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EARLY, NORTHERN COMB WARE IN FINNMARK: THE CONCEPT OF SÄRÄISNIEMI 1 RECONSIDERED¹

Abstract

Archaeological typologies are almost always based only on parts of a total material. In the search for distinct features the uncommon or unique tends to get too much attention: often the uncommon comes to define a particular 'type'. Analyses of variation in Early Comb Ware from Finnmark (ENCW) has brought forward new knowledge about actual morphological variation in a large ceramic material, but also a better understanding of how this variation is geographically distributed between sites and regions. The observation of regionally dependent variations makes it necessary to reflect on the nature of archaeological types in general and regional variations in the ENCW material challenges the idea of Säräisniemi 1 as a distinct 'type'. Last but not least, the documented morphological variation constitutes a new starting point for making interpretations about the socio-cultural context for the earliest pottery technology in northern Fennoscandia.

Keywords: Early Comb Ware, Säräisniemi 1 Ware (Sär 1), variation analysis, technological choice, Varanger area, northern Fennoscandia.

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All pottery in Finnmark, north Norway, decorated with comb stamps or similar stamps and rows of pits, and lacking asbestos temper, belongs to the earliest Comb Ware in northern Fennoscandia. This pottery is known as Säräisniemi 1 Ware (Sär 1), and is presumed to form a typologically distinct group. I will present some of the results from detailed morphological analyses of the Finnmark material. The analyses aim at a critical examination of the proposed definitions of Sär 1 Ware. The main focus of the analyses is on variation. Methodologically, such a focus stands in conflict with the idea of defined archaeological 'types'. I have therefore chosen to avoid the term Sär 1 here and instead use a term only referring to a loose temporal and geographical designation for this material: Early, Northern Comb Ware (ENCW).

ENCW has been found on thirteen sites in easternmost Finnmark (Fig. 1). Three sites lie on the southern shore of the inner part of the Varanger fjord², the remaining ten on the Norwegian side of the upper Pasvik River. In this article within-

and between-site variation in the ceramic material is addressed. The observed variations are then compared with suggested type-definitions for Sär 1 and with parts of the ENCW material from northern Finland, typologically defined as Sär 1. The main question is whether the empirical material now at hand supports the distinction between a specific northern type of Comb Ware and other contemporary types of Comb Ware. Additionally, earlier socio-cultural interpretations of the Sär 1/ENCW material are re-considered in light of the analyses.

THE TYPOLOGICAL CONSTRUCTION OF SÄRÄISNIEMI 1: A SHORT HISTORY OF RESEARCH

The first ENCW site in Finnmark was discovered at Mennikkakoski in the upper Pasvik River valley in 1910 and partly excavated by Ole Solberg the following year (Solberg 1918). Twenty-five years later the next site was found and excavated

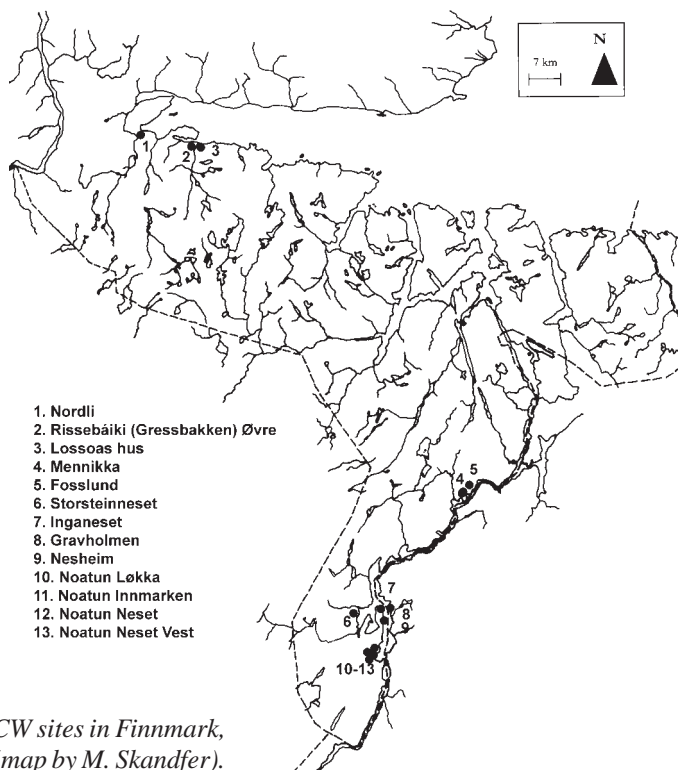


Fig. 1. Map of ENCW sites in Finnmark, northern Norway (map by M. Skandfer).

by Anders Nummedal and later by Gutorm Gjessing at Nordli in Karlebotn, the inner part of the Varanger Fjord (Nummedal 1937, 1938; Gjessing 1942). With one exception the rest of the ENCW sites in Finnmark were found during Povl Simonsen's extensive field surveys along the southern shore of the Varanger Fjord and in the Pasvik River valley between 1951 and 1961 (Simonsen 1961, 1963). Only one of these sites was not (partly) excavated. The last site (Storsteinneset) was reported to Tromsø Museum in 1973. It has not been investigated further.

Until 1957, presentations and descriptions of Comb Ware in Finnmark and the rest of northern Fennoscandia were based only on descriptions and definitions of Comb Ware from southern Finland (Ailio 1909, 1922; Europaeus-Äyräpää 1930; Äyräpää 1956). In southern Finland three main types of Comb Ware tradition are distinguished, each separated into two sub-types: Early Comb Ware (Ka I:1 and Ka I:2) is the oldest one, with broad comb-stamp or twisted-cord impressions in combination with pits, the decoration arranged in both horizontal and vertical patterns. The vessels are rather large with thick walls. The

greyish or yellowish clay is tempered with coarse stone temper. Gradually, the decoration becomes more elaborated, symmetrical and horizontally organized, the ware finer and the vessels smaller and thinner through Typical Comb Ware (Ka II:1 and Ka II:2) before the Comb Ware tradition reaches a 'degenerated' stage in Late or Degenerated Comb ware (Ka III:1 and Ka III:2), with less symmetrical and refined decoration and some use of asbestos temper. The pottery tradition in Finland (as well as further east) continues unbroken into a number of regionally and chronologically distinct ceramic wares with different origins, the earliest ones overlapping Late Comb Ware (Europaeus-Äyräpää 1930; Meinander 1954; Äyräpää 1956; Edgren 1966). In northern Finland, the Comb Ware tradition is succeeded by different types of asbestos-tempered ware (Carpelan 1978).

The central point for the earliest definitions of Comb Wares was to establish a pattern of different types with mutually exclusive geographical and chronological distributions (Ailio 1909, 1922; Europaeus-Äyräpää 1930; Äyräpää 1956). The pottery types were believed to reflect distinct

populations or 'cultures', a belief in line with the culture-historical approach of the time. A distinct northern variant would then correspond to a distinct northern population. In more recent presentations, the focus is no longer on this suggested strong link between pottery styles and 'culture' understood as distinct peoples. Instead the focus has turned much towards chronology (see Edgren 1982; Asplund 1995; Pesonen 1996; Edgren & Törnblom 1998: 42; but see also the discussion of Sär 1 presented in Torvinen 2000, see below).

Until the 1970s it was believed that northern Comb Ware, Sär 1, with its elaborated symmetrical, horizontally organized decoration, had to be contemporary with the similarly refined Typical Comb Ware. But, in contrast to the development further south, northern Comb Ware is not believed to evolve into new types. Instead, the distinct northern variant disappears and later types are introduced from the south.

The largest and richest Norwegian ENCW site is Noatun Innmarken in the upper Pasvik River valley. The 2000–3000 m² site (Simonsen 1963: 10) was partly excavated between 1957 and 1961, but a large number of artefacts had been collected from the fields and sent to Tromsø Museum by the farm's owners in previous years. The most frequent finds were sherds of both ENCW and later, asbestos-tempered ware. Simonsen presented a description of Comb Ware based on these stray find sherds from Noatun Innmarken in a 1957 article. This article was the first detailed description of an ENCW material. As in earlier discussions of the ENCW material from Finnmark and the rest of northern Fennoscandia, Simonsen (1957) held that the Sär 1 pottery at Noatun Innmarken was a regional variant of Typical Comb Ware found in southern Finland. Simonsen's description of the ENCW material at Noatun Innmarken nevertheless suggested specific features for a northern Comb Ware, and his description has been adopted as a working definition for the earliest Comb Ware in northern Fennoscandia – Sär 1 (Siiriäinen 1971, 1973; Halén 1994; Torvinen 1998, 1999, 2000). It has also been the basis for culture-historical interpretations of ENCW in Finnmark (Simonsen 1979; Olsen 1994).

The long-held assumption that the northernmost Comb Ware had to belong to a younger phase of pottery production than the eldest Comb

Ware in Southern Finland is the result of a culture-historical assumption underlying the concept of Sär 1 Ware: according to the culture-historical doctrine, new cultural expressions and technical developments spread from the southern centres towards an assumed periphery in the north. It was not until Ari Siiriäinen (Siiriäinen 1971, 1973) presented the first radiocarbon dates from Sär 1 sites in the early 1970s that Sär 1 was accepted as belonging to the oldest pottery traditions in Fennoscandia.

Since Julius Ailio's (1909, 1922) first descriptions of different Comb Wares in Finland, several of the original 'types' in southern Finland have been rejected as only local variants of the same type. For the northern variant the opposite has happened: Markku Torvinen has recently presented the first typological definition of Sär 1 Ware (Torvinen 1999, 2000), which is based on Simonsen's (1957) description, but is far more elaborated and detailed. Torvinen points out several features exclusive to Sär 1, thereby apparently distinguishing a northern type clearly from other Comb Wares further south and southeast. The impression of a specific northern Comb Ware type is thereby fully established.

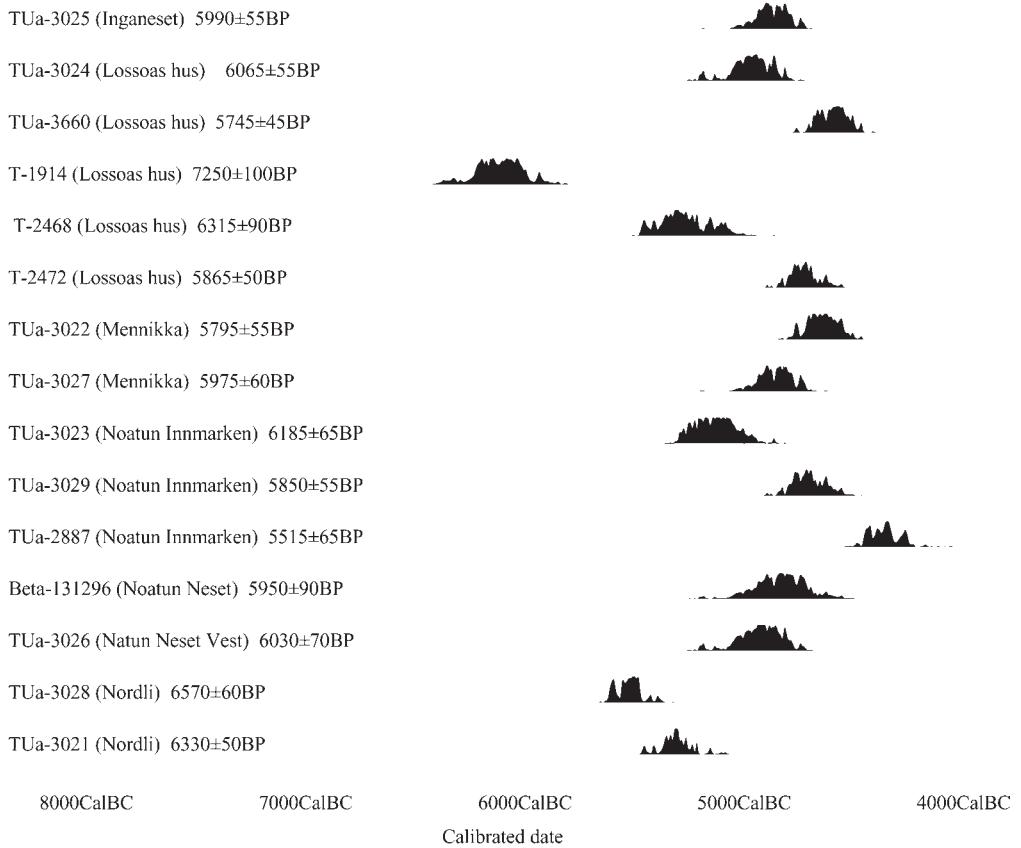
DATINGS

New datings confirm the impression that the entire Comb Ware material in Finnmark is contemporary, and must be viewed as parts of the same technological and socio-cultural context. Sixteen radiocarbon datings from eight of the thirteen known sites have been derived from material directly associated with ENCW³ (Appendix I). Because the sites were excavated before the radiocarbon dating method was developed, or at least commonly known and used in archaeology, little organic material was collected at the early excavations. The stratigraphic relation between the sparse organic material and the ceramics is sometimes dubious. Therefore, ten AMS dates were run on carbonised food residues collected from the interior of selected pottery sherds. Of the remaining six conventional dates, three are on seal-bones, one is on marine shell and two on charcoal.

The dates range between 5800 and 4210 BC. All the dates of carbonised food residue lie within one thousand years, between 5565 and 4560 BC,

Table 1. Graphical presentation of the radiocarbon datings from ENCW sites in Finnmark

Atmospheric data from Stuiver et al. (1998); CALIB 6.0 (Stuiver & Reimer 2003); <http://calib.ornl.gov>



and 13 of the total 16 dates lie between 5565 and 4620 BC. This constitutes the main period of production and use of ENCW in Finnmark, with a possible use until c. 4200 BC.

The ten datings of carbonised food residue are – with one exception (see below) – slightly older than the six datings on other organic material. No similar difference is recorded on Comb Ware sites in northern Finland (Torvinen 2000) or on any other sites with Stone Age ceramics in Norway. The ten datings come from both coastal and inland sites. The measured $\delta^{13}\text{C}$ -values can give an indication of whether any of the food residues contain a large amount of marine lipids and therefore should be corrected for the marine reservoir effect (MRE). But the values show no systematic differences between coastal and inland sites, and all the datings of food residues should therefore be considered reliable. It seems that the MRE has little or no impact on the datings of food residue

from the two coastal sites ‘Lossoas hus’ and Nordli. The oldest dating, 5800–5610 BC (Tua-3660) is on marine shell from an old seashore underneath the culture layer containing ENCW, and is therefore probably a *terminus post quem* dating of the pottery at ‘Lossoas hus’. Two datings, one on seal-bone from ‘Lossoas hus’⁴ and one on charcoal from Noatun Innmarken – both supposed to be stratigraphically associated with Comb Ware – are slightly younger than 4500 BC. This could mean that they date an occupation phase directly succeeding the one represented by the ceramics, but it could also indicate that ENCW was actually used down to around 4200 BC in Finnmark.

The datings from Finnmark fit well with the majority of datings of ENCW from northern Finland. Here, ENCW food residues and ENCW sites are dated between 5900 and 3690 BC, with the majority of datings (24 out of 27 datings from twelve different sites) between 5500 and 4040

BC (Torvinen 2000: 29). Torvinen (2000: 17) delimits the chronological period for Sär 1 to 5200–4420 BC. This is in close accordance with the chronological limits for Early Comb Ware 1 (Ka I:1) further south. In my opinion however, the datings from both Finnmark and northern Finland show that ENCW was already being produced and used in eastern parts of northern Fennoscandia from c. 5500 BC.

In Finnmark, ceramic production was given up some time between 4500 and 4100 BC. Pottery technology was not re-introduced until asbestos-tempered pottery appeared around 2300 BC (Jørgensen & Olsen 1988; Olsen 1994). This situation marks an interesting contrast to the neighbouring areas: in northern Finland up to Inari and in northwestern Russia the ceramic tradition was continued in a seemingly uninterrupted technological line of development until the Iron Age. In the Kalix River valley in Norrbotten, northern Sweden, a ceramic tradition seem to have been introduced around the time it disappeared in Finnmark, c. 4500 BC (Halén 1994: 150). The technological tradition of Comb Ware production was maintained in upper Kalix at least until c. 3500 BC (Halén 1994; Färjare & Wickström 1997).

THE POTTERY

Comb Ware in Finnmark amounts to 3847 sherds, from which 270 different vessels have been identified based on visual analysis of preserved rim forms and individual stamps and decoration patterns (Appendix II) (Skandfer 2003a: 124).

For each identified vessel, several attributes concerning shape and size, decoration, temper and colour were chosen for statistical analyses, based on Simonsen's (1957) typologically important description of parts of the Comb Ceramic material from Noatun Innmarken and Torvinen's (1999, 2000) recent definition of Sär 1 Ware. Eleven variables were defined, each of them containing several categories (Appendix III). Decorative variation was regarded as the potentially most informative, but also as the most complex variable for understanding variation as an expression of ENCW's socio-cultural context. Therefore, most of the categories chosen describe stamp motifs and decorative patterns. Earlier attempts to describe or provide definitions of Comb Ware

in general, and ENCW material specifically, have also focused mainly on decoration (Solberg 1918; Europaeus-Åyräpää 1930; Nummedal 1937, 1938; Simonsen 1957; Torvinen 1999; 2000).

The main goals of the analysis of ENCW in Finnmark were to identify:

1. Which properties are common and which are uncommon in the material?
2. Are there any systematic relations between different variables describing vessel size, vessel form, temper, form and decoration?
3. Are the documented properties in the ENCW material from Finnmark in accordance with the established impression of the earliest, northernmost Comb Ware tradition (Sär 1)?
4. How can different properties in the ENCW material be explained within a past socio-cultural context?

VISUAL AND STATISTICAL ANALYSES OF VARIATION

ENCW in Finnmark is analysed using different methods; first by visual observation and documentation of morphological variables and categories, and second, by different statistical analyses of relations between the observed attributes. These include univariate analyses, bivariate cross-tabulations and multivariate multiple-correspondence analyses (MCA). The results of these analyses permit a detailed description of similarities and variations in the ENCW material from Finnmark. The description is more detailed and less general than the earlier descriptions and definitions of ENCW (Sär 1) presented by Simonsen (1957) and Torvinen (1999, 2000), and the results from Finnmark differ in several respects from the established general picture of Sär 1/ENCW (Skandfer 2003a).

Vessel form

As for all Comb Ware, the ENCW vessels in Finnmark have straight walls slanting towards a round or tapering base. Bases are rare; only three have been documented in Finnmark. As described for Comb Ware further south (Ailio 1909;

Europaeus-Äyräpää 1930), a differentiation in vessel size between larger vessels and small cups can be observed in the material. But based on a comparison between mouth diameters and wall thickness just below the rim, actually three different vessel sizes can be suggested:

Cups: mouth diameter < 8 cm, wall thickness < 9.5 mm.

Smaller vessels: mouth diameter 13–22 cm, wall thickness 6.8–12.0 mm.

Larger vessels: mouth diameter 25–36 cm, wall thickness 9.8–13.0 mm.

The relation between rim diameter less than 8.0 cm and wall-thickness less than 9.5 mm is systematic. It makes it possible to distinguish 27 small cups in the total material of 270 vessels. Because of the fragmentation of the material it is impossible to give an exact number of smaller vs. larger vessels. The analysis shows a correlation between rim diameter, wall thickness and the site where the vessel was found. The vessels are made from coils successively put on top of each other, firmly squeezed and joined together. The vessels could be at least partly modelled over or inside a prepared mould, as indicated by the on-site systematics in rim diameter. The small cups are made in a pinching and drawing technique in which a lump of clay is shaped in the hand to obtain the desired form.

Rim form

Six different rim profiles are distinguished among the 95 preserved rims (Fig. 2). Most rims are straight-walled with more or less rounded edge (64 % of the total). This is the only rim-form documented on the small cups. Rims thickened inwards and with straight edges are also common among the larger vessels (20 %), while the other rim profiles are rare. There is no systematic variation in preferred rims between the sites.

Temper

The clay used in the vessels is intentionally tempered. Most often the temper consists of rather coarse pieces of crushed quartz (83 % of the vessels), but sand is also quite common (18 %). It is

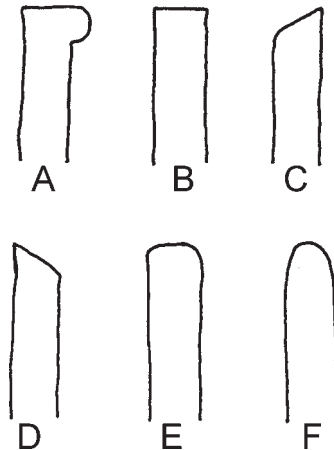


Fig. 2. Rim profiles (A-F) represented in ENCW from Finnmark (drawing by M. Skandfer).

noteworthy, however, that while sand tempering is common on the sites Noatun Innmarken on the upper Pasvik and 'Lossoas hus' at the Varanger coast, it is practically unknown on all the other sites. There are clear between-site differences with respect to quartz temper quality, further indicating the use of local temper material. One vessel from Noatun Innmarken is tempered with soapstone, probably from one of the local sources in the Pasvik–Varanger region. Eight vessels at Noatun Innmarken are tempered with chamotte (crushed pottery). This kind of re-use of broken vessels is one of the most direct indications of local pottery production here. One vessel at Nordli is tempered with crushed pumice. This was a new but natural and local raw material on the coast of Finnmark from around 5000 BC, which was brought over the sea after a volcanic eruption at Iceland (Skandfer 2003a: Appendix 2; Tephabase 2002). In addition, one example of ochre-temper has been documented at Nesheim. The clay used for cups is never tempered. The temper seems to have had a practical function related to the larger vessels.

Colour

Sherd colour varies between the sites, from light yellow to dark brick red. The colour differences depend partly on firing conditions but also on the amount of iron in the clay. The between-site col-

our differences indicate that several local clay sources were used to produce the ENCW found in Finnmark. The surface of the vessel or cup was smoothed over with a thin layer of clay mixed with water on the inside and outside before it was decorated and painted. The vessels were originally painted with red ochre on the outside, particularly on the upper parts of the vessel and on the rim edges. Pieces and powder of burnt red ochre are commonly observed at the ENCW sites in Finnmark.

Decorative Technique

Each vessel is individually decorated with a particular stamp, always in combination with pits. Each stamp seems to have been produced to decorate a single vessel. Most of the stamp impressions are strictly symmetrical linear ornaments which are cut into pieces of organic material such as wooden sticks, bone or antler. In the material from Finnmark the most common stamp is the comb with a varying number of vertical lines, but stamps with angled and straight hatching or zig-zag lines are also common. In addition, twisted cord, bird humerus, small pins and marine shell have been used as stamps, and nail impressions also occur (Fig. 3). No stamps have been preserved.

Comb-stamp motifs with vertical lines (Fig. 3a) represent 62.6 % of the total stamp motif variation and are thereby the most common, aside from conical pits. The rest of the nine defined stamp-decoration motifs are all uncommon in the material as a whole (Appendix IV: A). Looking closer at the material, however, interesting variations can be observed. While humerus motifs (Fig. 3f) in the material as a whole are rare, they are the second most frequent motif on the small cups, together with another generally rare motif – the pin or nail impression (Fig. 3h). On the other hand, pits are lacking on half of the identified cups while two cups are decorated only with pits. Both these choices of decoration diverge from the decoration of the vessels. Based on calculated expected frequencies of the stamp motifs found on each site separately, between-site differences can also be observed. At Mennikka, for example, humerus-stamp impressions and shell-stamp impressions occur much more commonly than expected on the vessels. At Nesheim and Nordli, twisted cord is more frequent than expected and on ‘Lossoas hus’

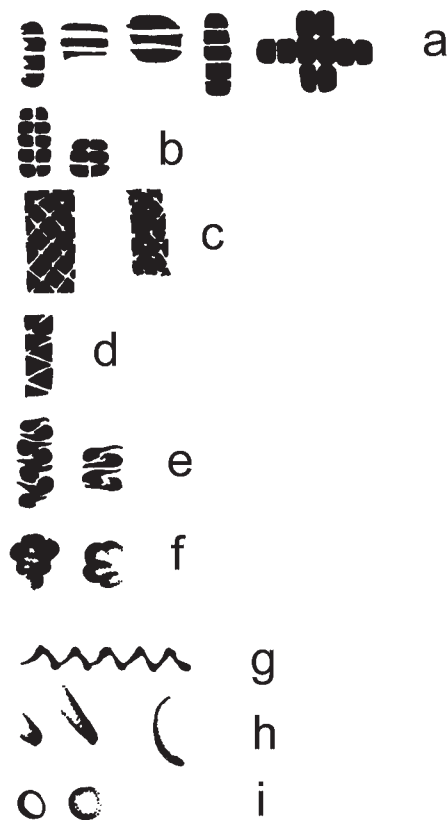


Fig. 3. Stamp motifs (a-i) represented on ENCW from Finnmark (drawing by M. Skandfer).

and Noatun Neset comb-stamp motifs with vertical lines are found more frequently than expected (Appendix IV: B).

Decorative motif

Similar observations can be made for variations in decorative motif patterns: a multiple-correspondence analysis of the pattern variation shows a clear contrast between horizontally and vertically organised patterns (Fig. 4), but there are no other contrasts in the pattern organisation. This reflects the fact that the entire decoration of each cup or vessel is organised in the same overall manner. Horizontally organised patterns are by far the most common ones. Combinations of stamp motifs in different horizontally organised patterns (Fig. 5k–o) account for around 90 % of the total pattern variation, not including horizontal rows of conical pits. The remaining c. 10 %

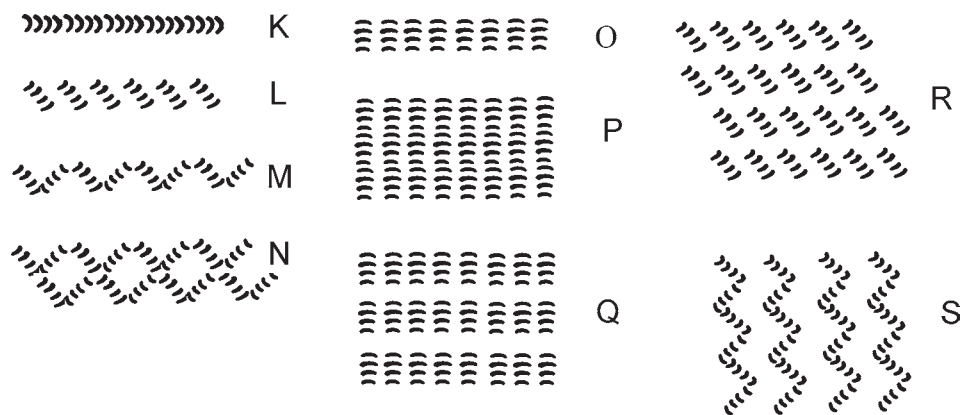


Fig. 4. Horizontally, vertically and diagonally organized patterns (K-S) (drawing by M. Skandfer).

are different vertically organised patterns (Fig. 5p–s). The stamp impressions, which the patterns are combinations of, can be placed diagonally within both the horizontally and the vertically organised patterns. Among these combinations, diagonally placed comb- or twisted-cord stamp motifs in horizontal ribbons (Fig. 5o) is the second most common one, accounting for 20.6 % of the total pattern variation. But a combination of vertically placed comb or twisted-cord stamp motifs in horizontal ribbons (Fig. 5l) is even more common, counting for 29.6 % of the total variation (Appendix IV: C)

Again, between-site differences are observed. Mennikka also stands out with respect to decorative motif patterns. At Mennikka there is a higher frequency of vertically organised patterns and less horizontally organised patterns than expected. At the two coastal sites, ‘Lossoas hus’ and Nordli, and also at Noatun Innmarken on the upper Pasvik, there are higher than expected frequencies of vertically placed motifs in horizontal ribbons (Fig. 4o). The two coastal sites also diverge in other respects from the expected frequencies as they both present more of the broken horizontal line pattern (Fig. 4k) than expected. In addition, diagonally placed motifs in horizontal ribbons (Fig. 4l) is more frequent than expected on the pottery from Nordli, while vertical zig-zag lines have a higher than expected frequency at ‘Lossoas hus’ (Appendix IV: D). In other respects, only small variations in the choice of decoration patterns are observed. Some of the sites have extensive pattern variation while others are

more homogeneous. An MCA conducted on the relationship between decorative technique and motif pattern variation showed no systematic relationships.

Sixteen rim edges are decorated, either by short comb stamps or pin stitches. The rim is never decorated with the same stamp as the wall. Vessels with comb motifs on the rim always have comb decoration on the wall as well. No other systematic relationship between wall decoration and rim decoration could be observed.

The cup-material is too small to draw firm conclusions about decorative motif pattern preferences or indicate clear pattern differences between cups and vessels.

Evaluation

The analyses reveal considerable variation within the seemingly homogeneous ENCW material. Cups were decorated somewhat differently than the vessels. More interesting are the systematic variations between sites and possibly regions (Varanger coast–upper Pasvik) which point towards local, on-site pottery production. Among these variations are different temper materials that were probably collected close to the production site, and between-site colour differences in the ENCW material resulting from the exploitation of different local clay sources. The fact that pieces and powder of burnt red ochre are commonly observed at the ENCW sites in Finnmark strengthens this impression of local pottery production. The differences between the sites point towards

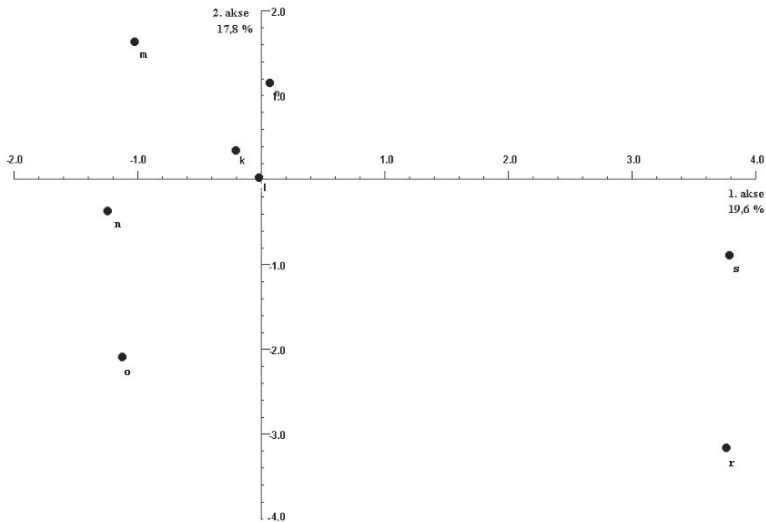


Fig. 5. MCA-plot showing the contrasting relation between horizontally (*o, r, s*) and vertically (*k, l, m, n*) organized patterns.

individual potters living on each site, an impression that is strengthened by the variations in vessel size and wall thickness. Indications of between-site variations should probably be seen partly as the result of varying technological choices and skill between different potters. The analyses of decorative variation further indicate that out of a limited number of motifs, the individual potter(s) living on each site had different preferences when it came to certain motifs and patterns. The observed variations imply that the ENCW sites on the upper Pasvik and at the Varanger coast were not occupied by the same hunter-fisher group. Instead, a possible close relation is suggested between the two coastal sites Nordli and ‘Lossoas hus’.

A COMPARISON WITH ENCW MATERIAL FROM THREE SITES IN NORTHERN FINLAND

To test the impression of regional and between-site variation observed, the decoration features of the ENCW material from Finnmark is compared with the Sär 1 pottery at the sites Ylikiiminki [46] Vepsänkangas (Ylikiiminki municipality), Inari [13] Saamen museo (Inari municipality) and Inari [406] Nellimjoen suu (Inari municipality). The three sites have all been excavated in recent years,

though excavations at Inari [13] Saamen museo have been carried out since 1910 (Seppälä: pers. comm.). There are several C¹⁴-dates from each of the sites and the stratigraphy and various features are properly documented. Inari [406] Nellimjoen suu is a particularly interesting site: the only dwelling structure associated with early Comb Ware in northern Fennoscandia is documented there (Sohlström 1992). At Ylikiiminki [46] Vepsänkangas several heaps of fire-cracked rocks and hearts were excavated (Koivisto 1998). The datings show that the three sites are contemporary with the ENCW sites in Finnmark (Torvinen 2000: Appendix II). The pottery from Ylikiiminki [46] Vepsänkangas is central in Torvinen’s (1999, 2000) definition of Sär 1. The ceramic material from each of the three sites is documented in the same way as the Finnmark material, resulting in an observed number of 31 larger vessels and one cup from Ylikiiminki [46] Vepsänkangas, 12 vessels from Inari [13] Saamen museo and seven vessels from Inari [406] Nellimjoen suu.

The decorative variation analyses show that there is relatively little variation in decorative motifs within each of the three sites. There is also little between-site variation in motifs and patterns (Skandfer 2003a: 159). There are, however, systematic differences in the frequencies of motifs chosen for the vessels from the three north Finn-

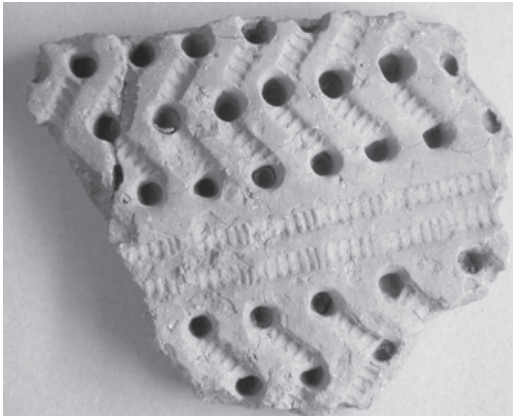


Fig. 6. Example of comb stamp impressions ending in conical pits (Ts. 6128t from Noatun Neset Vest, upper Pasvik Valley, Norway) (photo by A. Icajic, Tromsø Museum).

ish sites compared to the Finnmark material as a whole. Two examples can be given: whilst twisted cord stamp motifs are extremely uncommon in the Finnmark material, this motif is the second most common on the three sites from northern Finland; on both Inari [406] Nellimjoen suu and Inari [13] Saamen museo, it is actually the most common one. Another difference is that combinations of two different stamp impressions occurred on five of the total fifty vessels from the three sites. This was never observed in the Finnmark material.

A similar picture of regional difference occurs when decorative pattern variation among the fifty vessels from the three north Finnish sites is compared to the Finnmark material. One difference should be mentioned specifically since it is one of the decoration features emphasized by Torvinen (2000: 8) as the most typical for Sär 1: diagonal comb stamps placed close together, constituting ‘ribbons’ with edges looking serrated on the top and bottom, is common on all three Finnish sites and is found on 50 % of the total number of vessels. In contrast, this particular pattern constitutes only 2.2 % of the pattern variation in the Finnmark material. It seems that this pattern is a regionally limited phenomenon.

The regional and even local character observed in the decoration of the vessels from Finnmark is further strengthened by the analyses of similar pottery from the three sites in northern Finland. The results constitute a starting point for

an examination and reconsideration of the proposed generalized descriptions and definitions of a supposed distinct northern Comb Ware – Sär 1.

A COMPARISON WITH SIMONSEN'S DESCRIPTION AND TORVINEN'S DEFINITION OF SÄR 1

To test the representativity of the features emphasized as typical and distinct for Comb Ware in northern Fennoscandia, and also to evaluate the relevance of a distinct northern Comb Ware type, observed features in the Finnmark ENCW material is compared with the accepted descriptions and definition of Sär 1 (Simonsen 1957; Torvinen 1999, 2000).

Form

The analysis of the ENCW material from Finnmark has not changed the impression that early Comb Ware comprises vessels with straight walls slanting towards a round or tapering base, and straight rims. Nonetheless, a flat base from a small cup shows that the cups had a different form than the larger vessels. The cups were also produced in a different technique. This differentiation in form and technique between large vessels and small cups has never before been given attention in any early Comb Ware material, although small cups are mentioned in later Comb Ware materials (e.g. Ailio 1909: 82; Europaeus-Åyräpää 1930: 172f). Neither Simonsen (1957) nor Torvinen (2000) mention small cups in the Sär 1 material.

Size

In the material from Finnmark wall thickness varies between 4.3 and 16.5 mm and mouth diameter varies between 6 and 48 cm. The cups must have been 5–7 cm high, with wall thickness less than 9.5 mm and mouth diameters less than 8 cm, indicating a volume of only 1–3 dl. The larger vessels have mouth diameters between 13 and 36 cm and an average wall thickness of 10.7 mm. Simonsen (1957) mentions that the vessel walls at Noatun Innmarken are a little more than 1 cm thick. In comparison Torvinen (2000: 7) indicates a diameter at the vessel mouth between 20 and 35 cm and an average wall thickness of only



Fig. 7. Diagonal comb stamp impressions forming 'ribbons' with serrated edges (NM 24376:140, :186, :190, :192 from Inari [406] Nellimjoen suu, Inari municipality, Finland) (photo by M. Skandfer).

9.3 mm in his material, and according to him Early Comb Ware (Ka I) has larger vessel sizes and thicker walls than this (Torvinen 2000: 18). The analyses show that the Finnmark material consists of vessels with substantially thicker walls than the material Torvinen bases his Sär 1 definition on. I have argued that both wall thickness and mouth diameter are partly the result of the potter's preferences and technical skills, thereby resulting in both within- and between-site variations as well as regional differences. Wall thickness – and to a certain extent also vessel size – are thus bad parameters to base a typological distinction on.

Colour

Most of ENCW from Finnmark is rather dark brownish-reddish in colour, thereby differing from both Simonsen's (1957) description of pottery from Noatun Innmarken and Torvinen's (2000: 18) description of Sär 1 in north Finland as light yellowish-brown. As pointed out earlier, the vessels from Finnmark vary in colour from light yellowish-brown to dark brick-red. The colour variations seem partly to be related to the use of local clay sources containing different amounts of iron. Chemical variations between local clay sources probably explain much of the seeming colour differences between early Comb Ware in different parts of Fennoscandia. It is noteworthy,

however, that ENCW in Finnmark is never greyish in colour. Greyish tones could indicate firing at low temperatures. Torvinen (2000: 18) describes Early Comb Ware (Ka I) as greyish-brown. This is possibly the result of a different firing technique than for the brownish, yellowish and reddish pottery, but the seemingly different colours between supposed different pottery types could also be the consequence of a limited and unrepresentative selection of pottery samples for the type definitions. Colour should not be given weight in a generalized description of Comb Ware types.

Both Simonsen (1957: 243–4) and Torvinen (2000: 6) point out that the outside of the vessels is often painted with red ochre. This is also the overall impression of the material from Finnmark as a whole (Skandfer 2003a: 133–4), although it seems that many of the vessels were only painted on their upper portions and on the rim edge. The lack of red ochre on the lower portions might indicate that there was a particular symbolic relationship between red ochre and the rim edge/opening of the vessel. It could also be explained more technically as a result of erosion through use (for instance the vessels being kept over a strong fire or partly dug down into the ground).

Decorative technique and motif

As both Simonsen (1957: 242) and Torvinen



Fig. 8. *Bifacial retouched bi-point* (from *Gropbakkeengen, Varanger Fjord*) (photo by A. Icacig, Tromsø Museum).

point out (2000: 9), the vessels are individually decorated and the decoration can therefore be infinitely varied. At the same time, the vessel decoration demonstrates a high degree of homogeneity, making it possible for them to suggest type definitions for a supposedly distinct Sär 1.

There are differences between the definitions made by Simonsen and Torvinen and the observed variation in the ENCW material from Finnmark. Simonsen (1957) gives little detailed information about the decorative techniques: he regards all the stamp motifs to be variants of imitation twisted cord. Broad, short comb stamps are most common, but he also mentions bird-humerus and shell impressions. Torvinen (2000) is far more detailed, focusing on elements that are not found in any other, typologically defined Comb Ware. According to Torvinen (2000: 18) several stamp impressions are found solely in the so-called Sär 1, among them oval twisted cord, stamp impressions with angled or straight hatching and stamp impressions with zig-zag lines. All these motifs are found in the Finnmark material, but they are among the most rare ones. Furthermore, Torvinen (2000: 18) claims that nail impressions have never been documented in Sär 1 and that this stands in contrast to Early Comb Ware further south. In the Finnmark material, however, nail impressions occur on a few vessels while the small triangles and squares described by Torvinen in the Finnish material, are not found.

Simonsen (1957) observes that the decorative

patterns in the Noatun Innmarken material are always organised horizontally. Torvinen (2000: 8, 18) makes the same observation for the material from northern Finland, and he contrasts this property with Early Comb Ware further south (Ka I:1) (Torvinen 2000: 18). The results of the analyses of the Finnmark material, on the other hand, show that vertically organized patterns also occur, although they are rare. According to Simonsen (1957: 242), the overall impression is that of combinations of stamp impressions and pits, but some vessels are decorated only with pits, others only with stamp impressions. Torvinen (2000: 7), on the other hand, claims that there are always pits in Sär 1 pottery, an assertion that is supported by the analyses of the Finnmark ENCW material.

Two particular decoration patterns have hitherto been regarded as typologically diagnostic for a supposedly distinct, early northern Comb Ware (Sär 1). The most important pattern is the slanting, oblong stamp impressions ending in conical pits at one or both ends (Fig. 6). It was first described by Simonsen (1957) and was later regarded as a typological marker for Sär 1 (Siiriäinen 1971; Halèn 1994; Torvinen 2000). The analyses of the material from Finnmark show that only 43 out of 270 identified vessels (16 %) have this pattern motif. As mentioned earlier, Simonsen (1957) based his description of a distinct northern Comb Ware on only part of the total ceramic material from Noatun Innmarken. The analyses reveal that more than half of the examples of this combination pattern with oblong stamps and pits are found at Noatun Innmarken and seven more were found at the neighbouring sites Noatun Neset and Noatun Neset Vest. This implies that the pattern is almost site-specific for Noatun and very rare on all the other sites. Consequently, this motif pattern cannot be regarded as a distinct feature for an ENCW.

Torvinen (2000: 8, 18) sets out two more decorative features as distinct. One is diagonal comb stamps placed close together, constituting 'ribbons' with edges looking serrated at the top and bottom (Fig. 7). The other is horizontally organized zig-zag bands (Torvinen 2000: 18, Fig. 9). Only six out of 270 vessels (2.2 %) from Finnmark are decorated with the first 'ribbon' motif; the vessels are found on six different sites. The zig-zag band motif is found on only two vessels (0.7 % of the total material), one from Noatun

Innmarken and one from Nordli. As demonstrated above, these features are common on at least several of the earliest Comb Ware sites in northern Finland.

In the Finnmark material all the features characterized as particularly distinct are very uncommon, while several features claimed to never occur in the northernmost early Comb Ware are present. Based on these results, the idea of 'Sär 1' as a distinct archaeological type is questionable. Instead, a model of continuous regional variation in a larger Comb Ware technology seems more fruitful. The fact that several of the 'characteristic' features of 'Sär 1' are locally or regionally delimited within its supposed distribution area (Skandfer 2003a) brings out the need for a more flexible handling of morphological variation than can be provided by traditional pottery typology. This flexible treatment is also needed to acquire an understanding of the socio-cultural settings in which ENCW was produced and used.

OTHER ARCHAEOLOGICAL MATERIAL FROM THE ENCW PERIOD IN FINNMARK

An important additional source to the pottery for understanding the societies in Finnmark c. 5500–4500/4200 BC is, of course, the contemporary archaeological material in the region. As of today, thirteen ENCW sites are known. Two sites lie in the inner part of the Varanger Fjord and the remaining 11 on the upper Pasvik River. In addition, several contemporary sites without pottery have been documented along the Varanger Fjord. The dwelling site F6 (R12) at Mortensnes is the only contemporary non-ceramic site at the Varanger Fjord to have been properly excavated (Schanche 1988). The sites Reppen and Gressbakken Øvre have only been partly investigated. The Pasvik River valley – as the rest of interior Finnmark – has not been systematically surveyed for prehistoric sites; therefore little is known about the possible existence of contemporary dwelling sites without pottery in the inland areas. A contemporary coastal site has recently been excavated at Slettnes in western Finnmark (Hesjedal et al. 1996) and a few other contemporary sites in western Finnmark are partly excavated, among them two sites for preparing stone tools in the Alta Fjord (Nummedal 1929)⁵. Interesting comparisons can be made between

these archaeological materials contemporary with ENCW, and preliminary results from Sven Erik Grydeland's ongoing PhD project on settlement patterns in the Varanger Fjord prior to c. 5500 BC⁶.

In this section I will discuss further the between-site and regional variations observed in the ENCW material by turning to other parts of the archaeological material from both the ENCW sites and contemporary and earlier non-ceramic sites along the coast of Finnmark. The focus is put on stone technology, selected stone tools and the presence or absence of dwelling structures.

Raw materials and stone reduction technology

In traditional presentations of stone tools the emphasis is placed on their finished form and presumed 'type'. In this presentation I will focus more on raw material selection and the reduction sequences through which the tools have been produced. A number of scholars have demonstrated that, under given circumstances, decorative style or traditional types provide less information about social identities within the context of production and use of the artefacts than does technological traditions (Dietler & Herbich 1989; Pfaffenberger 1992). The basic assumption is that the large numbers of technological choices, which lie behind any finished artefact, are more the results of socio-cultural relations than of material efficiency or technical rationality (Lemonnier 1986).

The stone material associated with ENCW exhibits a wide variety of raw materials: coarse and finer quartzes including quartzcrystal, quartzites of different qualities, chert, flint, 'dolomite'⁷ and slate. Apart from the flints, which have probably been imported from sources in present-day Russia, the raw materials seem to be of local provenience. A comparison between the raw material variations found on the two coastal ENCW sites, the contemporary non-ceramic site at Mortensnes in Varanger, sites along the Varanger Fjord just preceding ENCW in eastern Finnmark and the excavated houses at Gropbakkeengen in Varanger, succeeding the ENCW phase, shows an interesting pattern. The three contemporary sites from the ENCW phase display a very similar variation in raw material use. Finer qualities of quartzite together with chert, 'dolomite' and

some slate have been preferred on these sites, along with a small amount of Russian flint. The same materials are found at the contemporary sites at Slettnes, western Finnmark (Hesjedal et al. 1996), but here flint is lacking. In contrast, the sites just prior to c. 5500 BC display an emphasis on quartz, with only small amounts of other raw materials (Grydeland 2003: pers. comm.). At the other end of the ENCW phase is another contrast: just after ENCW is no longer produced, around 4500/4200 BC, the stone technology is almost exclusively based on polished slate, as demonstrated at Gropbakkeengen.

In the ENCW phase, diverse reduction techniques including the bipolar technique, blade technique, pressure retouch, bifacial retouch, sawing and polishing are practiced. The changes in raw material use over time reflect changes in reduction techniques, from primarily bipolar reduction of quartz to a combination of primarily two different techniques in the ENCW phase: bifacial retouch of hard, fine-grained materials, and sawing and polishing of slate. After this phase, surface retouch disappears. The shift from quartz knapping to slate polishing seems to have taken place within one thousand years, and was virtually a total replacement at least in the coastal regions. In a Stone Age context, this is a rapid and considerable change.

Stone tools

Points made with different reduction techniques and a small variety of polished slate objects are the most common stone tools associated with ENCW, although these forms are distributed unevenly among the sites from the ENCW phase. The same tool forms are found on both ceramic and non-ceramic sites.

Bifacial retouch seems to be a new reduction technology introduced at the same time as the earliest pottery in Finnmark. But in contrast to the pottery, this technology is also spread outside the Varanger/Pasvik region. The new technique is used to produce long, slim bifacial points in fine-grained, hard materials such as chert, flint and 'dolomite' (Fig. 8). A rare variant is in flaked slate. It has been assumed that several other bifacially retouched forms occurring frequently are different undefined tools (Nummedal 1937, 1938; Gjessing 1942; Simonsen 1961, 1963,

1976; Helskog 1980; Schanche 1988; Olsen 1994; Hesjedal et al. 1996). A re-examination of the bifacial forms, however, reveals that all but the symmetrical points are standardized preforms in a reduction sequence; only the points are finished tools (Skandfer 2003a: 271). The standardized tools are only known from eastern Finnmark in Norway, but the same reduction sequence preforms are present at both Ylikiiminki [46] Vepsänkangas and Inari [13] Saamen museo. Although similar finished points occur in west Finnmark, their preforms exhibit different characteristics. Thus, at least two different reduction sequences for producing bifacial retouched points were practiced in northern Fennoscandia around 5500–4500 BC, one in the eastern areas and one in the western parts.

Transverse flake points with retouched sides of fine-grained, hard materials are found on some of the coastal sites from the ENCW phase, among them the ENCW site Nordli. They are also found on contemporary non-ceramic sites at the coast. On the other hand, transverse flake points from flakes are not found on any of the Pasvik valley ENCW sites. This difference between coastal and inland sites indicates a degree of between-site specialization in resource exploitation or hunting technique. Transverse points were common prior to the ENCW phase in Varanger (Grydeland 2000), but they are not found in any of the excavated houses at Gropbakkeengen, suggesting that they went out of use together with ENCW.

The oldest polished slate tools occur in Finnmark around 5200 BC⁸. These are different small and thin shapes, such as points, knives (mostly single-edged) and perforators. One of the most characteristic forms is the long, slim, so-called Nyelv point with rhombic cross-section. The Nyelv point strongly resembles the later Pyheensilta point, but the former is not dated later than c. 3000 BC in Finnmark. The Nyelv point is rare in eastern Finnmark before c. 4500/4200 BC. Only three fragments of long, slim slate points have been found on ENCW phase sites in the Varanger coastal area, and none in Upper Pasvik. A different characteristic polished slate tool from this period is the more or less symmetrical, leaf-shaped point. Variations in the symmetry and size of these points imply functional differences, so they have been classified either as knives, daggers, spear heads or projectile points. Both asym-

metrical points with single or double edges – presumably knives – and symmetrical leaf-shaped points have been found together with ENCW at the coastal sites, and also at the non-ceramic coastal sites in Varanger. The overall impression, however, is that polished slate tools are uncommon in this phase in coastal eastern Finnmark. Slate tools occur at several of the ENCW sites in Upper Pasvik, but they are very rare. In contrast, polished slate tools are commonly found on contemporary sites in western Finnmark (Nummedal 1929; Andreassen 1985; Hesjedal et al. 1996).

Dwelling structures

Large semi-subterranean house depressions reported from several of the ENCW sites in the Pasvik valley have been claimed to belong to the ENCW occupation phase (Simonsen 1963; Olsen 1994). Olsen (1994: 66-7) suggests that they represent winter dwelling sites in the inland, thereby contrasting with the lack of house structures on the two coastal ENCW sites, interpreted by Olsen as summer fishing and hunting camps. But new datings and a reconsideration of the stratigraphic conditions at the ENCW sites in question indicate beyond dispute that the house structures represent much later phases in the prehistory of the Pasvik valley (Skandfer 2003a: 310, Appendix 9). The situation is instead that no house structures are known from any of the ENCW sites in Finnmark, whilst stone-built hearts are reported from most of them. On the other hand, at the contemporary non-ceramic sites at Mortensnes in Varanger and at Slettnes in western Finnmark shallow semi-subterranean houses contemporary with ENCW have been excavated (Schanche 1988; Hesjedal et al. 1996). No house structures have been observed on the surface at any of the unexcavated contemporary non-pottery coastal sites along the Varanger fjord.

In general, sites without visible house structures are probably strongly under-represented in the Stone Age dwelling site material from Finnmark (Skandfer 2003a: 313). If we look at the situation just prior to the introduction of ENCW c. 5500 BC in the Varanger coastal area some sites have small, shallow, round semi-subterranean house depressions, but most of them do not (Grydeland 2000). This seems to correspond to the situation in the ENCW phase. However, just

after the pottery technology is abandoned in Finnmark – around 4500/4200 BC – semi-subterranean house structures were built in large settlements on both sides of the Varanger Fjord, such as at Gropbakkeengen and Mortensnes. Similar houses are also found on later Comb Ware sites in northern Finland and in Upper Kalix, northern Sweden, as well as on non-ceramic sites in interior northern Sweden at least from around 4200/4000 BC (Lundberg 1985, 1986, 1997; Halén 1994; Torvinen 2000; Pesonen 2002). The widespread practice of building semi-subterranean houses could mark some kind of socio-cultural or economic change in the hunter-fisher societies of northern Fennoscandia around 4500/4200 BC.

ENCW IN A SOCIO-CULTURAL CONTEXT: OUTLINES FOR A RELATIONAL INTERPRETATION

Olsen (1994: 66–7) suggests that the ENCW sites in Finnmark represent summer camps and winter dwellings for a population travelling between the Pasvik valley and the Varanger coast on a seasonal basis. Based on the absence of pottery on other contemporary coastal sites, he suggests a cultural difference between ‘inland groups’ with pottery, living on the southern side of the Varanger Fjord, and an ‘original coastal population’ without pottery, living on the northern side and further west along the coast (my translations). Torvinen (1998, 2000: 24–6) presents a similar mobile settlement pattern model for the earliest societies using pottery in northern Finland. The Sär 1 using groups were primarily hunters of marine mammals who moved to the coast in summer but spent the winters in the more sheltered inland forests. According to Torvinen, the Sär 1 sites represent a northern pottery producing population, contrasting with a southern group with similar economic basis but producing a typologically different Comb Ware (the Early Comb Ware, Ka I:1).

Torvinen’s interpretation is based on an essentialist and static view on ethnicity and culture as social phenomena. This is further underlined by his suggestion that the emergence of Sär 1 Ware marks the first step towards the development of Sámi ethnicity much later (Torvinen 2000: 26). But, both Olsen (1994) and Torvinen (1998, 2000) base their interpretations of ethnic or cultural differences solely on the presence of a sup-

posed distinct pottery type. The assumed mutually exclusive difference in pottery use or pottery types is the only material element distinguishing the different population groups. Otherwise the suggested opposed population groups – the non-pottery groups in Finnmark and the Ka I:1 groups further south in Finland – maintain the same hunter-fisher economy and use the same stone tools as the ENCW population. In Finland, the supposedly different groups even have a contemporary introduction of Comb Ware in common.

The analyses presented in this article raise several questions regarding these interpretations. The empirical variation and similarities within and between established Comb Ware types and the observed differences in the archaeological material associated with ENCW suggest that a more dynamic relational model should be applied to better understand the socio-cultural context in which the earliest Comb Ware of northern Fennoscandia occurred. I will focus on two matters concerning socio-cultural relations: 1) mobility within regions, and 2) contact between different groups.

Mobility within regions

As shown, several of the observed properties in the ENCW material point to local, on-site pottery production. Pottery production demands good summer weather conditions, indicating that the larger ENCW sites were used at least during summer. No other material differences coincide with the ceramic/a-ceramic contrast between sites in eastern Finnmark. Non-ceramic sites therefore probably represent the same social groups as the ENCW sites. One possibility is that they were used at different times of the year. The ENCW sites were then summer camps in a mobile pattern in eastern Finnmark that included several non-ceramic occupation sites during fall, winter and spring. Another possibility is that the non-ceramic sites represent different resource management specialisations within the group from the ENCW sites, but not necessarily related to specific periods of the year. The non-ceramic sites were probably located both in the inland and on each side of the Varanger Fjord. The presence of house structures at some of the sites and not others should be viewed as a variable reflecting economic specialisation between sites or differences in seasonal

occupation. The sites with house structures could be winter camps.

The decorative variations on ENCW indicate that there were closer relations between the pottery producers in present-day Finnmark than between the Finnmark-potters and their fellow potters in northern Finland. At the same time, the decoration indicates that the inhabitants of the two sites by the Varanger Fjord had somewhat closer relations with each other than with the population in the upper Pasvik valley. These relations are probably expressed through the pottery decoration as an effect of how pottery production is learned: potters learn to make pots through direct long-term observation of a skilled potter and through practical participation in the process. Decorative pattern preferences are probably learned in the same process. If the teaching of new potters was a family matter, then the decorative variations and similarities observed in the ENCW material express different preferences between different families. The potters and the users of the pots probably recognized and appreciated these signs of possible family relations expressed on the vessels. If decorative pattern preferences are based on different family-based preferences, then the observed decorative patterns probably indicate family relations on different levels among the ENCW population. Based on the decorative analyses I suggest that the ENCW sites in Finnmark represent two different groups consisting of several family entities: one in the upper Pasvik valley and the other at the inner Varanger Fjord. Close family ties defined each of the groups, but similarities in the decorative patterns also indicate that the two groups were related to each other by lineage. A similar family-based group relation can be suggested for northern Finland, based on the analyses of the Comb Ware from the three selected sites in this study. The between-site similarities indicate close family relations. At the same time, the clear differences between the decorative pattern variation on these three sites and the variation observed in Finnmark indicate a far more distant lineage relation – if any – between these two areas. Some similarities between the pattern variations observed at Inari [13] Saamen museo and at the Varanger Fjord sites may nevertheless suggest a closer relation within the Inari (Enare)/inner Varanger area.

The distribution of ENCW sites in Finnmark suggests that the Varanger Fjord and the Pasvik groups had established some kind of geographical division, which could have been between a coastal and an inland area. As indicated in the decorative pattern variation, it could also – and perhaps more probably – have been a division between different waterways stretching from Inari (Enare) to the Arctic coast. The ENCW sites inform us that summer occupation took place both by the seashore and on the larger rivers in the inland. In a waterway-territory model this indicates a difference between a Pasvik/outer Varanger mobile group spending summers in the inland and a western Inari/inner Varanger group spending summers by the coast. It could also indicate loose mobility patterns with no strict seasonality among the ENCW groups moving within a defined territory.

At the same time as the archaeological material informs us about family based hunter-fisher societies, mobility but also possibly territoriality, it informs us about a widespread and close contact net across the territories. New tool forms, technological skills and raw materials spread fast over long distances. Individuals and groups must have moved with them.

Contact between different groups

Modern ethnicity theory emphasises that ethnic identity is a way of structuring relational social phenomena. It is not through isolation but in the encounter with, and knowledge of, an Other that you become conscious of your own identity. Ethnic or cultural identity is made up of contrasts towards the Other, as well as of collective templates transferred to you by birth and through childhood within a specific society (Eriksen 1993; Jenkins 1997; Jones 1997). Under given historical conditions groups can see it as relevant to express ethnic differences. Most ethnic differences are probably expressed through immaterial signals, among them language, but material signs can also be used. This can be done in different ways: ethnicity or cultural difference can be expressed through the use of culture-specific objects or – perhaps more commonly – as material correlates of culture-specific behaviour (Hodder 1982; McGuire 1982). The material phenomena best suited for expressing ethnic differences are

thus often objects which two or more ethnic groups have in common, but which they produce or use differently. Such objects are particularly powerful symbols of identity because they are recognised by members of both groups as something familiar. That makes the differences in use more salient to an outsider than would the display of a totally unknown object would do. It is also important to consider what parts of the material culture were involved in possible inter-ethnic relations and what were the characteristics of such inter-ethnic relations.

Both Olsen (1994) and Torvinen (1998, 2000) interpret the earliest pottery in northern Fennoscandia as an expression of socio-cultural or ethnic dualism: Olsen for the Varanger area, Torvinen for northern Finland and northern Fennoscandia as a whole. I find it difficult to support these interpretations (Skandfer 2003a, 2003b). The archaeological material from eastern Finnmark points towards mobile hunter-fisher groups sharing the same technologies (pottery, raw material use, reduction sequences), but occupying differently equipped sites within larger territories. The territories probably covered both inland and coastal areas on both sides of the Varanger Fjord. The groups living in eastern Finnmark most likely consisted of a population with a common socio-cultural identity, not two separate populations.

At a broader, spatial scale, we find a contrast between ceramic-producing groups in eastern Finnmark and aceramic groups in western Finnmark. This material culture contrast is paralleled by differences in the bifacial point reduction sequences. The observed contrast can be understood as a socio-cultural difference between eastern and western areas, expressed through different technological choices: the ceramic and the aceramic hunter-fisher groups share the same formal expectations when it comes to finished stone tools, but they signal cultural difference by producing them differently.

Instead of promoting a contrast between ‘north’ and ‘south’ (Torvinen 1998; 1999; 2000) or ‘coast’ vs. ‘inland’ (Olsen 1994) – which in my opinion lacks support in the archaeological material – I suggest that early Comb Ware should be viewed as a shared phenomenon among hunter-fisher groups identifying themselves as belonging to the same socio-cultural or possibly ethnic

group. Variations in the ceramic material should be seen as more or less conscious local or regional differences signalling family ties and possibly territoriality internal to this larger group. At the same time, aceramic groups with a different stone technology lived further west. ENCW could have been of little symbolic importance towards these Others because it probably did not take part in the contact situations. Instead, other material and non-material differences could have been exhibited while shared formal expectations towards bifacial bi-points indicate some kind of socio-cultural solidarity between the two groups.

ARCHAEOLOGICAL TYPES: TOOLS, NOT 'TRUTH'

Typologies are mere tools in archaeological research but many of the typologies archaeologists use – often rather uncritically – have been given a life of their own as 'truths'. Since they were established in the 19th and early 20th century, based on the very limited material available at that time, they have been referred to so many times and by influential researchers that they have achieved a status as objective and representative descriptions of certain empirical materials. An additional property of archaeological types is that the selective entities on certain attributes that provide contrasts with other types has become more important than the actual empirical content of the types – the variation and frequency of their qualities. This essentialist approach to typology can make rare or even individually exclusive phenomena in an archaeological material the most important criteria for separating one type from another.

Most typologies are based on culture-historical presuppositions not consistent with the questions we wish to address today. The most important underlying assumption is that of materially observable, geographically and culturally exclusive culture traits. Cultures and ethnic groups were considered to form an archipelago of separate and separable populations. Pottery has probably been the most important archaeological material for identifying – and separating – different cultures and populations. The assumed direct connection between pottery types and populations still restrains other ways of addressing differences and variation in an archaeological material.

Even the short and recent research history of Sär 1 is a typical example. The suggested definitions of Sär 1 (Simonsen 1957; Torvinen 1999, 2000) are based on only a *selection* of the earliest Comb Ware material from northern Fennoscandia. The features proposed as most important in defining Sär 1 are those distinguishing this supposed type from other, earlier defined Comb Wares (Ka I, Ka II). The overwhelming between-type similarities are given little attention and there is practically no focus on within-type variation, both in Sär 1 and in the other types. The result is an impression of strict differences between fundamentally different pottery types, identifying different population groups living in separate geographical areas, and/or chronological differences between different monothetic types of Comb Ware, as presented by Torvinen in his recent definition of Sär 1 (Torvinen 1999, 2000). In a similar way, Olsen (1994) suggests a clear-cut cultural distinction between two different population groups in eastern Finnmark, based solely on the presence or absence of pottery at different sites.

ENCW in Finnmark displays a much wider variety of forms, sizes, colour, temper and, not the least, decoration patterns, than has hitherto been described for Sär 1 Ware. I suggest that differences and similarities in the ENCW material are functions not only of a shared technological tradition ('culture' in the traditional sense), but also to a large extent of individual technological choices made by the potters, including the use of local raw materials and preferences for certain decorative motifs. The results of the analyses of ENWC material from Finnmark, compared with the material from three contemporary sites in northern Finland, give an impression of considerable variation within the earliest pottery of northern Fennoscandia. Both between-site variation and regional variation is observed, and it is impossible to fit the material into the established definition of Sär 1 as a distinct type. It also seems difficult to maintain a clear-cut distinction between a specific 'northern' ('Sär 1') and a more 'southern' (Ka I:1) early Comb Ware based on the material now at hand. Several features of the ENCW material from Finnmark are attributes that otherwise define the contemporary but supposedly typologically different Early Comb Ware Ka I:1. The similarities between ENCW and the later

Ka II are also striking, but Ka II is believed to have no cultural or technological connection with the earliest northern Comb Ware.

The results from Finnmark indicate that mutually exclusive Comb Ware types supposedly related to different population groups do not give a fair representation of the range of variation observable in early Comb Ware today. The results suggest that analyses of variation in large samples of early Comb Ware from other regions of Fennoscandia would present a similarly varied picture as that from Finnmark.

The observed differences in reduction sequences, distribution of raw materials and tools between different contemporary sites indicate that no part of the lithic technology can be linked exclusively to the ENCW sites. Instead of a contrast between ceramic and aceramic sites, a pattern of systematic technological variation between easternmost Finnmark and western, coastal Finnmark can be observed. The different reduction sequences for bifacial points demonstrate that formal tool types can conceal important variation in the archaeological material. Such variations are important for interpretations of socio-cultural relations during the Stone Age. Only a closer examination of technological variations between pottery-producing groups in the eastern parts of northern Fennoscandia and groups without pottery in the western parts can reveal whether significant socio-cultural differentiation emerged in northern Fennoscandia c. 5500 BC. Such an examination would also cast new light on the important question of why some hunter-fisher groups took up pottery production and maintained it for several millennia, while others gave it up after some hundred years.

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Personal comments

- Engelstad, E. 2003.
 Grydeland, S. E. 2003.
 Hood, B. 2003.
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NOTES

- 1 This article is based on the author's unpublished PhD thesis in archaeology on Early, Northern Comb Ware: Typology – Chronology – Culture (Skandfer 2003a) at the Institute for Archaeology, University of Tromsø, Norway.
- 2 Reppen, referred to by Olsen (1994: Fig. 43) as a coastal Sär 1 site, is contemporary with the ENCW sites but lacks pottery.
- 3 All datings referred to in the text are calibrated using OxCal 3.5.
- 4 This dating has been adjusted for MRE (Table 1, Appendix I)
- 5 A large archaeological investigation of Stone Age and Early Metal Age sites on the island Melkøya in western Finnmark has not yet been published. Professor Charlotte Damm, University of Tromsø, is at present conducting a research project on the period c. 6000–4000 BC in the coastal regions of northern Troms and western Finnmark. So far, little excavation has been carried out and therefore no new material has yet been published.
- 6 The results from this project are only partly published (Grydeland 2000).
- 7 'Dolomite' was originally named by Simonsen (1961, 1963) and has since been incorporated into the north Norwegian archaeological discourse. It describes a fine-grained, light grayish-yellow to dark green raw material, typically found on sites from the ENCW phase in eastern Finnmark. Geologically it could be a silicified slate, a tuff or a rhyolite (Hood 2003: pers. comm.)
- 8 The polishing technique is not new, though. It was used to produce axes and chisels of different forms dating back to c. 8000 BC (Myklevoll 1998: Fig. 22).

Appendix I

Radiocarbon datings of ENCW and ENCW sites in Finnmark

<i>Site</i>	<i>Lab.no.</i>	<i>Dating (BP, uncal.)</i>	<i>Dating (BC, cal.)</i>	<i>Dated material</i>
Gravholmen	T-238 ¹	5950 ± 300	5220 - 4470	Charcoal
Inganeset (Kjerringneset IV)	TUa-3025	5990 ± 55	4935 - 4800	Food residue
Lossoas hus	TUa-3024	6065 ± 55	5050 - 4910	Food residue
	TUa-3660	5745 ± 45	4725 - 4610	Seal bone
	T-1914 ²	7250 ± 100	5800 - 5610	Marine shell
	T-2468 ³	6315 ± 90	4860 - 4620	Seal bone
	T-2472 ⁴	5865 ± 50	4340 - 4210	Seal bone
Mennikka (Skogfoss)	TUa-3022	5795 ± 55	4755 - 4560	Food residue
	TUa-3027	5975 ± 60	4930 - 4790	Food residue
Noatun Innmarken	TUa-3023	6185 ± 65	5225 - 5030	Food residue
	TUa-3029	5850 ± 55	4785 - 4625	Food residue
	TUa-2887	5515 ± 65	4450 - 4330	Charcoal
Noatun Neset	Beta-131296 ⁵	5950 ± 90	5045 - 4605	Food residue
Noatun Neset Vest	TUa-3026	6030 ± 70	4990 - 4840	Food residue
Nordli	TUa-3028	6570 ± 60	5565 - 5435	Food residue
	TUa-3021	6330 ± 50	5290 - 5235	Food residue

1. The dating was performed for Povl Simonsen in 1960 but has not been published.
2. Published by Knut Helskog (1980). The date was corrected for MRE and fractionation for the author in 2002.
3. Published by Knut Helskog (1980). The date was corrected for MRE and fractionation for the author in 2002.
4. Published by Knut Helskog (1980). The date was corrected for MRE and fractionation for the author in 2002.
5. The dating has been performed for Ericka Engelstad 2003 (pers. comm.).

Appendix II

Identified number of vessels

<i>Site</i>	<i>Number of sherds</i>	<i>Number of vessels</i>
Fosslund, Pasvik, Sør-Varanger municipality	1	1
Gravholmen, Pasvik, Sør-Varanger municipality	21	1
Gressbakken Øvre, Pasvik, Sør-Varanger municipality	1	1
Inganeset, Pasvik, Sør-Varanger municipality	129	3
Lossoas hus, Nyelv, Unjárga gielda (Nesseby municipality)	407	18
Mennikka/Skogfoss, Pasvik, Sør-Varanger municipality	76	7
Nesheim, Pasvik, Sør-Varanger municipality	472	16
Noatun 'Løkka', Pasvik, Sør-Varanger municipality	12	4
Noatun Innmarken, Pasvik, Sør-Varanger municipality	1802	154
Noatun Neset, Pasvik, Sør-Varanger municipality	437	21
Noatun Neset Vest, Pasvik, Sør-Varanger municipality	220	13
Nordli, Karlebotn, Unjárga gielda (Nesseby municipality)	267	29
Storsteinneset, Pasvik, Sør-Varanger municipality	2	2
<i>Total</i>	<i>3847</i>	<i>270</i>

Appendix III

Decorative variables

<i>Variable</i>	<i>Category</i>
1. Decorative motif, wall	a. Simple, straight comb, bent comb and crossed comb b. Straight hatching c. angled hatching d. Triangular hatching e. Twisted cord f. humerus g. shell h. nail or pin stitch i. Small pipe/bone pipe (circle)
2. Decorative pattern, wall	j. Unbroken, horizontal line k. Broken, horizontal line l. Diagonal motifs in horizontal patterns m. Horizontal zig-zag n. Rhombic, horizontal check pattern o. Vertical motifs in horizontal patterns p. Vertical, unbroken line q. Vertical, broken line r. Diagonal motifs in vertical pattern s. Vertical zig-zag
3. Decorative, rim edge	t. Straight comb vertically organized u. Straight comb diagonally organized v. Straight comb in zig-zag w. Pin stiches vertically organized x. Pin stiches diagonally organized y. Pin stiches horizontally organized
4. Rim profile	A. Straight, thickened inwards B. Straight, not thickened C. Slanting inwards, not thickened D. Slanting outwards, not thickened E. Straight with rounded edges F. Rounded
5. Rim thickness	Exact measurements
6. Rim diameter	Exact measurements
7. Temper	G. Crushed quartz H. Sand or fine-grained gravel I. Soap stone and pumice J. Chamotte and ochre
8. Tempering amount	K. large L. Medium M. Small N. None
9. Size of tempering inclusions	O. Large P. Medium Q. Small
10. Wall thickness	Exact measurements
11. Colour	Tones of yellow, brown and red described and compared

Appendix IV

Tables of decorative variables in the ENCW material from Finnmark:

Appendix IV:A. Decorative motif (a-i) frequency

<i>Stamp motif</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>Total</i>
<i>Number of motifs</i>	158	19	7	7	13	25	3	15	5	252
<i>%</i>	62.6	7.5	2.8	2.8	5.2	9.9	1.2	6.0	2.0	100.0

Appendix IV:B. Actual numbers of and expected decorative motif frequencies related to site

<i>Site / Decorative motif</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>Total</i>
Fosslund	1 (0.62)	0 (0.08)	0 (0.03)	0 (0.03)	0 (0.05)	0 (0.10)	0 (0.01)	0 (0.06)	0 (0.02)	1
Gravholmen	1 (1.25)	0 (0.15)	0 (0.06)	1 (0.06)	0 (0.10)	0 (0.20)	0 (0.02)	0 (0.12)	0 (0.04)	2
Gressbakken Øvre	1 (0.62)	0 (0.08)	0 (0.03)	0 (0.03)	0 (0.05)	0 (0.10)	0 (0.01)	0 (0.06)	0 (0.02)	1
Ingeneset	5 (3.15)	0 (0.38)	0 (0.14)	0 (0.14)	0 (0.26)	1 (0.50)	0 (0.06)	0 (0.30)	2 (0.10)	5
Lossoas hus	16 (11.33)	0 (1.36)	0 (0.47)	0 (0.47)	0 (0.93)	1 (1.79)	0 (0.22)	1 (1.08)	0 (0.36)	18
Mennikka	0 (3.15)	0 (0.38)	0 (0.14)	0 (0.14)	0 (0.26)	3 (0.50)	1 (0.06)	1 (0.30)	0 (0.10)	5
Nesheim	9 (8.18)	0 (0.98)	0 (0.36)	0 (0.36)	2 (0.67)	0 (1.29)	0 (0.16)	2 (0.78)	0 (0.26)	13
Noatun Innmarken	87 (90.61)	17 (10.90)	7 (4.02)	2 (4.02)	7 (7.46)	12 (14.34)	2 (1.57)	9 (8.61)	1 (2.87)	144
Noatun Løkka	2 (4.4)	0 (0.45)	0 (0.17)	0 (0.17)	0 (0.31)	2 (0.60)	0 (0.07)	0 (0.36)	2 (0.12)	6
Noatun Neset	13 (10.70)	0 (1.29)	0 (0.47)	1 (0.47)	0 (0.88)	2 (1.70)	0 (0.20)	1 (1.02)	0 (0.34)	17
Noatun Neset Vest	7 (6.92)	1 (0.83)	0 (0.31)	1 (0.31)	0 (0.57)	2 (1.09)	0 (0.13)	0 (0.67)	0 (0.22)	11
Nordli	19 (17.00)	0 (2.04)	0 (0.75)	1 (0.75)	4 (1.40)	2 (2.69)	0 (0.32)	1 (1.61)	0 (0.54)	27
Storsteinneset	0 (1.26)	1 (0.83)	0 (0.06)	1 (0.06)	0 (0.20)	0 (0.20)	0 (0.02)	0 (0.12)	0 (0.04)	2
<i>Total</i>	158	19	7	7	13	25	3	15	5	252

Appendix IV:C. Decorative pattern (K-S) frequency

<i>Decoration pattern</i>	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>	<i>O</i>	<i>P</i>	<i>Q</i>	<i>R</i>	<i>S</i>	<i>Total</i>
<i>Number</i>	105	89	12	3	62	3	2	4	21	301
<i>%</i>	34.9	29.6	4.0	1.0	20.6	1.0	0.7	1.3	7.0	100.1

Appendix IV:D. Actual numbers of and expected pattern frequencies related to site

<i>Site / Pattern</i>	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>	<i>O</i>	<i>P</i>	<i>Q</i>	<i>R</i>	<i>S</i>	<i>Total</i>
Fosslund	1 (0.35)	0 (0.30)	0 (0.04)	0 (0.01)	0 (0.21)	0 (0.01)	0 (0.01)	0 (0.01)	0 (0.07)	1
Gravholmen	0 (0.35)	1 (0.60)	0 (0.04)	0 (0.01)	0 (0.21)	0 (0.01)	0 (0.01)	0 (0.01)	0 (0.07)	1
Gressbakken Øvre	0 (0.35)	1 (0.60)	0 (0.04)	0 (0.01)	0 (0.21)	0 (0.01)	0 (0.01)	0 (0.01)	0 (0.07)	1
Ingeneset	2 (1.39)	1 (1.18)	0 (0.16)	0 (0.04)	1 (0.82)	0 (0.04)	0 (0.03)	0 (0.04)	0 (0.28)	4
Lossoas hus	10 (6.98)	5 (5.91)	0 (0.80)	0 (0.20)	2 (4.12)	0 (0.20)	0 (0.13)	0 (0.27)	3 (1.40)	20
Mennikka	0 (1.74)	0 (1.48)	0 (0.20)	0 (0.05)	3 (1.03)	0 (0.05)	1 (0.03)	0 (0.07)	1 (0.35)	5
Nesheim	6 (5.93)	6 (5.03)	0 (5.69)	0 (0.16)	5 (3.50)	0 (0.17)	0 (0.11)	0 (0.23)	0 (1.19)	17
Noatun Innmarken	53 (58.95)	60 (49.97)	6 (6.73)	2 (1.68)	27 (34.81)	3 (1.68)	1 (1.12)	2 (2.25)	15 (11.79)	169
Noatun Løkka	0 (1.05)	0 (0.89)	1 (0.12)	0 (0.03)	2 (0.62)	0 (0.03)	0 (0.02)	0 (0.04)	0 (0.21)	3
Noatun Neset	8 (7.33)	6 (6.21)	0 (0.84)	0 (0.21)	7 (4.33)	0 (0.21)	0 (0.14)	0 (0.28)	0 (1.47)	21
Noatun Neset Vest	6 (5.23)	2 (4.44)	1 (0.60)	0 (0.15)	5 (3.09)	0 (0.15)	0 (0.10)	1 (0.20)	0 (1.05)	15
Nordli	18 (14.65)	6 (12.42)	4 (1.67)	1 (0.42)	10 (8.65)	0 (0.42)	0 (0.28)	1 (0.56)	2 (2.93)	42
Storsteinneset	1 (0.70)	1 (0.59)	0 (0.08)	0 (0.02)	0 (0.41)	0 (0.02)	0 (0.01)	0 (0.03)	0 (0.14)	2
<i>Total</i>	<i>105</i>	<i>89</i>	<i>12</i>	<i>3</i>	<i>62</i>	<i>3</i>	<i>2</i>	<i>4</i>	<i>21</i>	<i>301</i>