca. 3200 cal BC. Finds connected to the Baltic Coastal Culture include, for example, A-amphorae, A-axes etc. known from the pan-European A-horizon of Corded Ware. (e.g. Antanaitis-Jacobs & Girininkas 2002; Girininkas 1996; Rimantienė 1992; Rimantienė & Česnys 1996).

people using Corded Ware. This wave of influence, coming from the sphere of the Volosovo Culture, is attested to by Middle and Late Neolithic asbestos wares – Kierikki, Pöljä and Jysmä ceramics (Carpelan 1979; 1999; Carpelan & Parpola 2001, 83; Meinander 1984; Siiriäinen 1984). I do not know when multi-room semi-subterranean houses appeared in the Volosovo culture and its affiliates. The question here is, were the multi-room houses present in the Volosovo culture before the contacts with Battle-axe cultures? In the Finnish inland regions and in Ostrobothnia, the multi-room houses are associated with Kierikki and Pöljä ceramics, the former dating to 3650–2900 cal BC and the latter to 3500–2600/1800 cal BC (dates according to Carpelan 1999 and Pesonen 2004). So far, the oldest dated examples of Finnish multi-room housepits point to ca. 3300–3000 cal BC. Here, it must be noted that the Volosovo culture was in close interaction with the Fatyanovo-Balanovo cultures, the most eastern groups of Battle-axe cultures.¹⁶ The Balanovo culture is the only branch of the Battle-axe cultures in which semi-subterranean houses with log frameworks were in use (Bader & Khalikov 1987, 77–79, fig. 38; Krainov 1992; Krajnov 1987; Mallory & Adams 1997, 196–197; Patrushev 2000, 61–68).

The synchronous appearance of multi-room houses and new cultural influences cannot be merely accidental. The houses connected to the Corded Ware culture and to other synchronous cultures distributed around the southern shore of the Baltic and associated with Indo-Europeans (i.e., the Globular Amphora culture and the TRB culture) are often longhouses with several rooms, although other types of dwellings are also known. It seems probable that the transition in the house building tradition in Finland towards larger, more oblong dwelling structures with multiple rooms that commenced in the late 4th millennium cal BC was a consequence of cultural contacts with Indo-European cultures. Terrace houses and other oblong pithouses with several rooms can be seen as modifications of the longhouse, in which the idea of the longhouse has been adapted to the traditional building technique used in pithouses. The adoption of a new dwelling type was, undoubtedly, accompanied by several other cultural changes. These, however, are a matter to be discussed elsewhere.

Conclusions

The Meskäärty housepit is exceptionally large. Such extensive structures are typically found only among Ostrobothnian ‘Giant’s Churches’ and some terrace houses. Even though the types of ceramics found at the Meskäärty site are not

¹⁶ The emergence of the Fatyanovo-Balanovo cultures has traditionally been dated to the first quarter of the 3rd millennium cal BC (see Carpelan & Parpola 2001, 86; Krainov 1992), that is, a few hundred years later than the wide-spread pan-European Horizon of other Corded Ware cultures. However, in the Encyclopedia of Indo-European cultures, this cultural complex is considered to have emerged at the same time as the other western Corded Ware cultures, that is, ca. 3200 cal BC onwards (Mallory & Adams 1997, 196). I do not know what data this date is based on or what the correct date for the emergence of the Fatyanovo-Balanovo cultures actually is.

the ones commonly associated with pithouses, I believe that it was inhabited by people who used both of the ceramic types found there. Nonetheless, there is always room for doubt when working with unexcavated material. Still, I do not consider it very problematic to connect Late Corded Ware with a pithouse. During the late 4th millennium and 3rd millennium BC, the Comb Ware tradition and a rather sparse manifestation of Corded Ware apparently co-existed around the eastern end of the Gulf of Finland. In this area, these cultural traditions can not be self-evidently considered as separate entities. On the contrary, the culture was most probably a hybrid, at least to some extent.

Furthermore, the Meskäärty site is not the only housepit site with Corded Ware in Finland. Another similar anomalous housepit, with respect to the ceramics usually associated with housepits, is found at the Senatsberget site in Taalintehdas (Sw. Dragsfjärd), located in the eastern Archipelago Sea (Fi. Saaristomeri, Sw. Skärgårdshavet) in south-west Finland. The partly excavated housepit (interior measurements ca. 4 × 9 m) is connected to both late Järkärlä Ware or Pyheensilta Ceramics and to Corded Ware (Asplund 1997, 232–233, 238; Sipilä 1996).¹⁷ This provides grounds for suggesting that a hybrid-like culture, undoubtedly with regional variations, may have existed also in the western part of the Gulf of Finland.

The original location of the Meskäärty site was on the sea shore, and later probably by a dried-up inlet or at least by a very shallow bay with wet meadows. During the occupation phase connected to Late Corded Ware (ca. 2450–2100 cal BC), the site did not lie directly by the sea but some distance away from the shoreline. This, as well as the fact that the site is located on top of a moraine hillock, are both features typically associated with Corded Ware site locations.

The ceramics found at the Meskäärty site and other typologically elusive organic-tempered ceramics found in Kymenlaakso Province might indicate closer contacts than previously thought between the northern and southern coasts of the Gulf of Finland during the Middle Neolithic. Corded Ware associated with the housepits and alien characteristics in the Comb Ware vessels of the Mattilan VPK-talo site, as well as the profiled Late Comb Ware sherds of the Meskäärty site, might point to the fusion of the Corded Ware Culture and the Comb Ware tradition already before the formation of the final Neolithic Kiukainen Culture.

It is pointed out in the article that multi-room housepits appear in Finland fairly simultaneously with the first contacts with the Corded Ware Culture as it was spreading to the north-eastern shores of the Baltic Sea. This article argues

¹⁷ The size of the housepit at the Senatsberget site is ca. 8 × 15 m, including the embankments (Pesonen 2002a, 23). No signs of any structures were observed in a trench excavated through the depression (Sipilä 1996). Therefore, the interpretation of the depression as a housepit has met with some doubt (Asplund 1997). The existence of finds and high phosphate values in the depression together with the surface topography of the depression seen through an elevation model, however, justify the interpretation as a housepit (Sipilä 1996; see also Pesonen 2002a, 23). The identification of Corded Ware is based on dense fabric, good firing quality, and presence of grog (chamotte) (Sipilä 1996; see also Asplund 1997, 238).

that the idea of the long-house was adopted by the local pithouse building tradition through cultural contacts. This adoption is apparent in the emergence of larger housepits with several interconnected rooms and a more oblong shape during the late 4th and early 3rd millennium cal BC. Such dwelling structures might be seen as ‘Finno-Ugrian’ versions of the longhouse. The change in building tradition was undoubtedly accompanied by several other cultural changes, which, however, are outside the scope of this article.

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Teemu Mökkönen**VIROLAHTI MESKÄÄRTTY ASULAKOHT (KAGU-SOOME)
JA TEISED NEOLIITILISED MITMERUUMILISED ELAMUSÜVENDID***Resüme*

On vaadeldud 2007. aastal leitud Virolahti Meskäärty kolmeruumilist elamusüvendit. Elamusüvend on erandlik nii mõõtmete, asukoha kui ka leiuainese poolest. Meskäärty tutvustamise järel on arutletud Kagu-Soome orgaanilise lisandiga keraamika üle ja vaadeldud mitmeruumiliste elamusüvendite levikut ning dateeringuid lähiümbruses (joon 1). On oletatud, et mitmeruumiliste elamusüvendite rajamine seondub nöörikeramikakultuuri levimise ja varaste kontaktidega nöörikeramika- ning kammkeramikakultuuri inimeste vahel.

Meskäärty kolmeruumiline elamu on mõõtmetelt väga suur (joon 3–5). Seda ümbritseb 3–6 m laiune vall ja põhja sügavus on valli harjalt kuni 1,5 m. Osaliselt liivakarjääriga lõhutud elamusüvend on valli väliskülgedelt mõõdetult säilinud umbes 35 × 20 m suurusena, selle algne pikkus oli aga tõenäoliselt umbes 45 m. Elamus oli kolm eraldi lohuna eristuvat ruumi, mida ühendasid vaheseinu läbivad ukseavad. Elamu lõunavalli peal oli arvatavasti veel üks maapealne ruum, mis oli elamuga ühendatud koridoriga. Meskäärty elamusüvend on mõõtmetelt suurem kui enamik Pohjanmaa *jätinkirkko*'id või Läänemere ümbruse neoliitilised pikk-majad.

Asulakoht paikneb moreenkünka kõige kõrgemal kohal nii, et elamulohk katab kogu lae. Asustuse algul paiknes asulakoht väikese merelahe rannal, mis asustuse lõpul oli juba merest eristunud (joon 2).

Elamulohust on leitud nii hilist kamm- kui ka hilist nöörikeramikat (joon 6). Vasteid mõlemale keraamikatüübile leidub rohkem Eestis kui Soomes. Savinõukildudel säilinud kõrbekihist tehtud dateeringute järgi pärineb hiline kammkeramika ajavahemikust umbes 3360–3100 aastat kal eKr ja hiline nöörikeramika umbes 2460–2130 aastat kal eKr (tabel 1). Niisugust keraamikat ei ole varem elamulohkudest saadud. Asulakohalt on leitud ka silmaga kivikirves, mis on venekujulise ja teravovaalse kivikirve vahevariant (joon 8–9). Kirvele on kaks vastet: üks Põhja-Eestist (Jõelähtme) ja teine Karjala maakitsuselt (soomekeelne kohanimi on Räisälä, venekeelne Melnikovo). Tüpoloogiliselt võib neid nimetada varasteks teravakannalisteks kirvesteks.

Kymenlaakso maakonna (Kagu-Soome) keraamika on mitmekesine ja viitab mitmekesistele kontaktidele kõikidesse ilmakaartesse. Suur osa piirkonnast leitud keraamikatüüpidest on seal oma leviala servas. Lisaks on keraamikas jooni, mis on olemasolevate keraamikatüpoloogiatega raskesti seostatavad. Huvitav nüanss on muuhulgas vaadeldava ala nöörikeramikas esinev taimne lisand, mida ei tunta mujalt Soomest, ja hilises kammkeramikas nähtavad, tõenäoliselt nöörikeramikast ülevõetud jooned, nagu šamoti kasutamine savi lisandina, nõude

vähene profileeritus, nõrvajutised ornamendis ning nõude pinnal mõnikord täheledatavad kiudvajutised.

1950. aastatel oletati, et Kagu-Soome nõorkeraamikakultuuri asustus oli kammkeraamikakultuuriga lähedastes kontaktides. Viimasel ajal saadud radiosüsiniku dateeringute, keraamikas esinevate viidete ja Mesikäärty elamu leiuainese järgi pean seda oletust paikapidavaks.

Mõõtmelt sarnaste kiviaegsete mitmeruumiliste elamute levik koondub Soomes Pohjanmaa kiviaegsele rannikule (joon 1 ja 11). Mõningaid mitmeruumilisi elamulohke tuntakse ka Sise-Soomest Saima vesikonnast ja Venemaalt Karjala Vabariigist (joon 1, 12 ning 13). Soome materjali dateeringute järgi näivad mitmeruumilised elamulohud tekkivat üheaegselt eri piirkondadesse umbes 3300–3000 aastat kal eKr.

Mitmeruumiliste elamute tekkimine on nõorkeraamika levimisega samaaegne. Kuna nende eel rajati erinevaid väiksemaid süvendpõhjalisi elamuid, on suuremate mitmeruumiliste elamute kasutuselevõtt selge muutus asustuskultuuris. Läänemere piirkonnas tuntakse mõningaid nõorkeraamikakultuuri pikk maju. Oletan, et mitmeruumiliste elamute teke seondub just nõorkeraamika levimisega. Need esindavad uut ehitustüüpi, kus pikkmajade ehituskontseptsioon on teostatud osaliselt maapinda süvendatuna, teisisõnu kohalikust ehitustraditsioonist tuntud viisil.