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PLEISTOCENE ART OF THE WORLD

Short articles



SYMPOSIUM 8

PLEISTOCENE PORTABLE ART

Chairmen

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PLEISTOCENE PORTABLE ART: Current Research Orientations

Aline AVERBOUH, Valérie FERUGLIO

Our friend Norbert Aujoulat honored us by agreeing to preside over the closing debate of this colloquium. But then he had to return home sooner than expected. It is trivial to say that we regretted this from a scientific perspective, knowing that he would have known how to highlight the value of each colleague's work while sharing, with his usual modesty, his vast knowledge of prehistoric art around the world. Words cannot express the sadness we felt when he left us in the late afternoon of September 2010. Since then, Norbert has left us definitively and we miss him terribly. We dedicate the proceedings of our symposium to him, knowing that we would have immensely appreciated his participation in this publication, during which we would have had the pleasure, once again, of sharing rich scientific discussions and precious moments of friendship with him.

In 1987, Jean Clottes organized the first colloquium on prehistoric portable art. Since then, no other meeting has treated this topic exclusively, despite its immense role in the art of prehistoric societies. Finally giving in to Jean's often repeated wish that a new colloquium on this topic be organized, we seized the opportunity in the context of the IFRAO 2010 Congress.

Beyond this "story", the need for such a colloquium was indeed evident, given the number of discoveries and new studies made over the past ten years. Most have been published and presented at colloquia and some have led to the development of new approaches to the technical, graphic and symbolic aspects of this art. We thus thought it would be useful to assemble this recent information and to discuss its implications for our knowledge of prehistoric portable art.

For this purpose, we chose three main topics of discussion:

- the definition itself of portable art and its description;
- its chronology and, in particular, its origin;
- its social dimension through the interpretations that we can make of it.

Definition and description

Portable art is commonly defined as art on transportable objects. This definition is nonetheless very general since it describes nothing else about this category of objects. Consequently, it minimizes, or even ignores, its technical, economic and stylistic aspects, such as manufacturing methods, raw materials, support types, as well as the complementarity between categories or object types and categories or representation types. Current studies tend to show, however, that the choice of support can dictate the type of representation, the subject chosen and its composition, as well as the techniques employed.

In addition to questions related to the notion of art and its transportability, we thus sought to address questions concerning object categories (statuettes and figurines, decorated domestic objects, engraved or painted plaques, ...), raw materials (different natures and origins); themes and compositions (schematic / figurative representations; simple, complex, scene), and the means of expression (sculpture, engraving, painting).

The question of chronology: the emergence and evolution of portable art

The broad definition of portable art also leads to chronological imprecisions, particularly concerning the emergence of this artistic expression. Recent discoveries in South Africa reveal very old dates. Do these pieces thus represent the emergence of portable art and, by extension, the first forms of art? Later, the chronology of transitional periods in the Pleistocene also raises problems due to the numerous uncertainties associated with them. At the same time, the significant gaps in the data currently available on the factors underlying the appearance and evolution of portable art led us to recognize the usefulness of identifying the reliable elements on which descriptions can be based, permitting, for example, the identification of the forms in which this art appeared (type of representation, type of object on which it was created, raw materials), its provenience (geographic location) and the distribution of its appearance (single or multiple origins, simultaneous or not, location in near or distant geographic zone[s]), as well as its role within the groups by whom it was created (economic, symbolic or other domains, potential social role, esthetic and / or ritual value).

A review of the available dates and our knowledge of the emergence and evolution of Pleistocene portable art is necessary. Of course, we do not expect to fully achieve this during this symposium; this long and vast work must take into account all research on portable art in the world, much of which is in progress, such as in the context of doctoral theses. Nonetheless, in our choice of presentations for this second section, we sought to retain the information that would be useful for clarifying certain chronological aspects, such as the appearance of portable art, its last manifestations in the Pleistocene, or the evolution of technical means, styles and motifs.

The analysis and interpretation of portable art

The underlying purpose of establishing a more precise chronology of portable art and its evolution is to enable us to more closely link it to the chronology of the broad Pleistocene techno-complexes, and therefore to reintegrate it into its societal context. This approach has a strong potential to enrich analyses and interpretations by restituting the role that this art played in prehistoric societies, as has begun in parietal art. Must we be reminded that with its many possible destinations (domestic, funerary, social, ritual, ...), its potentially social, esthetic and symbolic functions, its different graphic forms and representations (grammars for some), and its insertion into the different technical and economic systems of a group, portable art provides valuable evidence of the large range of activities of the societies by which it was produced, as well as of the essential role that it played in their view of the world and their manner of functioning.

We thank the French Ministry of National Education, Higher Education and Research (MENESR, DREIC), along with the CNRS (INEE) for funding this symposium.



SYMPOSIUM 8

PLEISTOCENE PORTABLE ART

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I

Definitions and characterization

→ full version

A NEW LATE PALEOLITHIC “OFFERING VENUS” FROM FRASASSI GORGE (CENTRAL ITALY)

**Mauro COLTORTI, Cristina LEMORINI, Marco PERESANI
Sandro POLZINETTI, Pierluigi PIERUCCINI
Mara SILVESTRINI, Daniela ZAMPETTI**

We present a new find coming from a cave in the Frasassi Gorge, (Marche, central Italy). The Venus was discovered by one of us (SP) at the base of a local man-made scarp at the entrance of the cave. Although it was not found *in situ*, the simple stratigraphical setting of the nearby sequence and the fact that in the past there was an archaeological layer, later destroyed, allow us to establish that layer 3 is the best candidate for the provenience of the Venus and, together with the typology, its preliminary attribution to the Late Pleistocene. Layer 3, 26/32 – 32/42 cm thick, consists of sandy silt (10YR 6/2 light brownish gray and 10YR 6/6 brownish yellow) with scarce chalky angular clasts. The darker colour of the layer seems to derive from the final shred, close to the wall, of an anthropic level with organic matter and charcoal observed in the past during the mapping of the cavity.

The statuette is made on a stalactite and is elongated in the direction of the growth of the stalactite itself. The rear view shows a volume roughly shaped in four parts (head, chest, abdomen, legs). The frontal view displays a vaguely shaped head, with the face separated from the nape by a long furrow that reaches the shoulders, suggesting the hair or a cap. The breast is well recognizable and rests over the arms that join in an unusual offering position. Below the arms, the waist band is typically that of a pregnant woman, with a well recognizable triangular pelvic area. The legs, in their frontal side, have been modeled with another long furrow as far as the base of the statuette. The state of preservation of the piece is good even if a fracture affected the end of the legs.

The colour according to the Munsell code is: 2.5 y 8/3 pale yellow.

This statuette shows clear analogies with the so-called “Venus figurines” that have such peculiar stylistic features and are cultural markers of the European Gravettian. However, their typology is not homogeneous and in Italy, as well as in the rest of Europe, there is a large variability of these artistic handicrafts. In the Italian repertory the so-called “Ponchinello” in steatite, the “Abrachial” and the “Ochred Lady” in ivory from the Balzi Rossi (Northern Italy), the Savignano Venus in serpentine (Northern Italy), the Bracciano Venus in steatite (Central Italy) and the bigger one of the two bone figurines from the Venus cave (Southern Italy) show a constellation of details like the position and/or the morphology of the head, the prominent breast and abdomen, the pubic triangle in evidence and the joined straight legs that liken them to the Frasassi figurine. As to the flattish posterior side there are similarities with the so-called “Hermaphrodite”, the “Lozenge” in steatite and the “Goitered Lady” in antler from the Balzi Rossi and with the smaller one of the two bone figurines from the Venus cave. Absolutely unique is the posture of the protruding arms. The raw material selected for the statuette is rarely attested at the end of the Italian Upper Paleolithic; till now there is no data about the use of this kind of raw material in the Gravettian. The analytical study of the piece we have planned includes, besides the laboratory analyses, an experimental activity devoted to the carving technique.



The Venus of Frasassi Gorge,
Central Italy (photo : G. Filippini).

The figurine dimensions

Height	Max Width	Min Width	Max Thickness	Min Thickness	Weight
87 mm	27 mm	12 mm	36 mm	12 mm	66.5 gr

As to the general picture of the UP of the Marche, the large open-air Late Gravettian sites Ponte di Pietra and Fosso Mergaoni, located a few kilometers from the Frasassi gorge, record the human presence in the region at 18-20 ¹⁴C ky BP). The data on Gravettian peopling indicate that it began around 26 000 BP. In the area including the Adriatic coast and the first Appennine foothills the sites are very few. The record of Late Paleolithic peopling includes a series of Epigravettian sites, going back to the Tardiglacial and spreading both in the karstic cavities of the Frasassi gorge and in other areas. At the end of the Epigravettian a series of cave sites are documented along the Esino river basin.

In conclusion, the Frasassi Venus, likely going back to the Gravettian / early Epigravettian, will add new information to our knowledge on this kind of Paleolithic portable art. It represents a master of art of our antecessors in Italy, a real world heritage.



NEW FEMALE FIGURINES FROM THE SITE KHOTYLEVO 2

Konstantin N. GAVRILOV

The site of Khotylevo 2 is located 25 km north-west of Bryansk town in Central Russia on the right bank of the Desna River. Topographically the place is a cape, formed by two ancient valleys that open onto the river valley. The promontory has a northern exposure and is divided into separate areas by small gullies. The site was first studied by F. M. Zavernyaev in 1968, who directed its excavations from 1969 to 1981. Fieldwork there was taken up again by the Department of Stone Age Archaeology (Institute of Archaeology RAS) in 1993. Now the cultural layer of Khotylevo 2 includes four locations which were marked by the letters of the Russian alphabet, starting from A and up to Г.

Khotylevo 2 is a specific type of settlement of the Eastern Gravettian in the Russian Plain. Its spatial structure is well correlated with the unique character of the material culture on the site manifest in the typological characteristics of both flint and bone implements.

The anthropomorphic sculptures found during the Khotylevo 2 excavations could be divided into three groups: a) realistic female figures; b) schematic figures, symbolizing the female image, c) a schematic anthropomorphic figurine. The first group consists of three figurines of obese, likely pregnant women, as well as fragments of female statuettes – head with “hair” and legs. Schematic female figures are represented by two biconical artifacts. The last schematic anthropomorphic sculpture is rod-like, probably symbolizing a male image.

The Khotylevo 2 female figurines were classified by M. D. Gvozdover as a culturally specific type, different from those at Kostenki I (layer 1) and Avdeevo. According to G. A. Khlopatchev, the difference between the Khotylevo and Kostenki-Avdeevo types are now confirmed both from the canon of figures and their technologies.

In 2006 we began to excavate Khotylevo 2, point B. This area is located at some distance from the edge of the high right bank of the river Desna uphill plateau. The stratigraphy of the sediments overlying, surrounding and underlying the cultural layer is usual for this site and quite similar to the stratigraphical position of A and Б, thus dated to post-Bryansk times. Point B has no radiocarbon dating yet while points A and Б, along the edge of the coastal cliff, have radiocarbon ages from 24 to 21 ka BP.

The cultural layer of the new location was studied over 45 m². It proved very rich in flint, ivory and bone tools, faunal remains, as well as zones of concentration of bone charcoal and ocher, pits and other features, such as accumulations of mammoth bones, deliberately arranged in a certain order.



Double female statuette and schematic figure carved out of chalk
(photo : D.O.Ozherel'ev).

Two different sets of objects existed in the investigated area. One of them is characterized mainly by specially arranged accumulations of mammoth bones. The second consists of pits, together with vertically standing bones located around the zone of concentrations of bone charcoal, ocher, chipped flint and broken bones of animals. The stratigraphy shows that these complexes existed at different times. The first one did not function at the time of formation of the second complex.

In July, 2009 a double female figurine and a schematic figure, carved out of chalk, were found in the second complex. Figurine and figure occur in the upper part of the concentration of splintered flint, small pieces of bone charcoal and indeterminate animal bones, to the west of pit #6. The first statue represents the image of two naked female figures which have been cut out of a small chalk slab. Its dimensions are 58.5 × 44.5 × 15 mm. The figures constitute a trapezium-shaped being designed in a realistic manner, which is usual for the Eastern Gravettian. The back of the slab is smoothed and divided by a longitudinal groove into two halves corresponding to the female figures. They are not realistic from the back. The women stand shoulder to shoulder, and their heads, hands and shins were not represented. Stylistically the image of women in a double statuette is analogous to the Kostenki canon. This similarity is emphasized by double transverse shallow grooves crossing the left breast which is rather like a bandage on statue 1 (figure) found during the Kostenki 1 excavation. The analogy to this composition is a bas-relief of women from the French site Angles-sur-l'Anglin (Roc-aux-Sorciers). The second figure is flattened and also trapezium-shaped (18 × 16 × 7/6 mm). Its front side is divided into two parts by a horizontal groove. Its back side is flat. We interpret this artifact as a schematic image of woman. If our assumption is correct, we suppose that the schematic woman's torso found during the excavations of Dolní Věstonice in Moravia could be compared to statue 2 (figure).

New finds of portable art from Khotylevo 2 reflect stylistic peculiarities inherent to the Gravettian sites of the Central Russian Plain and allow us to include Khotylevo 2 portable art into the cultural context both of Central and Western Europe.



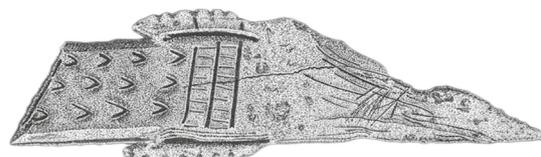
THE BIRD *CONTOUR DÉCOUPÉ* AT THE SITE OF EKAIN (DEVA, BASQUE COUNTRY)

Jesús ALTUNA, Koro MARIEZKURRENA,
Federico RÍOS, Jan WESBUER

The Cueva de Ekain is known for the magnificent collection of figurative rock art that is located deep within the cave. The first archaeological excavations of the site took place between 1969 and 1975, and new excavations were carried out between 2007 and 2011. This paper presents a *contour découpé* that was found there in 2008.

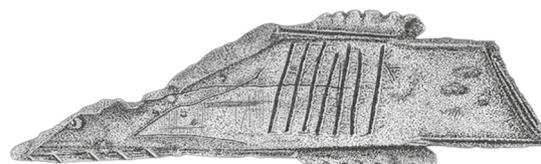
The *contour découpé* in question was made on the rib of a large bovid that had previously been split and had the spongy inner part of the bone scraped away. It represents a bird, and it is the first time that such a motif has been seen on a *contour découpé* (see figure). The majority of *contour découpés* are made on horse hyoid bones and tend to represent the heads of horses, bison, goats, chamois, cervids, or occasionally fish. The piece is 66.2 mm long and 19 mm wide and has numerous carvings on both sides.

The bird is represented from a skewed perspective in which the bird's head is shown side on, but its body is depicted from below (or above). In this way both wings could be shown at once. As a result, the figure is not symmetrical on both sides, and it is not the left and right side of the animal that have been represented, as is usual with a *contour découpé*, but rather its back and underside.



1 cm

Contour découpé from Cueva de Ekain on a split bovid rib (photograph: outer face. Drawing: outer and inner face with man-made incisions).



Outer face. There is a series of longitudinal and transversal incisions across the entire neck area and the upper part of the bird's body. Its wings are folded down against its body and have been marked with grooves to distinguish them. On the outside edge of the wings there are 5 cuts in the "upper" wing and 6 in the "lower" wing, which give them scalloped edges. The far ends of the wings come away from the body and are partially broken away. Between the grooves that separate the body and the wings there are three deep transverse incisions, and between these three incisions there are another eight short, perpendicular ones.

Behind these incisions are 12 angular or wedge-shaped incisions that are aligned into three longitudinal rows of four. The final series is only partially complete as the rib has been cut off at an oblique angle at the end, implying that the incisions were made before the end was cut. In order to cut the end of the rib, several subparallel incisions were made on each side of the rib so that it could then be snapped off.

The deepest incisions each have several strictly parallel lines at the bottom of them, indicating that the tool used to make them had something unusual at the end of it such as a microdenticulate burin.

Inner face. On the ventral edge of the head, in other words on the chin and throat, there are five short, regular oblique incisions. The wings are marked in a similar way to the outer face, although the grooves are narrower.

Between these two grooves there are seven transverse lines that are similar to the three on the outer face, however there are no angular or wedge-like incisions at the end of it.

Identification. As with other cases of birds in prehistoric art, identification has proved difficult. Birds are far more numerous than large mammals and do not "lend" themselves as models with the realism of large mammals.

In this case, one tends to imagine a bird diving into water in the manner of the *Alcedo atthis*, because of the way in which its wings are folded down against its body, but we would need to know whether the wings have been deliberately depicted in this way or whether it is simply because the constraints of the rib meant they could not be shown spread away from the body.

The general appearance of the bird is reminiscent of an anatid. The stripes on the neck and wings of an anser can look like this, and the tips of the tail feathers, which meet its webbed feet when it is in flight, are also reminiscent of the back portion of the Ekain bird. The scalloping that we described on the outer edge of the wings may have defined the shape of the ends of the feathers. In any case, in terms of the external morphology of different birds, it is possible to see features that resemble those of the Ekain bird.

Chronology. Another bone was found together with the bird bone and in contact with it, which could not be identified, but which had not been carved at all, and which has been dated by C¹⁴ AMS to 13 862 ± 129 BP (U-13108), CAL (95.4%) 15 050-14 100 BC, placing it in the middle Magdalenian, in its earlier phase. As we all know, the magnificent series of *contour découpés* made from horse hyoid bone in the site of Isturitz, 70 linear kilometers from Ekain, dates to this same period. The same is true of other cases in the French Pyrenees and the Cantabrian region.



TECHNOLOGICAL DATA ON MAMMOTH IVORY ENGRAVING IN THE EPIGRAVETTIAN: the Case of Mezin (Ukraine)

Martina LÁZNIČKOVÁ-GALETOVÁ

This article presents the procedure of engraving used to realize the geometric decoration on ivory pieces from the site of Mezin in Ukraine. Mezin, located on the right bank of the Desna River, was discovered in 1907. This Epigravettian site (15 100 ± 200 BP) yielded a rich bone industry, including numerous portable art objects, many in ivory. Since their discovery, the latter have been the object of many typological and stylistic analyses, such as those by Tchikalenko (1923), F. Hančar (1940), Salmony (1949), Abramova (1962), Bibikov (1981), Filipov (1983), Soffer (1985) and Iakovleva (1995, 2009).

In our study, we chose to focus on the techniques used to realize the decorations on these pieces, and in particular, that used to create the geometric decorations present on some of the ivory pieces. We studied the engraved incisions using a low power microscope (Nikon SMZ 645) and a scanning electron microscope (SEM, BS 340).

Decoration type

At Mezin, the portable art objects and personal ornaments in ivory are decorated only with engraved geometric motifs. These decorations are present on schematic female statuettes, engraved tusks and bracelets in ivory. The decorations are composed of squiggly lines, zigzags, parallel lines and interlaced chevrons.

The technique used to realize the decorations

At Mezin, engraved geometric decorations are present on two types of supports. The most common one, supports “with volume”, consists of cylindrical fragments of mammoth tusk. The other one, “flat” supports, consists of long ivory “blades” used to make bracelets. Our analysis shows that the same engraving procedures were used on both support types.

1. Engraving on supports “with volume”

Cylindrical supports were made by segmenting the tusk. Depending on the age of the animal and the location of the support (proximal, medial or distal part of the tusk and its location at the heart of the tusk, or not), the support is more or less curved. Several object types realized on supports with volume are decorated with geometric motifs.

The first object type is a tusk segment, such as the one decorated with two linked diamonds, realized on the outer layer of the tusk through the incision of straight, continuous grooves of different lengths. In the specimens studied, we did not observe any evidence of surface preparation. The engraving was realized simply by repeated strokes of the tool.

The second object type is a *ronde-bosse* sculpture. In this case, the cement layer was removed in some places and the surface used for engraving has a highly variable form, depending on the morphology of the statuette. All of the statuettes were decorated using the same engraving procedure as that of the engraved tusk described above.

2. Engraving on flat supports

We studied two nearly complete bracelets and several flat fragments that can also be considered as parts of bracelets or crowns.

Debitage by extraction in order to obtain a flat support is well attested at the site by the presence of characteristic by-products (extraction matrices). All show that the extraction procedure employed grooving to delimit the supports to be extracted.

The bracelet fragments with a longitudinal shape originate from the outer layer of the tusk, still covered with the cement layer. The surface available for engraving is flat and slightly convex.

The geometric decoration is organized in repeated “chevrons” and concentric diamonds. The engraving is composed of grooves of variable depths and lengths, which plays a role in the final result. The grooves (straight) were realized by repeated strokes with the tool.

We observed two types of lines to create the geometric decorations on flat supports:

- lines made by long, linear and continuous incisions;
- discontinuous lines made by short, contiguous incisions that followed each other by pivoting with a 15° angle.



Flat ivory fragments – fragments of bracelets or crowns
(photo: S. Péan, MNHN Paris).

There are at least two manners in which this type of discontinuous line can be made: either beginning with a linear incision onto which short incisions are regularly imprinted, or beginning with a line composed of short oblique incisions that regularly overlap. Since the grooves are filled with sediment, we can only observe the morphology of the lines.

In conclusion, we observed that at Mezin, the ivory pieces with geometric decorations correspond to two types of supports: supports “with volume” and flat supports. We also identified two distinct engraving procedures that were employed indifferently on both support types.



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II

Chronology: beginnings and evolution



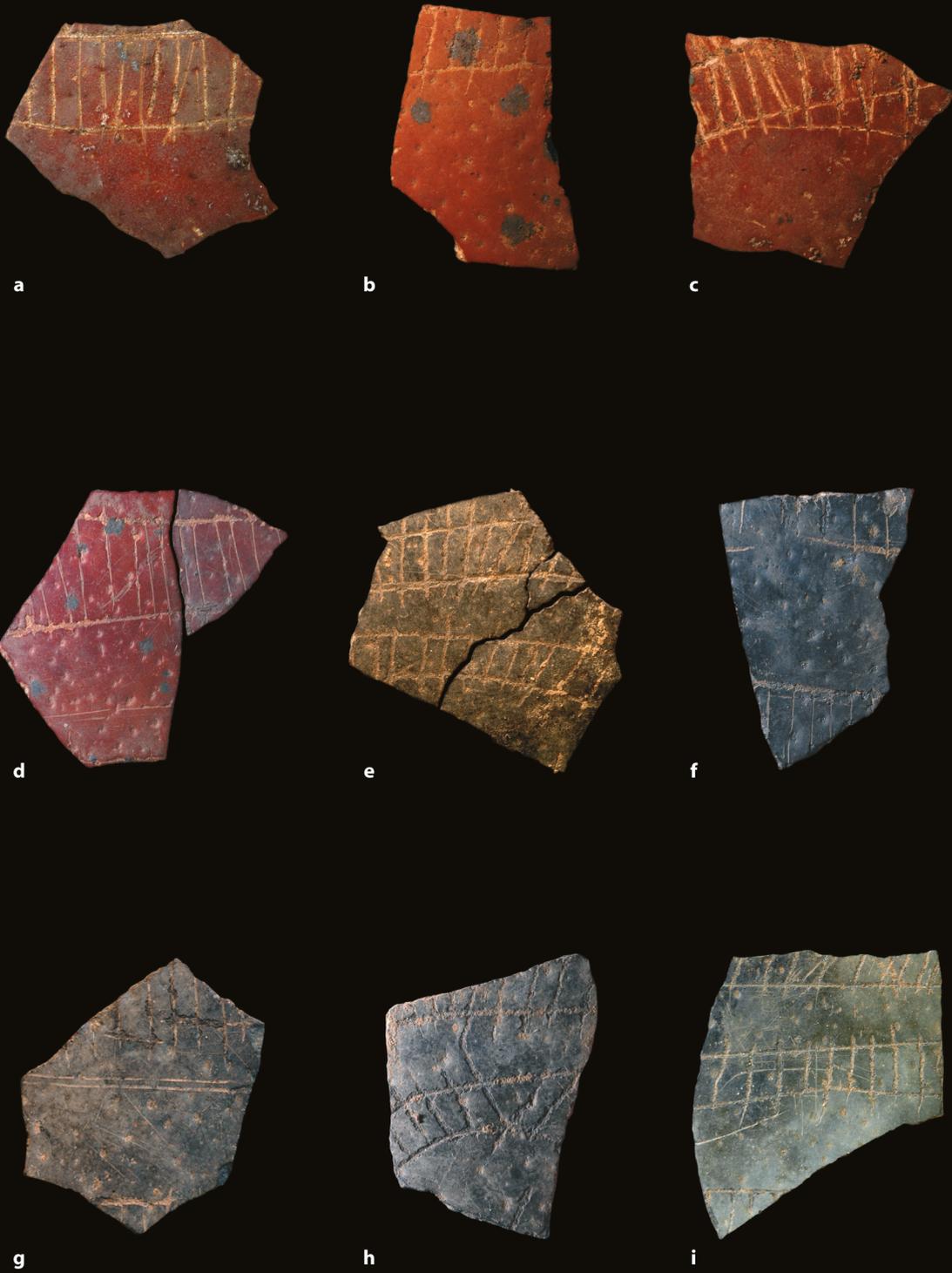
ENGRAVED OSTRICH EGGSHELL CONTAINERS FROM THE MIDDLE STONE AGE AT DIEPKLOOF ROCK SHELTER (SOUTH AFRICA): a 60 000 Year-old Graphic Tradition

Pierre-Jean TEXIER, Guillaume PORRAZ

Diepkloof rock shelter is a large quartzitic sandstone shelter (250 m²) located around 200 km north of Cape Town (Western Cape). It overlooks the Verlorenvlei River at 14 km from its mouth on the edge of its current shore. Excavations conducted since 1999 have gradually exposed one of the most complete archaeological sequences of the Middle Stone Age in southern Africa. A section nearly 4 m deep shows for the first time a continuous sequence of Pre-Still Bay, Still Bay, Howiesons Poort and Post-Howiesons Poort occupations dating from before 130 ka to about 45 ka. Although ostrich eggshell fragments are documented throughout the sequence, the engraved ones are associated only with several contiguous layers within the upper half of the Howiesons Poort complex. To date, more than 370 engraved eggshell fragments, most of which were found in two layers, have been collected in a sub-sequence of around fifteen layers. These repetitive engravings show that a relatively limited range of motifs was realized, following simple geometric rules. The use of decorated eggshells as containers, as historic !Kung groups did, is suggested by the presence of a few engraved or non-engraved fragments clearly originating from the edge of a perforation. The rich assemblage of engraved fragments has been dated to approximately 60 000 BP by thermoluminescence and OSL. This is currently the earliest known evidence of a graphic tradition. This unique collection raises new questions concerning the symbolic practices and cultural identity of Anatomically Modern Humans at this time.

Symbolic manifestations of behaviors are currently universally considered to be the most reliable indicators of “cultural modernity”. Symbolic practices indeed reflect organized social conventions and can be found archaeologically in different forms, depending on the nature of the material support used and the type of transformation to which it was subjected. In all cases, the existence of such practices requires a complete adhesion to the collective rules of the social group concerned. The repetition and codification of these practices enable us to perceive traditions within certain categories of objects.

It is thus crucial to know where, when and in what form such symbolic behaviors merged in the course of human evolution. In the Middle Stone Age (MSA) in southern Africa, we find solid evidence of technological innovations and very early symbolic behaviors preceding the dispersion of Anatomically Modern Humans into Eurasia, around 50 000 years ago. The earliest symbolic practices documented in southern Africa consist of shells whose intentional perforation led to their interpretation as personal ornaments. The engraving of portable objects, such as ochre pieces, bones, and ostrich eggshells is another example. The idea that specific marks always reflect attempts to make figurative representations can be debated. Because the number of archaeological



Fragments of engraved ostrich eggshells of the EOES (Engraved Ostrich Egg Shell) complex in the Howiesons Poort at Diepkloof rock shelter (Western Cape), found in layers OB2 (a, c) and Frank (b, d-i). They display several aspects of the most common motif at Diepkloof. The hatched band, of variable width and space between hatches, appears to have been realized up to three times on the same container. Conjoins grouping up to 17 fragments and pieces such as fragment c, situated at the junction of two extremities of one band, indicate that this type of decoration usually had a circular shape.

collections is still limited to small samples of stratigraphically contemporary pieces, the range of variability of motifs remains poorly documented and interpreted. Engraved elements are characterized by the remarkable diversity of their motifs, the choice of materials used as supports and their chronocultural contexts. Rather than considering the practice of engraving as a simple and homogeneous phenomenon, it now appears particularly important to focus on observed differences and to evaluate their role in the appearance and evolution of symbolic expression.

Among the few sites in southern Africa at which engraved objects have been found, Diepkloof rock shelter is currently the only one to have yielded a significant assemblage of engraved ostrich eggshells (figure). The discoveries made over the past ten years, along with those previously made at the site, make this a particularly rich and absolutely unique collection. The large assemblage of engraved eggshell fragments nonetheless displays only a limited range of geometric motifs, thus introducing the notion of group identity (through the following of rules) and individual expression (manifest by a certain stylistic latitude).

The limited range of motifs, along with their diachronic variability, provides convincing evidence for a type of symbolic expression. The very large assemblage of engraved eggshell fragments discovered at Diepkloof, in a particularly well preserved geoarchaeological context, as well as the indisputable intentionality of the incisions and their mutual organization, provide an opportunity to study the most reliable collection available to illustrate what appears to be the first known graphic tradition.



FIGURATIVE AND DECORATIVE ART OF KOSTENKI: Chronological and Cultural Differentiation

Andrei A. SINITSYN

The modern model of the differentiation of Kostenki' group of Palaeolithic sites (Voronezh district, Russia), based on the new excavation of last decade, consist of four chronological groups:

- Initial Upper Palaeolithic (IUP: 42-29 ka) included two cultural unities: Spitsyanean and assemblage of Kostenki 14 (cultural layer IVb);
- Early Upper Palaeolithic (EUP: 36-32 ka), structure of which is typical for European EUP as an association of Aurignacian and local "transitional" (here Streletskian) culture;
- Early Middle Upper Palaeolithic (eMUP: ~28 ka) identification of which is connected with Gravettian appearance, but in Kostenki together with Gorodtsovian;
- particular East European cultural unity, unknown in the West;
- recent Middle Upper Palaeolithic (rMUP: 23-20 ka) as an association of Gravettian of 5 varieties and series of cultural traditions of non-Gravettian attribution.

The backgrounds for cultural differentiation of Kostenki Palaeolithic, as everywhere, are technological features of lithic assemblages. But their others components (bone assemblages, dwellings constructions, arts...) do not coincide or not always with cultural entities, based on lithics. The principal aim of this paper is the attempt to order the objects of figurative and decorative arts including personal ornaments in their relation to traditional lithic-based cultural unities.

25 cultural layers of 15 Kostenki' sites provide evidences of symbolic activity, which can be classified as:

1. undoubtedly figurative art objects;
2. sculptural artefacts of non-clear definitions;
3. personal ornaments objects from natural origin with holes for suspension are also included here;
4. decorations on tools, personal ornaments, artefacts of non-clear functions or fragments of bones, mammoth tusks and soft stones.

Arts of IUP group (42/?/-36 ka)

Two cultural unities of the most ancient chronological group – Spitsyanean (Kostenki 17, cultural layer II) and Kostenki 14, cultural layer IVb – provide a numerous series of ornamental objects. For lower cultural layer of Kostenki 17 these are perforated teeth of polar fox; suspensions on stone, fossil shells and belemnites. Assemblage of lower cultural layer of Kostenki 14 (Markina gora), quite differs from Spitsyanean according to technology and typological tool-kit, provides the more variable association of symbolic activity, including anthropomorphic sculptural object, bead on shell of Mediterranean origin (Columbelidae), decorative bone tool, series of flint tools with natural holes (figure). The most important for the last site is the association of figurative, ornamental and decorative arts at the most ancient manifestation of Upper Palaeolithic.



EUP. Aurignacian. Kostenki 14 (cultural layer in volcanic ash) 14C: 35 ka; Cal: ~ 40 ka bp

IUP stratum. 14C: 36-37 ka; Cal: ~ 41-42 ka bp

Kostenki 14 (cultural layer IVb)

Spitsyean
Kostenki 17 (c.layer II)



Kostenki: bone and art assemblages in chronological and cultural context.

Arts of EUP group (36-29 ka)

As everywhere in Europe EUP in Kostenki has bimodal structure, one component of which is Aurignacian of pan-European distribution; another is local variant of “transitional” industry-Streletskian.

Aurignacian assemblages (Kostenki 1, cultural layer III, ^{14}C ~32 ka non Cal; Kostenki 14, cultural layer in volcanic ash, ^{14}C 32-35 ka non Cal) provide a similar lithic inventory with Dufour bladelet of Roc-de-Combe variety, but different artistic associations. Common for both is the presence of beads on a local variety of fresh water shells Neretidae and perforated suspensions on polar fox’ teeth. Distinctions concern the most expressive part of personal ornaments: perforated sea shells and pointed decorations on bone fragments for Kostenki 1-III; for Kostenki 14 (layer in volcanic ash): a unique suspension on fossil and series of long beads on polar fox tubular bones, decorated by circular and spiral ornaments. Very important appears to be analyses of spatial distributions of the last kind of personal ornament: they were identified in the cultural layer XI (transitional) of Denisova cave (Altai), and some sites of west European Aurignacian (Isturitz, La Souquette, Les Cottés...).

Streletskian sites in contrast provide very poor decorative assemblages, the most important of which is the single perforated stone pendant from the cultural layer V of Kostenki 1 and cultural layer Ia of Kostenki 12.

Arts of the early MUP group (~28-29 ka)

As everywhere in Europe the beginning of Middle Upper Palaeolithic associates in Kostenki with appearance of Gravettian but in particular context together with Gorodtsovian, particular East European cultural entity.

Early Gravettian assemblage of the cultural layer II at Kostenki 8 (Telmanskaya st.) provide a very banal ornamental and decorative assemblage without particular objects and motives. In contrast Gorodtsovian sites provide very rich and diagnostic decorative assemblages. Gorodtsovian for the moment seems to be a variable cultural entity united according to numerous “Mousterian” component, non-Aurignacian and non-Gravettian affiliation and particular “fossil director” – large “shovels” made on mammoth bones with “nail-like” heads of the haft. The most numerous and variable collection of decorative objects comes from the cultural layer II of Kostenki 14 (Markina gora) which includes small beads and pendants of three varieties on mammoth tusk with drilled holes; a decorated point (fibula) with zoomorphic head; bone tools, mostly fragmented, decorated by complex bands of geometric ornament.

According to current stage of our knowledge, based mostly on series of radiocarbon dates, the break from 27 to 23–22 ka is put in evidence in Kostenki chronological sequences. After this break a number of recent Gravettian variants appear together with sites of non-Gravettian affiliation, in which artistic assemblages provide another stylistic and aesthetic system of values.

Conclusion

1. Objects of sculptural, ornamental and decorative arts appear together at the most ancient manifestation of East European Upper Palaeolithic (IUP stratum) in the cultural layer IVb of Kostenki 14.

2. In general, all kinds of art are in good accordance with cultural unities defined on lithic backgrounds, in contrast to cultural entities of more recent Palaeolithic epochs, where the situation is more complex and complicated.



GRAVETTIAN AND EPIGRAVETTIAN PORTABLE ART IN ROMANIA

Marin CÂRCIUMARU, Elena Cristina NIȚU, Minodora ȚUȚUIANU

In Romania, some Gravettian and Epigravettian sites have yielded large numbers of art objects. These objects, perhaps more than other artifacts, require meticulous technical-typological studies that can only be realized using high resolution optical observation systems. In this study, we contribute new interpretations of a few of these objects.

The Poiana Cireșului occupation site is located on the right bank of the Bistrița Valley, at the confluence with the Doamnei stream, south-west of the city of Piatra Neamț in the Neamț department (Romania). In 2004, a necklace of twelve perforated (probably by sawing) snail shells was discovered in the Gravettian II layer ($27\,321 \pm 234$ to $25\,760 \pm 160$ BP) (figure). This discovery is currently unique in Romania. *Lythoglyphus naticoides* snails are very small (5-8 mm) and fragile.

The assemblage of portable art objects recovered at the Epigravettian site of Poiana Cireșului (between $20\,020 \pm 110$ and $20\,076$ BP), was enriched during the archaeological excavations of 2002. Among these objects, the root of a lower left wolf canine (*Canis lupus*) was perforated for use as a pendant.

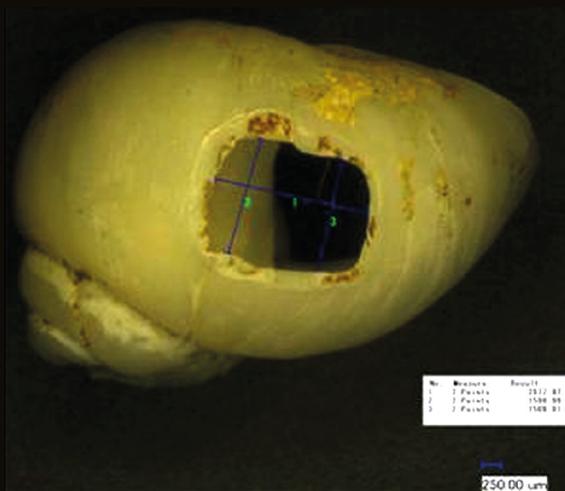
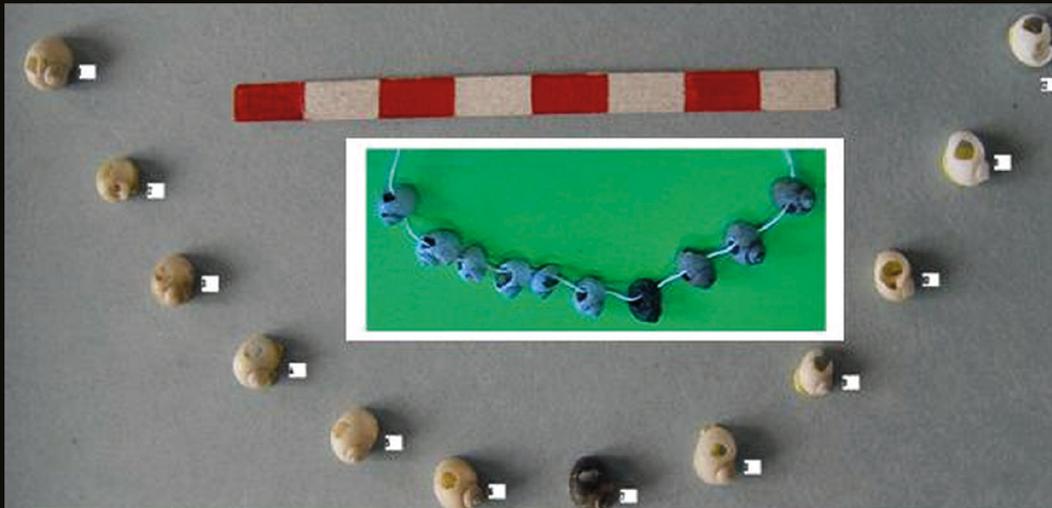
In 2001, a perforated red deer tooth was discovered in the Epigravettian layer. The 2003 excavation session yielded a bone fragment with a series of very small incisions that seem to become more numerous toward the fragmented part.

The external structure of a long bone (metapodial) diaphysis fragment belonging to a large mammal was slightly modified. It now has a straight profile, a very circular section and convergent edges. On one of its edges, 17 deep, diamond-shaped incisions are visible. They have a V-shaped profile and are organized longitudinally relative to the axis of the piece. There is another diaphysis with incisions, but with no preliminary preparation of the engraved surface.

Another art object is represented by a reindeer phalange perforated on only one face. We first thought that it was a pendant in the process of manufacturing, but a more detailed analysis led us to conclude that it is a whistle.

The Epigravettian layer at Poiana Cireșului-Piatra Neamț yielded four fossil bivalve shells of the *Congeria* sp. aff. *Congeria (Mytilopsis) subcarinata subcarinata* species. Their presence in the layer is probably due to a direct importation or exchange with the members of the Epigravettian community more than 100 km away.

Their shape is surprising as it suggests a vulva, an element that is frequently encountered in west-European rock art. Their meaning is deeply tied to sexual symbolism.



Necklace made of perforated *Lythoglyphus naticoides* shells in the Gravettian II of the open-air site of Poiana Cireşului-Piatra Neamţ, with details of the shaping and use observable with a VHX-600 numeric microscope (photo: M. Cărciumaru).

The Gravettian layer of Cioarei, dated to between $23\,950 \pm 120$ BP and $21\,620 \pm 230$ BP, yielded a few very interesting art objects. The most important piece is an engraved pendant on a silicified marlaceous sandstone. The second piece is an upper third incisor of a cave bear, perforated in its medial part, slightly towards the root. The third piece is a cave bear phalange. It is perforated at the diaphysis, towards the distal extremity. Of the three beads discovered, two were made from stalactites and the third on a fossil bone.

At the site of Mitoc-Malul Galben, a pendant amulet was found. It was made on a flake of cortex. A second pendant was made on a long bone diaphysis of a large adult herbivore. This is a straight, non-decorated pendant, with an elongated shape.

The Gravettian ornaments from Gura Cheii-Râşnov Cave, dated to 22 160 BP, consist of one fox canine and a deciduous reindeer tooth; both are perforated on their root.

In the Final Gravettian at Stracova, an elongated, oval-shaped, graphite piece was found. It is engraved with four slightly parallel grooves that seem to imitate a snail shell.

The discoveries at Țibrinu were made in an uncertain stratigraphic and chronologic context. The first object is a perforated red deer bone flake. Only the exterior surface of this piece is decorated, in a geometric style, with three rows of small, zigzag lines placed along the bone. The second piece is a highly fossilized, perforated bear canine.



THE FEMALE FIGURINES IN FLAKED FLINT FROM THE MAGDALENIAN SITE OF WILCZYCE 10 (SANDOMIERZ DISTRICT, POLAND)

Tomasz BOROŃ, Halina KRÓLIK, Tomasz KOWALSKI

Magdalenian artifacts representing human figures (parietal engravings and statuettes) are rare in Poland. While figurines (in hematite) have already been discovered at Dzierżysław 35, the site of Wilczyce has thus far yielded the greatest number of them. These are doubly interesting since most of them are made from flint (50 versus 4 in bone) and were “sculpted” by retouching the flint pieces.

Located on the Sandomierz Plateau (southern Poland), Wilczyce was discovered in 1994 during a survey conducted by the Polish Academy of Sciences. The site is situated on a slope overlooking the valley of the Opatówka River. The excavation started in 1998 (director J. Fiedorczuk) showed that Magdalenian artifacts were present only in the fill of ice wedges. The results of ¹⁴C analyses situate the Wilczyce occupations in the upper horizon of the Magdalenian, during the period of transition between the earliest Dryas and the Bölling.

Flint figurines

Thus far, 50 flint objects have been identified as figurines. Thirty-one complete or fragmentary ones can be considered as finished objects (outline and profile achieved), 19 are either in the process of manufacturing (first roughouts were identified) or are discards following flaking or shaping accidents (figure). The *in situ* presence of pieces representing different manufacturing stages indicates that these objects were made at the site.

Most of the figurines were made from flakes (39), and less often from blades. The presence or absence of cortex does not seem to have played a role in the selection of particular supports, nor does the orientation of the support during the debitage phase – on the pieces, the bulb of percussion is located on the distal (feet), proximal (head) or lateral (near the buttocks) part of the figurine.

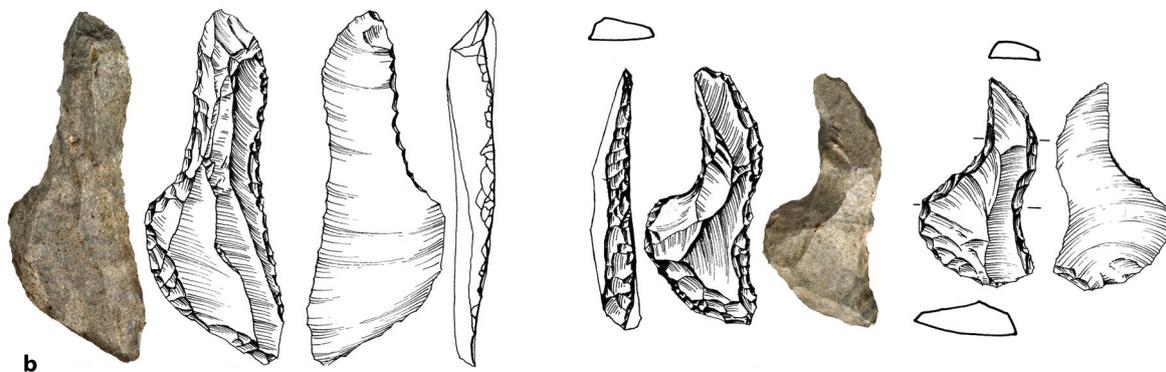
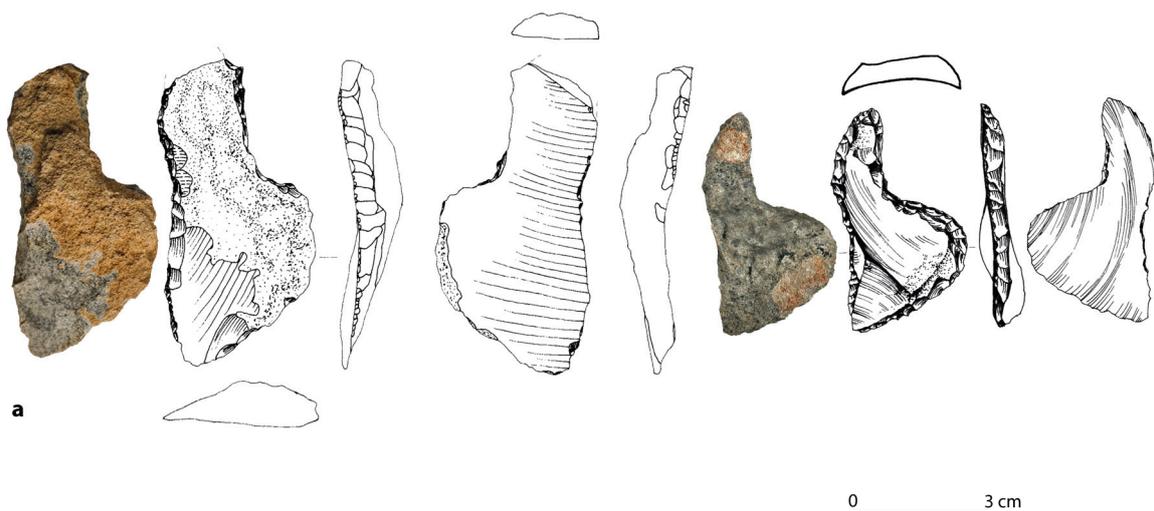
The use of retouch to “sculpt” these figurines is the most striking technical feature of this assemblage. On these pieces, we observe abrupt, semi-abrupt, and even flat retouch (on the upper face). The shaping by retouch can be total and invasive or partial. In the latter case, the retouch is used to correct faults in the initial morphology of the selected support. In all cases, we observe that the part most carefully worked is the buttocks. The base of the body is rounded or tapered, the thighs never being represented.

In general, the manufacturing process of the statuettes varies very little: the breasts are barely outlined by a nick on the upper part of the stone, the hypertrophied buttocks are accentuated in the lower part.

In terms of metrics, the flint figurines from Wilczyce are distributed in three groups: most are between 40 and 65 mm long and 23 and 44 mm wide. The second, less numerous, group is composed of finer specimens, from 70 to 83 mm long and 26 to 36 mm wide. The third, smaller, group corresponds to plaques 27 to 39 mm long and 15 to 20 mm wide.

From a morphological perspective, we distinguished the figurines based on the right or left lateralization of the buttocks. The first group (buttocks on the right) includes 27 specimens (figure a) and the second has 23 (figure b).

The figurines originate from three concentration zones in the site (north part, central part and southern part). There are nonetheless no significant stylistic differences between the three zones; all yielded figurines with buttocks to the right and left. The most numerous group was found in the central part of the site, which seems to correspond to the apogee of the Magdalenian occupation of the site if we take into account, among other things, the presence of numerous lithic and osseous artifacts.



Wilczyce 10, Morphological classification:

a. group of figurines with a right profile [buttocks to the right];

b. group of figurines with a left profile [buttocks to the left] (photos: M. Gmur; drawings: E. Gumińska).

The bone and ivory figurines

While the flint figurines are the most numerous, four specimens in osseous materials were also discovered at Wilczyce: two have the buttocks to the right, one to the left, and the other has an atypical shape that seems to represent a pregnant woman. Discovered in the central part of the site, this ivory figurine, which is the largest found at the site in this material, is probably linked to the presence in this area of a child burial. This object is even more exceptional since figures of this type are extremely rare, not only in Magdalenian art, but in Paleolithic art in general. One figurine found at the site of Kostenki XIII also appears to represent a pregnant woman.

Conclusion

The Wilczyce site is exceptional. It is the only Magdalenian site currently known where figurines of this type were made from flint. The stylistic features of the pieces from Wilczyce are similar to those of the stone figurines discovered at Gönnersdorf and Bad Kreuznach, while the bone and ivory pieces resemble the lithic and osseous figurines from Oelknitz. The presence of portable art objects at the Magdalenian site of Wilczyce supports the hypothesis that artifacts of this type exist only at long-term occupations.



DECORATED PLAQUETTES FROM MAGDALENIAN HABITATION FLOORS IN THE LOWER GALLERY AT LA GARMA (CANTABRIA, SPAIN)

Roberto ONTAÑÓN, Pablo ARIAS

The Lower Gallery of La Garma is a cave whose original entry was blocked in an advanced moment of the Late Glacial, trapping inside hundreds of square meters of settlement floors dated to the Middle Magdalenian. These archaeological floors consist of thousands of bones, stone and antler tools and artefacts and are, in some areas, spatially organised with artificial stone structures that define subcircular enclosures. They extend through the entry and first section of the cave (called Zone I, which corresponds strictly to the area of habitat), and also in two other inner sectors of the cave, located respectively 90 m and 130 m from the entrance (areas III and IV).

Among the various elements that constitute the context, there are hundreds of stalagmite slabs, some of them with engravings. Seventeen have been identified so far in Zone IV. There also are more decorated slabs in other areas of the Lower Gallery.

The raw material is found in abundance in the cave itself: slabs of stalagmite and limestone fragments that make up the floors of large sections of the cavern. This immediacy of resources is crucial as the use of speleothems conditions the execution and results of the decorative work, by providing small and irregular surfaces in unequal levels. The stroke must overcome these irregularities, resulting in discontinuities and deviations not attributable to the inexperience of the artist but to the deficiencies of the support (figure).

The technique used in all cases is engraving, which could be classified in two main categories: broad and deep etching, and fine and superficial engraving. These two types of engraving were exclusive of each other as we do not find them combined in a single motif, but they may appear in different motifs executed on the same slab.

The themes include figurative and abstract representations. Among the first are complete figures of animals such as deer, aurochs, bison, and also anatomical parts, mainly heads. The collection also includes a peculiar anthropomorphic hybrid representation that combines animal – general morphology of the genus *Capra* in this case, and some human body features – arm and hand (figure). The non-figurative motifs are grids of lines with various shapes and arrangements. There are also sets of lines forming schematic outlines not interpreted yet.

The layout of the figures on the surfaces is also diverse, ranging from individual shapes to complex compositions in which many lines intersect including sometimes figurative motifs. The first case would support the hypothesis of a single episode of decoration, while the latter could indicate a recurrence of the action on the same support.



Plaquette with anthropomorphic figure (hybrid of ibex and human)
(© La Garma Research Team / Luis Teira).

In the overall context of Palaeolithic portable art in the Cantabrian region, several features individualize Zone IV of the Lower Gallery:

- a. the use of an unusual raw material: generally rocks with smooth surfaces (slate, schist, sandstone) were used as they provide excellent supports for this kind of decorative work;
- b. the presence of a peculiar theme such as the hybrid figure;
- c. the presence of these objects within an exceptionally well preserved surface archaeological context, which allows us to propose testable hypotheses about the manufacture and use of this class of objects: although the analysis of the floor is not yet complete, several indications suggest that these slabs, like other portable art objects on organic materials, were produced on the spot and then used and abandoned.

The spatial information available points to a non-random distribution of certain material categories including decorated slabs: all of them lie among the remains and debris carpeting the outer space of the existing structures. This rejection pattern, consisting of carelessly abandoned slabs on the floor, is known in several cave and open air archaeological contexts in Palaeolithic Europe.

In view of the existing archaeological evidence, it is possible to support a preferential association of this class of decorated objects with spaces of group activity, not necessarily equated to dwelling areas (as illustrated in the case of Zone IV of the Lower Gallery).

These decorated slabs would have undergone three main phases: acquisition of the support; its transformation through the application of decoration; and its subsequent abandonment on the ground in which the group operates. This last step would reflect a “loss of value” of the engraved pieces after their decoration, unless such action would not constitute the symbolic end of the slabs but, instead, what would give them their ultimate meaning (remember, in this regard, the examples of systematic destruction of engraved slabs).

About their function, it is important to remember finally that, unlike other portable art objects made of organic or inorganic materials, slabs would not be considered in any case as tools, i.e. manufactured articles involved in the processes of social production and reproduction (as decorated utensils or ornaments). The explanation for their manufacture, sometimes tens or hundreds in the same context, must be tied exclusively to the symbolic character which gave them their decorations. Their presence in dwelling contexts reveals the dual dimension, at the same time everyday and transcendent, of these decorated objects as well as of the actions that took place in these areas of activity. This should warn us, at last, against any simplification in the interpretation of the behaviour of Palaeolithic groups.

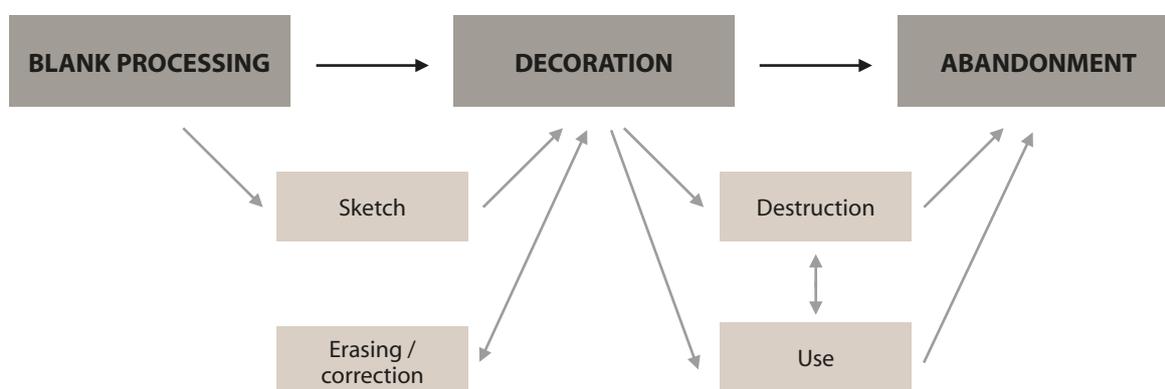


A NEW LOOK AT PORTABLE ART FROM THE MIDDLE MAGDALENIAN IN CANTABRIA AND THE PYRENEES: Analyzing Operational Sequences

Olivia RIVERO

In this paper we present some of the results obtained from a technical study of a series of pieces of portable art from the Middle Magdalenian levels of three of the most important sites from the period in Cantabria and the Pyrenees: Las Caldas (Asturias), La Garma Galería Inferior (Cantabria) and Isturitz (Pyrénées-Atlantiques). Microscopic observation with Scanning Electron Microscopes (SEM) and stereoscopic microscopes was used to identify the technical factors that then enabled us to reconstruct the methods and technical characteristics involved in producing the figures. The study was based on a methodology that had already been proposed in previous work on the technological analysis of portable art. The results were analysed together with evidence of processes of destruction or reuse, as well as evidence of any possible symbolic or ritual uses for the art.

The technical study of the aforementioned corpus aimed to identify the operational sequences involved in the production of the artistic objects, including the phases prior to decoration, the process of engraving itself, and the subsequent processes that affected the objects, such as their use, destruction, and abandonment.



Phases and subphases of the various processes involved in the pieces of portable art analyzed.



a. Ist. II 84756, 10 x



b. Ist. II 84772, 17 x

Two examples of the line of the stomach having been produced last on pieces from Isturitz

The production of decorative objects on hard animal materials involved a range of technical expertise. By identifying these skills we can reconstruct the operational sequences used and establish conclusions about the actors involved, and through this, the society to which they belonged. Our research has demonstrated the technical uniformity of portable art in the Middle Magdalenian in Cantabria and the Pyrenees, a uniformity that could even be extended to the Aquitaine region in the light of previous research in terms of the methods used for producing both figurative and non-figurative art. This uniformity indicates a regulated code transmission system that allowed formal and technical schemes to be perpetuated throughout the different regions of southwest Europe.

At the same time, reconstructing operational sequences and understanding the processes involved in the production of portable art, from the phases prior to decoration to the abandonment of the objects, has highlighted the great complexity involved. As Tosello has pointed out, the term “portable art” covers a wide range of different types of object, and the results of the study show that there was great diversity in terms of the degree to which the materials were prepared beforehand, the extent to which they were decorated, the uses of the objects, and even the destruction processes. These differences are a reflection of the different uses that Magdalenian societies probably made of these objects and are roughly reflected in the type of material used, whether stone or bone.

In addition, the data suggests that there was a very close relationship between symbolic and daily activities, or more precisely, that daily activities were imbued with symbolism. In this sense we can consider portable art a process that was an integral part of the different activities that Magdalenian groups carried out. Alongside the decoration of utilitarian objects, such as weapons (knives, protoharpoons, perforated batons, hammer stones, ...) or objects intended as ornaments, we can also see the production of motifs on material that had no specific use, such as diaphysis fragments and engraved plaquettes. In both cases destructive processes have been observed, such as erasing, scratching, cutting, and intentional fracturing. This suggests that, despite their different uses, they were all part of a common symbolic system.

As the majority of portable art from the Middle Magdalenian was found during excavations that took place in the late 19th century and early 20th centuries, we do not know the contexts that surrounded the portable art and it is therefore difficult to explore these issues. At some sites, such as Las Caldas, or La Garma Galería Inferior (Cantabria), where the floor of a chamber from the Middle Magdalenian period is still intact, we are currently able to gather further information on the context and although the data is highly fragmentary and has not yet permitted us to establish general trends, the study of the spatial dispersion and contextual association of the pieces of portable art and the reconstruction of operational sequences are currently proving to be some of the most promising ways of understanding the role of portable art in Magdalenian societies.



THE HORSE MORPHOTYPE IN THE MIDDLE MAGDALENIAN PORTABLE ART OF LAS CALDAS CAVE (ASTURIAS, SPAIN):

Technical and Formal Analysis

María Soledad CORCHÓN, Olivia RIVERO

In this paper, we propose a definition of the horse morphotype in the Middle Magdalenian portable art of Las Caldas Cave based on an identification of the technical and formal features of this type of figure. With this aim, a set of 40 equid representations was analyzed from a technical and formal point of view (figure).

The technological analysis was realized on the best preserved pieces using a methodology based on experimentation and microscopic analysis of the engraved lines. The aim was to identify the manufacturing processes employed in the realization of equid representations.

A formal analysis was also applied to all of the equid figures. The data obtained were integrated with the technical information in order to identify and describe the morphotypes.

From a technical perspective, the equid figures at Las Caldas display the parameters known for figurative representations in the Middle Magdalenian. They were realized by fixed action sequences, in terms of both the direction of movement and the order of realization of the different parts of the figures. These parameters correspond to a *schéma opératoire* (production scheme) of figurative representations that is shared by the Cantabrian region, the Pyrenees and the Aquitaine.

We also observe that a very high number of horse figures at Las Caldas were realized with relatively simple techniques, shown by the small number of tool strokes in the engraved lines and the absence of variability in the lines.

The data resulting from the formal analysis show that the engraved horses are simple figures, being limited to a representation of the outline and the details necessary to identify the animal (mainly the mane). The sensory organs are often absent, as are the hooves and other details, such as the hock. This is the general tendency, regardless of the support employed (plaque, bone support) and the anatomical elements represented (complete animal, protome or isolated head).

These two types of information show that at Las Caldas, the horse representations were realized in a technically and formally simple manner. This tendency can be considered as characteristic of the horse representations in this cave since 65% of them were made in this way, indicating the existence of a specific morphotype at this site. Among objects decorated with horse representations, there are nonetheless more elaborate realizations as well, sometimes with features that we can consider as Pyrenean. These are specimens that are typical of the Pyrenean Middle



Examples of the pieces studied, with horse representations, originating from the Middle Magdalenian of Las Caldas Cave (photos: S. Corchón, O. Rivero).

Magdalenian, such as *contours découpés* (contour cut-outs) representing a horse head, or sculptures on a lithic support (in-the-round). Other elements of the Pyrenean Magdalenian, such as the use of relief, seen in the cave of Bédeilhac, or the representation of isolated horse hooves (Maz d’Azil), are also found in the Las Caldas assemblage.

All of the data resulting from the analysis of the equid representations of the Middle Magdalenian of Las Caldas Cave contribute useful information on the relationships between this site and sites in the Pyrenean region. The collection studied shows that the formal, technical and stylistic concepts that circulated between the Cantabrian region, the Pyrenees and the Aquitaine during the Middle Magdalenian reached Las Caldas and were incorporated into the artistic productions of this site. Nonetheless, a specific formal model appears to have been favored for the realization of equid figures. These are simple figures, which we can consider as the characteristic morphotype of horse representations at Las Caldas.

Comparisons with the Middle Magdalenian corpus in the Pyrenees and Aquitaine will enable us to determine whether this tendency is shared by the different regions in the southwestern sector of western Europe, or if it constitutes a local or regional feature. Our method, which takes the morphological and technical variability of the figurative representations as a starting point to characterize the artistic production of a site, enables us to develop new research orientations for the study of Middle Magdalenian portable art. Drawing on the cultural information inherent in this art, our objective is to obtain a better understanding of the relationships between the societies that occupied Cantabria, the Pyrenees and Aquitaine during this period.



EPIGRAVETTIAN PORTABLE ART IN CENTRAL AND SOUTHERN ITALY:

the Case of the Grotta Continenza (Abruzzo) and the Grotta delle Veneri (Apulia)

Paola ASTUTI, Renata GRIFONI CREMONESI

During excavations at the Grotta Continenza (Abruzzo) and the Grotta delle Veneri (Apulia), hundreds of portable art objects were discovered.

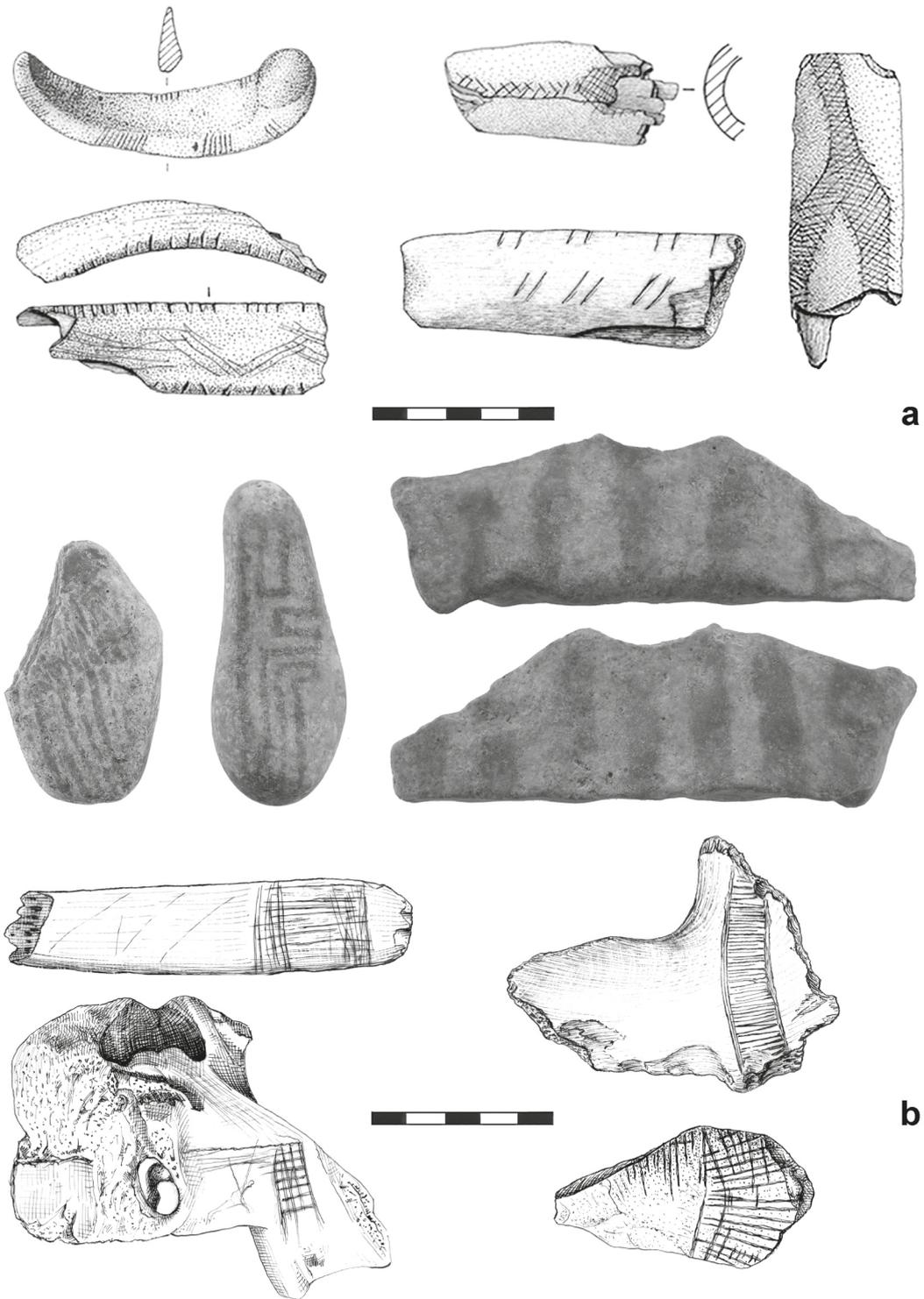
In the Epigravettian layers of the Grotta Continenza (layers 29 to 46), 7 red painted stones and 83 decorated objects on hard animal supports (bone, antler, wild boar tusk, Glycymeris shell) were recovered. Painting is observed only on stones and engraving by incision only on other materials.

In the deposit with a typical Epi-Romanellian industry, located outside of the Grotta delle Veneri, 505 portable art objects were discovered, 389 in stone and 116 in bone. The stones used were pieces of flint cortex, plaques, pebbles and large fragments of limestone, including at least four varieties that can be found near the site. A more distant origin should nonetheless not be excluded. All of these supports are medium to small in size and usually have flat and regular surfaces with several naturally smooth surfaces.

The bone supports originate from numerous animal species and their anatomical position is very diverse. Around thirty pieces cannot be identified due to their small size and their poor state of preservation.

The range of decorations at the Grotta Continenza is particularly rich in terms of the decorative elements themselves, but also in the different manners in which they are combined: there is a high dominance of basic motifs, consisting of rows of notches, over the other types. Among the more original motifs, there is the “Greek”, the “reticule” and the “tree-form”, realized with remarkable precision and great skill.

The artistic manifestations at the Grotta Continenza correspond to a linear geometric style known in the Final Epigravettian of central Italy. They are all stylistically very homogeneous. We nonetheless detected a few elements that could attest to original choices made by the artists of the cave (e.g. the split reticule and the painted meander). The closest points of contacts with other Epigravettian artistic manifestations are found at the Grotta Maritza and in the Latium caves: Grotta di Settecannelle and Grotta Polesini.



Art objects: a few examples from the Grotta Continenza [a] and the Grotta delle Veneri [b] (drawings: S. Martelli; photos: P. Astuti, L. Angeli).

The portable art of the Grotta delle Veneri is apparently linked to the Salento zone (southern Apulia), which is typically “Romanellian”, and where the production of geometric-linear portable art reaches its apogee between 11 000 and 10 000 BP. At this time, the iconographic patterns become more complex, with a tendency toward rows of parallel notches or stepped motifs and groups of lines in opposing rows (interpreted as an extreme stylization of the human figure).

These types of decorations are known in other sites as well, such as the Grotta Romanelli, the Grotta del Cavallo and the Grotta dei Cervi de Porto Badisco, but the assemblages at these sites are not as large, complex or standardized as those at the Grotta delle Veneri. At this site, we observe a precise choice of a graphic form expressing a language shared by a community. The remarkable formal maturity, technical skill and precision in the realization of these works suggest the existence of a “school” of production, or at the least, the work of specialists that were taught through a stylistic and technical apprenticeship.

Finally, it is interesting that most of the stones (89%) are broken and that the fracture is posterior to the incisions. The broken stones are also those with the most carefully realized engravings, often made with several tool strokes. The fracturing always occurred after the stone was painted and appears to be associated with stones having a specific type of decoration (stepped motifs and groups of lines). We can thus conclude that in most cases the fracture was intentional and occurred after the painting and engraving.

Before us, A.M. Radmilli proposed the hypothesis of a ritual fragmentation. In effect, if the pieces were broken after they were painted and engraved, and always on the same type of motif with, moreover, very little or no usewear on the pieces, it is possible that these stones were broken as part of a ritual activity. This fracturing would then take on a deeper meaning, being the result of acts that were not part of the daily activities of the group.



SYMPOSIUM 8

PLEISTOCENE PORTABLE ART

Chairmen

Aline AVERBOUH

(France)

Valérie FERUGLIO

(France)

III

Analysis and interpretation



GRAVETTIAN ART OF PAVLOV I AND VI: an Aggregation Site and an Episodic Site Compared

Jiří SVOBODA

Structure of Pavlovian art

The Dolní Věstonice – Pavlov – Milovice area in south Moravia forms a typical example of a densely settled Gravettian (Pavlovian) hunters' area, showing an internal hierarchy in terms of importance and size of the sites. Until now, occurrence of art objects was limited to large aggregation sites that resulted from repeated human activities at one place, and represent palimpsests of intensive reoccupations (Pavlov I, Dolní Věstonice I).

This art shows a variability in terms of materials, techniques, forms and functions. In their broad outlines, a majority of the symbolic objects may be classified along predetermined dichotomies: ivory carvings versus clay plastics, mobile art (attached and carried around) versus static art (that fulfilled its role then remained discarded *in situ*), and “long-term art” versus “short-term art”.

Ivory carvings are typical representatives of long-term art. They display a variety of zoomorphic, anthropomorphic and geometric forms; the anthropomorphic symbols especially reached a sophisticated level of abstraction (as at Dolní Věstonice I). Partly, these carvings served for body decoration (as “diadems”, pendants, and other attachments) and some of the zoomorphic shapes show notches for some kind of attachment as well (*contours découpés* at Pavlov I). These carvings, attached to human bodies or part of interior scenes, became part of everyday life.

The clay plastics represents a typical phenomenon of south Moravian mobiliary art, in a variety of anthropomorphic and zoomorphic shapes and fragments. The humans are predominantly females, whereas the animals are mostly imposing and dominant species (mammoth, lions, bears, rhinoceros, caprids, horses, and owls). A short-term or episodic meaning is more likely in their case, be it play, ritual, or magic. Firing, in fact, terminated the “life” of the clay items.

Pavlov I

Pavlov I was excavated by Bohuslav Klíma between 1952 and 1972. A majority of mobiliary art items are concentrated in the SE part of the site where their spatial distribution tallies with an accumulation of settlement units, hearths, and lithic industries. A separate accumulation of baked clay pieces and ochre occurred inside one settlement unit of the NW part. The remarkable mammoth tusk with geometric engravings, interpreted as a “map” by Klíma, originates from the transitory zone in the centre of the site.

The ivory art comprises flat zoomorphic carvings of a lion and a mammoth, 2 pendants shaped as owls, one three-dimensional female carving, and a number of decorative carvings (more than 10 pendants and more than 50 decorated ovals and bands of ivory, the most typical of them interpreted as “diadems”). From formal analogies with other sites (Předmostí, Eliseevichi, Mezhirich), the tusk interpreted as a “map” may be a kind of spatial representation of the site’s vicinity, possibly recording the qualities of the terrain for hunting.

The ceramic assemblage of Pavlov I comprises about 10 anthropomorphs: 4 female figures, 2 males (?), and 4 human heads, and 20 zoomorphs: 4 mammoths, 2 rhinos, 2 reindeers (?), 4 larger herbivores, 1 caprid, 6 lions and 1 bear. Numerous separate “trunks”, “legs”, “heads”, and fragments complete the assemblage.

In addition, there is a large assemblage of perforated Tertiary shells, carnivore teeth, two human teeth, lumps of ochre as well as grindstones for ochre processing.

Pavlov VI

Pavlov VI, almost completely excavated in the summer of 2007, comprises a single settlement unit. Among the modelled clay objects, the most typical piece depicts the head and neck of a carnivore, possibly another lion. We observe a mouth, an unclear eye, and four short, parallel incisions on the neck. The other face was completely destroyed by a deep frontal incision, produced by a sharp object directed against the animal’s mouth while the clay was still wet. Injuries against clay heads of this dangerous predator is a practice repeatedly recorded in the Dolní Věstonice / Pavlov area and elsewhere in the Upper Paleolithic (as in the Lion’s Chapel at Les Trois-Frères), and may be of symbolic significance.



Modelled clay objects of Pavlov VI discovered in 2007; left: stylized owl; right: zoomorph plastics (photo: M. Frouz, Institute of Archaeology, AS CR, Brno).

Another clay piece represents the en face body silhouette of an owl, without anatomical or facial details (except several short incisions). Dolní Věstonice I provided three additional ceramic figurines of owls, which however differ from Pavlov VI by their slim stature and facial details and may represent another species.

In addition, there is a crackled fragment of a large part of an animal's trunk showing the typical curvature of the back, one leg and three short incisions on the surface; a flat plaque with short incisions on both faces, some crosscutting; an oval-shaped fragment bearing two short and deep incisions; an oval-shaped fragment showing long horizontal incisions. Finally, there are four conical pieces, commonly interpreted as "legs" (which however does not mean that they ever were part of complete figures – some could be produced separately as partial representations). Decorative items are represented by numerous Tertiary shells, four flat pebbles (some with incisions), and the tooth of an Arctic fox, all perforated by direct drilling (in contrast, perforations at Pavlov I and II were mostly made by combination of cutting and drilling). Ochre occurs as sharp-edged, grey-to-violet fragments of hematite or as earthy, red-to-orange pellets, and traces of red coloration are visible on Tertiary shells and on some lithics.

Conclusion

Until recently, complex Pavlovian art was associated to the semi-permanent "mega-sites", but the 2007 excavation at Pavlov VI demonstrates that some aspects of symbolic behaviour were practiced at the episodic sites as well.



THE INCOMPLETENESS AND SEGMENTATION OF FEMALE BODIES IN THE PALEOLITHIC IMAGINATION:

the Gravettian Sculptures of Kostenki 1-I (Russian Plain 22 000-23 000 BP)

Delphine DUPUY

Two of the main Gravettian complexes (between 25 000 and 22 000 BP), in well documented archaeological contexts, Dolní Věstonice / Pavlov in Central Europe (Czech Republic) and Kostenki / Avdevo in Eastern Europe (Russia), contain some complete representations of the female body, but mostly incomplete bodies and portions of bodies. Their high proportion has led numerous European researchers to propose the hypothesis that these pieces were intentionally broken. The statuettes would thus have been broken during or at the end of their use. This hypothesis has nonetheless never been tested and masks, in my opinion, another possibility that is supported by many arguments: incomplete bodies and segments of bodies could have been intentionally represented.

The results presented here were obtained during my doctoral research (2007) on one of the statuette assemblages most frequently cited in support of the hypothesis of intentional fragmentation: the Gravettian sculptures from the site of Kostenki 1-I on the Russian Plain (22 000-23 000 BP). This collection, composed of approximately 300 pieces, is representative of the specificity, as well as the problems, associated with Paleolithic sculpted assemblages. As in other Upper Paleolithic statuette assemblages, the initial phase of the inventory of the subjects represented, which is the basis of all thematic analyses, raised as yet unresolved methodological problems. Other than a few realistic statuettes particularly well-illustrated and studied in the literature, the great majority of Gravettian sculpted and modeled assemblages are composed of pieces that are difficult to identify. These pieces are usually left out of studies and grouped by default into categories such as “unidentified”, “roughout” or “fragment”.

A complete study of all the sculptures of the Kostenki 1-I assemblage required the development of a methodology permitting both an identification of the codes of figurative representation that are far from visual realism, and the integration of the fragmentary sculptures that compose most of the assemblage. The identification of codes of representation (schematic or stylized) implied being able to distinguish between finished figures of a simple style and unfinished roughouts. To analyze the fragmentary sculptures, it was necessary to identify the moment at which they were broken, which could theoretically occur from the phase of manufacturing until the discovery of each piece, passing through the stages of use, discard and preservation in the archaeological layer.

A technical analysis of the assemblage was thus undertaken with these two aims. The method is based on two data categories (a comparative analysis of the morphology of the pieces and the identification of marks on their surfaces) and three main tools (the principle of recurrence,



René Magritte, *Les Marches de l'été*, 1938 (Oil on canvas, 73 × 60 cm, purchase 1991, M. Paul-Louis Spaak, Neuilly-sur-Seine, AM 1991-138; © Adagp, Paris 2007).

reconstruction by default and experimentation). Limestone sculpting techniques, procedures and manufacturing sequences were thus identified and then integrated into a technical classification of the pieces (primary blocks, secondary blocks, supports, roughouts, finished sculptures). This result leads to two important conclusions.

The comparative analysis of the morphology of the finished pieces showed the existence of a graphic continuum for each subject represented and thus enabled the identification of new, extremely codified representations. In addition, the technical analysis supports the hypothesis of intentional fragmentation at Kostenki 1-I and shows the existence of autonomous sculptures of partial female bodies (one part is missing) and segmented bodies (portions of bodies: head, bust, abdomen, hips, legs, ...). The cleavage surfaces visible at one of the two extremities of these figures are identified as fracture planes created during the phases of reducing a primary block into a secondary block, a secondary block into a support, and sometimes during the shaping of the pieces. The many fractured surfaces, previously interpreted as indices of the fragmentation of complete statuettes, thus occurred during the manufacturing of the sculptures.

An inventory of the subjects sculpted in limestone is proposed based on these results. Among the entire limestone assemblage, 37 blocks and supports are identified, 194 complete sculptures in different manufacturing stages (including 159 female representations, 17 animal representations and 18 unidentified pieces), and only 8 fragmentary sculptures. Among the complete female sculptures, one has a complete body, 83 a partial body (mostly headless) and 75 consist of body portions. The inventory, based on the results of the technical analysis of the sculptures, thus shows the importance of two new themes in the iconography of Kostenki 1-I: the *incompleteness* and *segmentation* of the female body.

We can now develop new interpretative orientations for these themes. To do this, we must first clarify, based on an analysis of the female representations, what we consider to be significant features: what are the zones of cleavage of the female body? Was the body seen as the sum of its parts, to which the assemblage would give meaning, or as an entity whose fragmentation would be significant? In other words, does the meaning lie in the capacity of the body to be composed or decomposed into parts, or the opposite, in its unitary nature, which would imply focusing interrogations on the idea of a rupture, symbolized by a segmenting of the body?

This latter hypothesis, supported by the material analysis, raises more precise questions concerning both that which the female body can represent through its incompleteness and segmentation and the anthropological and universal contribution of the theme of segmented bodies.



THOUGHTS ON TECHNOLOGICAL CHOICES AND PALEOLITHIC PORTABLE ART MADE FROM BONE MATERIALS:

First Data from the Sites of Plantade, Lafaye,
Courbet and Montastruc (Aveyron Valley)

Lise AURIÈRE

Since the 1980's-1990's, techniques have been developed in the field of prehistoric art to identify individual choices, address the techno-economic context of Paleolithic groups and propose social and cultural models.

Studies of portable art have resulted in the identification of the tools, and more broadly, the processes associated with realization of the pieces. This information has improved our understanding of the succession of actions of the artists, thus enabling us to perceive the person behind the technique. Following this work, a study of the technical processes involved in obtaining the osseous supports on which portable art objects are made, from their acquisition from the animal until their engraving, seemed necessary to complete the information on the technical system and to document the support/decoration complementarity. Our goal is thus to gather information on the acquisition and storage of raw materials, while asking if they were worked fresh or after they were dry, and if it was necessary to preserve them in specific conditions to maintain their plastic, esthetic and mechanical properties. It will also be useful to determine whether the technical investment was the same on the different pieces. If there is an observable difference, we will attempt to understand why: is it related to the way the piece was to be used, or to its subsequent engraving?

Our first objective is to reconstruct the different actions carried out on the raw material to realize a decorated support. We will then analyze the role of the decoration in the *chaîne opératoire* of the object in order to identify possible variations in the technical choices of this production. In addition, through a modeling of the processes of the *chaîne opératoire*, we will seek to understand the distinction between portable art and bone tools. Is the presence or absence of decoration sufficient to make such a distinction in analyses and in the eyes of the researchers?

Our methodology draws on studies of bone industries carried out since the 1970's by H. Camps-Fabrer and A. Averbouh, and of portable art by F. D'Errico, C. Fritz, D. Dupuy and O. Rivero. Through experimentation, we were able to create and observe a corpus of traces permitting the study of a selected archaeological assemblage. Our corpus is composed of pieces from the Magdalenian sites of the Aveyron Valley (Lafaye, Plantade, Montastruc and Courbet), which are conserved at the Muséum d'Histoire Naturelle in Montauban and the British Museum.



Locations of the sites of the Aveyron Valley: Plantade, Lafaye, Montastruc and Courbet.

Our first observations indicate that the “engraving phase” is not always the final element of the *chaîne opératoire* since the presence of decoration does not prohibit the use or re-use of the piece, sometimes to the detriment of the ornamentation. Through a consideration of both the selection and use of a support, it is also possible to perceive the functions and the motivations underlying the object and the different productions within that which we call “portable art”.



THE UPPER MAGDALENIAN GEOMETRIC MOTIFS OF ISTURITZ CAVE (PYRÉNÉES-ATLANTIQUES):

Did they Play a Specific Role?

Claire LUCAS

In the Upper Magdalenian levels of Isturitz Cave (Pyrénées-Atlantiques), geometric motifs, represented on at least 39 objects, dominate the portable art objects. A technological and structural analysis has revealed that most of these decorations were realized on intermediary tools and/or atypical weapons. We present the results of these first observations, suggesting that these geometric motifs played a specific role in the life and the art of the occupants of Isturitz Cave during the Upper Magdalenian period.

In addition to 13 pieces with diverse motifs, the assemblage contains 26 pieces distributed among four groups of recurring decorations. These are lateral decorations on intermediary tools and/or projectile points. They include sinuous motifs, parallel oblique lines, transverse dashes associated with longitudinal lines and fusiform or oval motifs. Due to the stratigraphic problems of the Magdalenian at Isturitz, we chose to include the 20 pieces with similar decorations originating from the Middle Magdalenian in this group and to study them conjointly.

Lateral sinuous motifs, represented on at least 16 objects, are the most common representations. This motif is present on weapons (one fragment of a foreshaft and 6 projectile points) and on objects with usewear attesting to their use as intermediary tools. Meanwhile, several elements indicate that most of these traces were produced when the piece was reused after it was broken, repaired or reconfigured. We observe incisions that are truncated and traversed by usewear on the proximal extremity, distal extremities reworked after they were broken and lipped fractures. These could be intermediary tools that were reused after being damaged or large points that were recycled as intermediary pieces. The existence, though rare, of striated bevels and convergent edges supports this second hypothesis. In this case, these would be particularly large weapons with a maximum width much greater than the average of Upper Magdalenian points at Isturitz (generally from 10 to 12 mm).

The basic structure of the decorations is rather simple since the only unchanging element is the realization of a longitudinal sinuous motif on at least one edge of the object. Twelve large pieces make up a very homogeneous group, decorated only with broken lines formed by very large incisions. In association with this decoration, there are nonetheless many pieces with more diverse dimensions and variations. The variations concern the morphology of the sinuous motif (broken lines, succession of half-circles or sinuous lines, sometimes doubled), the technique used to realize them (variably wide and deep incisions), and their possible association with other motifs.



A piece with lateral decoration reused as an intermediary tool, from the Upper Magdalenian at Isturitz (photos and drawing: C. Lucas).

Given their formal variability, the three other groups of recurring motifs do not appear to constitute true decoration types. In a few cases, these less frequent motifs were associated with sinuous motifs, which are also similar in their techniques of realization (often with very wide incisions) and their presence on the edges of the same types of objects. The few diverse decorations occur on different types of supports (perforated batons, harpoons, semi-round rods, unworked bone fragments).

Among the objects discarded by the Upper Magdalenian occupants of Isturitz, geometric motifs are found only on osseous materials, and mainly on intermediary tools and/or weapons. In contrast to the majority of Middle Magdalenian points, those of the Upper Magdalenian are systematically decorated on their edges. In addition, the selection of points-supports does not appear to be random since their morphometric features suggest a selection oriented toward the less common points. Consequently, geometric decorations are found mostly on supports that were generally not selected for figurative representations, with which they are usually not associated (only one piece associates geometric motifs and animal representations). Nonetheless, there also exist points with rows of horses engraved on the lateral faces in the Upper Magdalenian.

It remains to be seen whether the geometric decorations in the Upper Magdalenian of Isturitz should be considered as a specific case or as being representative of this period. We already know that lateral zigzags were present in a large geographic zone across Europe since we find similar motifs in the Czech Republic. At this stage, these preliminary observations of the geometric decorations of the Upper Magdalenian of Isturitz raise new questions. Though they are less spectacular than those of the Middle Magdalenian (which employ more complex structural concepts), some of them correspond to specific norms that were diffused over a large area in the context of the geographic expansion of Magdalenian groups across Europe.



SPATIAL ANALYSIS OF THE PORTABLE ART OBJECTS IN THE EPIGRAVETTIAN DEPOSIT OF THE GROTTA CONTINENZA (ABRUZZO, ITALY) AND THEIR RELATIONSHIP TO THE BURIALS AND COMBUSTION FEATURES

Marco SERRADIMIGNI, Marta COLOMBO
Neva CHIARENZA, Renata GRIFONI, Paola ASTUTI
Annachiara GALOTTA, Marco USALA

The Grotta Continenza is located on the banks of an ancient lake, reclaimed in 1875, in central Italy. The nine meter deep deposit yielded a sequence extending from the Roman period (surface) to the Upper Paleolithic (levels 29-48), with Neolithic (levels 4-23), Castelnovian (level 24) and Sauveterrian (levels 25-28) occupations.

The Final Epigravettian levels contained two adult male burials (levels 31 and 34), combustion features, incised bones, painted pebbles, personal ornaments, lithic artifacts and red ochre.

Levels analyzed (MC, MS, NC)

Table 1 – Dates.

Level	Labo	BP	Cal BP
31c	Rome 1196	9885 ± 75	11 616-11 184
32	Rome 557	10280 ± 100	12 592-12 464
32c	Rome 1197	9840 ± 75	11 604-11 528
32b	Rome 1194	9680 ± 75	11 231-11 048
32a	Rome 1195	9700 ± 75	11 244-11 060
34	Rome 558	10230 ± 100	12 390-11 598
35	Rome 1198	11 500 ± 120	13 641-13 146
37	LY10755	11 830 ± 110	13 921-13 425
40	LY10754	11 560 ± 100	13 655-13 234
41	LY10753	10 760 ± 140	13 021-12 385
43	LTL1249a	12 381 ± 60	14 800-14 050
44	LTL1250a	11 983 ± 80	14 030-13 690

They all date to the Final Epigravettian.

- 31/32: adult male burial, the remains of an adult woman, two fireplaces in depressions;
- 33/34: another adult male burial, headless, and a fireplace in a depression; they show that the cave was also used as a living site;
- 36: occupation floor with a fireplace;
- 39: occupation floor with two fireplaces;
- 43/44: occupation levels.

Analysis (MC, MS, NC)

Observations of the different categories of materials reveal the following variations:

- Ochre is present in all of the levels analyzed; it is present in remarkable quantities and scattered over the entire excavation surface; concentrations are nonetheless visible in association with the burials as well as the domestic activity zones.
- Lithic industry with ochre stains. We consider two domains:
 1. functional, with a domestic purpose, when the ochre is found on the tools used to perform specific activities;
 2. non-functional, to be used as offerings, when the ochre is found on cores and unused products, to which are added Instruments, such as backed blades and points, which are not associated with domestic activities and for which the ochre stains are not related to use for a specific task.
- Osseous materials with incised decoration. The portable art objects are distributed in a rather uniform manner. The decoration of tools was not a means for differentiating them in terms of their function.
- Stones painted with ochre. Seven painted pebbles are concentrated in levels 43/44 and in levels 34 and 36.
- Personal ornaments. The analysis showed an abundance of personal ornaments in the burial in levels 31/32 (probable clothes). They are nearly absent in the burial in levels 33/34 and in levels 43/44; in levels 36 and 39, they are dispersed in the most internal zone of the cave, around the fireplaces.

Considerations (MC, MS, NC, RG)

The cave was used in different manners: the funerary function, for example, is not clearly distinct from the daily activities; levels 35 to 44 seem to have served an exclusively domestic function. It is interesting to note that the elements usually attributed to the ritual domain are not exclusively associated with the burials; the ochre is highly concentrated in the domestic activity zones. The decorated objects, including the tools, are also not associated with the burials, but they are found in all of the levels. Even the personal ornaments found in the burials do not seem to be linked to the ritual domain.

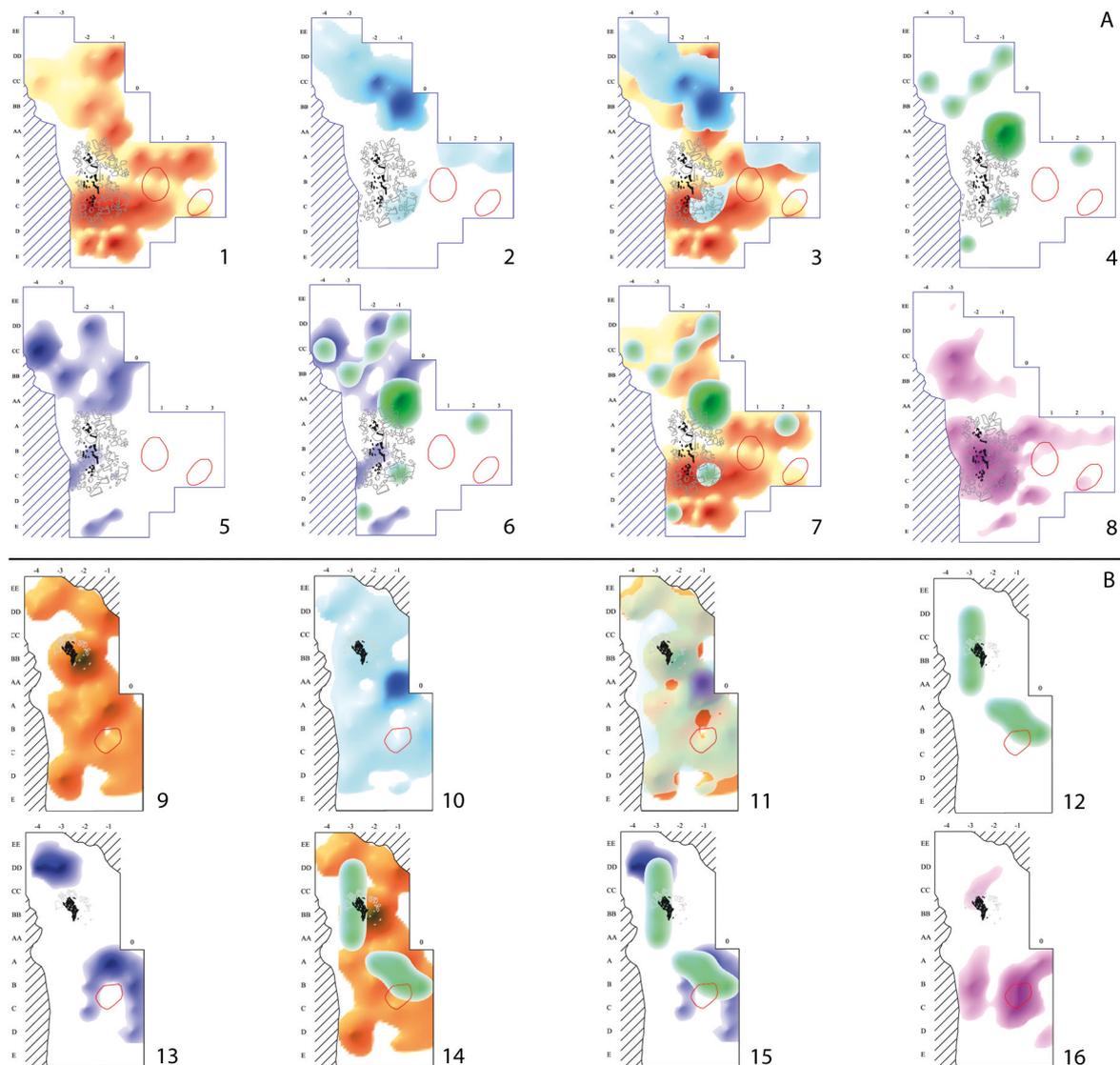
Table 2 - Epigravettian personal ornaments.

	LEVEL														TOTAL
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
Red deer incisor	1	1	5	3	-	3	2	2	3	3	2	-	1	3	29
<i>Columbella rustica</i>	32	39	18	7	6	10	15	19	18	3	4	-	1	-	172
<i>Cyclope neritea</i>	6	7	3	5	7	7	1	1	4	3	3	-	1	-	48
<i>Dentalium</i>	11	44	14	3	2	1	-	-	-	-	-	1	-	-	76
<i>Glycymeris sp.</i>	8	2	15	1	-	-	1	-	2	-	-	-	1	-	30
<i>Mytilus sp.</i>	-	7	1	-	1	-	-	-	-	-	-	-	-	-	9
<i>Rudicardium tuberculatum</i>	-	1	-	1	-	-	-	-	-	-	-	-	-	-	2
TOTAL	58	101	56	20	16	21	19	22	27	9	9	1	4	3	366

The spatial analysis presented here reveals some very interesting elements, while underlining the important research questions that must now be addressed in greater detail, concerning the occupation patterns of caves and the functions of different artifacts.

Table 3 - Ochre quantity (in grams).

	LEVEL														TOTAL
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
RED OCHRE	36.27	47.23	29.75	20.79	49.71	121.62	94.98	78.78	336.89	135.02	46.39	21.1	12.45	20.21	1051.19



Spatial distribution of the material categories analyzed: **A. Levels 31/32** – 1. ochre; 2. lithic artifacts with ochre stains; 3. ochre/lithic artifact association; 4. osseous materials with incised decorations; 5. bone industry; 6. bone industry/incised osseous material association; 7. ochre/incised osseous material association; 8. personal ornaments. **B. Levels 33/34** – 9. ochre; 10. Lithic artifacts with ochre stains; 11. ochre/lithic artifact association; 12. osseous materials with incised decorations; 13. bone industry; 14. bone industry/incised osseous material association; 15. ochre/incised osseous material association; 16. personal ornaments and rocks painted with ochre.



ETHNOGRAPHIC RESEARCH AND ANALYSIS OF UPPER PALEOLITHIC PORTABLE ART

Yulia VOLKOVA

To interpret a phenomenon as complex as Upper Paleolithic art, we must search beyond the factual limits available to us. Upper Paleolithic sculptures have two main themes: animals and humans. Siberian peoples make similar anthropomorphic and zoomorphic representations, though it is very difficult to draw a semantic association in this case, and not entirely accurate. It is not easy to understand the meaning of a female statuette, for example.

According to S. V. Ivanov, the meaning of each object can change through time and it depends on the conditions and context of use. The functions of analogous objects can also differ depending on the material used. The “transformation” of the ivory rod of Mal’ta, “decorated” with engraved transverse lines (figure) is an example. The upper face was modified in order to perforate it. It appears that the entire surface of the object was decorated with rows of parallel transverse lines since there remain small traces of erased lines on the edges of the perforation. The surface of the perforated part appears to be more “recent”. This perhaps indicates that the object was used as a statuette and then “transformed” into a pendant, its meaning and function therefore changing through time.



Ivory rod (Mal'ta, Siberia).

The physical properties of the material and the specific meaning attributed to it played an important role in the life of the autochthonous peoples of Siberia. Among the Upper Paleolithic objects, we observe pieces in ivory whose form and surface imitate other natural materials with a specific structure (shells, teeth, fish scales, inside surface of a mammoth tusk, ...). We can suppose that these materials had a specific meaning for Upper Paleolithic peoples due to their rarity, physical properties, and other properties unknown to us.

The ivory and stone objects from Kostenki I are a good example. According to some authors, analysis of stone female statuette fragments shows that they were intentionally destroyed, in contrast to those in ivory. This difference could be linked to the ritual function of objects destined for short or long term use.

The fact that some statuettes are found in “hiding places” could also mean that they were reused many times, as is affirmed by several researchers. In certain cases, we can thus imagine that the statuettes “lived” among the group of their creators, with changes and additions to their semantic signification.

Ethnographic studies have also tried to link the function of a sculpture to its appearance. In some cases, for example, the form of human statuettes could be explained by the fact that they were “dressed”, and that it was thus not necessary to finish them.

S. A. Demeshenko observed that the perforations on the lower part of the female and ornithomorphic statuettes from Malta were probably made to improve their visual perception. When a pendant worn around the neck or attached to a belt was held in the hand, the viewer would be “face to face” with the image.

A separate branch of research on Upper Paleolithic art concerns the “ornamentation” and decoration of utilitarian and non-utilitarian objects. In this case, it would be useful to consult ethnographic studies of ornamentation and decoration. For example, S. V. Ivanov believed it was necessary to analyze the combination of elements together, rather than separately, since the separate elements are usually universal and present in different artistic traditions. According to this researcher, the procedures used to realize the ornamentation are one of the most important indicators of cultural relationships and interactions among different peoples, constituting a sign that characterizes a culture. This principle can be applied to the comparative analysis of different Upper Paleolithic works to determine the specificities of artistic traditions and their origins, possible diffusion and cultural assimilations.

We therefore propose a few specificities of traditional art that can be useful in the analysis of Upper Paleolithic portable art:

1. the meaning of a single object can change through time and depend on the context and the material used;
2. the appearance of an ancient sculpture is directly linked to its functions;
3. the nuances of the realization of the same image play a significant semantic role;
4. the combination of ornamental and decorative elements, along with the technique of realization, are characteristic of a local tradition.



PORTABLE ART AND PARIETAL ART OF THE ROC-AUX-SORCIERS (ANGLES-SUR-L'ANGLIN, VIENNE, FRANCE): Disparities or Common Meanings?

Geneviève PINÇON

The shelter of the Roc-aux-Sorciers is of outstanding interest for its monumental sculptures discovered in their archaeological context, and attributable to the Middle Magdalenian. Suzanne de Saint-Mathurin and Dorothy Garrod unearthed an abundance of archaeological material including several pieces of portable art. Hence parietal art and portable art are found together in the same archaeological context.

The study of the parietal art makes it possible to see several episodes in the production of these works. In the view of Suzanne de Saint-Mathurin, the wall saw a succession of motifs which began with the female figures and the bison, and then the ibex ousted the bison. The horses were made in two periods, one of them contemporaneous with the bison, and the other somewhat later. From the technical point of view, she points out that the fine engravings cover the reliefs. In the light of recent studies, we can now confirm the thematic sequence: woman/bison, horse/ibex. On the other hand, the sculptures cut into the parietal engravings. These successive interventions on the wall, both thematic and technical, can be compared with the stratigraphic context. Associated with the various occupations, a portable art “of non-technical use” has been brought to light, including statuettes and engraved objects which are for the most part on stone, such as plaquettes, slabs or blocks.

In this archaeological portable art, several blocks, engraved on every surface and/or with rounded edges can be considered to be mobiliary works. This is the case, for example, with the block bearing a feline head with its outline carved and the anatomical details finely engraved. Two other blocks, of similar size and shape, present primarily horses and reindeer within a confusion of finely engraved lines. Multiple incisions mark some anatomical details like the eyes, the edges of the ears and the coat. Another limestone fragment, which is very different due to its regular thickness and its very smoothed surface, which was discovered by Lucien Rousseau, bears numerous incisions in which one can read a mammoth figure, and a horse head, both of them small. This piece evokes the slabs of La Marche, but because of its morphology it appears to be a “flake” from the wall. The theme of the mammoth is found again on both sides of a small pebble that bears marks of percussion. Moreover, the engraved human figures recall those of La Marche.

Apart from these finely engraved limestone slabs, several limestone statuettes or carvings have been unearthed. One of the finished pieces is a small female statuette, found in the cave Taillebourg, and carved over its entire surface. Another carving was carefully shaped to depict the shape of an expressive bovid muzzle. A fragment from the abri Bourdois presents an unfinished

head with only the left ear carefully carved. Another stone from the cave Taillebourg, whose natural shape evokes an animal profile, has been enhanced with red ochre and white chalk. The interest in evocative natural shapes is also to be seen in the use of a fossil whose human morphology was noticed by the Magdalenians. It is a madrepora on which two eyes have been engraved and marked with black, thus emphasising the human interpretation of this curious object.

The parietal art and the portable art of the Roc-aux-Sorciers display the combined use of different techniques – engraving, sculpture and painting.

The themes and techniques may be the same, as is the case for the female figures, which are found both in monumental and miniature form.

Reindeer are only engraved, and always of identical size and with the same quality of detail on the wall as on the limestone blocks or slabs. The engraved parietal art and the portable art engraved on slab or block are perfectly coherent: same subjects depicted, partial figures (front end, isolated legs), same proportions. Are these engraved works contemporaneous?

The mammoth theme belongs to the category of fine engraving, but we cannot confirm that it is exclusive to the portable art because of its presence on a rock flake that may come from the wall.

The parietal art of the Roc-aux-Sorciers displays sculpture that is perfectly adapted to its support. It can also be the result of a major working of the wall, completely remodelling its original appearance to achieve the desired form.

The portable art includes finished sculpted forms, but also highlights the Magdalenians' particular interest in "pierres figures". This use of natural shapes is also found in Pyrenean Magdalenian sites such as Isturitz or Bédeilhac. Is this unceasing to-ing and fro-ing between reality and the imaginary not a characteristic of the artist at the origin of his creation?



Female statuette of the Roc-aux-Sorciers, height: 3.3 cm (© RMN, photo: T. Ollivier).



WHAT A CARRY ON?

Portable Art and Changes of Symbolic Meaning

Iain DAVIDSON

The motivation for this paper is the continuing publication of maps of European Upper Palaeolithic art sites that omit the site of Parpalló. It asks the question: Why don't people see the importance of Parpalló? It seeks to show the important principles about the study of prehistoric art, particularly of the Pleistocene, that are illustrated by Parpalló.

Parpalló is generally omitted from surveys of Palaeolithic art in Europe, but it should not be. Villaverde's comprehensive analysis showed that the site contains 5034 pieces with art, 6245 decorated surfaces, including 766 images of animals, 446 of which are identifiable to species. This is two orders of magnitude more than have been found in other sites of Mediterranean Spain. These images were executed on small slabs of stone (almost all less than 200 mm maximum dimension) found during Pericot's stratigraphic excavations from 1929 to 1931. In addition to the various studies of the stone artefacts, I was able to study the animal bones from these stratigraphic layers and to obtain radiocarbon dates from some of the bones. This provided a reasonably well-established chronology from 26500 cal BP to 13900 cal BP. Given that the stratigraphy was generally horizontal, finds could be related to the stratigraphy and the chronology. These 766 images represent the most certainly dated assemblage of Upper Palaeolithic art anywhere in Europe, and probably the most certain anywhere in the world. It is completely inappropriate for rock art scholars not to give the art from Parpalló the importance it should have.

Because we can identify the species of animals in the images (almost all Spanish Ibex, Red Deer, Horse and Aurochs), it is possible to compare the relative frequencies of different species in the art with those among the animal bones. Unfortunately, taphonomic studies suggest that the large animals were not treated in the same way as the medium sized animals either by the agencies that deposited the bones at the site, or by the excavation and analysis of them. One example of this is that the excavators observed large numbers of rabbit bones (as seen at sites excavated more recently). None were collected; none were represented in the images at the site. As a result, the only reliable comparison is one which considers the images and the bones of the Spanish Ibex and the Red Deer, but because of the possible biases among the bones, it is best to compare the ratios of these species in both cases.

The most important thing about this is that it enables us to assess the common statement that the animal bones do not correspond with the images on the walls, most obvious from the relative scarcity of reindeer images in times and places where the bones are totally dominated by that species. At Parpalló, the lower layers, before 20400 cal BP, contain about 2 deer images for every ibex image and about 7 ibex among the bones for every 2 deer. But after that date, the two ratios come together about 1.5 ibex for every deer in both images and bones. That change cannot be explained simply in terms of environmental change, and I have interpreted it as a change in the symbolic

values associated with those animals. The date of the change also corresponds with the change from the Solutrean to the Magdalenian. As a result, Parpalló also seems to demonstrate as no other site does that this change is a real cultural change and not just a change of lithic and bone tools.

The relationship between symbolism and the environment changed through time, and when we return to look more closely at the relationship between images and bones, it turns out that the relationship also varied across space. Among the animal bones, I found one bone, of a horse, and I am reasonably confident that there was only one, which had an engraved picture, which was also of a horse. This suggests that, despite the availability of an alternative medium for image making that was understood and recognised at the time, there was something deliberate about using stone plaquettes for image making. This led me to consider the uniqueness of Parpalló in the context of other sites with plaquettes. Many sites have a few plaquettes with images, but only small numbers of sites have large numbers of them. I argued that this is an indication that whatever information was conveyed through the images was also restricted in access but that the associated behaviour became more widespread after 20 000 years ago.

Villaverde's study looked closely at the stylistic conventions among the images of particular species. All of these changes took place within a single tradition of iconicity, thus raising important questions about the capacity to infer anything only from stylistic similarity or difference.

Finally, the latest date for art at Parpalló is about 14 000 years ago. Radiocarbon dates for images at Le Portel and at Las Monedas – the latest direct dates for cave art – are also of that age. It seems to be the case that Upper Palaeolithic art did not survive the global warming before the Younger Dryas.

Parpalló provides evidence to establish the variation in symbolism through time, to contribute to the understanding of its variation through space, and provides fundamental information about the relationship between iconicity and symbolism.



Equids from Parpalló, ~18 000 years ago
(drawing: Pericot 1942)



Horse painting, ~24 000 years ago
(photo: Servicio de Investigación Prehistórica, Valencia)



5 cm

Bones of large and small equids (photo: I. Davidson).



DATING AND ARCHAEOLOGICAL CONTEXT OF THE NEW ENGRAVED SCAPULA AT ALTAMIRA

**Carmen de las HERAS, José Antonio LASHERAS, Pedro RASINES
Ramón MONTES, Pilar FATÁS, Alfredo PRADA, Emilio MUÑOZ**

This article concerns a red deer scapula with an engraved doe head discovered during the current archaeological excavations realized outside of the cave of Altamira. The interest of its chronology lies in the similarity of these engravings to other parietal ones with the same theme, techniques and style. In addition, the same date can be attributed to them and they are present in the same territory.

History

In 1902, Cartailhac and Breuil discovered representations of does in Altamira, all engraved using the same technique of multiple lines and a similar style. One year later, Alcalde del Río found, in the archaeological site, seven scapulae with engraved does similar to those previously discovered on the walls.

On the walls of Castillo Cave, Alcalde del Río also observed does analogous to those at Altamira. In 1911, Obermaier discovered 33 engraved scapulae in the Magdalenian level of El Castillo Cave. In 1977, a new specimen was discovered in the cave of El Cierro, followed by diverse fragments of engraved scapulae in the cave of El Mirón.

In parietal art, the parallelisms in several caves in northern Spain demonstrate the existence of cultural and chronological links between these sites, within a specific space and time.

The engraved scapulae: archaeological context and chronological issues

The engraved scapulae permitted a link to be established between their stratigraphic position and the chronology of the similar parietal figures. All of the engraved scapulae originate from Lower Magdalenian levels, even if those of Altamira were initially attributed to the Solutrean by Alcalde del Río. After that time, no more engraved scapulae were discovered at Altamira until 2009.

In 2008 / 2009, excavations were realized outside of the cave to find the Paleolithic levels that could be buried under the large rockfall that destroyed the outer part of the cave around 13 000 years ago. A single archaeological level was found, containing a new scapula with engraved does. One hundred years after the discovery by Alcalde del Río, we finally obtained a reference point for the stratigraphic position of these objects at Altamira.

The direct date obtained from the scapula is the second one for this type of object. Until then, the only dated object was another scapula from the assemblage discovered by Alcalde del Río, also

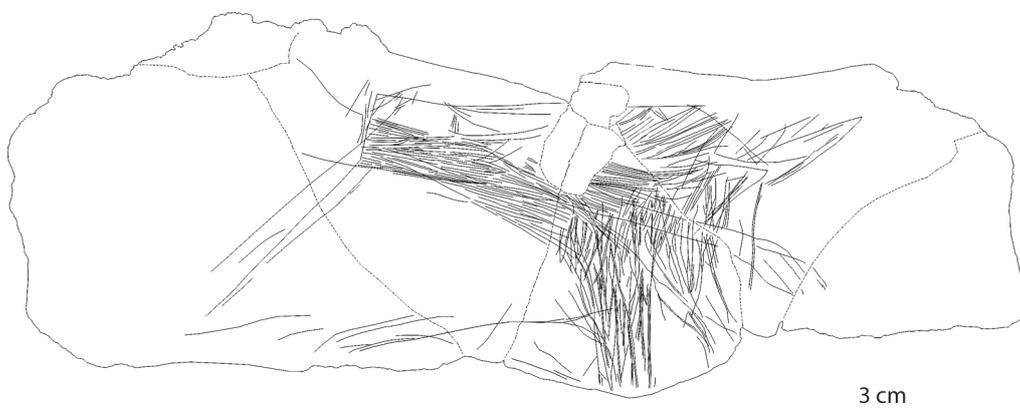
at Altamira. Its date of $14\,480 \pm 250$ BP permitted its attribution to the Lower Magdalenian. The piece discovered in 2009 is dated to $14\,830 \pm 60$ BP, which is similar to the preceding one and to that of $14\,910 \pm 60$ BP obtained at the contact between levels 1 and 2 of the stratigraphy inside the cave. These dates provide a well-defined chronological framework for the scapulae at Altamira, which we can extend – at least provisionally – to all of the decorated scapulae found at other sites, dated by the archaeological levels in which they were discovered. The Magdalenian level recently discovered outside of the Altamira Cave has yielded three dates that situate it between approximately 15 300-15 700 BP, which is compatible with levels 2 to 4 inside the cave.

Only a few chronological comparisons can be made with the other scapulae: those from El Juyo are from level 8, which has not been dated, while level seven has yielded a date of $14\,440 \pm 180$ BP. Four dates were obtained from level 17 at El Mirón, but that of 15 700 is the closest to the place where the scapula was found. The dates of level 17 at El Mirón and of the Magdalenian level at Altamira are very similar.

The two scapulae from Altamira have similar dates. The discrepancy between the dates of the scapulae themselves and those obtained for the stratigraphic context in which they were discovered is evident. There are two possible ways to interpret this:

1. The direct dates of the scapulae with multiple lines are the most reliable evidence and reflect their precise chronology, between approximately 14 200-14 900 BP (ca. 17 300-17 950 cal BP). The presence of scapulae in the oldest archaeological contexts could be the result of a stratigraphic intrusion or an intentional anthropogenic burial. The parietal versions would then be contemporaneous with the realization of the polychrome images;
2. The scapulae decorated with does have their own stratigraphic framework identical to that of their archaeological level. In this case, the engravings – parietal and on scapulae – would have been realized during the longest part of the Lower Magdalenian, from approximately 14 200 to 15 900 BP (ca. 17 300-19 000 cal BP).

To conclude, the locations of the doe head engravings with multiple lines and other portable and parietal art works in the central part of Green Spain during the Lower Magdalenian could be the identity markers of a group or their mobility across a specific territory during a limited chronological interval.



Drawing of the engravings on the new engraved scapula (© Museo de Altamira).



A NEW HYPOTHESIS ON THE CREATION OF THE HOHLE FELS "VENUS" FIGURINE

Gillian MORRISS-KAY

Female "Venus" figurines are well known from 24-29 ky (Gravettian), from France to Siberia. They are typically characterised by large breasts and belly, suggesting pregnancy. It seems likely that they were designed to be held in the hand, and may have served as amulets to protect against the dangers of childbirth.

In 2008 a female figurine was excavated from Hohle Fels Cave, southwest Germany. Calibrated radiocarbon dating of the charcoal-rich material around the figurine yielded dates ranging from 36 000 to 40 000 calendar years ago. This figurine is therefore the oldest known piece of figurative "art", predating the Gravettian Venus figurines by thousands of years. It is also quite different anatomically, suggesting that it does not represent an early stage in the same tradition and did not have the same purpose or symbolism.

The Hohle Fels figurine (figure) has large protruding breasts and an enlarged vulva; her legs are widely separated and there is a well-worn loop carved in place of her head, suggesting that it was strung and suspended as a pendant. Nicholas Conard wrote in his original description: "There can be no doubt that the depiction of oversized breasts, accentuated buttocks and genitalia results from the deliberate exaggeration of the sexual features of the figurine." In the accompanying News and Views commentary, Paul Mellars wrote: "The figure is explicitly – and blatantly – that of a woman, with an exaggeration of sexual characteristics... that by twentyfirst-century standards could be seen as bordering on the pornographic." He also refers to "its explicitly, almost aggressively, sexual nature." Mellars' descriptions betray a sense of disgust, which is not appropriate, and imply that a grossly enlarged vulva and breasts are overtly erotic.

I propose a different hypothesis on the origin of this carving, which I see as the somatosensory self-portrait of a woman who has recently given birth. The changes that a mother's body undergoes at birth are fundamentally different from any of the other experiences related to the female body, since they are not only radical but sudden, in contrast to the gradual and incremental changes that one experiences during puberty and pregnancy. From this viewpoint, the portrait of the carver's body is not based primarily, if at all, on what she sees, but on perceptions interpreted by her somato-sensory cortex. Her breasts are engorged with milk: their gradual enlargement during pregnancy has not prepared her for the sudden shock and discomfort of lactiferous engorgement. They feel unfamiliarly tight and enormous, hence their exaggerated size and raised position. Her belly, having enlarged gradually during pregnancy and having contained an active fetus, is suddenly empty. She is aware of the loss from it of the child she was carrying. Although her belly is still somewhat swollen, the skin is now far too big, and wrinkled, hence the transverse striations firmly engraved into the ivory.

Tears of the perineal membrane, always painful and potentially functionally damaging, are the most common complication of natural childbirth, especially for a first delivery. It may be that the trauma of the birth has been worsened by a tear. The discomfort of her (unseen) vulva is portrayed as an enlargement of this area: although visually unrealistic it is entirely consistent with this view of the figurine as the externalised expression of somatosensory information-processing. The wide separation of the legs, so different from the Gravettian figurines, is also consistent with this interpretation, suggesting a strong sense of discomfort emanating from the area between them. In contrast, the back, being unaffected by parturition and its aftermath, is smooth apart from a simple demarcation of the waist. Similarly, the legs below the knees are irrelevant and so are not represented. Arms, although short, are present, including well-defined fingers: these have explored the unfamiliar body.

This explanation is also consistent with the absence of a head. If the portrait is based on post-partum sensations from the body, the head is irrelevant. The creation of a loop where the head would have been, and the fact that it has been polished by wear, suggests that the woman who carved this sensory portrait made it for herself. She could have worn it as a pendant on a thong around her own neck for a long time afterwards, perhaps as a way of coming to terms with a stillbirth. The postpartum bodily changes are the same after a stillbirth as after a live birth, but the emotional trauma of stillbirth can motivate the bereaved mother to do something creative to express her profound sense of loss. Furthermore, the absence of the demands of maternal care and the need to recuperate physically would provide the necessary time for the many hours of carving required for creating this piece. Two features of the breasts suggest this as a possible explanation: the circumferential lines suggest a sensation of tightness unrelieved by suckling, and the nipples are poorly defined. The interpretation of this figurine as primarily a somatosensory self-portrait suggests that the original impulse to create figurative art may not have arisen exclusively from a desire to portray visual experiences.



Three views of the Hohle Fels figurine
(from N. Conard, *Nature*, 459, 2009, pp. 248-252, with permission).





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