

## Pyheensilta Ceramics – Facts and Theories

The Stone Age site of Pyheensilta is located in the commune of Mynämäki, Finland-Proper, about 35 kms northwest of Turku. In 1937, finds indicating a dwelling site came to light at a gravel pit on the NW shore of the Laajoki river and the following year excavations were carried out at the site by C. F. Meinander and Jouko Voionmaa. The extent of these excavations was only 210 m<sup>2</sup>, but already in his article on the site, Meinander (1939, 28–43) could present the concept of the Pyheensilta phase of the Comb Ceramic succession, subsequently accepted in Finnish Stone Age research.

Meinander had the opportunity to further study these problems while excavating at the site in 1959 and 1960. The main part of the Pyheensilta finds was excavated in those years from areas totaling c. 765 m<sup>2</sup>. The results, however, have not been published. The latest excavations at the site were in 1978 and 1979 under the direction of Lea Väkeväinen and the author. A total of 396 m<sup>2</sup> were excavated in addition to trial pits. These excavations were carried out in the areas peripheral to the site and the finds were not numerous. However, it was only at this stage that the only distinct and intact hearths of the site were found (see Väkeväinen 1978, 81–86). As a result, the Pyheensilta site could be regarded as totally excavated for this part.

It has been observed, however, in various excavations that the site is extensive and consists of isolated concentrations of material. Stray finds have been collected in large numbers not only near the excavated areas but also to the west along c. 300 metres of a slope inclining south-west. At this location there seems to be a concentration of finds older than the Pyheensilta phase at a higher elevation. This area was examined by Matti Bergström in 1975 with trial pits. Only a small amount of pottery was found decorated with pits and apparently of Uskela type. The area of the site also extends south-east of the Laajoki river, where some stray finds have been found.

The Pyheensilta material is in most respects typical of Comb Ceramic sites but differs from these in the special features of the pottery and in the large number of slate arrowheads. The material includes over a hundred arrowheads and line sinkers made of pieces sawn from sheets of slate. Most of the arrowheads are of the actual Pyheensilta type (see Meinander 1939, 33–38). There are also single finds of Pyheensilta points on sites of the same age as well as larger amounts in the material from the Lyytikänharju and Hiittenharju sites in Harjavalta, both containing the same type of ceramics. Also several points of this type have been found on sites of the same period on the Karelian Isthmus (Edgren 1956, 34; Meinander 1939, 34).

In this connection, Pyheensilta type ceramics and related problems will be discussed. The problem formulated by Meinander (1939, 43) deals with the relationships between the Pyheensilta type of pottery and Corded Ware in the Battle Axe culture as well as the sporadic occurrence of comb-stamp decoration and the profiled vessel form in the Pyheensilta material. He maintains, however, that the ceramic material is heterogenous falling into a group of porous, straight-walled

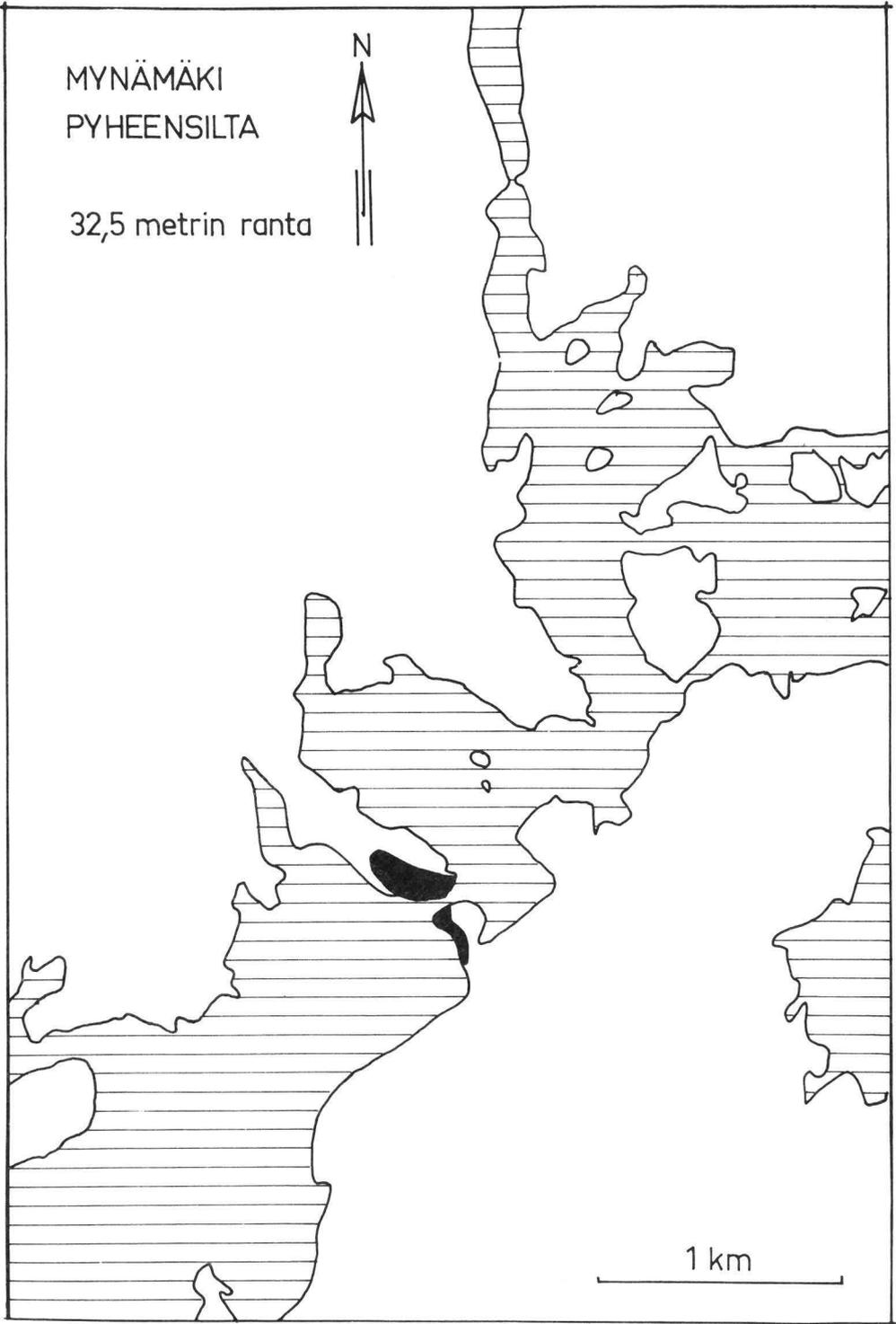


Fig. 1. Reconstruction of the shoreline according to the 32,5 m asl contour. Dwelling-site area in black.

vessels on the one hand, and a group of profiled-walled vessels of denser material, on the other. The latter was, however, represented at the time of Meinander's study by only a few vessels. The larger material now available does not support this division, as will be discussed below, and the questions can be formulated regarding more general factors in the formation of the Pyheensilta pottery type.

With the exception of a few sherds from trial pits, about 48,2 kgs of sherds have been collected in the various excavations of the site. Of these only about 31,5 % (1362 sherds) have been preserved with the outer surface intact. The main part of the material is porous and fragile with only a few sand-tempered sherds or ones that are intact or dense in material. Usually the temper cannot be observed at all being either burnt or dissolved, causing porosity. In some cases, crushed bone or limestone has been used. There are also asbestos fibres in some sherds, but this does not indicate any actual practice of asbestos-tempering.

The decoration of the outer vessel surface can be divided into three groups according to pattern. The largest and most characteristic group within the type is that of ordinary comb-stamps and lines. About 56,5 % by weight of the material consists of comb-stamped specimens and c. 12,0 % by weight are line-ornamented specimens with both forming sparse patterns. Horizontal zones of diagonally impressed stamps are clearly the most common group. In 63,2–87,5 % by weight of these there are either zones of stamps alternating left and right or stamped zones with the same orientation of elements, in which a rightward orientation is more common. Other patterns occur more sporadically. Line impressions are more often perpendicular or horizontal than comb-stamps, which again form more often horizontal lines than line impressions. The rarer patterns of the group consist of vertical zones of inclined stamps, inclined stamps in groups, zig-zag bands and lines, hatched motifs, plaited motifs and unordered groupings.

The second group consists of oval comb-stamps, two-part oval impressions, fingernail impressions and certain rare irregularly formed impressions. These have usually been applied sparsely to the surface as zones with elements inclined to the left or to the right. Within this group there are only a few cases of horizontal orientation of elements or zonal arrangements of comb-stamps of alternating orientation typical of the comb-stamped group.

The third group is formed of impressions which, due to their symmetry, cannot be applied in any inclined orientation. These consist of round shallow pits, dots, ring-formed stamps and triangular stamps. Usually these are placed in sparse horizontal rows or in irregular arrangement on the vessel surface. In some isolated sherds pits and dots form rows similar to comb-stamp and line patterns and are applied obliquely, perpendicularly or in zig-zag rows.

The vessel rims are straight and even or slightly inclined inwards and rounded in rarer cases. Sometimes there is a thickening on the inner surface of the rim. The decorative motifs are the same as on the vessel surface and are mostly arranged perpendicularly, horizontally or obliquely. In rarer cases, the elements form zig-zag patterns or groups of inclined elements on top of the rim. The base is pointed or rounded and the decoration usually extends to the base.

The main part of the rim sherds are from vessels where no wall profile can be observed. Only in about twenty sherds is there a distinct S-shaped profile or a more pronounced point of inflection. The decoration of the profiled vessels does not differ much from that of the straight-walled specimens as groups of inclined comb-stamps are clearly the most common feature also in this group. However, in these cases the comb-stamps are usually narrower. In a couple of vessels there are bands of thick

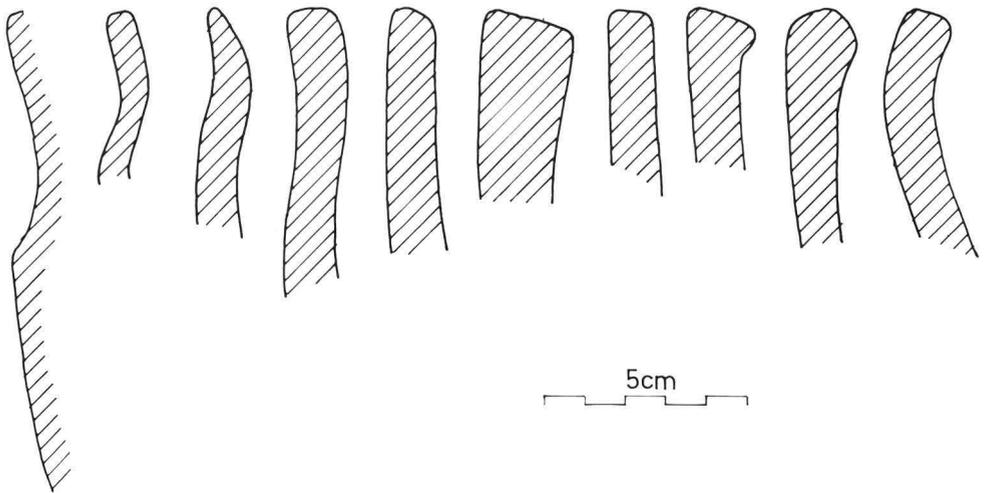


Fig. 2. Vessel profiles.

comb-stamps in addition to which dots, ring impressions and nail impressions also occur.

There are two concentrations of finds at the Pyheensilta site, a southern and a northern one. Despite this, all decorative motifs are evenly distributed throughout the area. Neither do the patterns show any chronological or other grouping. Vessels with profiled walls cannot be taken as a separate group as their decoration follows the same lines as the rest of the material. Thus, with respect to its ceramic material the Pyheensilta site must be regarded as homogenous.

The decorative motifs of Pyheensilta Ware show that the Comb Ceramic tradition still prevailed. Chronologically, the site has been placed later than the Uskela style, to a stage corresponding to the Sipilänhaka phase or slightly later (Meinander 1939, 41–43; Siiriäinen 1969, fig. 11, 61; Siiriäinen 1973, 18).

There are, however, features in Pyheensilta ceramics that are foreign to the Comb Ceramic tradition. The profiled form was obviously acquired from East Swedish Pitted Ware or from Jettböle ceramics from Åland, that is derived from the former (Meinander 1939, 41). There are also similarities in the decorative motifs as both styles have very narrow comb-stamps, fingernail impressions as well as dots and ringed stamps. A common feature to both is also the rare occurrence of vertical zonality. On the other hand, some of the slightly profiled sherds from Pyheensilta have horizontal comb-stamp decoration, which resembles the use of cord impressions in Corded Ware in the Battle Axe culture.

Both East Swedish Pitted Ware and the Battle Axe culture are dated to the final phases of the Comb Ceramic. The elevation of the lower limit of finds at the southern area of the Pyheensilta site is 34 m asl and it has been observed that at this location soil phosphate content clearly decreases below this elevation. Thus, 34 m asl was the most probable shoreline elevation there (Meinander 1939, 45). However, at a distance of only 20 metres there were large concentrations of sherds at slightly below 33 m asl. The same was observed in the northern area of the site, where the lower limit of its southern part was at 34 m asl, but further to the north, the numbers of sherds decrease only at 32 m asl. The hearths found in the northern area are at elevations of 32,5–33,0 m asl. The elevations of the Lyttikänharju and Hiitten-

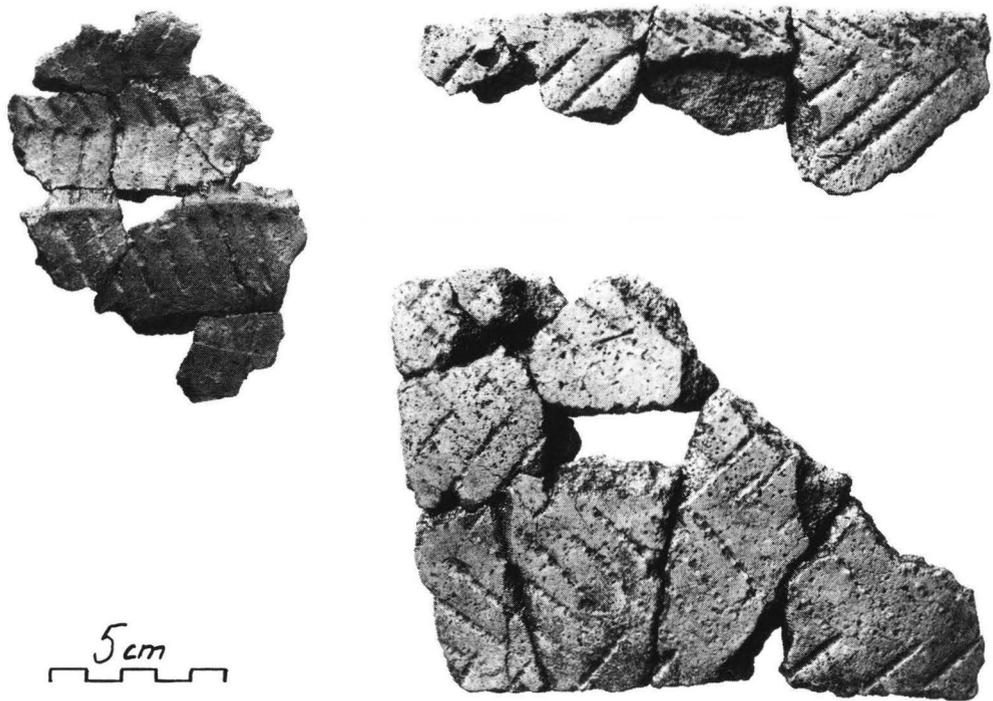


Fig. 3. Sherds with comb-stamp decoration. Left: profiled wall (NM 10903: 468). Right: Straight wall. (NM 10846: 73) (NM = National Museum).

harju sites in Harjavalta lie between 35–38 metres and 38–39 metres asl. Judging from Siiriäinen's diagrams they are more or less contemporary (see Siiriäinen 1969, fig.s 9, 11 p. 58, 61). His dating is supported by similarities with the Pöljä and Kierikki ceramic styles of East Finland, also regarded as contemporary with this material (Edgren 1963, 29; Siiriäinen 1967, 33–34).

Radiocarbon datings provide a different perspective. The results from the hearths of the northern area date them to the Pre-Roman Iron Age (Hel-1164  $2390 \pm 110$ , Hel-1165  $2080 \pm 110$ , Hel-1166  $2130 \pm 110$ ; see Väkeväinen 1978, 82). A total of four pit hearths was found with a thick layer of soot and charcoal beneath the stones.

The distribution of ceramics seems to be related in some way to the hearths. Although the hearths were in an area with a relatively small amount of sherds, there were distinct areas without any sherds measuring a few square metres in area to the south of each of the hearths. Furthermore, a sherd with comb-stamp decoration was found at the bottom of one of the hearths, indicating their connection with Pyheensilta ceramics. Radiocarbon datings have also been made of the uncertain post-holes of the southern area, one of which was lined with stones while the other was unlined. The results give an Iron Age date (Hel-801  $1460 \pm 130$  and Hel-802  $940 \pm 139$  BP). There are no archaeological indications of Iron Age remains and the contradiction between the radiocarbon results and the archaeological material remains sharp and, for the time being, unresolved.

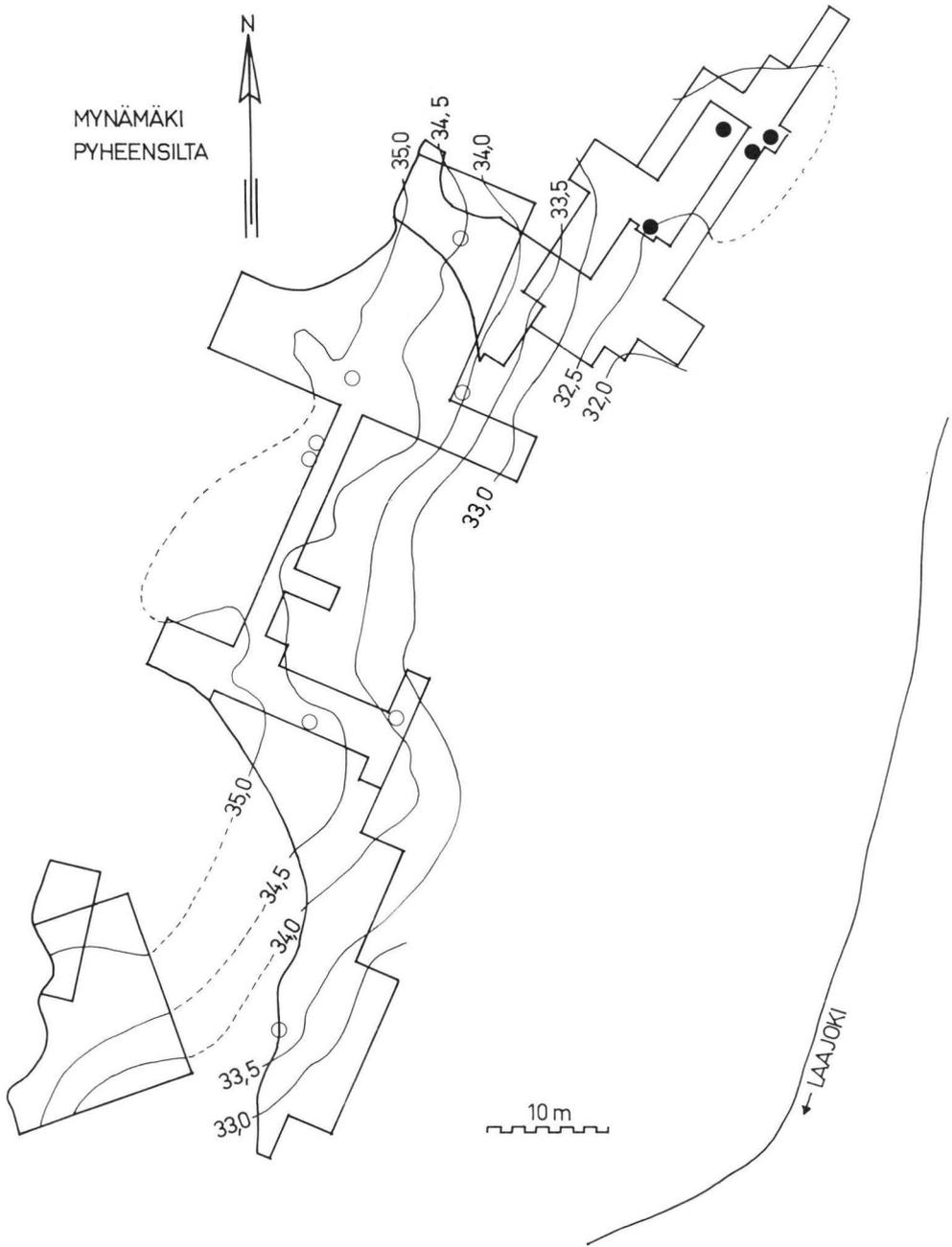


Fig. 4 a. Hearths. Blacked-in circles: definite pit hearths. Open circles: patches of soot and charcoal.

Despite the influences of East Swedish Pitted Ware and Corded Ware, the Pyheensilta material is of distinct Comb Ceramic character, as shown by the large share of comb-stamp decorated sherds. However, it is hard to conceive the Pyheensilta group as a derivative of the Uskela and Sipilähaka ceramic styles, as

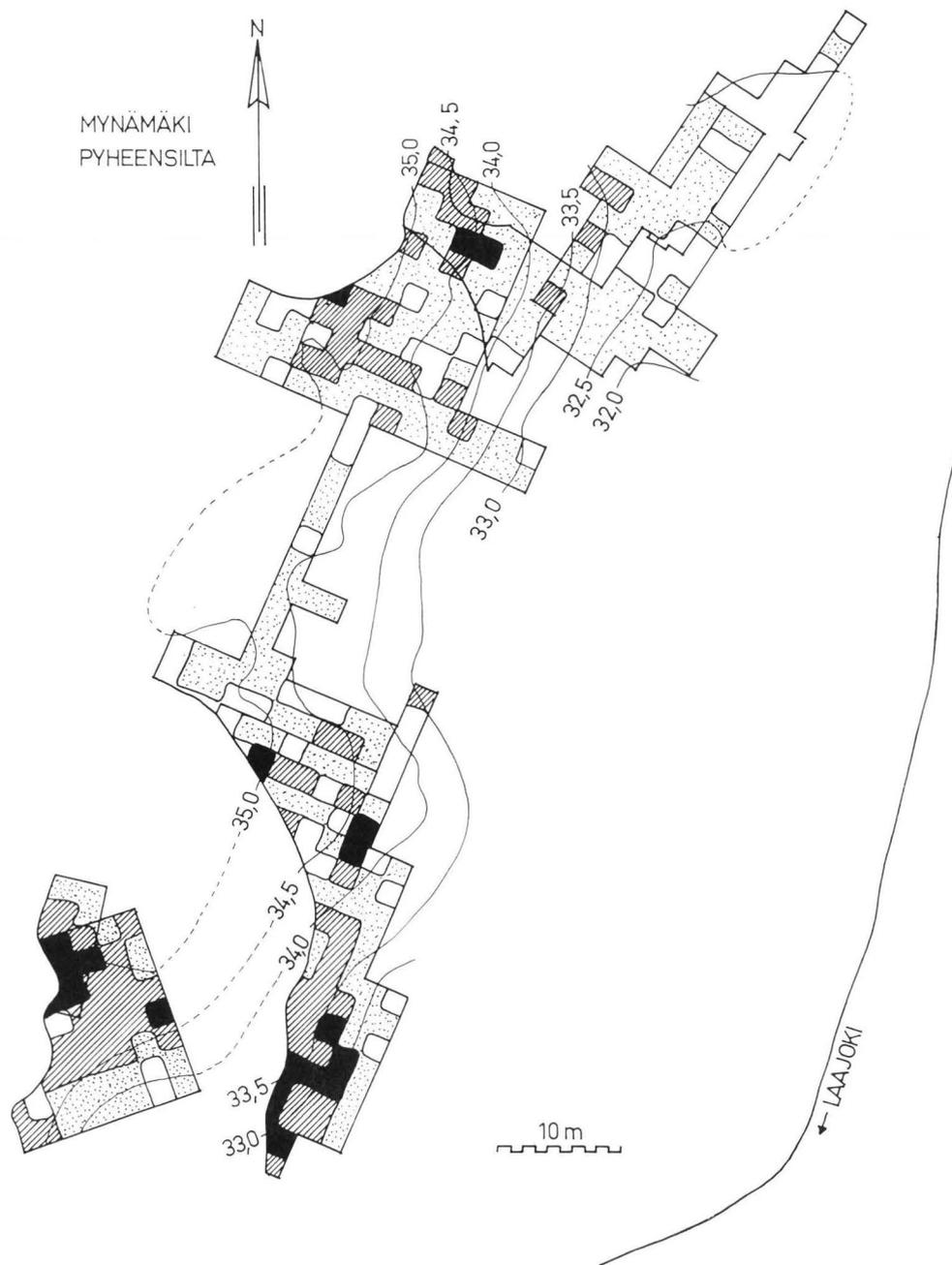


Fig. 4 b. Distribution of ceramics. White grid square: no sherds. Stippled: Max. 38 g/m<sup>2</sup> ( $\bar{x}$ ) Hatched: 39–152 g/m<sup>2</sup> ( $\bar{x}-4\bar{x}$ ) Blacked-in: over 152 g/m<sup>2</sup> (over  $4\bar{x}$ )

the latter do not employ any comb-stamp decoration. Comb-stamp ornament could, of course, be derived from the Typical Comb Ceramic (II) style especially when it is taken into account that the Uskela and Typical styles appear to be, at least partly, contemporary (Vikkula 1981, 129). However, a central feature of both styles is the

use of deep pits which are clearly lacking in the Pyheensilta material. It would be more natural to seek the origin of the Pyheensilta group in the SW Finnish Jäkärälä group, dated to the time of the Typical Comb Ceramic, and thus possibly contemporary with at least part of the Uskela style. The Jäkärälä and Pyheensilta styles are both without pits in their decoration and have in common inclined stamp decoration, oval comb-stamps, plaited patterns and ringed stamps (see Edgren 1966, plates). On these grounds it can be suggested that the population that made Jäkärälä Ware, or part of it, kept, for some reason, to the tradition of comb-stamp decoration, while the Uskela style became prevalent in SW Finland, and in time developed the Pyheensilta style with sparser decoration carried out with possibly less careful execution. The unimportant position of this group is reflected by the fact it was apparently easy to adopt foreign features from outside cultures integrating these into the style.

The lack of pits (characteristic of the Pyheensilta style) and the use of similar comb-stamps and line ornaments are also typical features of the Volosovo Ware of Central Russia, especially along the upper reaches of the Volga and Oka rivers. This group is dated to 2500–1700 BC (Krainov 1981, 8). The Volosovo culture and its parallels occur in an extensive area from the lower reaches of the Kama river to the Baltic region. According to Krainov, the culture was formed in different areas through parallel development as the culture of the upper Volga came into contact with the Pit and Comb Ware cultures. In the Baltic region factors affecting this scheme of development were eg. the Narva culture and the Pit and Comb Ware culture (Krainov 1981, 12–13, 16). In the Finnish context, similar factors could be Jäkärälä Ware and the Typical Comb Ceramic, but such a course of development could be assumed to have been evident on a broader scale. The phenomenon could be accounted for by a small-scale migration from among the Volosovo culture to SW Finland. If the migratory population was small it could have been susceptible to outside influences and could have adopted foreign traits from other populations. The weakness of this theory is the relationship with East Swedish Pitted Ware; how could the newcomers have come into contact here with another foreign group which had left no traces of its possible visits to the Finnish mainland.

The main problem for future research is to establish the degree of sporadicity in the adoption of East Swedish and Corded Ware features in Pyheensilta Ware and to define the kind of relations through which these influences were acquired. In this respect the analysis of the Motocross track site finds from Harjavalta may shed more light on the problem.

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