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Chapter 4. Symbolic artefacts in the Late Palaeolithic and the early Mesolithic in Northern and Central Europe

Abstract: The symbolic culture at the end of the Palaeolithic and the beginning of the Mesolithic is still poorly investigated. In our study, we looked for new perspectives on the execution of symbolic objects and their manner-of-use. In Northern and Central Europe Late Palaeolithic societies one finds carefully crafted bone and antler artefacts covered with painstakingly engraved ornaments, and also, figurines of animals made of amber. These objects were not used as tools, were held onto for many years, and apparently played a central role in the social and religious life of the forager groups. A symbol more significant than others appears to be the pattern of densely engraved zigzag lines. Its literal meaning is no longer available to us at present, nevertheless, it is likely to be related to the aquatic element, the reflection of the growing role of the aquatic environment in everyday life and in the symbolic culture. The wide distribution of densely engraved zigzag motif noted across Northern Europe suggests a free flow of information, ideas and beliefs within an open relationship network connecting different groups. In the early Mesolithic finds decorated with densely engraved zigzag lines concentrate in two regions: in what today is Denmark, and in central and south-western Finland, with some rare finds recorded in the British Isles and in the eastern Baltic region. Simple anthropomorphic motifs in the stroke style are known mostly from the islands of Denmark. This geographically confined distribution of this distinctive style is related presumably to the emergence of socio-cultural borders which separated societies with different traditions, organization and culture system.
Keywords: Late Palaeolithic, early Mesolithic, symbolic culture, engraved ornaments, zoo- and anthropomorphic representations

Introduction

Objects of Late Palaeolithic art from Northern and Central Europe are exceedingly rare. Most of them are stray finds, dated only by their style and raw material. This significant reduction in the number of art objects, evident especially if we compare their number to the assemblage from Magdalenian sites, has been attributed mostly to two factors: i./ substantial mobility of the Late Palaeolithic groups which supposedly discouraged the making of art objects; ii./ perishable nature of materials used in making symbolic objects, responsible for their decomposition. In attempting to interpret this phenomenon different researchers have placed more emphasis on either of these two factors or on a combination of the two (Rust 1943; Bosinski 1982; Kozłowski 1992; Floss 1994; Baales, Street 1996; Jochim 1998, 2008; Gamble *et al.* 2004).

Our studies afford a new perspective on the manufacture, manner-or-use and typical archaeological context of symbolic artefacts at the end of the Palaeolithic. We propose to elucidate these issues by drawing on our studies of the ornamented object from Rusinowo and inquiry into symbolic artefacts from past research recovered in northern and central Europe. Moreover, in our discussion we reach back to the early Mesolithic age of this region, to draw attention to the continuity and evolving meaning of the symbolic artefacts. By so doing

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we hope to specify some of their features and trace the evolution of symbolic culture during the period spanning the end of the Magdalenian and the early Mesolithic age.

The symbolic culture at the end of the Palaeolithic

At the end of the Palaeolithic, following the decline of the Magdalenian complex, there is a major reduction of the number of symbolic objects recovered from archaeological sites of western and central Europe. This process, described in subject literature several decades ago (Breuil 1952; Leroi-Gourhan 1965; Bosinski 1982), is observed both as the reduction of the number of artefacts of this type and the decline of figural representations. The number of the latter is negligible when compared to artefacts decorated with geometric designs. This change is particularly apparent in the European Lowland where Late Palaeolithic figural representations are exceedingly rare; in this region, we find objects covered with geometric patterns, and their number is not impressive either. Neither have the Late Palaeolithic sites yielded a larger number of ornaments executed on fragments of bone and antler, so characteristic for the Magdalenian complex.

When present, the rare anthropomorphic representations known from the Late Palaeolithic art have been be mostly in the geometric style. Built by short strokes which represent in a synthetic manner an image of a woman with legs spread out, the human figure on the Rusinowo artefact is characteristic for this particular style. A similar execution, in a synthetic style, is seen in an image placed centrally on one side of the pendant from Weitsche: a figure which consists of a short line with strokes issuing from it, flanked by engraved chevrons (Fig. 1). In our interpretation this is a highly geometricised anthropomorphic motif, even more abstract than the representation from Rusinowo. In the art of the Late Palaeolithic this type of geometricization of anthropomorphic patterns is known, and takes the form of hyper-anthropomorphic representations, recorded in Southern and South-Western Europe (Barbaza 1999). They consist of vertical line or lines, with chevrons issuing from the outer lines or short zigzags consisting of three strokes each, symbolic of spread out limbs (Figs. 2, 3). It is reasonable to consider motifs of this type as a multiplied version of the figure on the Rusinowo object. Hyper-anthropomorphic representations have been identified on a stone from the site Riparo Villabruna A (Fig. 2), in the Venetian Prealps (Aimar *et al.* 1994, 250-252, Fig. 23), and on stone walls (Fig. 3), eg, in Abrigo de Los Chaparros in the valley of río Martín, Aragon (Beltrán Martínez 1998, Fig. 4). The stone was found, its larger side facing up, resting over the burial of a 25-year old man, near to his left hip. The radiocarbon date obtained for this burial, attributed to the Epigravettien, was 12 140 ± 70 BP (KIA-27004), ie 12 240-11 830 BC (Broglio 2000; Vercelotti *et al.* 2008). Both sides of this flat pebble were covered with hyper-anthropomorphic motifs (Fig. 2). Their interpretation as anthropomorphic is confirmed by the figure painted with red ochre identified on pebble RD82 recovered nearby, from the Riparo Dalmeri site (Dalmeri *et al.* 2005, 168, Fig. 2; 2009, Fig. 10), and a fragment of an unfinished human figure in a similar style recognized on rock RD1 from the same site (Dalmeri *et al.* 2002, Fig. 26; 2009, Fig. 10). The figure painted

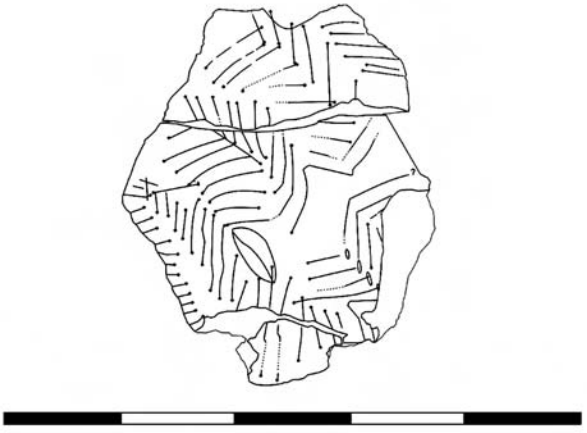

Fig. 1. Weitsche, Lower Saxony. An amber pendant (after Veil, Breest 2006)

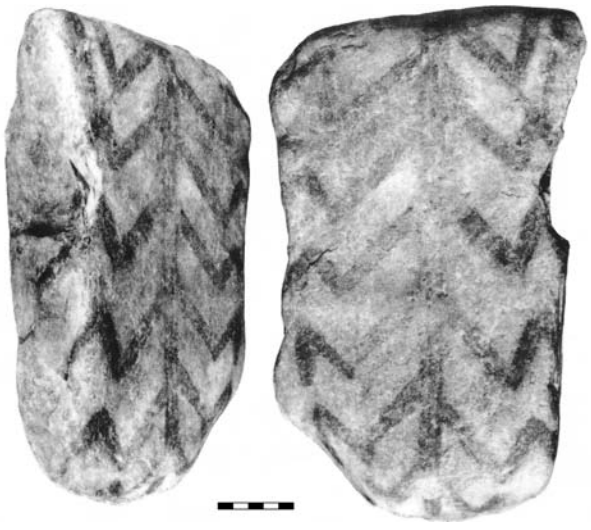

Fig. 2. Riparo Villabruna A, Trentino. A hyper-anthropomorphic representation on a stone (after Aimar *et al.* 1994)

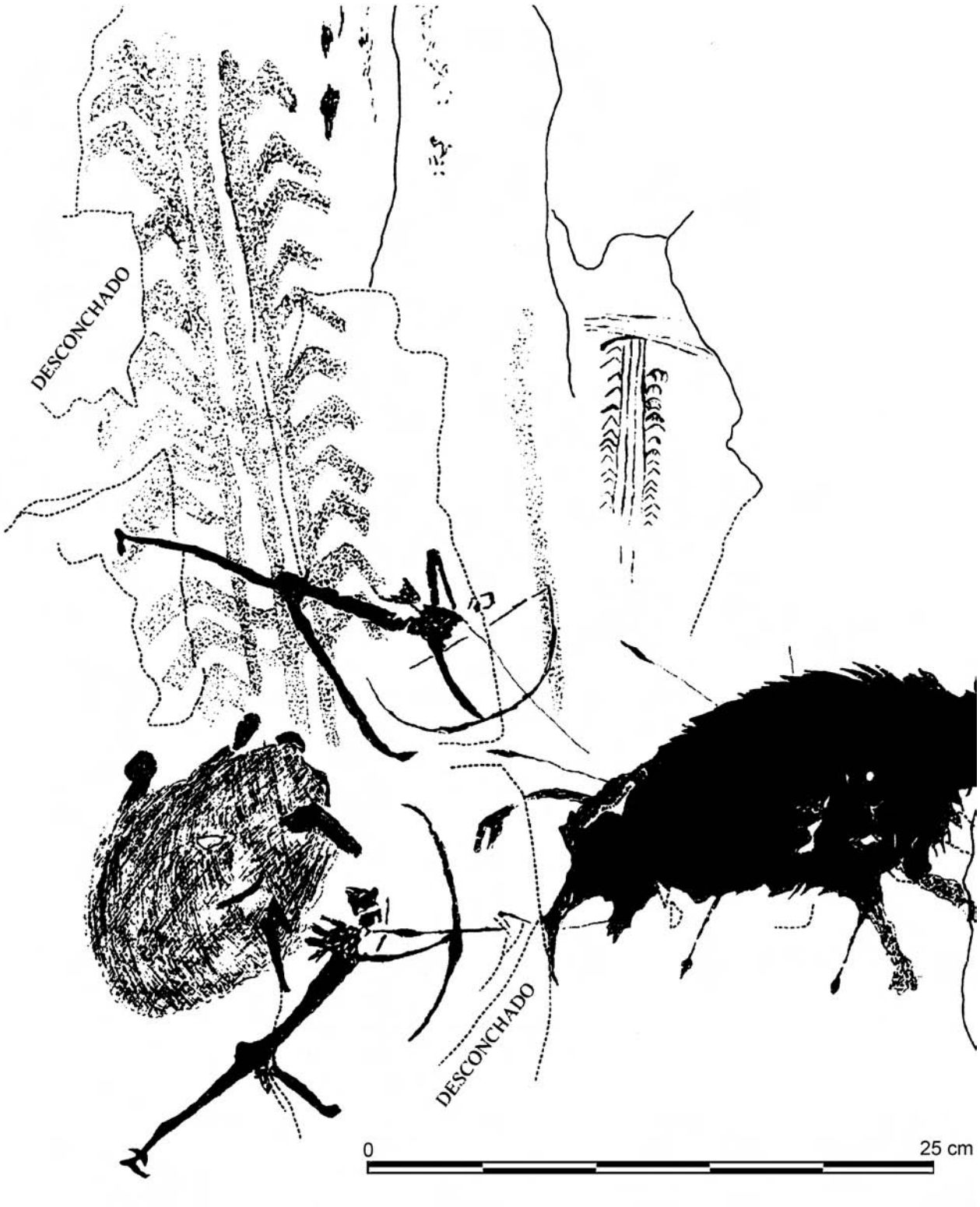

Fig. 3. Abrigo de Los Chaparros, Aragon. Parietal art (after Beltrán Martínez 1998)

on pebble RD82 has a linear torso, the head (marked with a stroke) tilted to the side, and limbs which issue from the trunk as zigzags consisting of three strokes (Fig. 4). Although the dating obtained for the Riparo Dalmeri site is younger (ca 11 450––11 250 BC), the representational idea used in the human figure refers to a similar stylistic tradition. Riparo Villabruna A and Riparo Dalmeri produced further painted pebbles interpreted as objects used during complex rituals (Broglio 2000; Dalmeri *et al.* 2006; 2009). In Riparo Villabruna A they were associated with a symbolic act of marking the burial; at Riparo Dalmeri they were an element of a habitation space and were associated with its ritual valorisation.

Fig. 4. Riparo Dalmeri, Trentino. Pebble RD82. An anthropomorphic representation (image courtesy of MUSE-Museum of Sciences, Trento)

In the Late Palaeolithic art from the northern regions of Europe anthropomorphic representations are exceedingly rare. From site Geldrop in the Netherlands, we have an engraved image of a woman depicted en face, wearing a loincloth (Bohmers, Wouters 1962; Verhart 2008; Verhart, d'Errico 2012), legs spread slightly, the style realistic, different from the line and stroke figure seen on the Rusinowo object. The figure from Wanssum (Verhart 2008) is similar in its portrayal, although this image lacks realistic features, nevertheless, it is more dynamic – with arms raised and legs farther apart. It is probably a right-handed human in a throwing or striking motion (Verhart, d'Errico 2012). A stone arrow shaft polisher from the site Niederbieber in North Rhine-Westphalia comes is decorated with a row of simplified human figures (Loftus 1982).

It is legitimate to trace the beginnings of the concept of simplifying the human silhouette in a geometric manner to the cultural milieu of the Magdalenian complex. The style itself of representing the human figure using strokes is well documented by very rudimentary anthropomorphic representations (type "e" of Bosinski and Fischer) known from different Magdalenian sites of central and western Europe, especially from Gönnersdorf (Bosinski, Fischer 1974; Bosinski *et al.* 2001). However, differently than in the figure on the Rusinowo object, the Magdalenian stroke figures were in profile. This tradition was apparently continued within the cultural milieu of the Arch-backed Point complex, where on the arrow shaft smoother from Niederbieber II the row of the decidedly geometricised figures is shown in profile. Nevertheless, this tradition cannot have been too apparent, and more likely was rooted in a bygone age given that within the cultural milieu of the Arch-backed Point complex this particular form of portrayal of women is unique.

On the other hand, the material attributed to the Magdalenian complex from central Europe includes two representations reminiscent in their style of the figure from Rusinowo – their style is synthetic. Both these engravings (one surviving incomplete) were identified on bone points with a single bevelled base found at Petersfels (Mauser 1970, 58, Plate 72:6) and Kniegrotte (Richter 1955, Fig. 6; Feustel 1974, 104, Fig. 74:6). Although in them the human figure is shown en face, the portrayal of the limbs is different (Fig. 5). Both figures are heavily geometricised so their interpretation as representations of a human silhouette is doubtful. Nevertheless, the stylistic tendency to synthesize (reduce) the human figure to only a few strokes has been confirmed by the study of the representations from Gönnersdorf (Bosinski, Fischer 1974). We can find there a whole range of representational types: from forms with marked limbs,

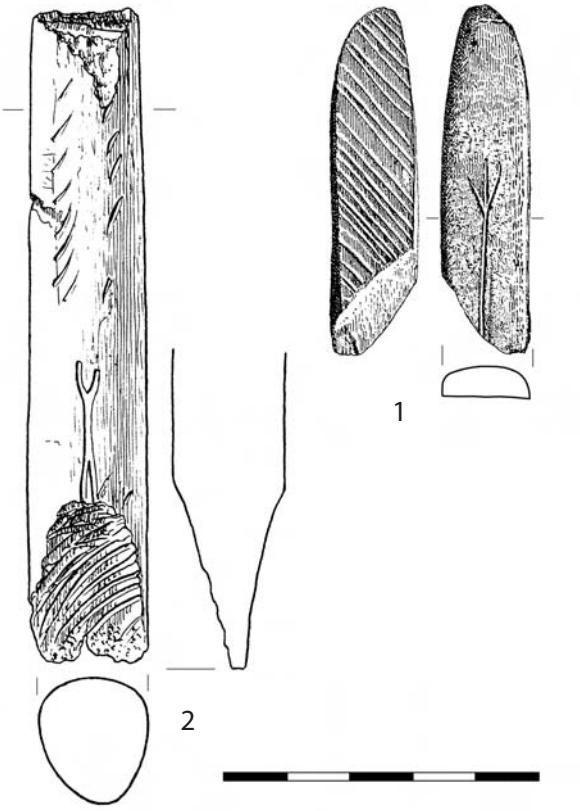

Fig. 5. Anthropomorphic (?) figures built of strokes in the Magdalenian of Central Europe. 1: Kniegrotte, Thuringia; 2: Petersfels, Baden-Württemberg (after Feustel 1974; Mauser 1970)

well-defined buttocks and breasts, to engravings in which the human silhouette is signalled by means of two-three strokes. Moreover, in the Magdalenian art from other regions, we find synthetic representations of the human figure, built by strokes, even if they are not very frequent (Guthrie 2005, 232).

In the figural art at the end of the Late Palaeolithic, much more frequent than anthropomorphic are zoomorphic representations. In the European Lowland zone, some of them are figurines of animals made of amber like the horse from Dobiegniew, the elk from Weitsche, and an obscure animal from Næsby Strand on Zealand. The object from Weitsche surfaced on the site of the Federmesser Culture and is likely to date to a period around 12000-11750 BC (Veil *et al.* 2012). The figurine from Dobiegniew is a stray find, dated to the Late Palaeolithic (Federmesser Culture?) based on its stylistic convergence with the image of the elk from Weitsche (Virchow 1884; Veil, Breest 1997). The recently discovered amber figurine from Næsby Strand resembles the described specimens, with additionally on its body, on both its sides, an ornament of densely engraved zigzag lines (Petersen 2016). The modelling of this figurine's torso is very careful, but the rendering of the head and the limbs is less realistic. Also notable in this context are two representations of animals, identified with some confidence as elk cows, engraved on a retoucher from Windeck in Rhineland-Palatinate (Heuschen *et al.* 2006). Despite the realistic treatment of both figures they are marked by a certain stiffness of execution, expressed by the limited fluidity of its line. Perhaps, this is due to the low level of skill of the engraver who had only little-limited experience in making this type of representation.

The representations discussed above are to some extent similar to Late Palaeolithic engravings discovered in France (Lorblanchet 1989; Roussot 1990; Guy 1993, 1997). These occur on bones and stones, and on the walls of caves, dating to the very end of the Pleistocene, and the first half of the Preboreal period. The most characteristic are small finds from caves La Borie del Rey (layer 7) and Rochereil, rock shelters Pont d'Ambon (layer 2), Morin (level AI and "Azilian-Magdalenian layer"), and cave art at Gouy, Normandy (Coulonges 1963; Deffarge *et al.* 1975; Célérier 1998; Paillet, Man-Estier 2014). The figures of animals are characterized by a geometric portrayal of the torso and the head, the latter disproportionately small, and with a frequent disregard for anatomical detail. Usually, the torso and the head are covered by geometric ornaments (cross-hatching, parallel lines, strokes, zigzags) and the limbs are represented schematically. The origins of this style may be traced to a small number of zoomorphic images attributed to the Azilian (Murat, Gouy). However, the most characteristic representations of this type are known from sites attributed to the Laborian, dating to the Younger Dryas and the Preboreal period. They have been described as "style Pont d'Ambon" (Paillet, Man-Estier 2014). Some features of this convention have been identified moreover in Late Palaeolithic zoomorphic images known from the Iberian Peninsula, both in rock art and portable art (Bueno Ramírez *et al.* 2007; García-Diez, Cacho Quesada 2015).

A distinct feature of the amber animal figurines from Weitsche, Dobiegniew and Næsby Strand is their torso which has the form of a trapeze (in outline) and geometric patterns used more for a symbolic or/and decorative than a representational purpose, even if the style of sculpture is closer to realism. There is no denying after all that other elements of these representations refer more to Magdalenian models: the realistic modelling of the head and the torso, the portrayal of anatomical details of

the head. Geometric patterns were used for a decorative purpose also in a figurine of a cervid found in a grave at Bonn-Oberkassel (Bosinski 1982, 42, Plate 71:1) dated to the last phase of the Magdalenian complex, or possibly, the inception phase of the Arch-backed Point complex (Baales, Street 1998; Street *et al.* 2006, 568). The atrophy of legs observed in the Late Palaeolithic engravings in France is seen at the most in the representation from Bonn-Oberkassel. In the images from Dobiegniew and Weitsche, the legs have lost their importance, which they have in the Magdalenian art – they have become more of a structural element, supporting the emphasized torso and head. Veil *et al.* (2012, 669) have argued that at the end of the Palaeolithic animal figurines may have been mounted atop wooden (?) staffs, as a new form of display of symbolic artefacts. This tradition could have appeared even earlier, within social groups of the Magdalenian complex – if we agree that the burial from Bonn-Oberkassel represents the late Magdalenian tradition.

Recently, the much-discussed representation of an elk's head from Egemarke on Zealand has been interpreted as a Late Palaeolithic object and attributed to the Brommian (Mortensen *et al.* 2014; Petersen 2015), instead of its previous interpretation as a Mesolithic artefact (Mathiassen 1953). The Egemarke find has the form of a plaque with holes, possibly for sewing onto clothing, textile or hide, although originally it could have formed part of a larger figurine (Petersen 2015). Peter Vang Petersen pointed out the similarity of the heads of the figurines from Weitsche and Egemarke, and the use of the multiple zigzags in decorating the latter, the motif widespread in the Palaeolithic art of the Lowland zone. In our view the elk's head from Egemarke is stylistically different: rather than being three-dimensional it is flat, summarily drawn and lacking anatomical details other than the fold below the chin and the hole-eye. In contrast to it, the head of the elk figurine from Weitsche is three-dimensional and was shaped realistically, complete with delineating the muscles and details of the head. Equally importantly, some of the zigzags used in decorating the head of the elk from Egemarke consist of four strokes and form a motif resembling a bird in flight. This pattern is well confirmed in the art of the early Mesolithic on Zealand; it is seen in different configurations on mattocks from Mullerup and Ringsted å, on daggers from Mullerup and Sværdborg I, on a knife from Øgårde, and on an amber pendant from Lundby I (Płonka 2003, Figs. 40:2, 42:3, 45:1, 47:1, 88:2), even if on none of them its form is the same as in the Egemarke find. Moreover, the strokes forming the zigzag lines on the Egemarke object are very short, in which they recall the Maglemosian motifs. On the other hand, the geological position of the site suggests an earlier chronology. The artefact was excavated from layers found roughly 2.0 m underneath the peat. A test excavation made in the area of the find spot confirmed the presence of lacustrine deposits below the peat. According to preliminary pollen analyses, these deposits were dated to the late Pleistocene (Petersen 2015, 228). In the light of these findings, it is reasonable to conclude that the elk representation from Egemarke has a Late Palaeolithic dating. The presentation of the animal's silhouette and its ornamentation reflect stylistic change occurring at the end of the Palaeolithic which resulted in the birth of Mesolithic art. Late Palaeolithic engravings from the European Lowland and the adjacent upland belt usually consist of simple geometric motifs: parallel lines, strokes, cross-hatching, zigzags and chevrons. They appear on pebbles and stone plaques, on antler and bone tools: knives, Lyngby axes, harpoon-heads. Characteristic among these patterns are zigzag motifs, which become widespread in the Late Palaeolithic art of north-western and central Europe. They often assume the form of densely engraved, parallel zigzag lines, covering some parts of an object, as in artefacts from Rusinowo, Wustermark 22 (Fig. 6) and others (Table 1). In the Magdalenian art of Central Europe, zigzag motifs are extremely rare and are never seen in an arrangement known from the Rusinowo object (Płonka *et al.* 2011, 730).

The motif of densely engraved zigzags appears in the Lowland at the time of its reoccupation during the Bølling interstadial. Its earliest use is documented on the antler sleeve of a flint knife (Riemenschneider), found in a pond on the Hamburgian site at Meiendorf (Table 1). One end of this object ends in what appears to be the head of an aquatic bird. On this "head" and "beak" are short, densely engraved linear designs, intermediate in form between a zigzag and a wavy line. In the Allerød interstadial (GI-1c-a) the motif of densely engraved zigzags is seen on all manner of artefacts from the European Lowland region and the adjacent upland areas. In Western and Central Europe the motif of multiple zigzag lines has been recorded in sites attributed to the Arch-backed Point complex. It covers the surface of a red deer beam from Conty in the site le Marais, where it runs crosswise or parallel to the longer axis of the object (Fig. 7:1). Many zigzag lines are observed on the stone plaque from Trémaouézan, site Lann-Gazel

Table 1. Late Palaeolithic artefacts with dense zigzag line ornament in NW Europe

Site	Artefact	Find context	Cultural context	Radiocarbon date BP or chronology according to context	Calibrated date BC	Date on ornamented artefact	Reference
Meiendorf, pond	antler sleeve	pond next to the campsite	Hamburgian	12 460 ± 60 (GrN-11254) 12 360 ± 110 (K-4329)	13 060-12 290 13 030-12 100	-	Rust 1937
Conty, stan. Le Marais, lower level	red deer antler shaft	campsite	Federmesser	11 890 ± 90 (OxA-6151 Ly-260); 11 620 ± 90 (OxA-6148 Ly-257) 11 560 ± 90 (OxA-6149 Ly-258) 11 410 ± 80 (OxA-6150 Ly-259)	12 030-11 540 11 760-11 320 11 620-11 270 11 470-11 150	-	Fagnart 1997
Trémaouézan, stan. Lann-Gazel	slate plate	campsite	Azilian	Allerød (?)	-	-	Le Goffic 2001
Weitsche	amber pendant	campsite	Federmesser	11 980 ± 120 (KIA-26439) 11 755 ± 50 (KIA-35664)	12 180-11 610 11 770-11 520	-	Veil and Breest 2006; Veil *et al.* 2012
Egemarke	amber figurine of an animal	stray find	?	Allerød/Younger Dryas (?)	-	-	Mathiassen 1953 ; Petersen 2015
Næsby Strand	"	stray find	?	Allerød/Younger Dryas (?)	-	-	Petersen 2016
Fogens Enge	bone rod	stray find	?	Allerød/Younger Dryas	-	+	Petersen 2015; Michaelsen, Petersen 2016
Rusinowo	elk antler artefact with the blade	stray find	?	10 700 ± 60 (Poz-14541)	10 780-10 610	+	Płonka *et al.* 2011
Wustermark 22	„	next to the campsite	?	10 005 ± 70 (Ua-20962)	9820-9300	+	Beran 2001 ; Gramsch and Beran 2010
Llandudno, Kendrick's Cave	horse mandible	?	?	10 000 ± 200 (OxA-111)	10 440-8930	+	Sieveking 1971; Gillespie *et al.* 1985
Jeglin	harpoon-head	stray find	Swiderian (?)	Younger Dryas (?)	-	-	Gross 1940; Galiński 1990
Złotów	harpoon-head	stray find	?	Younger Dryas (?)	-	-	Kleemann 1938; Galiński 1990

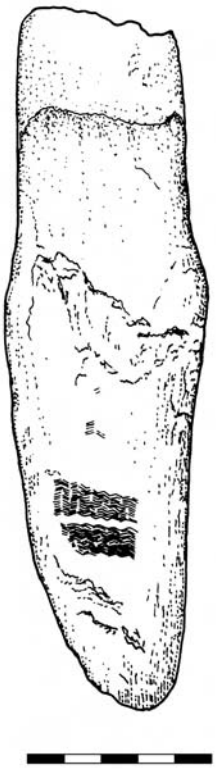

Fig. 6. Wustermark 22, Brandenburg. An ornamented artefact made from elk antler (after Beran 2001)

in Brittany, found on a site with Azilian artefacts (Fig. 7:4). The lines of the ornament are heavily worn. We may recognize as an elaborate form the amber pendant from Weitsche, both its sides covered by a complex geometric ornament executed using different techniques. On the obverse the design is built by strokes ending in pits; the strokes are arranged into chevron motifs, their apexes not always in contact, and into short zigzags (Fig. 1). Densely engraved zigzags have been identified on finds dating to the Allerød-Younger Dryas transition, and to individual stages of the latter. The find from Rusinowo and Fogens Enge (Fig. 8) dated precisely to this transition while the layer containing the elk antler artefact from Wustermark 22 originates from the close of Younger Dryas. The horse jaw decorated with groups of zigzags from Kendrick's Cave in Wales (Fig. 7:3) was dated with some confidence to the close of the same stadial on the evidence from a direct radiocarbon date (Gillespie *et al.* 1985). Covered with a dense pattern of zigzags, the figurine of an obscure animal from Næsby Strand may be assigned equally well to the Allerød and to the Younger Dryas (Petersen 2016).

On the horse jaw, the zigzags are arranged in four groups. On the artefact from Wustermark 22, the zigzag lines were engraved in very much the same way as on the Rusinowo objects. These two finds represent the same type of object and only differ in their size. Unfortunately, due to the damaged surface of the Wustermark object the extent of the ornament on its decorated face cannot be specified. An arrangement of zigzag motifs identical to the one on the Rusinowo object appears on a rod of elk or giant elk bone, found at Fogens Enge on Funen (Fig. 8). The complex ornamentation of this object consists of six panels of densely engraved, parallel zigzag lines and a band built by two double zigzag lines. The zigzags run transversely to the axis of the object in five groups, with the sixth group parallel to the same axis. The described object with this complex ornament apparently served no utilitarian purpose.

Patterns of multiple zigzags have been identified on a few hunting weapons – harpoon-heads from Złotów, Pomerania (Fig. 7:2), and Jeglin, Mazuria, stray finds previously attributed mostly to the Swiderian or the Ahrensburgian cultures (Kozłowski 1977), but now some new discoveries and radiocarbon dating may support their earlier age (Cziesla, Masojć 2007). In Western Europe, the motif of densely engraved zigzag lines is observed in the art attributed to the Laborian (Célérier 1998, 258, Fig. 21; Pasty *et al.* 2002, 22, Fig. 59). Densely engraved zigzags were one of the several geometric motifs observed on the body of a horse depicted in the rock shelter Pont d'Ambon at Bourdeilles, Dordogne (Fig. 9). On one of the sides of a limestone pebble found on site Champ Chalatras at Martres-d'Artière (Massif Central), there are stroke motifs similar to parallel zigzags (Fig. 10). The deposit at Pont d'Ambon which contained the artefact has radiocarbon dates of 9640 ± 120 (Gif-3740) and 10 730 ± 100 (GifA-99102), the latter regarded as more reliable (Célérier *et al.* 1999, 164). On the other hand, the date obtained from Champ Chalatras is one of 10 000 ± 100 BP (AA-43085). Thus, we may conclude that dense zigzag patterns, or similar arrangements, occur in the Laborian during the Younger Dryas, and most likely, at the onset or even during the first half of the Preboreal period.

Summing up the earlier observations, it may be safe to claim that the motif of densely engraved parallel zigzag lines started to spread within the cultural milieu of the Arch-backed Point complex and occurs in the Late Palaeolithic across much of the European Lowland and the adjacent upland zone, from Wales to Mazuria. Radiocarbon dates have confirmed its occurrence as late as the beginning or the first half of the Preboreal period. Much rarer

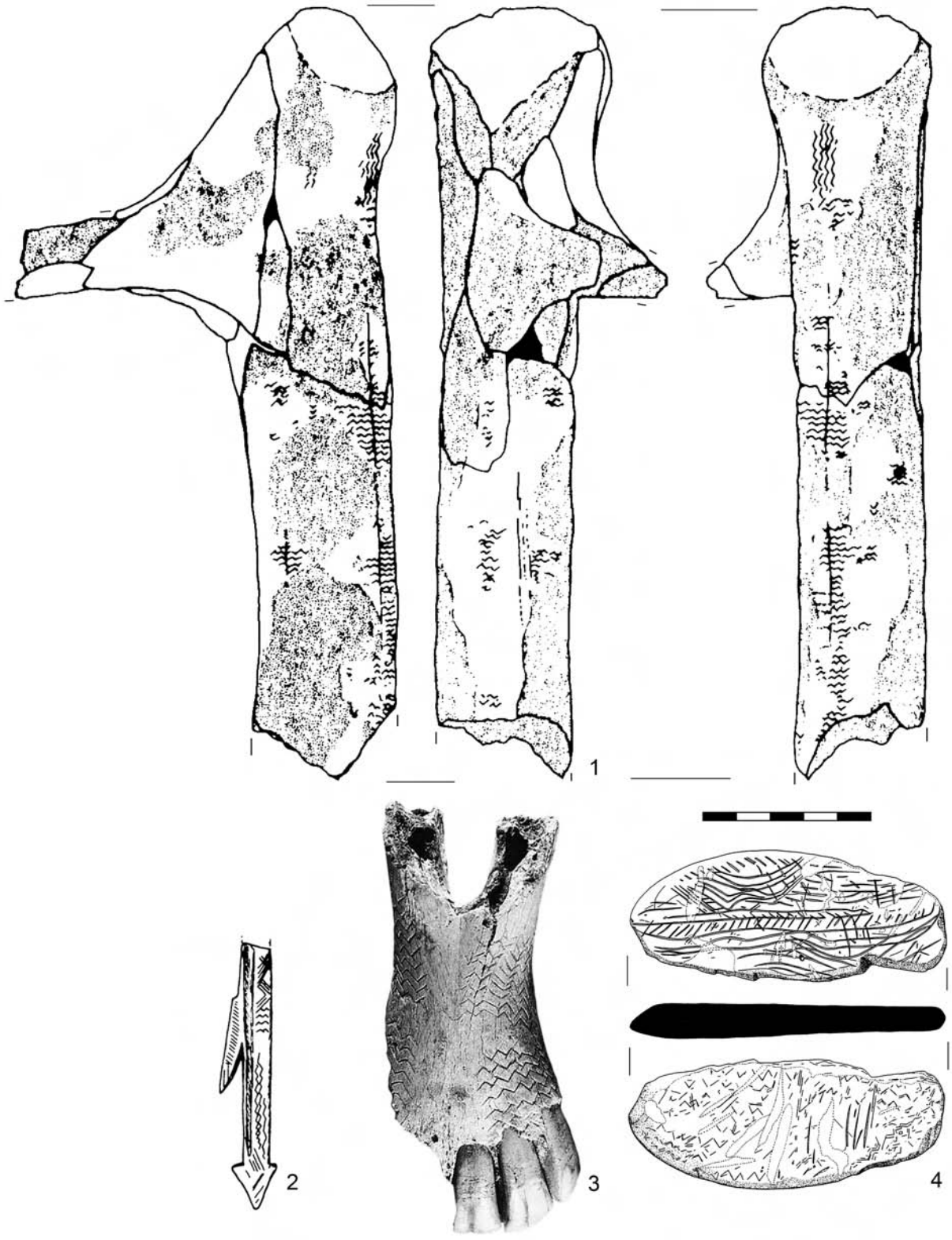

Fig. 7. Densely spaced zigzag lines in the Late Palaeolithic art of NW Europe. 1: Conty, Picardy; 2: Złotów, Pomerania; 3: Kendrick's Cave, Wales; 4: Trémaouézan, Brittany (after Fagnart 1997; Kleemann 1938; Barton 1999; Le Goffic 2001)

in the Late Palaeolithic art of Northern Europe are figural representations; they include engravings and figurines of animals (horse, elk) made of amber, and images of humans in a realistic or a synthetic style.

As noted earlier in the discussion of the decline in the number of symbolic artefacts at the end of the Palaeolithic this process used to be addressed from the perspective of the mobility of Late Palaeolithic

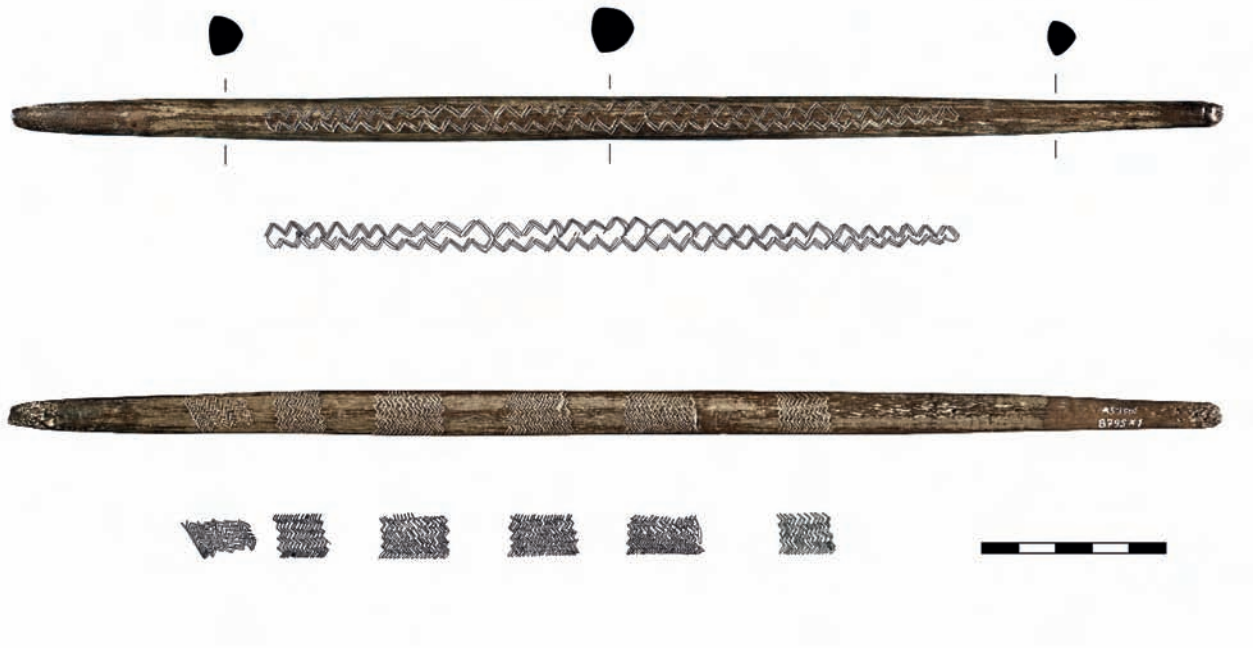

Fig. 8. Fogens Enge, Fionia. An ornamented rod made of bone (after Vang Petersen 2015)

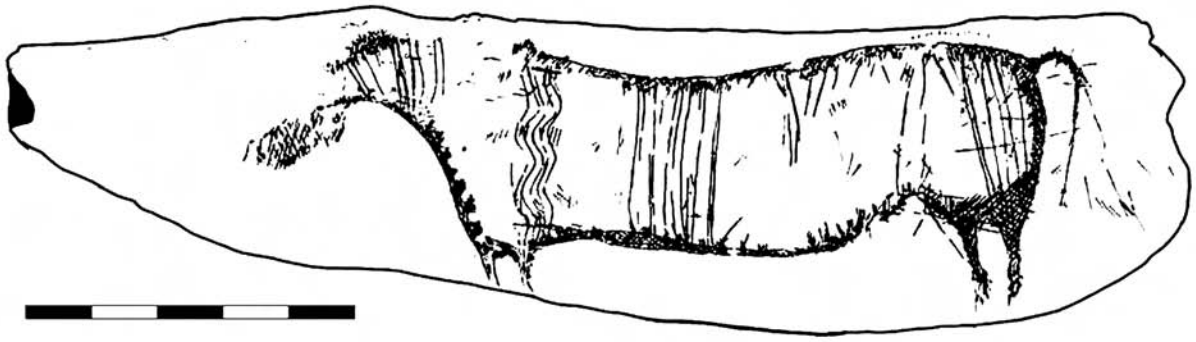

Fig. 9. Pont d'Ambon, Dordogne. A zoomorphic representation on a bone artefact (after Paillet, Man-Estier 2014)

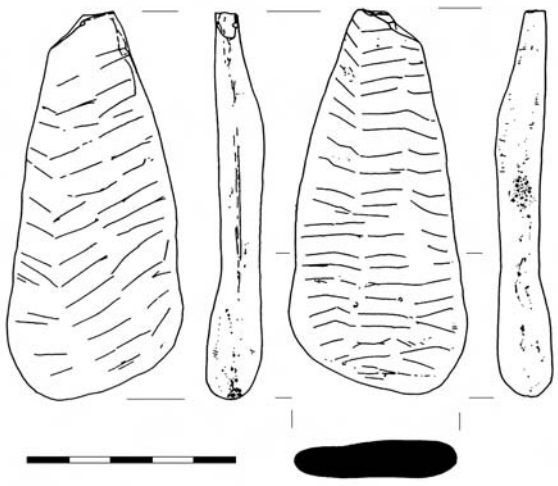

Fig. 10. Martres-d'Artière, Champ Chalatras, Massif Central. An engraved pebble (after Pasty *et al.* 2002)

groups on the one hand, but with some argument made in favour of the existence of some forms of symbolism which have not survived to our time. These forms may have been made of perishable materials such as wood, bark, grasses, sedges, flowers, animal sinew or plant fibre, animal skins, etc. or were impermanent, as for example, sand art. In our view, the argument which assumes a shift towards impermanent media used in symbolism is not fully convincing. A rigorous study of sites in the Ahrensburg Tunnel Valley and elsewhere in the European Lowland zone, eg, at Wustermark 22, with its assemblage of well-preserved organic remains, produced almost no evidence for the existence of symbolic forms made of less durable materials (Rust 1937; 1943; 1958a; 1958b; Gramsch, Beran 2010).

The model of Late Palaeolithic settlement which assumes a substantial mobility of small human

groups, with a seasonal change of camps, only partly explains the small number of symbolic artefacts found on sites from this period. Because we have to assume that during some seasons the societies operating in small groups came together, forming a larger group. Presumably, this took place in a period with food security for the group, and when mobility was hindered by natural factors – as for instance, during the winter season. An additional piece of evidence would be the remains of archaeological sites with a larger number of flint concentrations – working and habitation areas, possibly used contemporaneously over a longer, or a shorter, period of time, eg, Niederbieber, Kettig, Weitsche, Rekem (Bolus 1992; De Bie, Caspar 2000; Veil, Breest 2001; Baales 2002; Gelhausen 2007, 2011). Based on surface surveys we know also that similar concentrations could have functioned on the terrace promontory in the valley of the Mołstowa river, in the immediate vicinity of the site of the discovery of the Rusinowo artefact. On the terrace promontory, we found Ahrensburgian and/or Swiderian, and possibly Federmesser, flint artefacts when we made a surface survey in 2016 (Fig. 11). Although in this case, it is quite hard to prove the simultaneous formation of adjacent concentrations of worked flint within the same period of time, this is quite likely given the social life dynamics confirmed by ethnological sources (Mauss, Beuchat 1906; Yellen 1977; Conkey 1980; Gamble 1998; Whallon 2006). Cyclical gatherings of social groups of foragers serve many purposes: exchange of marriage partners, information, goods, performance of appropriate rituals serving the well-being of individuals and of the group.

In accordance with the concept of the function of aggregations of this sort, their remains may be expected to harbour the remains of ritual activities. In most Late Palaeolithic sites of Northern Europe, ritual objects had little chance to survive in the sandy ground on which the camps had been set up. Unless they happened to be made of a more durable material (stone, amber) or found their way into a nearby

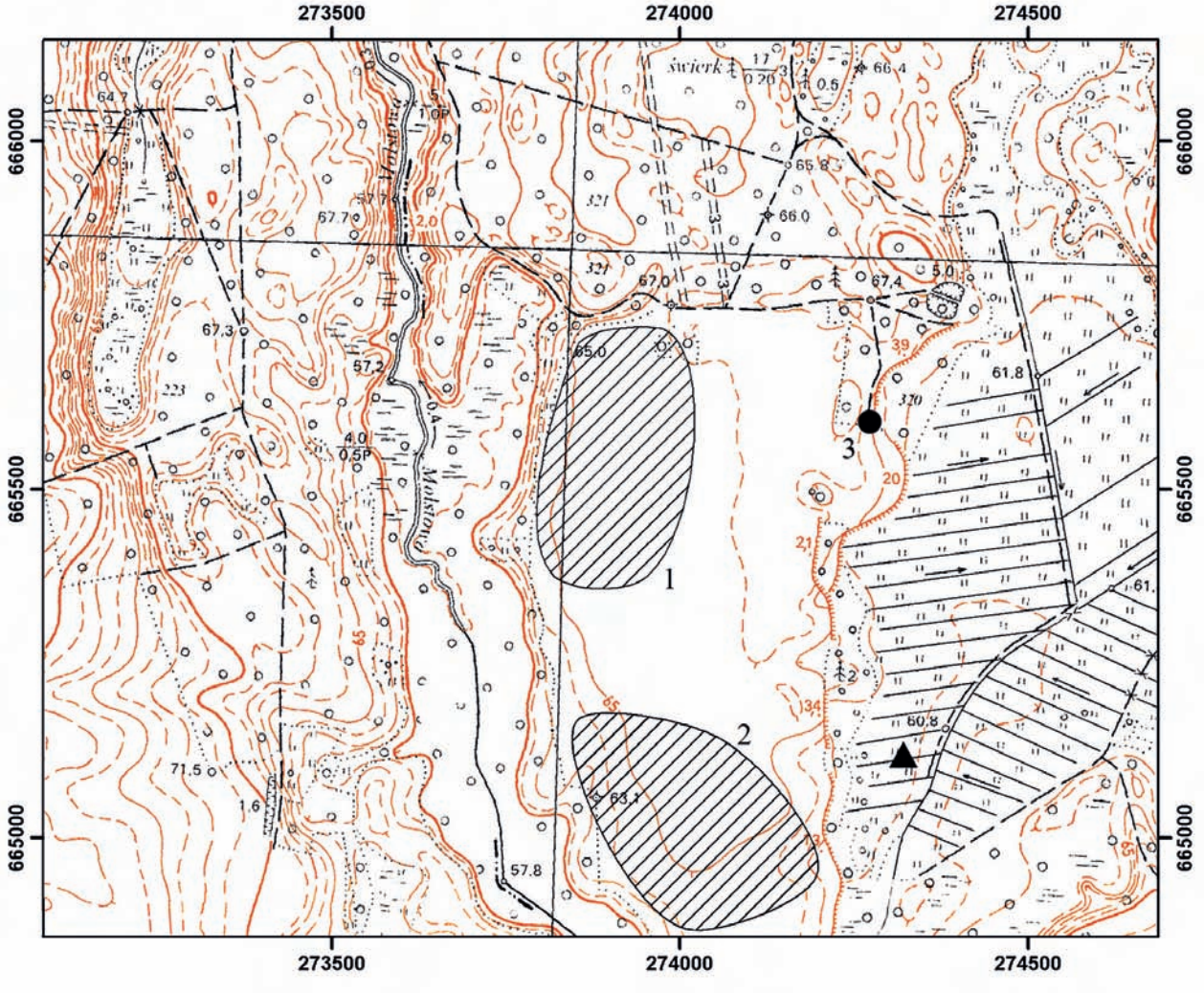

Fig. 11. Late Palaeolithic sites in the neighbourhood of the Rusinowo antler artefact find (triangle)

waterbody. These rare survivors include the baguette demi-ronde from Meiendorf (Rust 1958b; Bosinski 1978), the antler-sleeve from the same site, antler objects from Wustermark 22 and Conty, the shaft polisher from Niederbieber, the horse jaw from Kendrick's Cave and the figurine from Weitsche. Stray finds include the decorated artefact from Rusinowo, the bone rod from Fogens Enge and the horse figurine from Dobiegniew. These artefacts do occur but each of them is unique. They tend to be rather elaborate in form, evidently resulting from labour and time-consuming effort requiring no mean skill. The history of the engravings on the Rusinowo object and the "unfinished" form of an analogous artefact found at Wustermark prove that in some cases the geometric ornaments took form cumulatively, over a longer time interval. Presumably, each new zigzag line sequence was engraved as part of a different ritual. However, the evidence from studies made so far is insufficient to determine the time lapse between the engraving of individual groups of patterns. The gloss on the surface of these objects suggests that they functioned within the community for a longer period of time, preserved with care. Apparently, they were a focus of the religious life of the group, at the core of rituals performed periodically by members of that community.

In the Late Palaeolithic age, there is an observable shift of symbolic accents as compared to the Magdalenian age. As noted earlier, by the end of the Palaeolithic small ornaments on fragments of antler and bones, so typical for sites attributed to the Magdalenian complex, disappear from the archaeological record. Absent from Late Palaeolithic camps of western and south-western Germany are shell and fossil finds sourced locally and in remote regions, so characteristic for the Magdalenian age (Eriksen 2002).

We believe that the wide distribution of the zigzag band motif across the northern region of Europe points to the existence of a stylistic unit spread across much of the continent (Fig. 12). This unity was assisted by the high mobility of the Late Palaeolithic groups and the existence of a network of exchange within the frames of long-distance social ties. Their existence assisted the spread of information and ideas over broad reaches of the continent. These exchange networks enabled the spread of information and artefacts and involved some movement of individuals belonging to particular groups

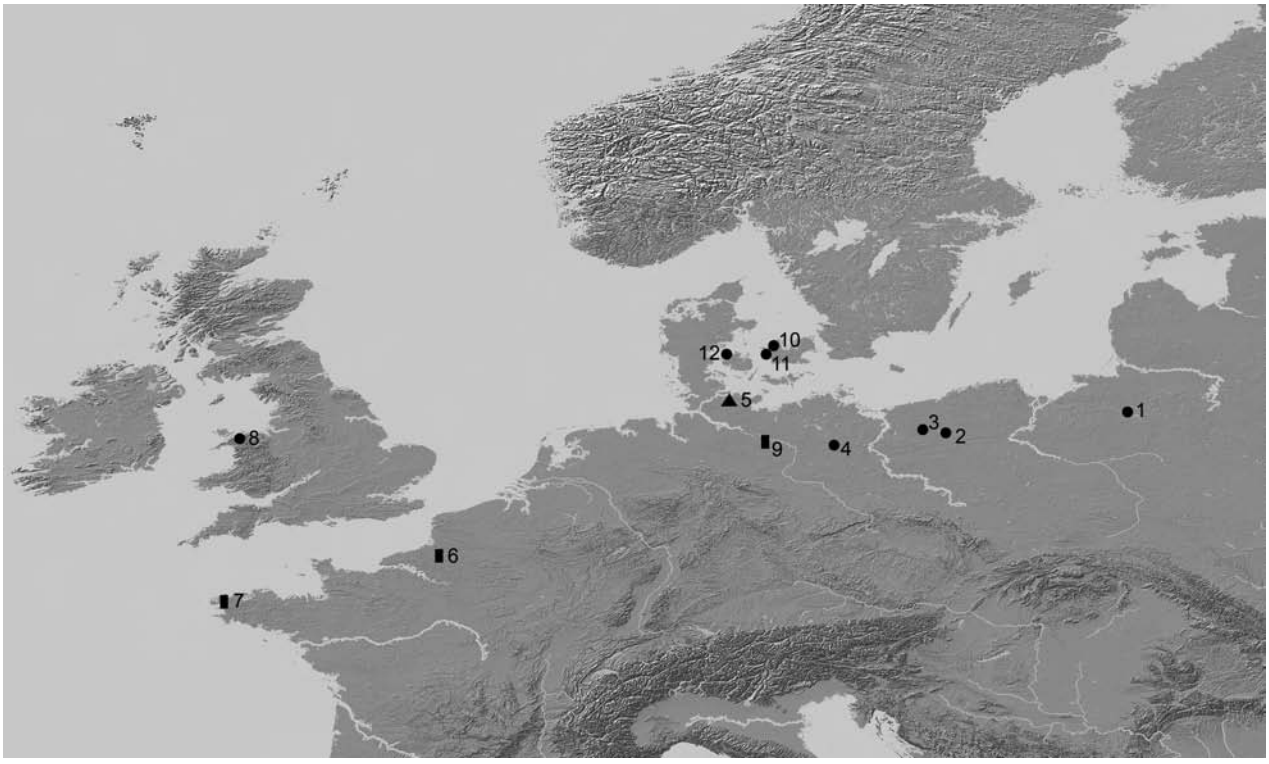

Fig. 12. Distribution of Late Palaeolithic artefacts with dense zigzag lines in NW Europe. 1: Jeglin, Mazuria; 2: Złotów, Pomerania; 3: Rusinowo, Pomerania; 4: Wustermark 22, Brandenburg; 5: Meiendorf, Schleswig-Holstein; 6: Conty, Picardy; 7: Trémaouézan, Brittany; 8: Llandudno, Kendrick's Cave, Wales; 9. Weitsche, Lower Saxony; 10. Egemarke, Zealand; 11. Næsby Strand, Zealand; 12. Fogens Enge, Funen. Triangle – the Hamburgian; rectangles – the Azilian and Federmesser; circles – undetermined, Allerød/Younger Dryas, Younger Dryas

in different directions, mostly associated with marriage (Gamble 1982; Whallon 2006). This was the basis of long-term alliances between different forager groups which contributed to increasing the safety of individual members of the group – particularly during times of crisis. The dissemination of ideas and representational styles additionally must have been assisted by the sourcing and exchange of raw materials, eg, red pigment and various types of lithic resources. The flint from the Meuse spread across a broad region not only during the Magdalenian age (Bosinski 1979; Floss 1994; Terberger 1997) but also at the time of the development of the Arch – backed Points complex as documented by abundant finds of this lithic resource recorded in archaeological sites in Rhineland (Baales, Street 1996; Baales 2001; 2002, 2006). Similarly wide-ranging in importance at the end of the of the glacial period was the extraction and distribution of chocolate flint (Schild 1977, 1984; Sulgostowska 1997, 2005), and the wide distribution range of the red pigment exploited at Rydno (Schild, Królik 1981; Królik, Schild 1999; Sulgostowska 2005, 2007; Schild *et al.* 2011). According to the rules governing the transmission of stylistic messages through symbolic objects, the message encoded in them is not likely to refer to the more intimate circle of individuals (closest kin) because their symbolism is common knowledge to them (Douglas 1970; Wobst 1977). The stylistic information is more likely to be addressed to the people from outside the intimate circle which Gamble (1998) describes with the term effective and expanded networks made up of eg, members of a band or a group of bands. In such a case, the ritual behaviour involving the use of exceptional objects like those discussed here must have taken place during annual gatherings of social groups scattered for the rest of the year, presumably in a period autumn to early spring.

It remains a matter of debate whether the patterns of densely engraved zigzag lines, noted across such a broad territory over a long period of time, had a similar underlying content, or perhaps, they referred to dissimilar meanings having a regional or a local range. This problem depends on the answer to the question as to the type of ties which linked the societies living in the Lowland and the in the adjacent upland belt. The answer to whether this type of identity could have existed in an unchanged form is negative in our view - zigzag patterns must have had different meanings and local points of reference. On the other hand, it may be concluded that the dissemination of zigzag patterns went hand in hand with the growing role of the aquatic environment in the life of the foragers of that age. A symbolism associated with water, a key element of everyday existence (Woźny 1996), during that age took on a special meaning now that water was becoming an extremely active element of the natural environment. One might say that the inland waterbodies took form before the very eyes of the people of the Lowland, from melting blocks of ice left behind by the Scandinavian ice-sheet – in some places, the rate of their formation could have been very rapid, several years to several decades (Błaszkiewicz 2005, 2007, 2008). Parallel to this process the level in the seas and oceans raised as they were fed copiously by the waters of the melting ice-sheet (Björck 1995; Tikkanen, Oksanen 2002). Water had become an ever changing feature of the landscape; the members of Late Palaeolithic groups were forced to record its fluctuations on their mental maps of the surrounding land and migration routes. At the same time, water played an increasing role in the hunting strategies: it offered new areas for fishing, influenced the movement of reindeer herds which had to negotiate the newly formed water bodies, drew elk to lakeshore areas to supplement their diet with calcium-rich foods (Geist 1998). Water was the natural environment of aquatic mammals (seals) which could colonise the shores of the nascent lakes (Cziesla 2007, in press). Water could have served as a store of food, and be used as a deliberate place for depositing various objects – for practical and ritual reasons (Rust 1937, 1943; Bratlund 1990, 1996; Larsson 1990).

Mesolithic symbols

Early Mesolithic ornamented artefacts known to us are much more numerous than their Late Palaeolithic counterparts. Their material is mostly bone, antler, amber and stone. However, it is possible that the larger number of early Mesolithic finds reflects the improved chances for survival and the greater potential of their discovery, rather than the more frequent practice of ornamenting objects. The geometric style continues to prevail, with ornaments produced by engraving, drilling and by ornamentation *pointillé*, and in the figural representations – in the geometric and synthetic styles. At the same time, the ornamentation styles are more restricted geographically and differ one from another in motifs and ornamented artefact types (Płonka 2003). Known from Late Palaeolithic finds, the motifs of multiple zigzag lines, engraved close together, have been recorded mostly in the north-western province of early Mesolithic

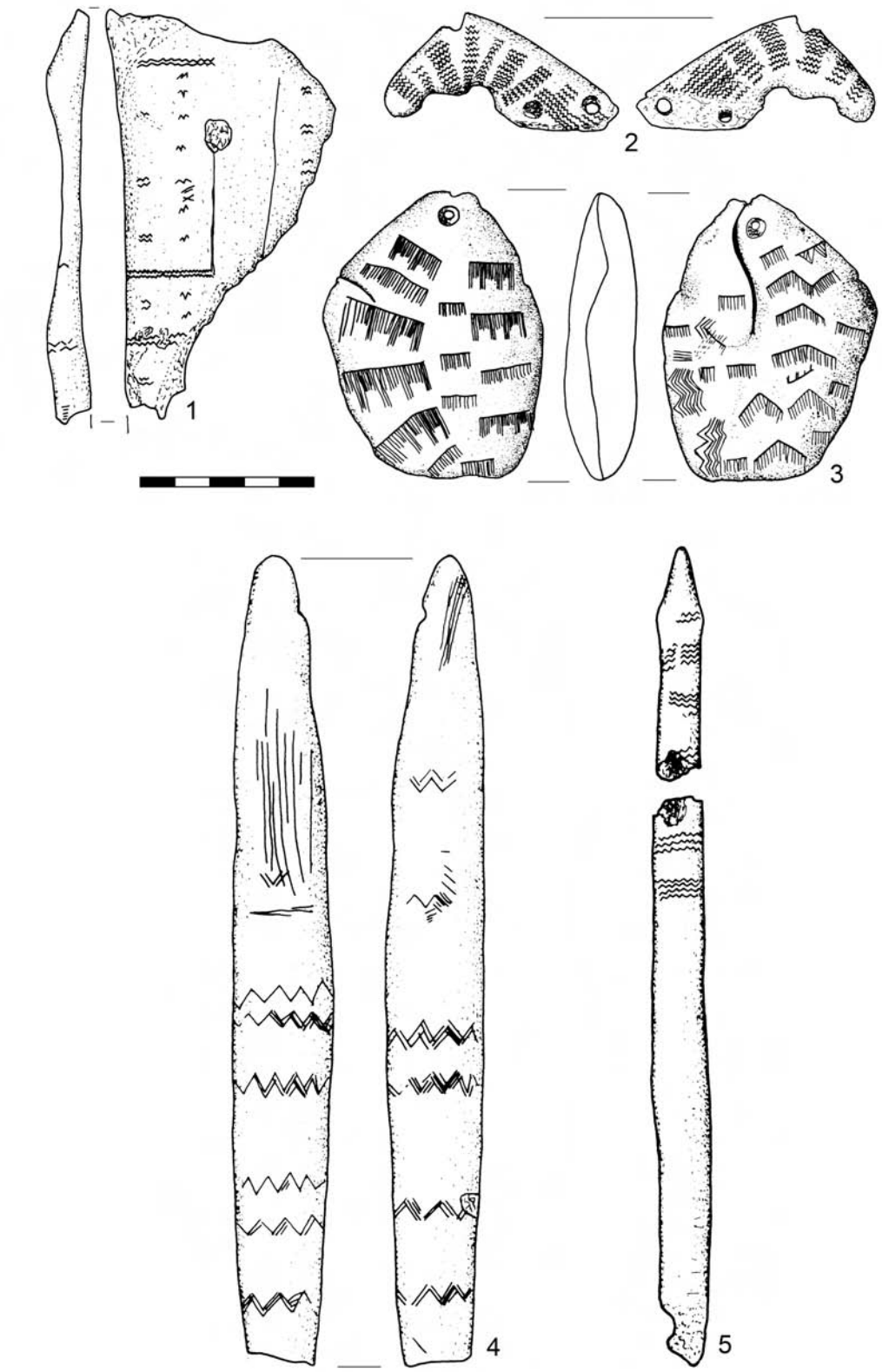

Fig. 13. Dense zigzag lines in the early Mesolithic (1, 3-5) and Late Palaeolithic (2) art of NW Europe. 1: Mullerup, Zealand; 2: Egemarke, Zealand.; 3: Ejsing, Jutland; 4, 5: Øgårde, Zealand

Table 2. Early Mesolithic artefacts with dense zigzag line ornament in N Europe

Site	Artefact	Find context	Cultural context	Radiocarbon date BP	Calibrated date BC	Date on artefact	Reference
Alajärvi	club	stray find	Suomusjärvi	–	–	–	Edgren 1977
Bolków 1	bone piece	campsite	Duvensian (?)	9320 ± 40 (MKL–1877)	8710–8460	–	Galiński 2014
Denmark, unknown site	slotted point	stray find	Maglemosian (?)	–	–	–	Płonka 2003; NM A 10554
Ejsing	amber pendant	stray find	Maglemosian	–	–	–	Müller 1918; NM A 26163
Hammersmith, London	mattock–head	stray find	Maglemosian	8505 ± 45 (OxA–17128)	7600–7510	+	Smith 1934; Milner *et al.* 2016
Kasurila, site Kaletonlampi	club	campsite	Suomusjärvi	–	–	–	Edgren 1977
Kiuruvesi	club	stray find	Suomusjärvi	–	–	–	Luho 1967
Lubanas Lake	slotted point	stray find	Kunda	–	–	–	Šturms 1970
Lundby I	bone fragment	campsite	Maglemosian	–	–	–	Bille Henriksen 1980; NM A 39996
Lundby I	bone fragment	campsite	Maglemosian	–	–	–	Bille Henriksen 1980; NM A 34330, L 142
Lundby I	bone fragment	campsite	Maglemosian	–	–	–	Płonka 2003; A 18269, M 1086
Lundby II	long bone	campsite	Maglemosian	–	–	–	Bille Henriksen 1980
Mouhijärvi, site Ryömälä	club	stray find	Suomusjärvi	–	–	–	Edgren 1977
Mullerup	mattock–head	campsite	Maglemosian	8660 ± 120 (K–1609) 8520 ± 140 (K–1611) 8500 ± 140 (K–1610) 8330 ± 110 (K–1608)	8200–7520 8160–7180 7960–7180 7580–7080	–	Sarauw 1903; NM A 18269, M 1085
Mullerup	dagger	campsite	Maglemosian	"	"	–	Sarauw 1903; NM A 18269, M 756
Mullerup	long bone	campsite	Maglemosian	"	"	–	Sarauw 1903; NM A 18269, M 1175
Øgårde	mattock–head	campsite	Maglemosian	–	–	–	Mathiassen 1943; NM A 38444, ØI 4006
Øgårde	dagger	campsite	Maglemosian	–	–	–	Mathiassen 1943; NM A 38444, ØI 3968
Øgårde	knife	campsite	Maglemosian	–	–	–	Mathiassen 1943; NM A 38444, ØI 1200
Øgårde	bone fragment	campsite	Maglemosian	–	–	–	Mathiassen 1943; NM A 38444, ØI 4?23
Øgårde	bone fragment	campsite	Maglemosian	–	–	–	Mathiassen 1943; NM A 38444, ØI 4012
Ringsted å	mattock head	stray find	Maglemosian	–	–	–	Müller 1918; NM A 23252
Rymarksgårds Mose	long bone	stray find	Maglemosian	–	–	–	Brøndsted 1940; Mathiassen 1941; NM A 38557
Säynäinen, site Meltonsaari	club	stray find	Suomusjärvi	–	–	–	Edgren 1977
Skellingsted Bro	long bone	campsite	Maglemosian	–	–	–	Płonka 2003; NM A 49858
Sværdborg I	dagger	campsite	Maglemosian	–	–	–	Broholm 1924

Table 3. Early Mesolithic artefacts with anthropomorphic representations built of strokes in NW Europe

Site	Artefact	Find context	Cultural context	Radiocarbon date BP	Calibrated date BC	Date on artefact	Reference
Groß Rönnau	pierced antler	stray find	Maglemosian or Duvensian	–	–	–	Schwantes 1939
Hjørring (vicinity)	amber pendant	stray find	Maglemosian	–	–	–	Madsen 1868; NM 1488
Holmegård V	flint nodule	campsite	Maglemosian	–	–	–	Fischer 1974; 1975
Refsvindinge Mose	antler (?) sleeve	stray find	Maglemosian	–	–	–	Müller 1918; NM A 24289
Bolków 1	bone piece	campsite	Duvensian (?)	9320 ± 40 (MKL–1877)	8710–8460	–	Galiński 2014
Stensby	bone knife	stray find	?	–	–	–	Müller 1918; NM A 17368

art (Fig. 13). They were executed both in the form of longer and shorter zigzags, on mattocks and daggers made of bone and on amber pendants, more rarely on other items (Table 2). The motif is never seen on perforated red deer antler beams. Objects decorated with densely spaced zigzags have surfaced mainly on sites in present-day Denmark, with isolated examples known from Hammersmith, London (Milner *et al.* 2015, Fig. 35:1, Table 1) and Bolków, site 1 in Pomerania (Galiński 2014, Fig. 13b). The bone mattock recovered from the Thames at Hammersmith has a radiocarbon date of 7600-7500 BC. It is worth noting also that a larger number of bands of parallel zigzag lines is represented only in some sites from the early Mesolithic, like Øgårde or Mullerup, while in others they are generally rare – eg, at Sværdborg I. The other region where use of densely engraved zigzag lines is observed is present-day Finland (Edgren 1977; Płonka 2003). Bands of zigzag lines have been identified there, next to chevrons patterns, on stone clubs dating to the Mesolithic. Individual densely engraved zigzag lines are noted during the early Mesolithic on artefacts from the eastern Baltic Sea region (Tab 2).

During the middle Mesolithic, the use of dense zigzag lines is noted also in the Scandinavian Peninsula and the eastern Baltic Sea region. In this age belongs the heavily decorated find from Tågerup in Scania (Karsten, Knarrström 2003), and very likely, also the much-discussed stone pick from Bråttkärr (Montelius 1874, 9, Fig. 6; Marshack 1983, 113, 115, Figs. 67, 68).

In the art of the early Mesolithic, we find also the representational style of a human figure with strokes we are familiar with from the Rusinowo object (Table 3), a synthetic rendition of the human silhouette. Images of this type are seen on eg, the amber pendant found near Hjørring on Jutland (Fig. 14:1), the antler beam with a hole from Groß Rönnau in northern Germany (Fig. 14:3), and a flint concretion recovered at Holmegård V on Zealand. The latter was subsequently formed into a number of cores, which next were reduced; consequently, the engraving phase preceded the utilitarian and/or ritual use of the flint to make cores and blanks. On the bone (?antler) haft found at Refsvindinge Mose on Funen (Fig. 14:2) a figure executed in the stroke technique is accompanied by a single zigzag, similarly, as in the representation on the Rusinowo find. However, the position of these two images is different, and the zigzag symbol may have a different meaning. In the figure from Refsvindinge Mose, the zigzag is an extension of one of the upper limbs, giving the impression that the figure is holding an object, symbolised by the zigzag. A figure with spread out legs is seen on the much-quoted knife from Stensby, only the rendering of the human silhouette is different, the torso and limbs depicted with double lines (Fig. 14:4). Recently, a representation in the stroke style was identified on a bone find recovered from site 1 at Bolków in NW Poland (Galiński 2014, Fig. 13b) (Fig. 15). Stylistically it resembles the simple stroke figures on the pendant from Hjørring.

In the middle and the younger Mesolithic of North-Western Europe stroke representations of humans are rare. One was identified on the dagger found at Køge Sønakke on Zealand (Mathiassen 1943, 134, Fig. 72; NM A 39219). Two others, on an antler axe found at Bökeberg III, in Scania (Karsten 2001) and on an amber pendant from Ringkloster (Andersen 1981, 41, 43-45, Figs. 26, 28), recovered from camps of the Ertebølle culture, are only partly in the stroke technique (lower limbs). In these cases the portrayal of the figure is dissimilar; the representation from Køge Sønakke is presented in profile, the head depicted using a few strokes. The two other

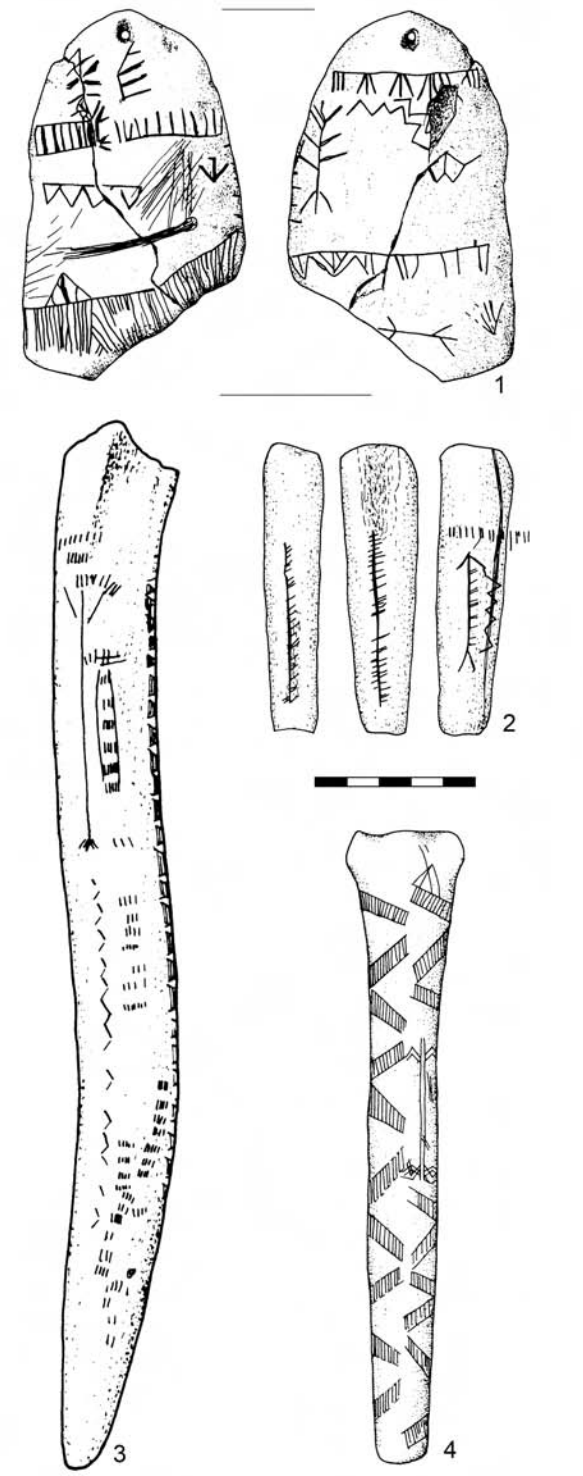

Fig. 14. Stroke anthropomorphic motives in the early Mesolithic art of NW Europe. 1: Hjørring vicinity, Jutland; 2: Refsvindinge Mose, Funen; 3: Groß Rönnau, Schleswig-Holstein; 4: Stensby, Funen.

images were depicted en face, or from the back, the head and the torso represented by a geometrical figure. Also seen for the first time during this age is a convention in which different parts of the body are portrayed using a line made up of dots executed

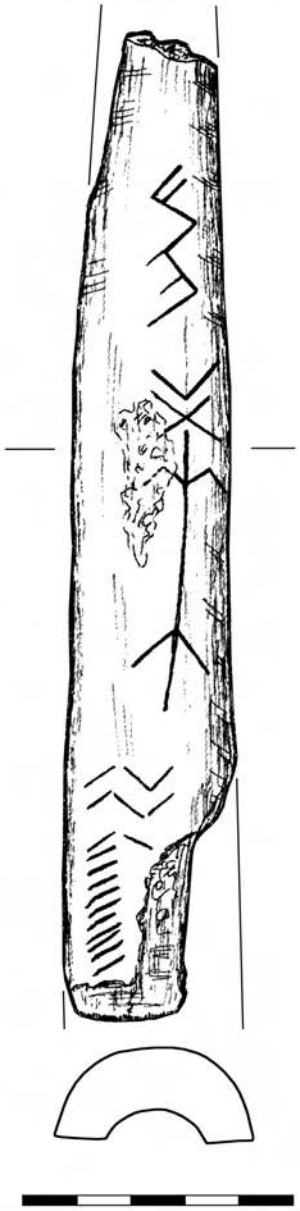

Fig. 15. Bolków 1. Anthropomorphic representation (after Galiński 2014)

in the pointillé technique – as on the dagger from Copenhagen (Müller 1918, 8, Figs. 23, 28). During the late Mesolithic, this style finds continuity in human silhouettes delineated with lines composed of drilled pits. It is important to note nevertheless that the described way of building the human silhouette using strokes is just one representational convention – in the case of the early, the middle and the late Mesolithic alike (cf. Płonka 2003). Next to them, we encounter conventions in which different parts of the body were represented as simple geometric figures and/or fine lines engraved densely side by side or in the form of bands.

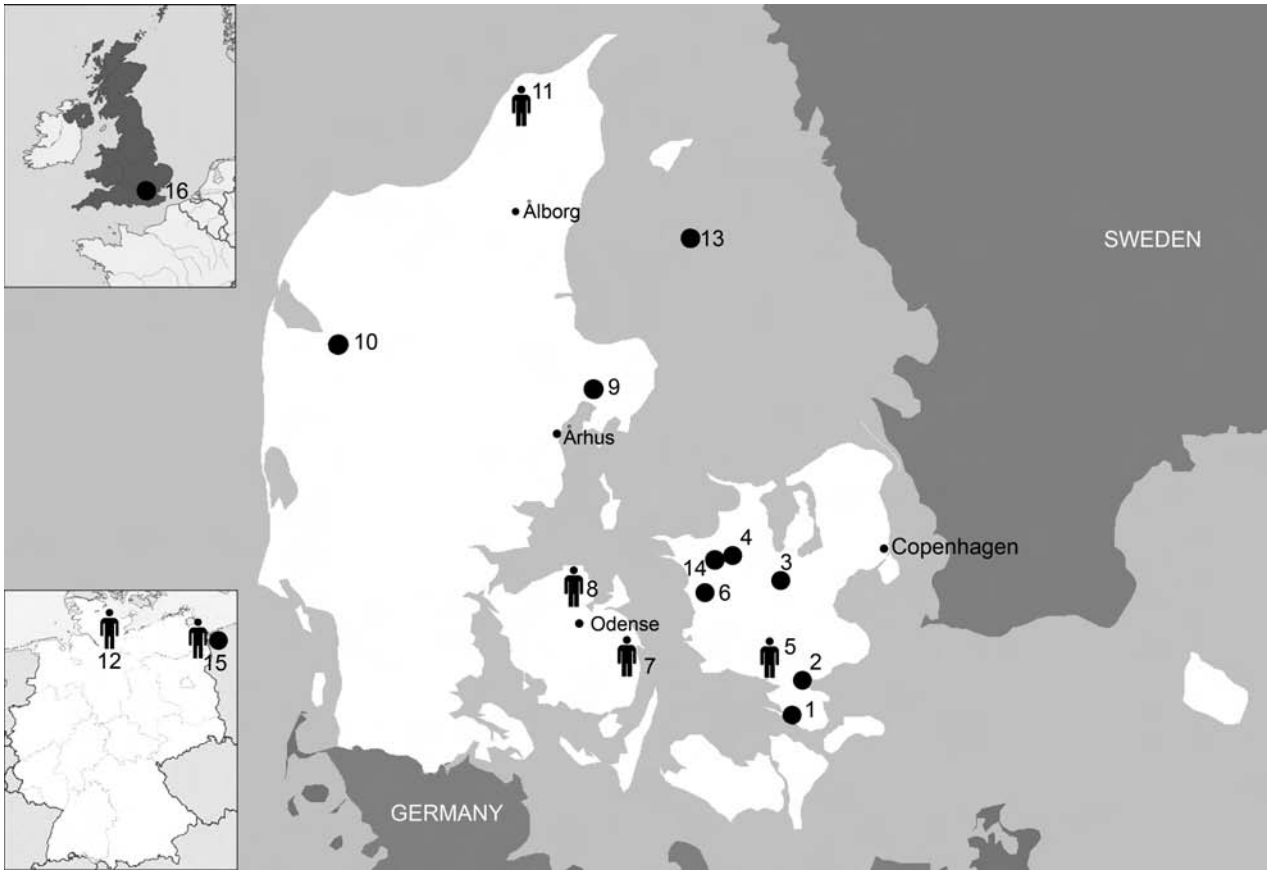

Fig. 16. Distribution of early Mesolithic finds with dense zigzag lines and stroke anthropomorphic motives in NW Europe. 1: Sværdborg I, Zealand; 2: Lundby I and II, Zealand; 3: Rymarksgård Mose, Zealand; 4: Øgårde, Zealand; 5: Holmegård V, Zealand; 6: Mullerup, Zealand; 7: Refsvindinge Mose, Funen; 8: Stensby, Funen; 9: Ringsted Å, Jutland; 10: Ejsing, Jutland; 11: Hjørring vicinity, Jutland; 12. Groß Rönnau, Schleswig-Holstein; 13. Denmark, unknown site; 14. Skellingsted Bro, Zealand; 15. Bolków 1, Pomerania; 16. Hammersmith, London

During the early Mesolithic, the distribution of ornaments built by bands of zigzag has an evident cluster in present-day Denmark (fig. 16). A less explicit centre of the dissemination of the same ornament may be located in present-day Finland. In both these clusters, we find objects in a similar style distributed on the periphery. In the southern Scandinavian cluster, individual artefacts with an ornament of dense zigzags range as far as the British Isles and Pomerania. At the other extreme, a few rare objects of the same type are recorded in the eastern Baltic Sea region. This type of arrangement of the zigzag motif has not yet to be recorded in northern Germany or elsewhere in the Polish Lowland, apart from Bolków 1 in Pomerania. Engraved stroke figures are known for the most part from present-day Denmark, with some rare images of this type recovered in north-western Germany and Pomerania.

The observed pattern confirms the existence of different cultural norms associated with the use of this ornamentation in two different regions, norms that may be suspected of having a social as well as a religious meaning. In Denmark, the design of densely engraved zigzag lines never appears on antler beams but is noted on several categories of objects eg, daggers, mattocks, amber pendants, mammal long bones. In Finland, this type of ornament is closely associated with stone clubs, although from this region we have little data on ornaments on objects of organic materials.

The above observations demonstrate clearly that in the case of the ornaments under discussion we may speak of a distinct representational style – restricted geographically and chronologically. One of the functions of style is cohesion – to cement the social group of which we are members and, at the same time, to demonstrate display to others our group identity (Wobst 1977; Wiessner 1983, 1984). The concentration of the aforesaid motifs (in present-day Denmark and Finland) attests the existence of small-scale, local social groups which cultivated local ornamental styles. These styles, next to other attributes, were one of the markers of the group (a tribe or an alliance of tribes). At the same time, isolated objects decorated in a similar style have surfaced on sites distant from the main concentrations. This

phenomenon cannot be interpreted conclusively. In our view, this could be evidence of the existence of far-reaching alliances between distant groups. This type of relationships are widely known in traditional societies and are a strategy used in forging a broad network of social relations benefitting both individuals and whole groups (Mauss 1925; Braun, Plog 1982; Gamble 1982, 1983, 1993, 1998; Kelly 1995; Whallon 2006). A good example of the existence of relations of this type during the Mesolithic is the spread of shells from the Mediterranean Sea, the Atlantic and eastern reaches of Central Europe to Mesolithic sites in the Swabian Jura (Eriksen 2002; Whallon 2006). Alliances cemented using exotic and prestige goods promote searching for allies – individuals and groups, whose support may be relied on in times of hardship of food crises, in exchange of raw materials, information and marriage partners.

Closing remarks

The appearance and spread of the distinctive pattern of the densely engraved parallel zigzag lines and the synthetic representations of the human figure coincide with the Late Palaeolithic, after the decline of the Magdalenian complex. This phenomenon is very much in evidence during the Allerød interstadial and the Younger Dryas, sweeping across the European Lowland. During the same age, in the Late Palaeolithic art of Southern Europe, we note the presence of characteristic, hyper-anthropomorphic figures. The wide dissemination of these stylistic ideas confirms the existence of open exchange networks, assisted by the mobility human groups and the movement of people between groups. The spread of the pattern of densely engraved zigzag lines may be related to the increase in the importance of water in subsistence, social and religious life of Late Palaeolithic societies. At the same time, it is doubtful that the symbolic meaning of this ornament was the same everywhere across this vast territory and over such a long time interval. We may assume that it differed from one region to the next, and may have changed depending on the context of occurrence and on the manner-of-use. Similar differences of meaning were inherent in the representations of the human silhouette executed in the stroke style. We may speculate that the meaning was entirely different in the case of the figure from Riparo Villabruna A, painted on a stone plaque and forming part of the grave furniture, and in the case of the Rusinowo object. On the latter, there is probably a depiction of a birth scene, and the accompanying solitary zigzag line is likely to be associated with water and fertility symbolism.

In comparison to the Late Palaeolithic age, in the early Mesolithic, the distribution of zigzag patterns was more restricted geographically. We were able to identify two territories with a more frequent occurrence of the pattern of densely engraved zigzag lines: in southern Scandinavia, and in central and south-western Finland. Isolated occurrences of dense zigzags have been noted in the British Isles, in Pomerania and in the eastern Baltic region. Simultaneously, in the territory of Denmark, we encountered depictions of figures executed in the stroke technique. Rare engravings in this style are known also from northern Germany and Pomerania. The restricted distribution of the pattern of dense zigzags and of anthropomorphic representations in the stroke style suggests the emergence of local styles which were a distinguishing mark of human groups, bound by a symbolic unity. The rare objects found far from these territories could be a result of alliances forged and consolidated by exchange of various types of gifts. During the middle and the late Mesolithic patterns of this type occur singly in Scandinavia and northern Russia.

The meaning of zigzags and anthropomorphic designs evolved over time and across space. Only occasionally, we can propose a very general interpretation of these meanings, but lacking the numerous nuances and shades which definitely accompanied the functioning of the decorated artefacts in the life of the group. This reservation notwithstanding, a closer study of these finds has helped shed light on various details of the social life and symbolic culture of the hunters of the Late Palaeolithic and the early Mesolithic.