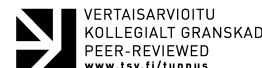


Thanatos

ISSN 2242-6280, vol.4 2/2015

© Suomalaisen Kuolemantutkimuksen Seura Ry.

https://thanatosjournal.files.wordpress.com/2016/1/ahola_neolithic.pdf**Tracing Neolithic Funerary Practices from Finnish Ochre Graves – a Case Study from Kukkaroski Comb Ware Burial Ground****Marja Ahola**

University of Helsinki

Abstract

Finnish Stone Age earth graves are often referred to as “simple pit graves”, fostering the illusion of an equally simple funerary rite. In this article, the complexity of Stone Age funerary practices and grave structures are explored by reinterpreting the Middle Neolithic burial ground of Kukkaroski in the light of ritual practice theory. As can be observed from the Kukkaroski material, the Finnish ochre graves show evidence of a complicated mortuary practice, where the deceased were cared for in various ways. Furthermore, at the Kukkaroski burial ground new graves were made in connection with old burials, indicating a close connection with past generations. This combination of care and connection seems to be at the core of Neolithic funerary rites for earth graves.

Introduction

Without any written sources, knowledge of Stone Age belief systems relies on archaeological research, especially on information provided by Stone Age burials and other places of ritual activity. For example, by interpreting the iconography and locations of Finnish rock art, it has been suggested that the paintings bear evidence of shamanistic cosmology (Lahelma 2008). Finnish Stone Age graves have not, however, been subjected to similar analysis, and the complexity of burial practices in Stone Age Finland has not been well understood. This is due to the fact that unburnt bone material – the main indicator of an inhumation – is generally not preserved in Finland’s acidic soil. In the Finnish tradition, the Stone Age graves are therefore often referred to as “inhumations in simple pit graves” (e.g. Edgren 1966, 90–96; Edgren 1984, 48; Vikkula 1986, 12; Miettinen 1992, 13; Purhonen 1998, 27–31), which falsely gives an impression of a simple funerary practice.

Furthermore, the total amount of the Stone Age burial sites in Finland does not compare to the amount of contemporary settlement sites (Huurre 1998, 270–271), indicating that only a part of the population were buried to these sites. Indeed, it has been proposed that a multiplicity of funerary practices co-existed during Stone Age (e.g. Brinch Petersen and Meiklejohn 2003; Löhmus 2007; Larsson 2008; Fahlander 2012), and variation in the handling of the dead can be seen in both Mesolithic and Neolithic contexts, for example in cremation burials documented among contemporary ochre inhumation graves, and in burned human bones found occasionally scattered among settlement

site debris (Brinch Petersen and Meiklejohn 2003; Katiskoski 2003; Koivisto 2010). Some funerary practices might even be invisible to the archaeological record.

In this article I will focus on the ochre graves, and argue that even though the skeletal material is missing, the evidence of a complex funerary practice relating to the ochre graves can be seen in the other material remains. As a case study, I will re-interpret the ochre graves of the Middle Neolithic Comb Ware burial ground of Kukkarikoski in Western Finland (see Figure 1), and argue that when considering an earth grave, taking care of the deceased and forming a connection to past generations were the two key elements of Neolithic funerary practice. These elements can be seen, for example, in the artifact material, burial features, and in the practice of ritual reuse of an old burial site.



Figure 1. Location of the Kukkarikoski burial ground. Basemap by National Land Survey of Finland, 2005.

Approximately 60 Stone Age grave sites associated with Mesolithic (ca. 8900–5200 cal BC) and Neolithic (ca. 5200–1800 cal BC) hunter-fisher-gatherer societies are known in Finland (Lappalainen 2007b, appendix 1). The graves are called “red ochre graves” because of the practice of using red-coloured ochre in an earth grave. There are some quartz flakes and stone artifacts known from the Mesolithic ochre graves (e.g. Edgren 1984, 23; Halinen 1999, 173), but especially during the Middle Neolithic Typical Comb Ware period (4000–3500 cal BC), the ochre graves of people using comb-stamped pottery were richly furnished with amber and slate jewellery and flint artifacts (Edgren 1966, 97–106; Halinen 1999, 173–174). From the later part of the Neolithic period, earth graves of the Corded Ware culture (2700–2300 cal BC) are also known. These graves lack ochre, and the material culture of the burials, consisting of Corded Ware vessels and axes, indicate a different funerary practice and belief system to that of the Comb Ware tradition (Edgren 1984, 76–77).

Even though sporadic fragments of human teeth and other bone material have been found from some sites (Salo 2015), the lack of unburnt bone material complicates the interpretation of the grave features. Ochre features without any skeletal material have therefore been interpreted as graves because of their size, shape, and associated artifacts, which are consistent with grave goods (Edgren 1966, 97–106; Halinen 1999, 173–174). Despite the fact that the lack of organic material makes the Finnish material difficult to interpret, the term “simple pit grave” is still misleading: a careful examination of the grave structures has also shown evidence of plastered skulls (Miettinen 1992; Edgren 2006), food offerings (Katiskoski 2003), traces of ritual fire (Purhonen 1980; Vikkula 1986), as well as wood, bark, and stone structures (Torvinen 1979; Purhonen 1980; Vikkula 1986; Edgren 2006). It might seem that the archaeological evidence

for Stone Age funerary practices associated with these ochre graves has been well described, but the lack of human bone material, combined with the lack of applied theory and interpretation, have maintained the illusion of a simple burial – an issue which this article aims to address.

Tracing Neolithic Mortuary Practice

Slowly Changing Ritual Practice

When studying a prehistoric period that lacks written and oral sources, our source material for ritual practices is limited to the physical remains of past actions. Even though the task of tracing ritual practices from such material might seem impossible, it must be kept in mind that funerary rites, especially the practices involved in funerary rituals, are inherently conservative and preserve ways of doing things over a long time (Parker Pearson 1999, 195). Even if we do not have the advantage of written and oral sources for Stone Age funerary practices, we are able to compare the material culture of death over a long period of time, and thus observe both continuation and change from the physical remains of the ritual.

In this article, Neolithic funerary practices are approached from the perspective of ritual practice theory. Drawing from Catherine Bell's ritual practice theory framework (1992), Liv Nilsson Stutz (2003) has argued that prehistoric funerary practice can be interpreted as an embodied practice, where the bodily practices involved in the mortuary rite are more important than the meaning of the practices. It is even argued further, that among the Stone Age communities the symbolic value of the practices may have been vague:

It is possible that if we would have the opportunity to ask the people at Skateholm and Vedbæk/Bøgebakken why they did what they did, they would have given us replies such as: “this is the way it has always been done,” or “this is the way that our ancestors told us to do,” or something equally general. However, according to practice theory this is not a problem, because the central aspect of the ritual is not what it refers to (since that is not constant and may even be unknown) but the bodily experience of it. (Nilsson Stutz 2003, 319)

The conservative and preserving nature of mortuary rituals might thus have been developed by repeating the ritual practice as it had been done before – even if the original meaning of the action was already forgotten. According to practice theory, the search for the meaning of these actions should therefore be abandoned, and the focus should be put on the way the ritualized actions can be seen in the physical remains of mortuary practices (Berggren and Nilsson Stutz 2010).

When the focus of the interpretation shifts from meaning to practice, the fragmented material from the Finnish ochre graves is no longer as limited. Indeed, the physical remains of the ritual practices can be seen in the use of ochre, in the grave structures, and in the artifact material. Even though these categories are artificial, and even overlapping, when approached from the perspective of practice theory they provide new insights into the material.

The Use of Ochre

Since the Finnish graves lack skeletal material, the practice of ochre use is an important indicator of a Stone Age grave. The tradition of using red, iron rich pigment in earth graves is known already from the Palaeolithic period and, though

the amount and intensity of ochre changes over time, it was also commonly used in Mesolithic and Neolithic hunter-gatherer burials (e.g. Grünberg 2013; Zagorska 2008). Even though often present in Stone Age graves, the specific means of application or deposition of the ochre is unknown. Ochre could have been strewn over the deceased, used to line the base of the burial, to embalm the body, or to fill the grave (Zagorska 2008, 117). Ochre has also sometimes been found on the head, pelvis, or on the elbows and feet of the deceased (Boric 2002, 31; Zagorska 2008, 117–122). From the Finnish perspective, it is important to note that if not used only in the filling, the practice of ochre use is often connected with the handling of the deceased, and the location of the ochre has therefore been used to indicate the location of the body (e.g. Miettinen 1992; Katiskoski 2003).

For example, at the Comb Ware burial ground of Hartikka in Central Finland, ochre of varying intensity often covered the whole grave, but since fragments of tooth enamel were found in the heaviest layer of ochre, it seems plausible that the head area was covered with a thick layer (Miettinen 1992, 12). For the Finnish ochre graves, the intensity of ochre is indeed another important tool for interpretation. For example, at the bottom layer of Kukarkoski grave 1a, presented in more detail in the next chapter, several ochre features of varying intensity can be noted (see Figure 2). Drawing from the example of Hartikka, it could be possible that the most intensive ochre deposits indicate the location of the deceased, whereas the other ochre features could relate to a possible inner structure of the grave. The line of ochre dots crossing the southern end of the grave might be, for example, remains of organic artifacts painted with ochre.

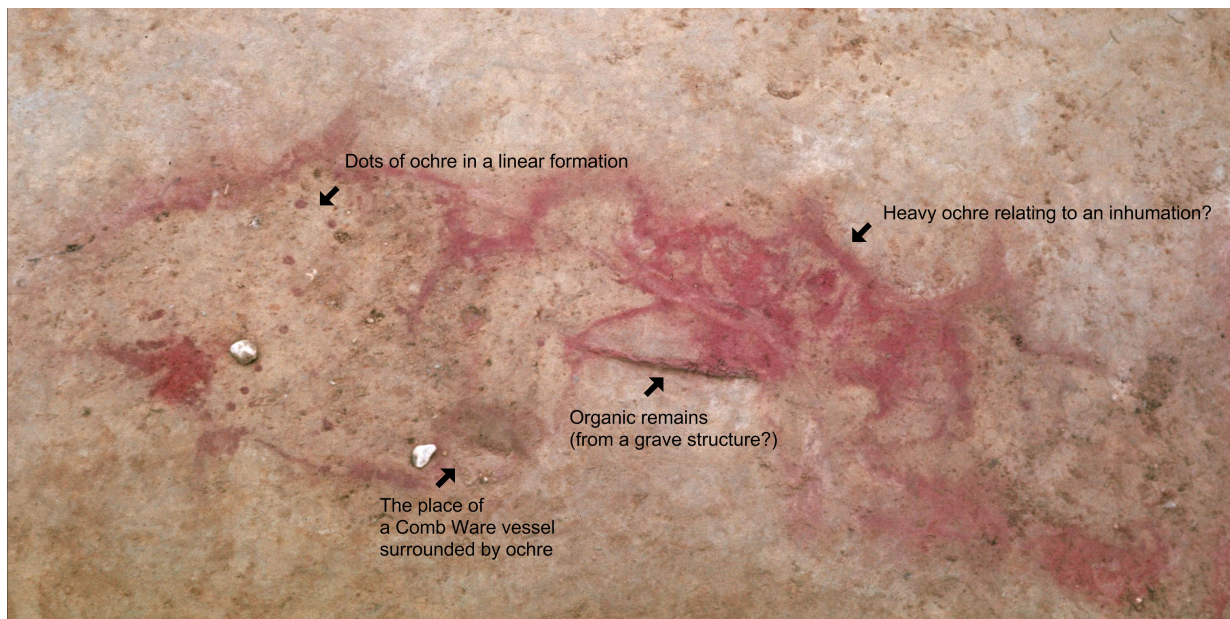


Figure 2. The ochre feature and organic remains of grave 1a at the depth of 90 cm. The intensity of color red has been heightened in order to see the borderlines of the ochre better. Photo by Finland's National Board of Antiquities, 1975. All modifications by the author.

During the Finnish Neolithic, the use of ochre was not limited to mortuary practices. Rather, it seems that ochre played a significant part in Finnish Neolithic ritual practices, even though more utilitarian uses must have also existed. For example, Neolithic clay idols bear marks of ochre paint (Núñez 1986), and both a clay idol (Edgren 1966, 51) and a fossilised shell have been found in small ochre pits (*ibid.*, 63), indicating votive deposits. Most importantly, the contemporary rock art of Fennoscandia was also painted with ochre (Lahelma 2008), connecting the Middle Neolithic ochre graves to the shamanistic cosmology of the rock art (e.g. Nilsson Stutz 2006, 232). Even though it is not within the scope of this article, this connection raises the opportunity to use similar ethnographically informed approaches on grave material as have been used in rock art studies (e.g. Lahelma 2008, 11–14) and to, for example, approach the graves from the perspectives of death and afterlife as seen in the pre-Christian folklore of the Baltic Finns.

The Grave Structures and Evidence of Body Wrappings

The physical remains of mortuary practices can also be seen in the borders and constructions of the graves, and in evidence for the handling of the body. In the Stone Age graves of the Baltic region, the shape and size of the grave is usually adapted to the physical parameters of the body or bodies, which could be arranged in various ways, although the extended supine position and flexed position seem to be predominant (Nilsson Stutz 2003, 333–335; Löhmus 2007, 37–40).

In recent studies concerning Stone Age mortuary practices, the focus has been placed on the human remains (e.g. Nilsson Stutz 2003; Tõrv 2015), and interesting insights have been gained by using archaeoethanatology – a cross-disciplinary method combining taphonomic knowledge with osteology, anatomy, and archaeology (e.g. Nilsson Stutz 2003; Tõrv 2015). For example, an archaeoethanatomical analysis of the Mesolithic cemeteries of Southern Scandinavia (Nilsson Stutz 2003) has shown that the core mortuary practice in the Mesolithic graves was a primary burial, where the natural processes of decomposition were hidden by burying the individual underground and filling the burial pit immediately. The body was carefully positioned in the grave in a lifelike manner, and sometimes placed on a platform or paddings in order to separate the body from the floor of the burial pit. In some cases, the body was also protected by wrappings. In most cases, artifacts and ochre were placed in the burial along with the dead.

When a similar analysis was conducted on the preserved skeletons of Neolithic Comb Ware burials in Latvia and Estonia, it was noted that the burials seem to continue the Mesolithic core practices in the handling of the body (Nilsson Stutz 2010a, 139–140; Tõrv 2015). Since the Finnish Middle Neolithic ochre graves belong to the same cultural tradition, this observation makes knowledge of Mesolithic mortuary practice relevant comparanda for Finnish ochre graves, and even though the Finnish ochre graves lack the body, archaeoethanatomical knowledge can also be applied to the interpretation of the burial feature.

For example, when evidence of a wrapping has been noted in the position of the skeleton, traces of an ochre colored body container were occasionally suspected in the layer of ochre surrounding the body (Nilsson Stutz 2006, 231). This observation is important for the Finnish material, since it indicates that evidence of wrappings could also be derived from the burial feature. As Liv Nilsson Stutz (personal communication March 24, 2015) has suggested, the inhumation sized areas of heavy ochre documented in many Finnish graves might actually be the remains of ochre colored wrappings. It must be noted though, that evidence of body wrappings occur also without the use of ochre, for example, in the Neolithic Lyalovo graves from the Russian Upper Volga region (e.g. Figure 5 in Piezonka et al. 2013, 62). Since Comb Ware pottery has its roots in the same area (e.g. Núñez 1990), similarities between the Lyalovo and Comb Ware funerary practices could also easily exist. Since the Lyalovo graves contain a limited set of artifacts encompassing mainly organic materials, and ochre is only rarely used (Piezonka et al. 2013, 61), similar graves might, however, go unnoticed in the Finnish material.

Aside from evidence of wrappings, traces of possible inner structures have also been documented from Mesolithic and Neolithic graves, indicating that varying practices may have been used to protect the body of the deceased. In Mesolithic contexts, bodies or body parts have been lifted from the floor of the grave by deer antlers, small stones, and even by a swan's wing (Nilsson Stutz 2003, 335). In a unique Danish Mesolithic underwater burial, the deceased was placed in a dug-out canoe and wrapped in or covered by sheets of bark (Grøn and Skaarup 1991, 49). This burial introduces yet another burial practice, even though the Mesolithic core practices can still be seen in the way the body was protected.

Evidence of bark is also present in several Neolithic graves. For example, in the Tamula I Comb Ware settlement, several burials yielded branches and birch bark at the bottom of the graves (Lõhmus 2007, 38). Fragments of bark have also been found from the Finnish Comb Ware burial grounds of Hartikka (Miettinen 1992, 12), Nästänristi (Vikkula 1986, 10), and Kolmhaara (Edgren 1966, 30, 43). At the latter, well-preserved ochre-stained bark was documented in several layers above the ochre layer, indicating that a bark wrapping or covering was used to protect the deceased (Edgren 1984, 48; Edgren 2006, 328).

The Artifacts

Even though the Mesolithic and Neolithic ochre graves are similar in their structure, there are clear differences in their material culture. During the Mesolithic period, earth graves in the nearby regions of Finland were furnished with animal teeth pendants and bone and stone artifacts (e.g. Gurina 1956; Zagorskis 2004 [1987]). From the Middle Neolithic period onwards, amber and flint artifacts appear in the burials (e.g. Halinen 1999, 174; Zagorskis 2004 [1987], 87). At the same time, changes also occur in an increasing number of collective burials (Zagorska 2006, 121), and while Mesolithic burials rarely overlapped each other (Nilsson Stutz 2004, 88), the positioning of burials amongst older graves becomes more common during the Neolithic (Nilsson Stutz 2010b, 38–39). These new practices make the Neolithic burial grounds look different, and have been interpreted as reflecting new ways of life associated with the emergence of the Neolithic world (e.g. Nilsson Stutz 2010b, 39; Herva et al. 2014).

Amber and flint do not appear naturally in Finland, and can thus be seen as imported goods. The Neolithic flints are mainly eastern imports from the area of modern day Russia, and amber from the Baltic region (Edgren 1984, 55–57). In many cases, the flint artifacts – for example blades and knives – found in Comb Ware burials are in pristine condition and show no signs of use, indicating the prestige value of these items (Vuorinen 1982, 67–68). The amber found in the Finnish Neolithic graves is usually worked as an adornment, and is often accompanied by ring-shaped artifacts made of slate (Edgren 1984, 49).

Judging from the placement of the amber items in better preserved graves (e.g. Zagorska 2001; Piezonka et al. 2013, 62), the artifacts were probably used as individual pendants, or as dress adornments which sometimes covered the whole body of the deceased. This observation is, of course, important for the Finnish material, since it helps to locate the deceased in the grave. Amber ornaments have also sometimes been found in the eye sockets of the deceased, while the head region was intensively strewn with ochre, and in some cases plastered with a layer of clay (Zagorska 2001, 112). This tradition can be seen in several Comb Ware graves from the Baltic area (Edgren 2006). It resembles a death mask, and has been interpreted as part of the new practices adopted with the Neolithic world (e.g. Edgren 2006, 333; Nilsson Stutz 2010a, 140).

The practice of using amber, flint, and slate in an ochre grave underlines the special significance of these materials to the Middle Neolithic funerary rite. Even though the ritual meaning of these artifacts is hard to discern, the positioning of the adornments in the grave resembles that of the location of the ochre, and can thus be connected with the handling of the deceased. Furthermore, the practice of covering the eyes of the deceased suggests that the ornaments were not just decorations, but also held symbolic value.

Funerary Practice at the Kukkaroski Burial Ground

The Kukkaroski Burial Ground

The Kukkaroski burial ground and settlement site is situated in Lieto municipality in Western Finland. The Kukkaroski site lies nowadays in a rural landscape marked by a quick flowing rapid. During the Middle Neolithic Period, the shoreline at the Kukkaroski site was 34.5 metres above the present sea level, and the landscape differed considerably from the present day. The rapid that marks the landscape today was not formed yet, and the Neolithic settlement of the Comb Ware people was situated around a sheltered cape of a large island. The adjacent burial ground of thirteen burials and four hearths was on a hill slope, nearby the settlement, between 38- and 39-metre elevation contours (Torvinen 1979, 37–38; Torvinen 1980).

The Kukkaroski burial ground was excavated by archaeologist Markku Torvinen during 1975–1976 and 1980. All the excavations were conducted as trial or rescue excavations, and therefore the area has not been excavated in its totality (Torvinen 1978, 2). The interpretation in this article is based on the documentation of the 1970's and 1980's excavations. Since the burial ground with its artifacts has been published, although only in Finnish by Torvinen (1979), for the purposes of this article the material is summarized in Table 1.

Nine ochre graves can be identified from the Kukkaroski burial ground. These graves have been typologically dated to the Typical Comb Ware period (Torvinen 1979, 74–75). A single radiocarbon dating supporting the artifact typology also exists (see Table 1). The most intensive area of the burial ground is at the northern corner of the excavated area, where a cluster of overlapping graves can be noted (see Figure 3). As can be observed from Table 1, the overlapping ochre graves (graves 1 and 1a) were furnished especially richly, while the graves placed slightly further away had less artifacts (graves 2, 3, 5, 6, 7), or even none at all (graves 4 and 8). A tradition of using a dark, sooty soil as a filling and considerably less ochre – if any – can also be observed in four structures (graves 10, 11, 12 and 13). A similar tradition is also known from the Zvejnieki burial ground, where several Middle Neolithic graves were filled with gray or black earth, while ochre and artifacts were used more sparingly (Zagorska 2001, 117–120; Zagorska 2008, 101–102). Since the finds from the Kukkaroski dark-filled graves were found in the filling of the graves – in contrast to the ochre graves – they also differ in the positioning of the finds.

A Corded Ware grave (grave 9) was also found among the ochre graves, indicating the long term use of the site. This burial was furnished with a Corded Ware vessel, and radiocarbon dated to the Middle or Late Neolithic (see Table 1). Interestingly, similarities between graves 10 and 11 and the graves of the Volosovo culture of central part of Russia, contemporary with the Corded Ware culture, have also been seen in the positioning of the long axis of the dark-filled graves perpendicular to the ancient shoreline (Kostyleva and Utkin 2006). Similar grave positioning can be observed, for example, in the Lyalovo-Volosovo burial ground of Saktysheva IIa (Piezonka et al. 2013). As grave 10 cuts the overlapping ochre graves (see Figure 3), it is plausible that the structure indeed belongs to a later phase of use. No radiocarbon dates, however, exist.

¹ Even though the Kukkaroski site is referred to as Neolithic, the subsistence of the society was based on hunting and fishing. This is because the beginning of the Neolithic period for Finland is marked by the appearance of pottery, not by the adaptation of agriculture (e.g. Edgren 1984, 27–29). However, during the Neolithic Period in Finland, a growing rate of sedentism, the appearance of rock art, and a change in material culture via extensive exchange networks can be seen. This indicates new ways of life and thought that are associated with the Neolithic, even though full scale cultivation was not yet practiced (Herva et al. 2014).

The Kukkarkoski grave structures and artifacts:														
Burial no:	Artifacts:	Human skeletal remains:	C14 uncal BP	Lab no:	2 δ (95,4%) cal. BC	Dated material	Size (L x W cm):	Depth (from top soil):	Orientation:	Amount and position of ochre:	Filling:	Traces of fire:	Natural stones at the burial layer:	Evidence of inner structure:
Burial 1	75 amber pendants in various shapes, a flint blade and a fragmented flint blade						c. 200 x 100 cm (at the depth of 20-30 cm)	c. 50 cm	N-S	heavy ochre especially at western side of the burial layer along with amber pendants, some large blotches of ochre at the eastern side of the pit	ochre stained soil, upper levels possibly destroyed in modern land use		small stones	
Burial 1a	50 amber pendants in various shapes, one of them anthropomorphic, six flint blades, a fragmented flint sculpture, a stone mace, two fragmented slate rings, a slate knife, a grinding stone, a small Comb Ware vessel, 17 flint flakes, two quartz flakes	possible decomposed bone material at the north end of the grave, not collected	4890 \pm 150 BP	Hel-832	4036-3358 cal BC	carbonized wood from the bottom of the grave pit	c. 400 x 200 cm	c. 114 cm	N-S	heavy ochre at the northern end of the grave, medium ochre surrounding the grave feature	ochre stained, one water-polished pebble	blotches of soot in the filling and at the burial layer	small stones	carbonized wood at the floor of the grave
Burial 2	9 amber pendants in various shapes, three slate rings						c. 260 x 120 cm	c. 80 cm	N-S	light ochre feature covering the floor of the grave, ca. 1 m southwest of the grave feature, a small ochre feature containing two flint blades	coarse sand, small stones and sherds of pottery.	blotches of soot in the burial layer	small stones	
Burial 3	4 amber pendants and a flint blade						c. 150 x 200 cm	c. 40 cm	SE-NW	ochre feature covering the floor of the grave, additional blotches of ochre at the western side of the pit	ochre stained, sherds of pottery	blotches of soot in the filling	small stones	
Burial 4	<i>no finds</i>						c. 80 x 50 cm	c. 50 cm	SE-NW	mixed area of ochre, possibly partly destroyed in modern land use	ochre stained			
Burial 5	3 amber pendants, two small stone adzes, three flint flakes, a quartz flake, a stone flake	teeth fragments (<i>Infans II-Juvenilis</i>)					c. 160 x 250 cm	c. 60 cm	SE-NW	heavy ochre covering the floor of the grave in two oval shaped features	ochre stained	blotches of soot in the burial layer	small stones	
Burial 6	one amber pendant, three flint blades, six flint flakes						c. 200 x 150 cm	c. 65 cm	N-S	two blotches of ochre at the southern end of the grave floor	ochre stained		small stones	
Burial 7	a flint artifact, a flint blade						c. 200 x 100 cm	c. 40 cm	SE-NW	ochre feature covering the floor of the grave	ochre stained	blotches of soot in the filling, positioned next to a hearth		
Burial 8	<i>no finds</i>						c. 150 x 110 cm	c. 65 cm	SE-NW	mixed area of ochre, possibly destroyed in modern land use	ochre stained	blotches of soot in the filling		
Burial 9	a Corded Ware vessel		4320 \pm 170 BP	Hel-831	3496-2488 cal BC	carbonized wood from the bottom of the grave pit	c. 200 x 120 cm	c. 55 cm	SE-NW	no ochre	gravel, fragments of charcoal	blotches of soot in the filling		dark feature surrounding the walls and the floor of the grave
Burial 10	a fragmented flint blade (from the filling)						c. 180 x 65 cm	c. 40 cm	ENE-WNW	light ochre surrounding the grave feature	dark soil, fragments of charcoal, flint blade placed next to large stones	heavy soot at the burial layer, blotches of soot in the filling	small stones	dark feature of 80 x 5 cm at the depth of ca. 25 cm in connection with large stones
Burial 11	a flint blade (from the filling)						c. 280 x 70 cm	c. 45-60 cm	E-W	light ochre covering the floor of the grave	dark soil, small stones, flint blade positioned at the center of the structure	heavy soot in the filling	small stones	overlapping layers of ochre and dark soil at the floor of the grave
Burial 12	<i>no finds</i>						c. 200 x 70 cm	c. 40 cm	SE-NW	no ochre	dark soil			
Burial 13	three flint flakes, a quartz flake, a stone flake (from the filling)						c. 200 x 60 cm	c. 45 cm	SE-NW	light ochre in the filling of the grave	dark soil, fragments of charcoal	heavy soot at the burial layer, blotches of soot in the filling		

Table 1. Summary of the Kukkarkoski grave structures and find material. Based on Torvinen 1975, 1976, 1978, 1979 and 1980. C14 dates were calibrated using OxCal v. 4.2.4 Bronk Ramsey (2013) with atmospheric curve IntCal13 (Reimer et al. 2013).

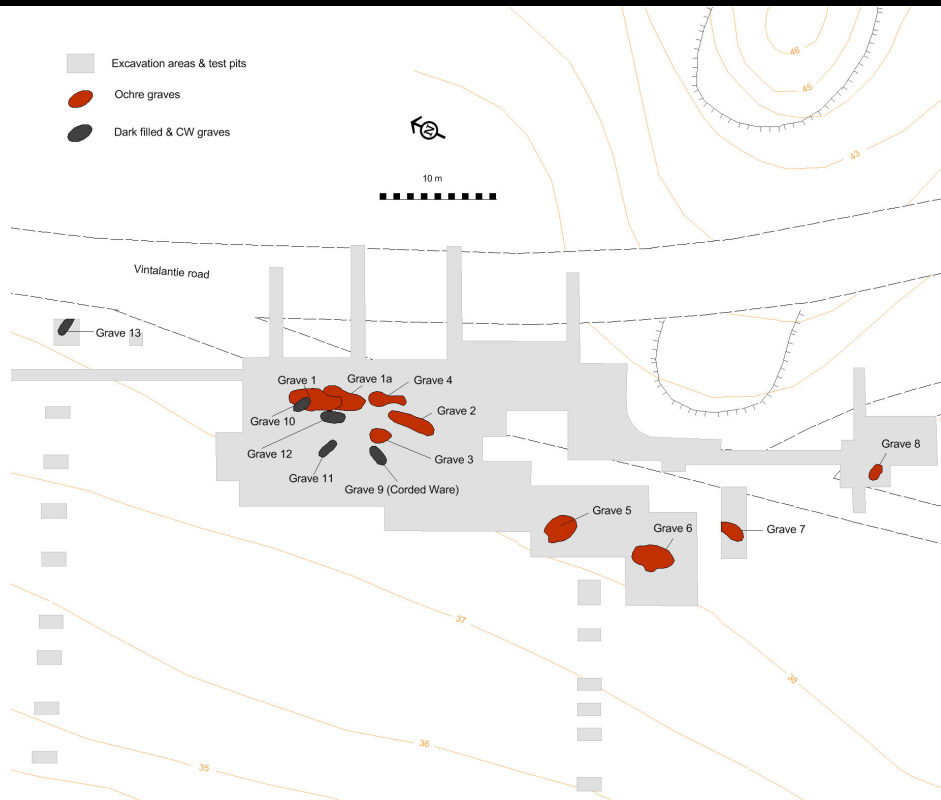


Figure 3. An overview map of the Kukkarokoski graves. The figures refer to height measurements in meters above sea level. Map by Marja Ahola, 2015 (based on Torvinen 1978, 146 and Torvinen 1980, appendix 24).

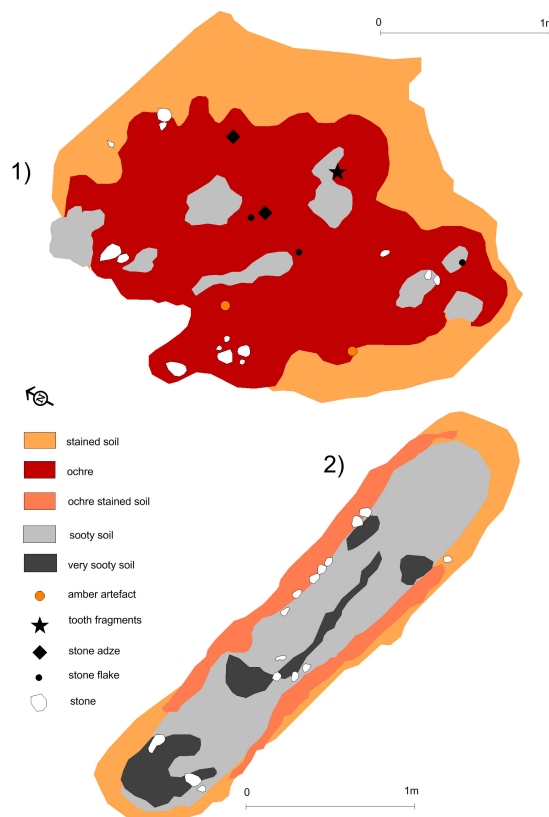


Figure 4. The distribution of ochre, sooty soil and artifacts in graves 5 and 11. 1) Grave 5 at the depth of 40 cm illustrated with find material from layers 3–6 (30–60 cm). Map by Marja Ahola, 2015 (based on map drawn by A.-H. Nieminen, 1976). 2) Grave 11 at the depth of 30 cm. Map by Marja Ahola, 2015 (based on map drawn by M. Ranki, 1975).

Caring for the Deceased

As seen from Table 1, evidence for various funerary practices is present. The use of ochre, present in various amounts in most of the graves, is clearly an important part of the funerary practice. The appearance of a heavy layer of ochre in some of the graves could even indicate an ochre colored wrapping. For example, at the bottom layer of grave 5, a heavy layer of ochre forms two oval features side by side, indicating a collective burial of two wrapped individuals (see Figure 4). Evidence for tight wrappings could also be seen in the narrow shape of the dark-filled graves 11 (see Figure 4), 12, and 13. This idea is strengthened even further by the overlapping layers of red ochre and dark soil documented in grave 11.



Figure 5. Grave 7 and a hearth. Photo by Finland's National Board of Antiquities, 1976.

Along with the use of ochre, traces of fire in blotches of soot and charcoal are documented both in the filling and on the floor of the graves. Even though the hearths of the burial ground have not been radiocarbon dated, their location right next to the ochre graves (see Figure 5) seems to suggest contemporary dating, and the use of fire as part of the funerary practice. Along with soot, pottery sherds perhaps related to funerary feasting were also documented from the filling of some of the graves.

From the Kukarkoski Corded Ware grave, the presence of a dark feature, covering the walls and the bottom of the pit, was documented. This feature has been interpreted as the remains of an animal hide (Torvinen 1978, 40–41), but no further analysis has been carried out. Possible inner structures seem to have also been present in other graves. For example, in grave 10 the remains of a possible covering were noted at a depth of ca. 25 cm (Torvinen 1979, 61), and that of a platform at the bottom of grave 1a (*ibid.*, 40). The small stones present in the graves might have been used to raise parts of the bodies, but in the filling of grave 11 the stones were placed in a linear formation, possibly on top of the body (see Figure 4).

The material culture of the Comb Ware culture is well represented in the Kukarkoski ochre graves, with different combinations of flint, amber, and slate artifacts in nearly all of the burials (see Table 1). Even though plastered skulls cannot be interpreted from the Kukarkoski material, the placing of the artifacts seems to be typical of Comb Ware burials. For example, in grave 2, amber and slate ornaments were found together at the northern end of the grave (see Figure 6), possibly on the chest area of the deceased (Torvinen 1979, 46–47). Torvinen (1979, 47–48) has included two flint blades in the inventory of grave 2, but these blades were actually located in a small ochre feature outside of the burial feature (e.g. Torvinen 1978, appendix 26), and might thus suggest a votive deposit. Such deposits are also known from Zvejnieki burial ground (Zagorska 2001, 114).

Figure 6. Amber pendants and slate jewelry *in situ* in grave 2. Photo by Finland's National Board of Antiquities, 1975.



At the first glance, the Kukkaroski artifact material seems very typical for Comb Ware graves. Some anomalies do, however, exist. For example, the two halves of a single flint blade were collected from two different graves (Torvinen 1979, 62), a curiosity I will return to in the following chapter. Furthermore, in grave 5 two small adzes were found, making this burial stand out from the others. Since axes and adzes are not common in ochre grave inventories (e.g. Lappalainen 2007a, appendix 2), the burial differs from most of the Finnish ochre graves. A similar pattern can be seen at the Zvejnieki burial ground, where only four graves of the total number of over three hundred were furnished with axes or adzes – two of these graves being burials of children and two of women (Zagorskis 2004 [1987], appendix 1). Since the teeth fragments found from the grave 5 belonged to a child or a juvenile (see Table 1), it could be plausible that such artifacts were used only rarely, with the age and the sex of the deceased as a significant factor.

The Special Grave 1a

Standing out from the rest of the burials are the overlapping graves 1 and 1a, with their very rich find material and heavy use of ochre. In particular, grave 1a seems to be exceptional in many ways, and has even been previously interpreted as a shaman's grave (Seger 1982, 30). Even though an exceptional burial does not always equal a shaman burial, grave 1a was dug deeper and larger than any other Kukkaroski structure (see Table 1). It is also located at the bottom of the overlapping graves. Along with amber, flint, and slate artifacts, the burial was furnished with several secular artifacts – such as a stone mace, a grinding stone, and a slate knife – not typical for Comb Ware burials (e.g. Lappalainen 2007a, appendix 2). The Comb Ware vessel from the burial has only four parallels in the Finnish assemblage (e.g. Katiskoski 2003, 101–103), and one parallel in the Zvejnieki burial ground (Zagorskis 2004 [1987], 69), indicating that pottery vessels are a rarity in Comb Ware graves.

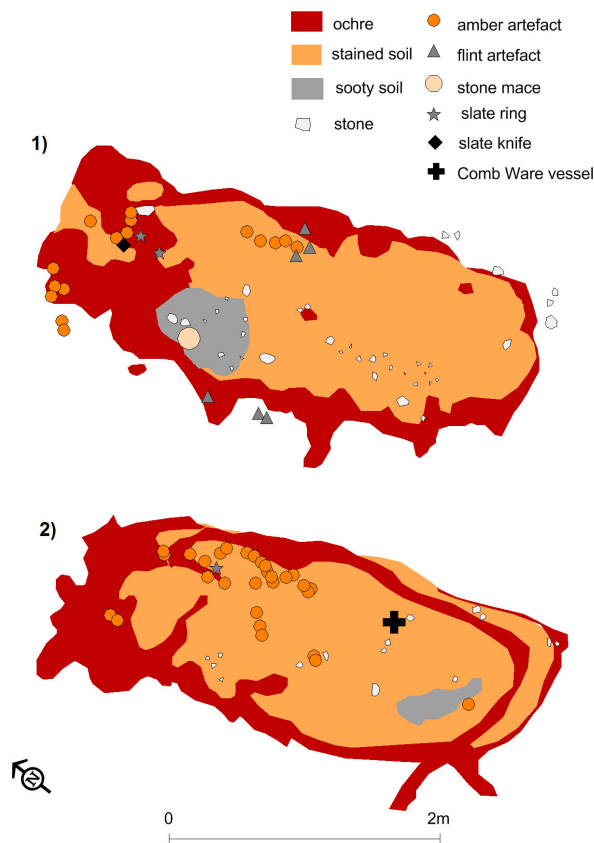
The most intriguing artifacts from grave 1a are an anthropomorphic amber pendant (see Figure 7) and a fragmented flint sculpture – both unique in the Finnish ochre graves. Interestingly, both artifacts are connected to the rock art tradition: many flint sculptures bear a resemblance to the iconography of rock art (Zamyatnin 1948; Kashina 2002), and

several anthropomorphic amber pendants have been found in a deposit in front of a Finnish Neolithic rock art site (Lahelma 2008, 133). It thus seems plausible that these anomalous grave finds are related to ritual activities that could have taken place at the rock art sites.

Figure 7. The anthropomorphic amber pendant from grave 1a. Photo by Marja Ahola, 2015.



The size and distribution of the ochre and the find material on the eastern and western sides of the burial feature seem to indicate a collective burial (see Figure 8). If the heaviest layer of ochre was placed on the head and chest area of the deceased, grave 1a could have contained two separate inhumations at the northern end of the grave structure. The cluster of amber and slate pendants at the eastern side of the grave – including the anthropomorphic amber pendant – would thus have covered the eastern inhumation, while the inhumation at the western side of the grave might have



received less artifacts. The flint artifacts of the burial were placed on opposite sides of the grave structure, indicating careful positioning of different types of materials or artifacts. The fragmented flint sculpture was situated in the cluster of flint artifacts at the eastern side of the grave, and can thus be associated with the inhumation that also received the anthropomorphic amber pendant.

Figure 8. The distribution of ochre and the artifacts in grave 1a. 1) Grave 1a at the depth of 80 cm illustrated with find material from layers 13–15 (70–80 cm). Even though not visible at the depth of 80 cm, at the depth of 70 cm blotches of ochre covered the amber and flint artifacts that seem to fall outside the burial structure (e.g. Torvinen 1975, appendix 16). 2) Grave 1a at the depth of 85 cm illustrated with find material from layers 16–17 (85–90 cm). Maps by Marja Ahola, 2015 (based on maps drawn by M. Ranki, 1975).

At a depth of 90 cm, the heavy layer of ochre is located slightly lower on the east side of the grave, and disappears from the west side (see Figure 2). This could represent yet another inhumation placed at the bottom of the grave. Next to the heavy layer of ochre, organic material, possibly from a platform or some other structure, can be observed. Furthermore, a curious “empty space”, perhaps relating to votive deposits or some other ritual activities, can be observed at the southern end of the grave structure (see Figures 2 and 8). Aside from the round ochre blotches, a few amber discs were also documented from this area. At a depth of 95 cm, the heavy layer of ochre representing the inhumation disappears, and is replaced by four traverse lines of ochre that have been interpreted as the last remains of the inner structure (Torvinen 1979, 40).

Connecting with Past Generations

The Neolithic practice of positioning new burials amongst older graves is clearly present at the Kukarkoski burial ground. Since the burials are earth inhumations, and no signs of grave monuments have been recorded, the new graves might have been made on top of the old ones by accident. Linking the present and the distant past through continuous activities around old monuments is, however, also a central part of prehistoric ritual life (e.g. Bradley 2002). Since most of the overlapping graves of Kukarkoski burial ground are in a cluster above grave 1a, this burial might indeed have been considered special, and new graves were therefore made on top of it on purpose.

Following from the excavation maps and photographs, it can be noted that grave 1a was overlapped by grave 1, which is connected with a very large area of ochre. This area was originally interpreted as the top soil of graves 1 and 1a (Torvinen 1978, 13–14). Grave 1 can, however, be seen as a clear N-S structure at the depth of 20–30 cm (e.g. Torvinen 1975, appendix 6), and grave 1a as a clear structure at the depth of 80 cm (e.g. Torvinen 1975, appendix 13), while the large ochre layer – overlapped by grave 10 – covered a much wider area. As a flint blade² was also found in the ochre (Torvinen 1975, appendix 44), this area could also indicate a partly destroyed ochre grave. A similar phenomenon was also noted with grave 11, which was possibly dug through an earlier ochre grave (Torvinen 1975, 9). The remains of the overlapped grave were, however, not documented.

Graves 1 and 10 also unusually “share” grave goods, as a half of the same flint blade was placed on both burials (Torvinen 1979, 62). Even though the stratigraphy of the graves is not free from ambiguity, this phenomenon strengthens even further the idea of an intentional connection: perhaps half of the blade was placed on the old grave when the new grave was dug, or perhaps the blade was found when grave 10 was made and it was deliberately broken in two in order to make a connection with the old burial.

Since the dark-filled graves overlap ochre graves, are oriented differently, and differ also in the placing of their grave goods, they might belong to a later phase of use. The artifact typology of these burials does not, however, differ from that of the ochre burials, and since grave 10 even shares grave goods with an ochre grave, these graves can only be dated by new AMS-dating. A more straightforward example of a reuse is the Corded Ware grave that clearly belongs to a later cultural tradition, although the vague 1970’s radiocarbon dating (see Table 1) even suggests a recurrent use. It must be noted, however, that the oldest reliable radiocarbon dates from Corded Ware contexts in central Europe date to 3000–2900 cal BC, and thus the presence of Corded Ware culture in Finland before this cannot be considered possible (Mökkönen 2011, 11–12).

² Catalogue number NM 19727:32 (The Archaeological Collections of the National Board of Antiquities, Finland)

Even though Corded Ware funerary practices seem to have been strictly regulated with grave goods that underline Corded Ware identity (Larsson 2009, 60, 354–355), Corded Ware graves are occasionally found at ochre burial grounds in Baltic area (e.g. Ahola in press). Since the Corded Ware people of Neolithic Finland were very likely immigrants (e.g. Neuvonen et al. 2015), the phenomenon could easily be interpreted by issues of power, in which the new people seek to take control over the important places of the originating cultures. The Kukkaroski Corded Ware grave does not, however, cut or overlap any of the ochre graves, and is, on the contrary, positioned among the older graves (see Figure 3). Since it has been proposed that the Corded Ware culture assimilated the local Fenno-Ugric language from the coexisting hunter-gatherers (Sajantila et al. 1995), it is plausible that other cultural phenomena were also exchanged. The location of the grave could thus indicate an assimilated burial practice in which the Corded Ware people wanted to form a connection with the ancestors of the new land by reusing old ochre burial grounds (e.g. Ahola in press). This could have been an act of power and control, but at the same time, the importance of past generations could have been something both cultures shared.

Discussion

The re-interpretation of the Kukkaroski burial structures shows that evidence for funerary practices can be discovered without preserved skeletal material. From the Kukkaroski material, it can be observed that the use of ochre in earth graves was still a core element of Neolithic Comb Ware funerary practice – an embodied tradition spanning thousands of years. Another clearly visible element of Middle Neolithic funerary practice is the characteristic assemblage of amber, flint, and slate artifacts present in nearly all of the Kukkaroski Comb Ware graves. Evidence of wrappings and inner structures can also be seen in the Kukkaroski graves. These elements were possibly used to protect the body and separate the deceased from the floor of the burial pit – a tradition known already from the Mesolithic period. It thus seems that, in addition to incorporating the Neolithic material culture of death, the Kukkaroski Comb Ware burials also continued the ancient Mesolithic core practices.

Even though the material culture of the Comb Ware culture seems to be strictly regulated, the Kukkaroski graves also showed variation in their artifacts. For example, some of the Kukkaroski graves lacked artifacts entirely – a phenomenon that is also known from other Comb Ware burial grounds (e.g. Katiskoski 2003; Luho 1961), which can mean either the use of unpreserved organic materials or a differing individual treatment of the deceased. By comparing the graves to each other, it was possible to note that graves 5 and 1a contained a very unique set of artifacts, which indeed indicate individual treatment of the deceased, perhaps connected with the age and status of the individual. It must be noted, however, that along with the unique artifacts, these burials were also furnished with the characteristic amber, flint, and slate artifacts, underlining the special meaning of these materials.

By interpreting grave 1a further, it became evident that this burial was very special. The grave was dug deep, and furnished with a rich set of artifacts. Among the artifacts were an anthropomorphic amber pendant and a fragmented flint sculpture, which connected the burial to contemporary rock art. Even though no rock art sites are known from the vicinity of the Kukkaroski burial ground (e.g. Lahelma 2008, appendix 3), this grave connects the Comb Ware ochre graves of the Kukkaroski burial ground to the shamanistic cosmology of the rock art – a phenomenon worth further research.

Furthermore, connection with previous burials seems to be an important element in Neolithic funerary practice. At the Kukkaroski burial ground, this connection was formed by making new graves on top of old ones, by sharing grave

goods, and by using the same burial ground for several hundred years. In the case of the Kukarkoski burial ground, it is also noteworthy that most of the overlapping burials are connected spatially with the special grave 1a, indicating that this burial continued to hold some special value even after the primary funerary rite. The Corded Ware grave shows that the Kukarkoski burial ground was a special location in which even other Neolithic communities buried their dead. It thus seems plausible that connection with past generations was an important part of the Neolithic belief system.

Concluding Remarks

In the light of the evidence from the Kukarkoski burial ground, it is evident that the Middle Neolithic ochre graves cannot be referred to as “inhumations in simple pit graves”. Instead, they clearly illustrate the complexity of Neolithic funerary practices and the associated belief system. As the Kukarkoski graves show, when the deceased were given an earth grave, they were ritually cared for, and were given a regulated set of grave goods and coloured with ochre – as had always been done before. It is thus evident that even though the emergence of the Neolithic world can be seen in the material culture of the ochre graves, the Neolithic Comb Ware funerary rites still continued the Mesolithic core practices.

The re-interpretation of the Kukarkoski graves also provides further insights into the Neolithic belief system, as unique grave goods connected the ochre graves to the shamanistic cosmology of contemporary rock art. The long term use of the Kukarkoski burial ground also underlines the importance of the place. At this special location, new burials were made in connection with the old ones, indicating a close connection with past generations. This combination of care and connection seems to be at the core of Neolithic funerary practice.

Acknowledgements

Several people have offered helpful comments, made corrections, and suggested improvements to a draft of this paper. I am grateful to Antti Lahelma, Liv Nilsson Stutz, Milton Núñez, Kristiina Mannermaa, Jan Magne Gjerde, Terhi Utriainen, Christopher TenWolde, Satu Koivisto and Mika Lavento for their good-natured criticism and support. I also wish to thank Jarkko Saipio (University of Helsinki) for pointing out the anomalous nature of axes in the ochre graves. The anonymous referees are also to be thanked for their insightful comments. The writing of this article was made possible by financial support received from Nordenskiöld-samfundet i Finland r.f. and from the Institute of Archaeology and the Doctoral Programme for History and Cultural Heritage at the University of Helsinki.

Biographical note:

Marja Ahola is working as a doctoral student in the Doctoral programme for History and Cultural Heritage at the University of Helsinki. Her PhD thesis deals with Finnish Stone Age burials and belief systems. Contact: marja.ahola@helsinki.fi

References

Unpublished Sources

- Lappalainen, M. *Hautarituaali ja kuolemankulttuuri Suomen neoliittisella kivikaudella. Rituaalimaisema, kollektiivinen muisti ja kuoleman materiaallinen kulttuuri Laitilan Nästinvristin, Liedon Kukkarkosken ja Laukaan Hartikan kalmistoissa*. Master's Thesis in Archaeology, University of Helsinki, Department of Philosophy, History, Culture and Art Studies, 2007. (= Lappalainen 2007a)
- Salo, K. *Osteologinen analyysi Manner-Suomen kivikautisista ihmisluista*. Unpublished osteological report at the archive of The Finnish National Board of Antiquities, 2015.
- Torvinen, M. *Lieto Kukkarkoski I 1975*. Unpublished excavation report at the archive of The Finnish National Board of Antiquities, 1975.
- Torvinen, M. *Lieto Kukkarkoski I 1976*. Unpublished excavation report at the archive of The Finnish National Board of Antiquities, 1976.
- Torvinen, M. *Lieto Kukkarkoski I, kivikautinen asuinpaikka ja kalmisto tähänastisten tutkimusten valossa*. Master's Thesis in Archaeology, University of Helsinki, Department of Archaeology, 1978.
- Torvinen, M. *Lieto, Rähälä-Asemanseutu -vesijohtolinjan rakentamisen takia suoritettu koekäivaus Vintalan ja Kukkarkosken kylissä 26.5–31.7.1980*. Unpublished excavation report at the archive of The Finnish National Board of Antiquities, 1980.

Literature

- Ahola, M. "Re-thinking the Stone Age Burial Ground of Jönsas, Southern Finland." In *Mesolithic Burials: Rites, Symbols and Social Organisation of Early Postglacial Communities*, edited by J. Grünberg et al. Tagungen des Landesmuseums für Vorgeschichte Halle 12. Halle (Saale): Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt, Verlag Beier & Beran, forthcoming. (= Ahola in press).
- Berggren, Å., and L. Nilsson Stutz. "From Spectator to Critic and Participant: A New Role for Archaeology in Ritual Studies." *Journal of Social Archaeology* 10, no. 2 (2010): 171–197.
- Bell, C. *Ritual Theory, Ritual Practice*. Oxford: Oxford University Press, 1992.
- Boric, D. "Apotropaim and the Temporality of Colours: Colourful Mesolithic-Neolithic Seasons of the Danube Gorges." In *Colouring the Past. The Significance of Colour in Archaeological Research*, edited by A. Jones and G. MacGregor, 23–44. Oxford: Berg, 2002.
- Bradley, R. *The Past in Prehistoric Societies*. London: Routledge, 2002.
- Brinch Petersen, E., and C. Meiklejohn. "Three Cremations and a Funeral: Aspects of Burial Practice in Mesolithic Vedbæk." In *Mesolithic on the Move. Papers Presented at the Sixth International Conference on the Mesolithic in Europe, Stockholm 2000*, edited by L. Larsson, K. Knutsson, O. Loeffler, and A. Åkerlund, 485–493. Oxford: Oxbow Books, 2003.
- Edgren, T. "Kolmhaara-gravarna." *Finskt Museum* 66 (1959): 5–25.
- Edgren, T. *Jäkärälä-gruppen. En västfinsk kulturgrupp under yngre stenåldern*. Suomen muinaismuistoyhdistyksen aikakauskirja 64. Helsinki: Suomen muinaismuistoyhdistys, 1966.
- Edgren, T. "Kivikausi." In *Suomen historia*, vol. 1: *Kivikausi, pronssikausi ja rautakauden alku, keski- ja myöhäisrautakausi*, edited by Y. Blomstedt, 19–97. Espoo: Weilin+Göös, 1984.
- Edgren, T. "Kolmhaara Reconsidered. Some New Observations Concerning Neolithic Burial Practice in Finland." In *Back to the Origin. New Research in the Mesolithic-Neolithic Žvejnieki Cemetery and Environment, Northern Latvia*, edited by L. Larsson and I. Zagorska, 327–336. Stockholm: Almqvist & Wiksell International, 2006.
- Fahlander, F. "Mesolithic Childhoods: Changing Life-Courses of Young Hunter-Fishers in the Stone Age of Southern Scandinavia." *Childhood in the Past* 5 (2012): 20–34.

- Grøn, O., and J. Skaarup. "Møllegabet II: A Submerged Mesolithic Site and a Boat Burial from Aero." *Journal of Danish Archaeology* 10 (1991): 38–50.
- Gurina, N. "Oleneostrovski mogilnik." *Materialy I issledovanya po areologii SSSR* 47. Moscow: Akademiya nauk, 1956.
- Grünberg, J. M. "Rot in Paläolithischen und Mesolithischen Bestattungen." In *Rot: Die Archäologie bekennt Farbe, 5: Mitteldeutscher Archäologentag vom 4. bis 6. Oktober 2012 in Halle (Saale)*, edited by Harald Meller, Christian-Heinrich Wunderlich, and Franziska Knoll, 121–134. Tagungen des Landesmuseums für Vorgeschichte Halle 10. Halle (Saale): Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt, Verlag Beier & Beran, 2013.
- Halinen, P. "Burial Practises and the Structure of Societies during the Stone Age in Finland." In *Dig it All. Papers Dedicated to Ari Säämänen*, edited by M. Huurre, 173–179. Helsinki: The Finnish Antiquarian Society, The Archaeological Society of Finland, 1999.
- Herva, V-P., K. Nordqvist, A. Lahelma, and J. Ikäheimo. "Cultivation of Perception and the Emergence of the Neolithic World." *Norwegian Archaeological Review* 47 (2014) 2: 141–160.
- Huurre, M. *Kivikauden Suomi*. Helsinki: Otava, 1998.
- Kashina E.A. "Anthropomorphic Flint Sculpture of the European Russian Late Neolithic Age." *Anthropologica et Præhistorica* 113 (2002): 51–60.
- Katiskoski, K. "Cemetery and the Dwelling Site Vaateranta in Taipalsaari, Southeastern Finland." *Suomen Museo* (2003): 81–125.
- Kostyleva, E. L., and A.V. Utkin. "Khronologiya i planirovochnaya struktura neoliticheskogo mogil'nika Kukarkoski." In *Tver'skoi arkheologicheskii sbornik. Vypusk 6, Tom 1, Materialy III Tver'skoi arkheologicheskoi konferentsii i vosmogo zasedaniya nauchnogo seminara "Tverskaya zemlya i sopredelnye territorii v drevnosti"*, edited by I. N. Chernykh, 384–391. Tver: Tverskoi gosudarstvennyi obediennyi muzei, 2006.
- Koivisto, S. "Luihin ja ytimiin. Pyyntiä ja elämää Itämeren äärellä noin 7500 vuotta sitten." In *Helsingin pitäjä 2011 Helsinge*, edited by J. Hako, 8–21. Vantaa: Vantaa-Seura – Vandasällskapet, 2010.
- Lahelma, A. *A Touch of Red. Archaeological and Ethnographic Approaches to Interpreting Finnish Rock Paintings*. Iskos 15. Helsinki: The Finnish Antiquarian Society, 2008.
- Lappalainen, M. "Punamullan pauloissa. Kivikauden hautatutkimuksen tutkimushistoria Suomessa." *Muinaistutkija* 3 (2007): 2–19. (= Lappalainen 2007b)
- Larsson, Å. M. *Breaking and Making Bodies and Pots. Material and Ritual Practices in Sweden in the Third Millenium BC*. Aun 40. Uppsala: Uppsala Universitet, 2009.
- Löhmus, M. "Mortuary Practices During the Comb Ware Cultures in Estonia and the Problems of Their Interpretation." In *Colours of Archaeology: Material Culture and the Society: Papers from the Second Theoretical Seminar of the Baltic Archaeologists (BASE) Held at the University of Vilnius, Lithuania, October 21–22, 2005*, edited by A. Merkevičius, 33–48. Interarchæologia 2. Vilnius: Aušra, 2007.
- Miettinen, M. "Laukaan Hartikan kivikautinen kalmisto." *Keski-Suomi* 19 (1992): 8–23.
- Mökkönen, T. *Studies on Stone Age House Pits in Fennoscandia (4000–2000 cal BC). Changes in Ground Plan, Site Location and Degree of Sedentism*. Helsinki: University of Helsinki, 2011.
- Neuvonen, A. M., M. Putkonen, S. Översti, T. Sundell, P. Onkamo, A. Sajantila, and J. U. Palo. "Vestiges of an Ancient Border in the Contemporary Genetic Diversity of North-Eastern Europe." *PLoS ONE* 10, no. 7 (2015): e0130331. doi: 10.1371/journal.pone.0130331.
- Nilsson Stutz, L. *Embodied Rituals and Ritualized Bodies. Tracing Ritual Practices in Late Mesolithic Burials*. Stockholm: Almqvist & Wiksell International, 2003.
- Nilsson Stutz, L. "Minnet och glömskan av det döda i Skateholm." In *Minne och myt. Konsten att skapa det förflutna*, edited by Å. Berggren, S. Arvidson, and A.-M. Hållans, 81–98. Vägar till Midgård 5. Lund: Nordic Academic Press, 2004.
- Nilsson Stutz, L. "Unwrapping the Dead." In *Back to the Origin. New Research in the Mesolithic-Neolithic Žvejnieki Cemetery and Environment, Northern Latvia*, edited by L. Larsson, and I. Zagorska, 217–233. Stockholm: Almqvist & Wiksell International, 2006.

- Nilsson Stutz, L. "A Baltic Way of Death? A Tentative Exploration of Identity in Mesolithic Cemetery Practices." In *Uniting Sea II: Stone Age Societies in the Baltic Region*, edited by Å. M. Larsson, and L. Pappmehl-Dufay, 127–144. Occasional Papers in Archaeology 51. Uppsala: Uppsala universitet, 2010. (= Nilsson Stutz 2010a)
- Nilsson Stutz, L. "The Way we Bury our Dead. Reflections on Mortuary Ritual, Community and Identity at the Time of the Mesolithic-Neolithic Transition." *Documenta Praehistorica* 37 (2010): 33–42. (= Nilsson Stutz 2010b)
- Núñez, M. "Clay Figurines from the Åland Islands and Mainland Finland." *Fennoscandia archaeologica* 3 (1986): 17–34.
- Núñez, M. "On Subneolithic Pottery and its Adoption in Late Mesolithic Finland." *Fennoscandia archaeologica* 7 (1990): 27–52.
- Parker Pearson, M. *The Archaeology of Death and Burial*. Thrupp: Sutton Publishing, 1999.
- Piezonka, H., E. Kostyleva, M. G. Zhilin, M. Dobrovolskaya, and T. Terberger. "Flesh or Fish? First Results of Archaeometric Research of Prehistoric Burials from Saktysk IIa, Upper Volga Region, Russia." *Documenta Praehistorica* 40 (2013): 57–73.
- Purhonen, P. "Jönsaxens punamultahaudat: vanhimmat Suomesta tunnetut hautaukset?" In *Helsingin pitäjä 1980*, edited by J. Hako, 7–15. Vantaa: Helsingin pitäjän kotiseutu- ja museoyhdistys ry, Vantaan kaupungin kulttuurilautakunta, 1980.
- Purhonen, P. *Kristinuskon saapumisesta Suomeen: uskontoarkeologinen tutkimus*. Suomen muinaismuistoyhdistyksen aikakauskirja 106. Helsinki: Suomen muinaismuistoyhdistys, 1998.
- Sajantila, A., and S. Pääbo. "Language Replacement in Scandinavia." *Nature Genetics* 11 (1995): 359–360.
- Seeger, T. "Om stenålderns jägarsamhälle: en experimentell analys av två subneolitiska gravfält i Finland." In *Studia minora: professori emerito Carolo Fredrico Meinander die Caroli MCMLXXXII gratia dedicaverunt discipuli*, edited by Helena Edgren, and Pirjo Uino, 25–39. Helsingin yliopiston arkeologian laitos: Moniste 29. Helsinki: Helsingin yliopisto, 1982.
- Torvinen, M. "Liedon Kukkarkosken kivikautinen kalmisto." *Suomen museo* (1979): 37–80.
- Töröv, M. "Body on Paper. Applying Archaeothanatological Principles in Re-Analyzing the Tamula XXII Neolithic Burial of Estonia." In *Ancient Death Ways. Proceedings of the Workshop on Archaeology and Mortuary Practices, Uppsala, May 2013*, edited by K. von Hackwitz, and R. Peyroteo-Stjerna, 167–190. Occasional Papers in Archaeology 59. Uppsala: Uppsala universitet, 2015.
- Vikkula, A. "The Stone Age Graves of the Nästinristi Site in Laitila, SW Finland." *Suomen museo* (1986): 37–80.
- Vuorinen, J. H. T. *Püikivi ja Suomen kampakeraaminen püikauppa*. Helsingin yliopiston arkeologian laitos: Moniste 30. Helsinki: Helsingin yliopisto, 1982.
- Zagorska, I. "Amber Graves of Zvejnieki Burial Ground." In *Baltic Amber. Proceedings of the International Interdisciplinary Conference Baltic Amber in Natural Sciences, Archaeology and Applied arts 13–18 September, Vilnis, Palanga, Nida*, edited by A. Butrimas, 109–124. Acta Academiae Artium Vilnesis 21. Vilnius: Vilnius Academy of Fine Arts, 2001.
- Zagorska, I. "Radiocarbon Chronology of the Zvejnieki Burials." In *Back to the Origin. New Research in the Mesolithic-Neolithic Zvejnieki Cemetery and Environment, Northern Latvia*, edited by L. Larsson, and I. Zagorska, 91–113. Stockholm: Almqvist & Wiksell International, 2006.
- Zagorska, I. "The Use of Ochre in Stone Age Burials of the East Baltic." In *The Materiality of Death: Bodies, Burials, Beliefs*, edited by F. Fahlander, and T. Oestigaard, 115–124. BAR International Series 1768. Oxford: Archaeopress, 2008.
- Zagorskis, F. *Zvejnieki (Northern Latvia) Stone Age Cemetery*. Translated by Valdis Bērziņš. BAR International Series 1292. Oxford: Archaeopress, 2004 [1987].
- Zamyatnin, S. "Miniaturnye kremneviye Skulpturi v Neolite Severo-Vostochnoy Evropi." *Sovetskaya Archeologiya* 10 (1948): 85–123.

Abstrakti

Suomen neoliittisten punamultahautojen hautauskäytäntöjen jäljillä: Tapaustutkimus Kukkarkosken kampakeraamiselta kalmistolta

Suomen kivikautisia hautoja kutsutaan usein “yksinkertaisiksi kuoppahautoiksi”. Termi tuo mukanaan ajatuksen yksinkertaisesta hautarituaalista, illusion, jonka artikkelissa esitetty keskineoliittisen Kukkarkosken kalmiston uudelleentulkinta kumoaa. Kuten Kukkarkosken aineisto osoittaa, suomalaisissa punamultahautoissa näkyy jälkiä monimuotoisista kuolemaan liittyvistä käytännöistä, joissa vainajista on huolehdittu lukuisin eri tavoin. Kukkarkosken kalmistolla uusia hautauksia on tehty myös vanhojen hautojen yhteyteen, mikä viittaa läheiseen yhteyteen menneiden sukupolvien kanssa. Nämä piirteet näyttävät olevan kuoppahautausten osalta neoliittisten hautarituaalien keskiössä.