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From antler to stone - from stone to antler

An antler object with a strange shape and ornamentation from a 9000-year-old settlement in central Scania, southern Sweden

Abstract

During an excavation of a settlement at the edge of a former lake in the bog Ageröds mosse, central Scania, southernmost part of Sweden, a strange object with a handle-hole was found in the refuse. By the date of the deposit where the object was found, it is approximately 9000 years old and belongs to the Late Maglemose Culture. The object of antler has a shape and decoration that is unique to the Mesolithic. It is shaped with a lower ridge in the middle and a shelf near the point. The most obvious motif is a large spiral made of small impressions. On both sides, a curved zigzag made in several rows of impressions can be identified.

The best parallel is found on stone pickaxes from western Sweden and western Norway. The spiral is also found on rock carvings in western Norway, which makes the Ageröd object's origin from that region most likely.

Introduction

In contrast to the most realistic paintings and carvings found during the later Ice Age cultures in southern Europe, the decorations during the ensuing period among hunter-gatherers, the Mesolithic (ca. 9000–4000 cal. BCE) consist of geometric motifs that for us today can almost be described as abstract (Plonka 2003). They occur throughout Europe, but since they are mainly coated as carvings on antler and bone tools, most are found in southern Scandinavia, where the conservation environment for organic material is particularly favorable for this type of material remains. The most common are motifs in the form of triangles, angle bands and rhombuses, etc., which sometimes appear as single but are usually combined and comprise significant parts of the surface. In Scania, a number of decorated objects have been found, partly as occasional finds from bogs, partly in settlements (Larsson 1978b, 2000, 2017).

Lake Ringsjön in central Scania has once been significantly larger than today (Fig. 1). What are today the bogs of Ageröd and Rönneholm, only divided by the river Rönne å as an outflow, formed a 12 square kilometer large but shallow part of the lake to the northwest. For thousands of years, this part of the lake came to be filled with organic material. At the original outlet in the northwest, several settlements from the Mesolithic basin have been found. One of these was named Ageröd I: HC, a somewhat strange designation, but the result of several settlements from different ages being found along the former shoreline. The settlement was investigated during the

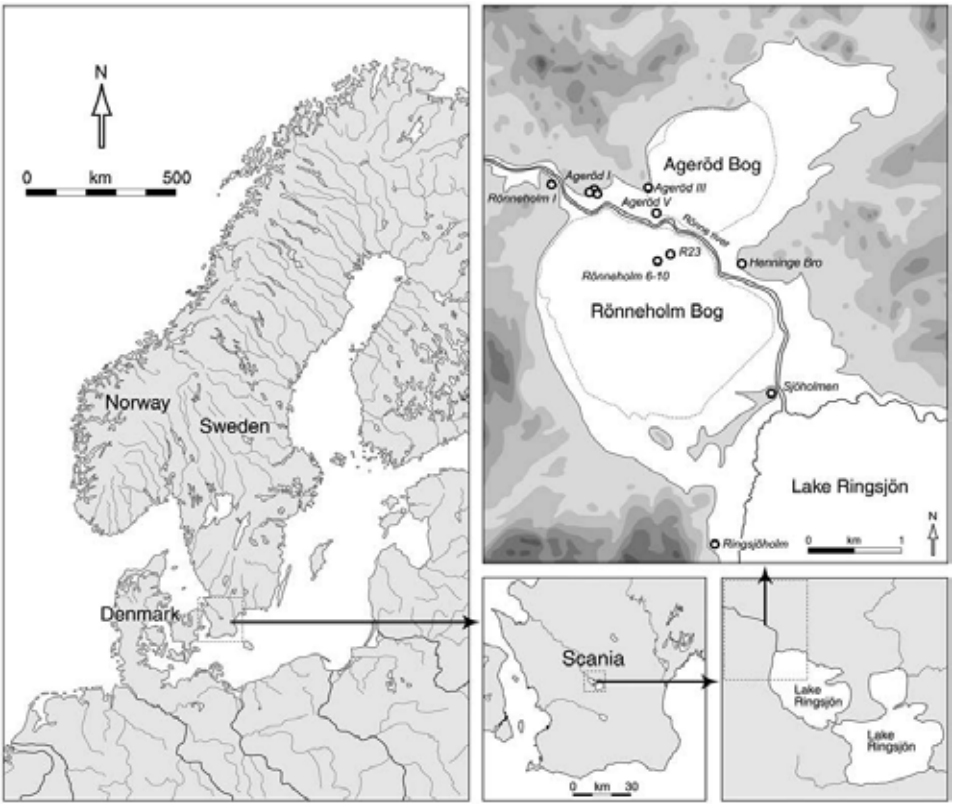

Fig. 1. The location of the find spot.

late 1940s (Althin 1954) and a few trenches were taken up in 1974 (Larsson 1978a). Outside the actual shoreline there was a complicated layer sequence. A layer had arisen when sandstone slabs were laid out and thus a kind of platform was formed a few meters outside the fixed beach. Under this layer were finds that were thrown out from the settlement on solid ground – a so-called refuse layer. This bottom layer has been dated with the C14 method to be just over 9000 years old and belongs to the latter part of the Maglemose culture. Almost at the bottom of this layer a strange object of antler was found.

A strange antler object

The object with a length of 29 cm was fragmentary and had already been when it ended up on the seabed. It had been formed from a large and almost flat and thin antler section. The outer, wider part of the antler had a circular perforation and below it the antler had been cut so that a low ridge was formed which ran down towards the tip (Fig. 2). Above this was a clear ledge across the object. That it was better preserved when it ended up in the bottom layer was evident from the fact that a spine, 8 cm long, was found a couple of centimeters from the antler object (Fig. 3).

Parts of the antler surface were partly weathered, but it was clear that it was provided with ornamentation. Central to the perforation is a spiral in fifteen volutes. The ornaments have been formed by pressing a pointed object into the antler surface. If the spiral is examined in detail, it turns out that the impressions are somewhat variable. An

Fig. 2. The antler object from Ageröd. Photo: Arne Sjöström, drawing by Bertil Centerwall.

edge on a flint tool, similar to a burin, has been angled differently or several different tips have been used. This division is not temporary, the ninth and tenth volutes have a clearly different design of the imprints than the others as well as the central part of the spiral (Fig. 4). Three, possibly four bundles of impressions in line, run out from the spiral. That the bundle at the top has been longer is clear from the fact that the recovered antler spine is provided with rows of impressions that merge into two points. Originally, there have probably been more spines where impression lines have ended in the same way.

On the left side can be followed bands of five parallel lines of impressions that form a wavy pattern. This also applies to the other side, which is less well preserved. Due to the fact that the surface is weathered, these bands can only be partially followed, but so much has been preserved that these

Fig. 3. The loose spike with ornamentation. Photo: Bertil Centerwall.

undulating bands can be followed all the way down to the cross-cut ledge. There are a number of hatched triangles. These appear to have been cut into the surface, but on a closer look it turns out that they also consist of tight imprints. This also applies to a number of small V- and W-shaped motifs just below the spiral. The opposite side is evenly ground but lacks both ornamentation and cutting of the ridge and ledge. That the object was damaged already when it ended up in the water is evident from some clear bite marks on the right side. It may be the bite of a rodent that has had access to the antler already on land.

When the object was described in a publication, it was perceived to have belonged to a reindeer, a species that at the time did not exist in southern Sweden (Persson 1974). The determination has later been questioned (personal message from the osteologist Dr. Ola Magnell). It can instead be a moose antler. To get a definite answer, an experiment was made with the ZooMS method, which includes a special analysis of collagen to determine the species (Zetner Trolle Jensen *et al*. 2020). Unfortunately, there was not enough collagen in the antler preserved, so this method, which is particularly suitable for distinguishing between reindeer and moose, could not be applied. The lack of collagen also meant that the antler could not be dated with the C14 method. So we have to accept the fact that

Fig. 4. Details of the spiral motif, to the left the center of the spiral, to the right the ninth and tenth volutes. Photo: Lars Larsson.

the raw material is antler and that the object is at least 9000 years old.

What makes the find special is both its shape and the ornamentation. As for the former, a small number of shaft-hole-shaped transverse hatches of moose antlers are known. But these are roughly cut, massive and provided with an edge. In addition, they are dated to be at least two thousand years older than the bottom layer at Ageröd I: HC (Larsson 2015).

The object is thus completely unique. The same applies to the ornamentation. There are several hundred antler and bone objects from Mesolithic times in northern Europe, but nothing has been provided with spirals and undulating bands. Only the hatched triangles are well represented (Nash 1998; Plonka 2003). On some, ornamentation appears in the form of impressions, but these are combined with other geometric motifs. There are examples of spiral ornaments from the Stone Age, but then on objects in France and Siberia, several millennia older than the find in Ageröd (Abramova 1962; Braun 2018).

In the analysis of the San people's paintings in southern Africa, suggestions have been made that these could be linked to visions that arise when people in trance perceive different visual phenomena (Lewis-Williams & Dowson 1988: Lewis-Williams 2002). These have different geometric shapes where spirals and wave bands are included. It is these visual phenomena that may then have been depicted in cave paintings not only in southern Africa but also in Continental Europe during the Ice Age. It is the images of humans and animals that have received attention while the geometric motifs are less well known (Leroi-Gourhan & Allain 1979).

Parallels in stone

As for the design, there are parallels, but then in stone. At a settlement in Bråttkärr on Orust on the West Coast of Sweden, a shaft-hole-equipped tool was found that shows a certain resemblance (Fig. 5). It has been provided with perforation in the upper part and with two thorn-like projections. In addition, a clear ridge appears in the middle of the tip portion and a transverse ledge near the tip. The ornamentation, which consists of rhomboids and long transverse and longitudinal angle bands, can be arranged in the motif shapes that appear on antler and bone objects from southern Scandinavia.

The notch-like stone tool is included in the cruciform objects, some of which have been found on the West Coast of Sweden but mainly in southwestern Norway (Gräslund 1962; Glørstad 2010). We thus get an indication that the origin of the object from Ageröd is to be found in a completely different part of Scandinavia. Unfortunately, the finds with ornamented antler objects are limited from the West Coast and southwestern Norway, not to mention bone and antler objects in their entirety (Bergvik & David 2014). Something similar to the Ageröd find could not be substantiated. The cruciform stone picks have been found

Fig: 5. The stone pick from Bråttkärr on Orust, West Coast of Sweden. From Montelius 1919.

Fig. 6. One of the carved surfaces in Ausevik, western Norway. From Klungseth Lødøen 2014.

in connection with settlements that are approximately contemporary with the bottom layer in Ageröd I: HC (Glørstad 2010).

As for the spiral ornamentation, we must once again approach the stone kingdom. Spirals appear on rock carvings of the type that in Norway are called hunting carvings and are made by people who lived in hunting-gathering cultures. For example, in Ausevik north of Bergen, there are several fields with rock carvings (Klungseth Lødøen 2014, 2015). On these appear carvings of deer and humans but also geometric figures such as spirals and more or less concentric circles (Fig. 6). Here, the human images are perceived as skeletal representations, partly because they show ribs. Spirals or concentric circles are interpreted as a form of marking between life and the next existence (Klungseth Lødøen 2014, 2015). Rows of wavy bands also appear on the rocks in Ausevik, with a certain resemblance to those that appear on the Ageröd find.

The dating of the rock carvings has been based on C14 dating of remains after activities in connection with the rock carvings. Several rock carvings were originally very close to the shore. A continuous land uplift also provides some clue to dating them to between 5000 and 4500 BCE ((Klungseth Lødøen 2014). This means that they are a couple of thousand years younger than the Ageröd find. It should be borne in mind that symbols of importance to the imaginary world of the members of hunting-gathering cultures can exist for millennia in the same way as on antler and bone objects. The symbols show shape changes and different compositions, but they continue to exist for a very long time. The cruciform stone picks have a distribution in Norway that reaches up to the area where the mentioned rock carvings are located, which provides additional support for some form of contact between the people who used plastic stone tools and those who created rock carvings.

From stone to antler

The find from Ageröd shows a significant resemblance to a phallus symbol. A large piece of flint, cut in pieces but feasible to refit, has a phallus shape and with the surrounding lime crust preserved has been found at a settlement on Zealand, Denmark, with an age approximately the same as the bottom layer in Ageröd (Fischer 1974). On the lime crust there are carvings that further

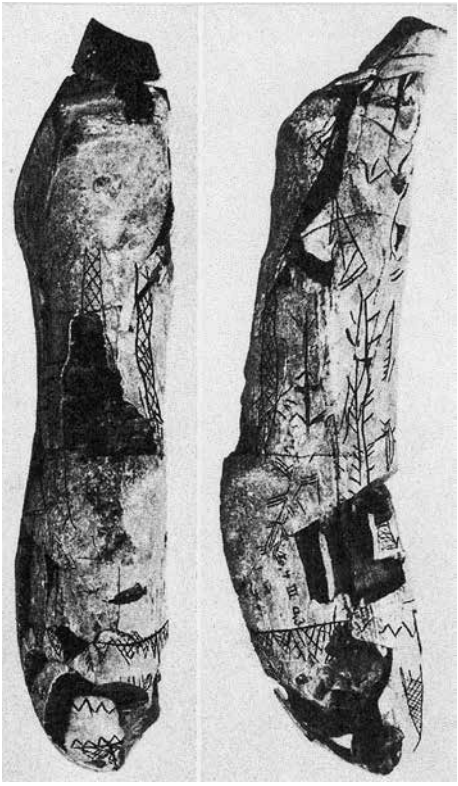

Fig. 7. Flint core with a phallos-like shape with engraved ornamentation. From Fischer 1974.

accentuate the phallus symbolism as a hint of a ledge with triangular ornamentation above the tip (Fig. 7).

If some form of symbol interpretation can be practiced here, there is on the find from Ageröd a design related to the male genitalia and thus a form of fertility symbol. In addition, the spiral appears, which can be perceived as a transitional marker between life and death similar to the interpretation of the Norwegian rock art. On one and the same object, two extremely potent motifs thus appear in an early imaginary world. Given the design of the object, it is highly unlikely that the Ageröd find would have had a practical function. The shape and placement of the ornamentation on one side indicates that the shaft hole has been intended for an angled rod rather than an actual handle. On rock carvings in northern Sweden, rods are depicted that end with an animal head (Hallström 1960).

Looking for motifs in the southwestern parts of Norway may seem far-fetched. Perhaps comparisons can be made more closely. At Tumlehed on Hisingen north of Gothenburg, in the 1970s an ornithologist noticed in his binoculars a rock with paintings in red (Cullberg *et al*. 1975). It is the southernmost rock painting in Scandinavia. At the first documentation at the site, an animal figure, boats and fish could be distinguished. But there were also traces of more figures that were so fragmentary that they could not be identified. By using new optical instruments and digital calculations, it has become possible to distinguish a number of additional motifs, including clear human figures (Schulz Paulsson *et al*. 2019). The newly discovered motifs also include a geometric figure just in front of the animal. It consists of something that can almost be described as concentric uneven circles (Fig. 8). This has been interpreted as some kind of trap. However, it bears considerable resemblance to the geometric figures which, like spirals, appear on the Norwegian carving field at Ausevik.

Through the newly discovered motifs on the rock, the painting is reinterpreted from belonging to the Bronze Age to being Late Mesolithic and originating from a hunting-gathering culture of the same age as the carvings in Ausevik. Could it be that in the rock painting at Tumlehed a symbolic world appears that is partly taken from the west? Given other cultural contacts between the Swedish West Coast and southwestern Norway, this connection is likely to be highly probable.

An exotic object

Appeared on a pole, the object in question may have had an important ritual function. This means that it was taken as an exotic object to central Scania, perhaps from its origins in western Norway, with a distance of at least 600 km by bird's eye view. Then there is the question of whether those who

Fig. 8. The rock paintings at Tumlehed, Hisingen, West Coast of Sweden. From Schultz Paulsson et al. 2019.

lived by the ancient lake were aware of its potential. The fact that there are bite marks after a rodent on one side indicates that the significance of the object had diminished and that it was finally thrown out on the shores of the lake.

It may seem strange that such distant contacts existed as between western Norway and central Scania during the Mesolithic. It is easy to imagine that the hunting-gathering communities were quite isolated with contacts between the nearest tribes in present-day Scania and eastern Denmark. It appears, however, that there were significant contacts from both the south and the north. Both genetic analyses (Günter *et al.* 2018) and changes in flint technology indicate that there has been a movement from the east by blue-eyed people as well as the spread of new ideas regarding how small flint blades were produced (Sørensen *et al.* 2013). From the south, knowledge is conveyed about the use of changed arrowhead shapes. Arrow forms that occur in northern France are almost the same as those found shortly afterwards in southern Scandinavia (Larsson 1978a). Concrete evidence for the contacts is a decorated reindeer antler from central Poland, slightly older than the Ageröd find (Osipowicz *et al.* 2017). Reindeer did not remain in Poland at this time, which is why the antler has been transmitted from northern Scandinavia. The contacts between different ethnic groups have been much more extensive than previously perceived. This does not have to mean that people walked long distances. Through regular meetings with a region's different tribes, the opportunity was given to exchange both information and objects, while some participants were given the opportunity to move and belong to another group. Specialists in a new flint technology as well as those with innocent blue eyes have been attractive to receive in a new group.

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