

Kerkko Nordqvist & Teemu Mökkönen

## ÄYRÄPÄÄ'S TYPICAL COMB WARE: AN UMBRELLA TERM FOR THE EARLY 4TH MILLENNIUM BC POTTERY IN NORTHEASTERN EUROPE?

Kerkko Nordqvist, Archaeology, University of Oulu, P.O. Box 1000, FI-90014 Oulun yliopisto, Finland: kerkko.nordqvist@gmail.com; Teemu Mökkönen, Archaeology, University of Oulu, P.O. Box 1000, FI-90014 Oulun yliopisto, Finland: teemu.mokkonen@gmail.com.

### INTRODUCTION

Typical Comb Ware has for a long time dominated the Finnish image of the Neolithic period. Due to its rich and voluminous material culture with high archaeological visibility and, consequently, a long research history, it seems to have an elevated position in comparison with many other periods and pottery types. Typical Comb Ware is commonly said to have been defined by Aarne Äyräpää (before 1930 Europaeus) in his nearly canonical work *Die relative Chronologie der steinzeitlichen Keramik in Finnland* (Europaeus-Äyräpää 1930). The accumulation of material during the 85 years since Äyräpää's work was published has, nevertheless, identified several problems with it and given grounds to ask how valid his classifications actually are.

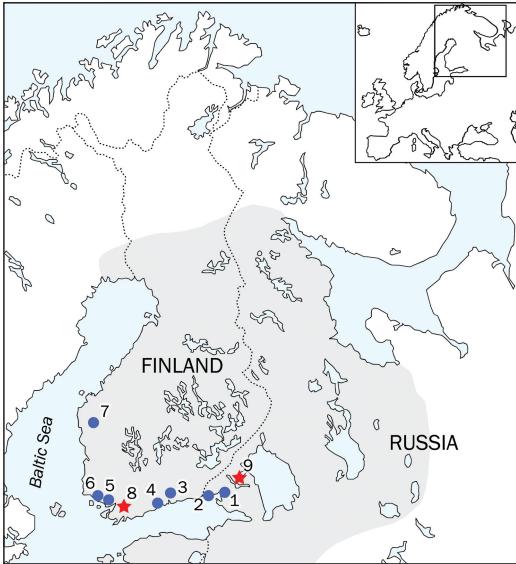
In this article, we aim to trace the definition of Typical Comb Ware from its beginning in the early 20th century until the present day, and also to outline the criticisms and attempts made to improve the classification. Because the pottery type was originally defined based on Finnish materials, the paper focuses predominately in Finland, even if Typical Comb Ware is also found elsewhere in northeastern Europe (see e.g. Kriiska 1995: 75–85; Vitenkova 2002; Rappu 2011; Khoroshun 2013). This paper is a slightly modified version of an article previously published in Russian (Nordqvist & Mökkönen 2015), but as this kind of review of the definition of Typical Comb Ware and the problems involved has not been published earlier, we want to make it accessible to non-Russian speaking colleagues as well.

### TOWARDS A DEFINITION

Comb stamp-decorated Stone Age pottery was recognised in Finland and adjacent areas already

in the 19th century (e.g. Inostrantsev 1882; Aspelin 1885). The term 'Typical Comb Ware'<sup>1</sup> can be traced back to the mid-1910s, when it was introduced by Sakari Pälsi (1915) based on materials from the Karelian Isthmus (Russia). It was adopted by Aarne Äyräpää (Europaeus 1916; 1918; see also 1925; 1927), although he initially used it interchangeably with the terms 'Typical Karelian Comb Ware/Karelian Comb Ware' (Fi. tyypillinen karjalainen kampakeramiikka/karjalainen kampakeramiika; Sv. typiska kareliska kammkeramik/karelska kammkeramik). By 1930, Äyräpää had started to use only the term 'Typical Comb Ware'. Even if occasionally other terms have been used for this type of pottery<sup>2</sup>, the terminology introduced in Äyräpää's work came to stay, including the abbreviations known as Äyräpää's styles (Stil I = Early Comb Ware, Stil II = Typical Comb Ware, Stil III = Late Comb Ware). In Finland, the latter are customarily used in the form Ka I, Ka II, and Ka III, introduced by Ari Siiriäinen (Siiriäinen 1969; 1973).

The first actual treatment of Stone Age pottery was included in a book by Julius Ailio (1909: 81–96)<sup>3</sup>. He divided pottery into four groups (East-Finnish, Åland, Alastaro and Kiukainen), of which the first one, the East-Finnish or *kammkeramische Gruppe* (De.), covers the pottery later conceived of as Typical Comb Ware (Ailio 1909: 85–7). However, Ailio sees all types of Comb Ware as one entity, and his group also includes other types of Neolithic pottery. The undifferentiated, heterogeneous nature of Comb Ware is slightly broken by Sakari Pälsi (1915: 154), who in his dissertation divided Stone Age pottery into three: Clean Typical Comb Ware, vessels related to Typical Comb Ware, and vessels different from Typical Comb Ware<sup>4</sup>. Thus, already at this early stage of research, other types of ceramics were



*Fig. 1. Places mentioned in the text. Numbers 1–7 indicate areas included in Äyräpää's study (Euopaeus-Äyräpää 1930): 1 – Vyborg, 2 – Säkkijärvi, 3 – Lapinjärvi, 4 – Espoo, 5 – Paimio, 6 – Maaria (currently Turku), 7 – Teuva; number 8 shows the location of the eponymous site of Uskela (currently Salo), and number 9 the Riukjärvi-Piiskunsalmi dwelling site complex in Kaukola (Ru. Sevastyanovo). Grey shading marks the distribution of ceramics considered to be Typical Comb Ware. Map: K. Nordqvist.*

defined through Typical Comb Ware, which came to dominate the Neolithic due to its large numbers, good preservation, and ‘refined’ appearance.

In his controversial work<sup>5</sup> on the Russian Stone Age, Ailio (1922: 36–41) presented for the first time the tri-partite division of Comb Ware into Early, Typical and Late (De. die frühe Kammkeramik, die gute/typische Kammkeramik, die spätere Kammkeramik). Typical Comb Ware is also seen to include geometric Comb Ware (De. die geometrische oder beste Kammkeramik). However, these classes include still quite a variety of material and their chronological ordering is problematic.

The inner division of Comb Ware was finalised and the relative chronology established by Europaeus-Äyräpää. It is possible to follow the development of his ideas through the annual reviews of new acquisitions by the National Museum of Finland (Europaeus 1915; 1916; 1917; 1918;

1921; 1925) and other papers (Europaeus 1922; 1927). In the work published in 1930 (Europaeus-Äyräpää 1930), Äyräpää finalised his idea of using several micro-regions with a series of dwelling sites located at different elevations as the basis for his typo-chronological scheme. Äyräpää's material derives from coastal sites located between the Gulf of Vyborg and Southern Ostrobothnia (Fig. 1). With the help of geologically defined shore displacement chronology, he was able to assign relative ages to different pottery types found at different elevations and also to cross-reference these types between the regions.

Äyräpää cements the tri-partite division into Early, Typical and Degenerated Comb Ware (the latter was subsequently renamed Late Comb Ware), all of which are further divided into two sub-styles (Europaeus-Äyräpää 1930: 171). Typical Comb Ware was divided into older and younger styles (styles II:1 and II:2), which were considered to have a temporal difference. Äyräpää's definitions share many common elements with the previous definitions by Ailio and Pälsi, but include more temporal control and are based on a larger selection of material.

## ÄYRÄPÄÄ'S DEFINITION

According to Äyräpää, Typical Comb Ware vessels are usually large, non-profiled, ‘egg-shaped’ with pointed or round bottoms, or alternatively small cups. The clay mass is finer than in Early Comb Ware and the vessels better fired. The rims are commonly inwards-thickened. Decoration is always based on comb stamps and pits, which are aligned in horizontal rows. The use of comb stamp develops over time, and the decoration starts to include geometric motifs, like rhombuses and zig-zags, as well as images of waterfowl. In addition, drawn lines, ring and other stamps, and notches may have been used for decoration (Europaeus-Äyräpää 1930: 179–82). Äyräpää considers style II:2 as the ‘sophistication and degeneration phase [sic]’. It differs from style II:1 in that the vessels are smaller and temper scarcer, and the comb stamps become thinner and are applied more weakly. Decoration consists of the same elements as in style II:1, but may be more irregular and include also ‘bizarre’ forms (Europaeus-Äyräpää 1930: 183). In addition, Äyräpää separates – but does not further describe – geometric Comb Ware (De. die geometrische Kammkeramik/die Hoch-

stufe der Typischen Kammkeramik). According him, this might be defined as an actual sub-style, but as it seems to overlap with both styles II:1 and II:2 and is mainly distributed in the inner parts of Finland and outside his study area, Äyräpää does not do this (Europaeus-Äyräpää 1930: 182–3).

Even if Äyräpää states that the clay and decoration of the pots seem to be fairly similar everywhere (Europaeus-Äyräpää 1930: 179, 182) he recognises regional differences: style II:1 is scarce in the western areas and the geometric style appears rarely on the coast. He finds stylistically the best examples of Typical Comb Ware in inner Finland, which, of course, is highly problematic, as the material used in the definition originated from coastal sites only. Still, he does not elaborate on these differences too much and states that development is fairly uniform in the whole country (Europaeus-Äyräpää 1930: 165). The idea of generalisation can be seen in the terminology used, too, as Äyräpää discarded the previously used epithet ‘Karelian’. It is difficult to see how he reached the conclusion that Typical Comb Ware was ‘uniform’, as he had recognised regional differences before (e.g. Europaeus 1917: 43; 1927: 61)<sup>6</sup>.

Reading Äyräpää’s work leaves one fairly baffled, as this is the work upon which the typochronology is based. The descriptions of the pottery types are very scarce – what is referred to above is, actually, everything he said about Typical Comb Ware. Basically, Äyräpää described pottery found at different altitudes without any specified methods and by using ambiguous terminology. The adjectives he used (such as ‘large’, ‘thick’, ‘coarse’, etc.) remain at an abstract level, without any numeric reference. It is noteworthy that Äyräpää did not discuss the definition of Typical Comb Ware, even in his later works, most notably in his updated paper on chronological issues (Äyräpää 1956)<sup>7</sup>.

Äyräpää had an evolutionistic idea of (cultural) development, and Early, Typical and Late Comb Ware appear as three stages of one cultural phenomenon. It seems that, for Äyräpää, the whole ‘circle’ of a cultural phenomenon had to go through the phases of ‘childhood’, ‘maturity’, and ‘death’. Although, perhaps ironically, Äyräpää acknowledged the importance of the Finnish inland lake district and the Karelian Isthmus (the area of geometric style) for Typical Comb Ware, he was able to date and use only the coastal material. Despite these limitations, Äyräpää’s definitions

have undergone relatively little change and are still widely used today, as will be discussed in the next section.

## FURTHER DEVELOPMENT

Äyräpää’s classification was rapidly adopted. In the presentation of Finnish prehistory published one year later, A.M. Tallgren (1931: 67–9) follows Äyräpää’s phasing and shoreline chronology, although he does not use any space on actual descriptions of pottery types. Äyräpää’s definitions are further repeated in some general presentations of the Stone Age (Luho 1948: 46–7; Kivikoski 1961: 31–5; Huurre 1998: 130–1; see also Meinander 1961: 11; 1984: 29). Neither has Christian Carpelan, who has otherwise discussed prehistoric pottery from many angles, touched upon Äyräpää’s definition of Typical Comb Ware.

Even if the main lines have stayed similar since the 1930s, new material has brought new aspects of Typical Comb Ware to light, such as the occasional use of asbestos as a temper in the Lake Saimaa area (Meinander 1948). Based on Torsten Edgren (1984: 34–6; 1992: 46–7), further minor additions include: the rim (top of the rim usually decorated, rim sometimes wavy-shaped), decoration (more specific definition of the decoration motifs of the geometric style, *Hochstil* in German; see also Meinander 1948), and layout (more empty space on surfaces in style II:2; see also Luho 1948).

Since the late 1960s, Äyräpää’s chronology has been challenged. Following the geological shoreline displacement, Ari Siiriäinen proved that styles II:1 and II:2 were mostly contemporary (Siiriäinen 1969; 1973; see also Kokkonen 1978: 75). Further, Christian Carpelan (1979: 11) agreed with Siiriäinen, and proposed that Typical Comb Ware partially overlapped with other older and younger pottery types. Later, a temporal overlap of styles II and III was suggested in some additional studies (Vikkula 1981: 129; Räihälä 1996: 109, 116; Varonen 2007: 179), but the major change was realised only through <sup>14</sup>C dates. Radiocarbon dating of charred crust and birch bark tar attached to pottery revealed that the division into the sub-styles of Typical Comb Ware has no chronological meaning, and moreover, that styles II and III have considerable overlap, too (Leskinen 2003: 12; Pesonen 2004: 91–2; Pesonen & Leskinen 2011).

## REGIONAL VARIATION OUTSIDE THE DEFINITION

There is much variation that does not fit within Äyräpää's typological definition. Regional differences were noted quite early for example in connection to Early Comb Ware (Meinander 1947: 8–9; see also Rankama 1982), but such variation also exists in Typical Comb Ware. Matti Huurre in particular pointed out in his accounts of the regional prehistory of Northern Finland (Kainuu, Northern Ostrobothnia and Lapland) that the Typical Comb Ware in the north differs from that described by Äyräpää in terms of decoration and temper (Huurre 1983: 137, 146; 1986a: 56, 59; 1988: 40–4) (Fig. 2). Although proper studies are lacking, the regional variation of Typical Comb Ware is 'a known fact'. The variation in temper is often seen just as adaptation to the local environment, whereas decorative elements have been considered to represent cultural uniformity (Pesonen & Leskinen 2011: 314). However, the generalised view that organic tempers were predominantly used in coastal areas in the south and west while sand and crushed stone dominated in the east and north (Leskinen & Pesonen 2008: 79; Pesonen & Leskinen 2011: 311, 314), is not clear in the context of Typical Comb Ware.

One of the recognised regional variations is the use of asbestos as a temper in Typical Comb Ware in the Lake Saimaa area (Meinander 1948: 31; Carpelan 1979: 13; Pesonen 2004: 92). However, no studies to map the extent or frequency of this, or any other local trait, have been conducted. In fact, comprehensive studies of Typical Comb Ware are practically non-existent. Few master's thesis-level academic studies, analysing material from one site only, have been carried out that include good points about the validity of the prevailing typology (Kokkonen 1978; Varonen 2007). In scientific articles, however, the most popular theme has been the curiosities of Typical Comb Ware, that is, the anthropomorphic (Taavitsainen 1982; Huurre 1986b) and zoomorphic (Äyräpää 1953; Edgren 1967; Nieminen & Ruonavaara 1984; Pesonen 1996a, Schulz 2006) highly stylised images in decoration. The only notable exception is a monograph by Edgren (1982), which concentrates on vessel shape and dimensions vs. the utterly practical function assumed for pottery but does not deal with the definition of Typical Comb Ware either. Despite its central position –

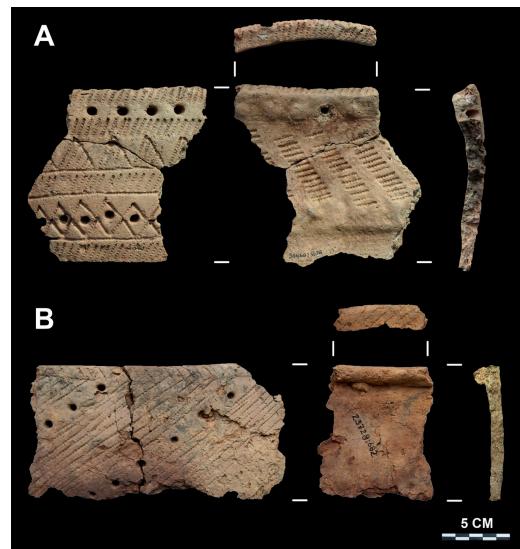


Fig. 2. Examples of Typical Comb Ware. A) geometric style with talc temper from the Lake Saimaa area, Rääkkylä Vihi 1 site (KM 30460:5628); B) organic-tempered sherd from Northern Ostrobothnia, Oulu Kierikin sorakuoppa site (KM 23728:682). Photos: T. Mökkönen.

or maybe because of it – Typical Comb Ware has remained poorly studied, whereas other comb ware types have received more attention (Luho 1957; Edgren 1966; Vikkula 1981; Rankama 1982; Pesonen 1995; 1996b; Torvinen 2000).

A central issue in Äyräpää's definitions is that they are not typologically formed exclusive entities or actual coherent 'definitions' of any pottery style, as has been noted in several studies (Vikkula 1981: 47; Kokkonen 1978: 100; 1982: 8–9; Pesonen 2004: 93; Varonen 2007: 179). As the original definition was not too strict, Typical Comb Ware has become an even more general term for pottery belonging to roughly the same time horizon, and with decoration consisting of stamps and pits aligned in separate zones (see also Rähälä 1996: 97). In other words, Typical Comb Ware is not about style; it is a mechanically applied label attached to pottery from the early 4th millennium BC with decoration consisting of non-overlapping stamps and pits.

The coexistence of Typical and Late Comb Ware introduces another problem to the understanding of the period under study. Firstly, it must be noted that Late Comb Ware style III:1 – or Uskela Ware,

as described by Äyräpää (*Europaeus-Äyräpää* 1930: 183) – exists only in a quite narrow coastal zone in western and southern part of Finland, and to a small extent inland in Finland, on the Karelian Isthmus and in Ladoga Karelia (Russia) (*Vikkula* 1981: 63–6). Thus, most of the post-style II ceramics cannot be labelled as ‘Uskela’. Actually, the comb ware that exists after c 3500 BC in most of southern Finland has no label at all (*Leskinen & Pesonen* 2008: 82; *Mökkönen* 2008; 2011: 18). The proposed appearance of an asbestos-tempered inland counterpart for Uskela Ware (*Pesonen* 1995: 159; see also *Vikkula* 1981: 63) has not been studied and remains unsolved. Obviously, the continuation of the comb ware tradition after Typical Comb Ware for centuries is a fact, but as the whole phenomenon is highly heterogeneous, it is an extremely poorly understood horizon (*Carpelan* 1999: 273; *Mökkönen* 2008: 124; *Pesonen & Leskinen* 2011: 300; *Seitsonen et al.* 2012: 111–2; *Nordqvist* 2015: 257).

It seems that during, and especially after, the Typical Comb Ware period, the regional differentiation in ceramics developed in a direction that cannot be classified through Äyräpää’s classical typology. The magnitude of variation, both within and between sites, is so significant that no single, pan-regional pottery types existed, even if loose typological definitions and their loose application have created such an illusion. This variation covers most aspects of pottery: temper, decoration, and shapes.

## ÄYRÄPÄÄ, WE HAVE A PROBLEM!

Typological and chronological studies have pointed out flaws in Äyräpää’s system concerning Typical Comb Ware. Consequently, improvements have been suggested (for example, numerical methods; see *Kokkonen* 1978: 101; *Varonen* 2007: 179) but these have not been put into practice at a large scale. Even though the problems have been noticed and some regional variation recognised (e.g. *Huurre* 1983; 1986a), no serious studies on the subject have been attempted. Still, the variation in temper, for example, is there from the beginning of Typical Comb Ware (*Pesonen* 2004: 94).

The main difficulties in Typical Comb Ware studies have been, and remain, the strong reliance on Äyräpää’s classification and its selective application, the current abundance of pottery material,

and the lack of scientifically oriented research in Finland in general. This article is a contextualisation of the present state of research on the topic. At the moment, we are working on Neolithic materials from Finland and Karelia (Russia) and material-based articles on the topic will follow later. It is evident that archaeological knowledge should be based on up-to-date data, and in the case of Typical Comb Ware, this is not the case. With the data currently available, Äyräpää might see things differently, too.

## NOTES

<sup>1</sup> Fi. tyypillinen kampakeramiikka, Sv. typisk kamkeramik, De. die typische Kammkeramik, Ru. (tipichnaya/pribaltiyskaya) grebenchato-yamochnaya keramika, Et. tüüpilinen kammkeramika, Lv. ķemmes-bedrīšu keramika.

<sup>2</sup> ‘Figure Comb Ware’, Fi. kuviokampakeramiikka (*Europaeus* 1925); ‘the heyday of Comb Ware’, Fi. kampakeramiikan kukoistuskausi (*Tallgren* 1931); ‘proper Comb Ware’, Fi. varsinaiskampakeramiikka (*Kivikoski* 1961; *Salo* 1997).

<sup>3</sup> Ailio’s book was the first work discussing Finnish Stone Age finds in any depth.

<sup>4</sup> Pälsi’s dissertation was the first doctoral dissertation on Stone Age material in Finland. From the current point of view, his ‘Clean Typical Comb Ware’ (Fi. puhdas tyypillinen kampakeramiikka) is quite close to Äyräpää’s Typical Comb Ware. The group ‘Vessels related to Typical Comb Ware (with wound-cord etc.)’ (Fi. tyypilliseen kampakeramiikkaan liittyvät [nuorakampakoristeiset y.m.] astiat) is roughly equivalent to Early Comb Ware. The group ‘Vessels different from Typical Comb Ware’ (Fi. tyypillisestä kampakeramiikasta eroavat astiat) includes all other pottery (e.g. asbestos-tempered sherds).

<sup>5</sup> Ailio’s work was freshly criticised, for example, by A.M. Tallgren (*Tallgren* 1923; see also e.g. *Formozov* 1959: 97), and still remains a little-used piece of Stone Age research.

<sup>6</sup> Part of Äyräpää’s previous ideas about regional differences between east and west had to do with the separation of two western pottery styles, namely Jäkälä Ware (see also *Edgren* 1966) and Uskela Ware (see also *Vikkula* 1981).

<sup>7</sup> All in all, Typical Comb Ware was not prominent in Äyräpää’s production after the papers published in 1930 (*Europaeus* 1930; *Europaeus- Äyräpää* 1930), as his later works only occasionally touch

on Typical Comb Ware material culture or curiosities of decoration (Äyräpää 1941; 1945; 1950; 1952; 1953; 1960; see also Siiriäinen 1989).

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