

MONICA KRISTIN HANSEN

# BEYOND SEALS:

The Representation of Seals on Engraved Slate Plaquettes from the  
Magdalenian Site Gönnersdorf (Central Rhineland, Germany)



THESIS IN ARCHAEOLOGY

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To my mother and father



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The responsibility for any mistakes is mine and mine only.

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CHAPTER 1  
**INTRODUCTION**  
MARINE IMAGES IN AN INTERIOR LANDSCAPE



The Late Magdalenian site Gönnersdorf in Central Rhineland, Germany, is well known in Upper Palaeolithic research and amazes in richness and amount of settlement structures, artefacts, ecofacts and artistic objects, like figurines and personal ornaments. The most impressive feature of the site, however, is the pavement which consists of tons of slate plaquettes that have been brought to the site by its inhabitants. Some of these plaquettes, about five hundred of them, wore engraved images of conventionalised women, abstract signs and nature-like animals.

Most of the depicted animals were found also in the faunal remains at the site and most likely played an integrated part of the region's environment. But a few of these engravings were of animals that found no counterpart in the faunal material. One of these animals was the seal. The seal, which is not a common animal in the artistic material of the Palaeolithic, is represented on possibly as many as nine plaquettes from Gönnersdorf.

The location of the site more than 450 kilometres from the seashore of the Late Pleistocene, makes these finds somewhat enigmatic. The situation raises questions of where these people became familiar with this animal and why it was engraved on plaquettes of stone at a site located so far from the coast. Publications on the subject so far (Bosinski & Bosinski 1991) has emphasised the ethological possibilities and habitats of the seal.

In more general terms, engraved plaquettes have traditionally been defined as 'art', more specific as 'portable art', which in addition to 'parietal art' represents one of two categories of 'Palaeolithic art'. In this thesis I wish to focus not so much on the animal

itself, as well as I will abandon the perception of these images as part of some large casket termed ‘Palaeolithic art’. Instead I will approach the subject with an awareness that what we are talking about here, are not seals *per se*, and neither ‘art’, but a type of material culture that is *engraved plaquettes*. I will therefore attempt to go “Beyond Seals”, as well as follow Conkey *et al* (1997) in going ‘Beyond Art’.

I will start this thesis by giving a presentation of the initial research history. Chapter 2 will address the initial phase of discovery and the acceptance of the existence of ‘Palaeolithic art’, as well as the major distributional patterns in time and space.

Chapter 3 presents the theoretic approaches towards ‘Palaeolithic art’ from the initial phase starting at the mid 19<sup>th</sup> century until the 1970s. Common for these approaches is their emphasis on revealing original meanings. Particular emphasis will be put on the problems connected to the use of the term ‘Palaeolithic art’ which has pervaded most explanatory attempts until the 1970s and favoured particular media of ‘art’ and, consequently, certain regions where these media are clustered. I will argue that we need to abandon the term ‘Palaeolithic art’ in favour of more precise terms which refer to the actual media discussed. My claim is that particularisation of terms will detach us from the monolithic perspective and make comparative analyses with broader perspectives of time and space possible.

In chapter 4 I will turn my attention to the site Gönnersdorf, its features and finds, and I will also focus on the attributes of the site’s natural environment. The seal depictions will be delineated in chapter 5, together with the attempts on explaining the presence of a marine element at a site that is located so far from the coasts. The approach so far has heavily emphasised identifications of species and the ethologic attributes of the seal, with the intention of determining where the people who drew them possibly can have seen the animal.

Although the question of where, or, rather, how, the people became familiar to the animal, is of great interest- as the people obviously could not have drawn them without at least having been told about them- it is my point of view that as long as we are speaking of engravings on plaquettes, and not faunal remains of the actual animal, the problem must be approached with an emphasis of the characteristics of the peoples

rather than on the animals. Movement patterns of the people are thus the subject of chapter 6, where human traffic on different levels will be discussed. I will also try to say something about what function Gönnersdorf had within these patterns.

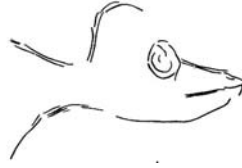
The Late Pleistocene was a time of great changes in the environment, the climate and the ecosystem, offering new possibilities and challenges to the people. It was a time characterised of people migrating, re-occupying the previously abandoned regions of western central Europe, and of exploration and further expansion to the north. Gönnersdorf has, like many of the other large plaquette sites, been interpreted as an aggregation site (Bosinski 1975, 1988; Weniger 1989:347; Rensink 1993: 126-127), a locale where otherwise dispersed groups of people and individuals met. In chapter 7, I will focus upon the relation between mobility and meetings, and how these variables relate to the practice of engraving images to plaquettes of slate. Finally, I will investigate how the practice of engraving plaquettes can be perceived as an integrated part of hunter-gatherer communication systems that has the purpose of ensuring the maintenance of social networks and successful information exchange, whereas some elements can might refer to '*memories old*', others, like the seal, may refer to '*new things told*'.

My conclusions to these questions will at last be summarised in chapter 8.

## CHAPTER 2

### ESTABLISHING 'PALAEOLOGIC ART'

#### INITIAL RESEARCH- TEMPORALITY- SPATIALITY



##### 2.1. INTRODUCTION

'Palaeolithic art' is a broad term that is commonly used about various types of materials recognised as 'art' made by humans during the Upper Palaeolithic period of 35,000-10,000 years ago. Objects within this term are often sorted under two main categories: parietal and portable. 'Parietal art' represents visual representations that are non-movable and permanently stuck in one place. This category includes paintings and carvings in caves, shelters and on big rocks, and bas-reliefs and clay models inside caves. The term 'portable art' defines a large variety of items, which are all portable to some degree. Engravings on plaquettes of stone are normally included in this term even though it is doubtful that these items were ever transported anywhere but within the actual site where they were found. Other items belonging to this category are decorated tools (like spear throwers and baguette demi-rondes), statuettes (figurines and animal statuettes), personal ornaments (of perforated shells, teeth, bones, jet, amber, etc.) and musical instruments (like the bone flutes from Geißenklösterle (Hahn & Münzel 1995)).

In this chapter I will give an introduction to the initial research on 'Palaeolithic art' and the temporal and spatial distribution of the main types in order to place the phenomenon of engraved plaquettes in time and space. As will be shown, research has strongly emphasised the Franco-Cantabrian finds, mainly 'parietal art', and stylistic maps have primarily been based upon these. Examples will show that these schemes cannot be used without critical thought on materials outside the Franco-Cantabrian region.

##### 2.2. THE INITIAL RESEARCH

The acceptance of the antiquity of the Palaeolithic is usually attributed to the work of Boucher de Perthes, whose first major documentation of Palaeolithic man came in 1846.

However, the Palaeolithic period was first given its name in 1865 by John Lubbock, who in his publication *Primitive Times* divided the Stone Age into two periods: one earlier, which he labelled the Palaeolithic or the Archaeolithic, and one more recent, the Neolithic (Trigger 1989:84-95).

### *2.2.1. Accepting the antiquity of 'portable art'*

The earliest find of what we today recognise as 'Palaeolithic art', a piece of reindeer antler from the Grand Grotte de Bize (Aude), which was decorated with engraved chevrons, was found already in 1827/28. More art objects were found during the following decades without the excavators realising the antiquity of the objects. After numerous discoveries in southwest France during the 1860s, the engraved and carved bones and stones could be contextually related, not only to Palaeolithic tools, but also to bones of Ice Age mammals (such as the mammoth), and the genuineness of the antiquity could no longer be doubted. Since it had been assumed that prehistoric people were primitive savages without leisure-time and aesthetic sense, the quality of the depictions came as a big surprise. The discoveries triggered a 'gold rush' with people excavating (and plundering) caves and shelters for art treasures. Little attention was paid to the stratigraphic positions of the finds- and to what was on the walls. (Bahn & Vertut 1997: 14-15)

### *2.2.2. Accepting the antiquity of 'parietal art'*

It is a common fact that one often only sees what one expects to see, and this might have been true for many of these pioneer excavators. In many cases they must have seen the paintings, although they did not observe them. First of all, nothing of the sort had yet been found, and secondly, it was thought as inconceivable that the possibility of such an art form had survived for so long.

The first discovery of cave paintings was made in 1879 in the cave Altamira by the Spanish archaeologist Don Marcelino Sanz de Sautuola and his young daughter, Maria. After seeing 'portable art' at the Paris Universal Exhibition, Sanz de Sautuola drew stylistic associations to his own discoveries in Altamira, and thus suggested that also the cave paintings were of Palaeolithic age. His fellow scholars refused his suggestion, and Sanz de Sautola was accused of fraud. It was not until the Montauban Congress of the International Association for the Advancement of Sciences in 1902 (nine years after



Sanz de Sautuola's death), that the paintings were officially accepted as genuinely Palaeolithic<sup>1</sup>. (Ucko & Rosenfeld 1967: 31-36, Bahn & Vertut 1997: 14-31)

### 2.3.3. Initial research in Germany

During the age of pioneer work, 'Palaeolithic art' was found also outside the Franco-Cantabrian region. In 1866 a large piece of a decorated antler was found by Oskar Fraas at the Schußquelle. The Kesserloch (for localisation of sites mentioned in this section, see map in fig 1) excavations by Konrad Merk in 1874/75 uncovered some of the most famous art objects from the Palaeolithic of western central Europe: "the grazing reindeers". The illustration of "the grazing reindeers" later appeared in *Reliquiae Antiquitanae* by Lartet and Christy in 1865-1978 (Bosinski 1982: 3). The excavation further revealed one engraved plaquette, with the image of a horse head.

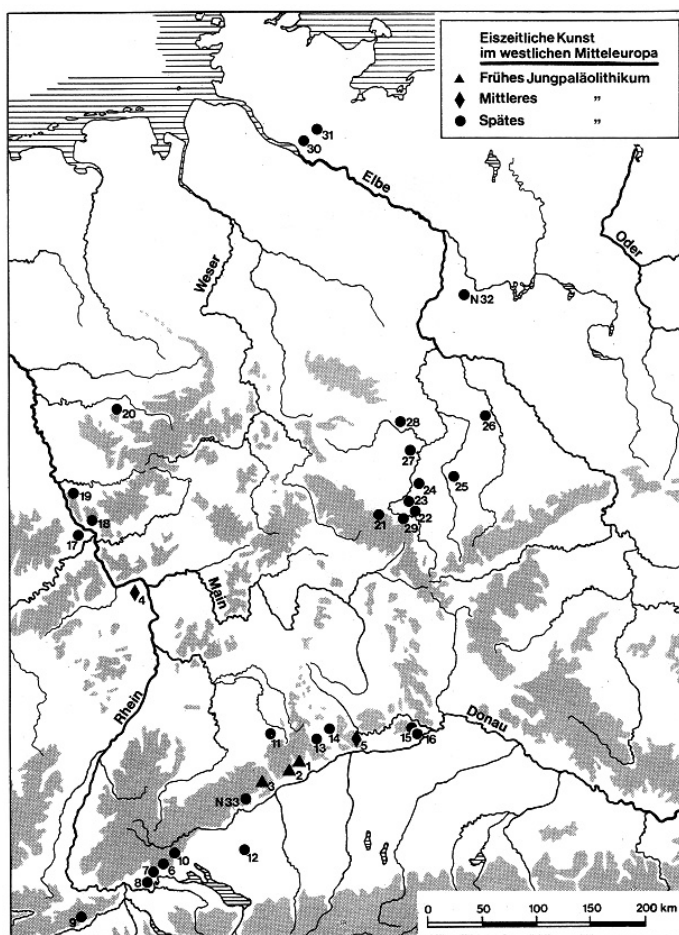
In the following decades several more findings were recovered in Germany and Switzerland that showed large similarities to the famous findings from the Franco-Cantabrian caves, like, sculptured sticks, rondelles and baguette demi-rondes, figurines and engraved plaquettes. Already in 1833, engraved plaquettes similar to those found at Gönnersdorf were revealed at Andernach (just beside Gönnersdorf at the opposite side of the river Rhine). The plaquettes at Andernach were also found as a pavement, just like those found at Gönnersdorf, and resemble Gönnersdorf in both style and motives. During the late nineteenth and early twentieth century single plaquettes with engravings were revealed at Schweizerbild, Hohlenstein, Mittlere Klause and Petersfels. (Bosinski 1982: 3-4)

The excavation activity continued throughout the nineteenth century with numerous finds evidencing artistic activity in western Central Europe. In 1912 came the two first major publications about these artistic objects. Rudolf Schmidt's *Die diluviale Vorzeit Deutschlands* gave a thorough status of the finds, and compared them to the finds from the Franco-Cantabrian area. Hugo Obermaier gave a similar account in *Mensch der Vorzeit* and emphasised the likeness of the art of the western Central Europe with the finds of the Franco-Cantabrian area. He concluded that these finds represented subtypes of the Franco-Cantabrian types, and that the eastern limit for its distribution

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<sup>1</sup> For more details on the first discoveries and the long-lasting debate see Ucko & Rosenfeld 1967, Bahn & Vertut 1997.

during the Upper Palaeolithic was marked by the river Rhine. Even though the finds resembled the ‘Palaeolithic art’ of Franco-Cantabria, they were still not discussed outside of Germany. In Henri Breuil’s *Notes de voyage paléolithique en Europa centrale* (1923, 1924, 1925), only the eastern part of Central Europe was described, and the many finds from Germany were still unknown in France. (Bosinski 1982: 4)



**Fig 1:** Sites with Upper Palaeolithic visual imagery from Western central Europe. (Bosinski 1982: Abb 1)

1-Vogelherd, 2-Hohlenstein-Stadel, 3-Geißenklösterle, 4-Mainz-Linsenberg, 5-Weinberghöhlen, 6-Kesslerloch, 7-Schweizersbild, 8-Freudenthal, 9-Rislingsberghöhle, 10-Petersfels, 11-Kleine Scheuer im Rosenstein, 12-Schussenquelle, 13-Hohlenstein, 14-Kaufertsberg, 15-Mittlere Klause, 16-Obere Klause, 17-Andernach, 18-Gönnersdorf, 19-Oberkassel, 20-Balver Höhle, 21-Bärenkeller, 22-Urdhöhle, 23-Kniergrotte, 24-Oelknitz, 25-Lindenthaler-Hyänenhöhle, 26-Groitzsch, 27-Saaleck, 28-Nebra, 29-Saafeld, 30-Meiendorf, and 31-Poggenwisch

It was not until the excavations of the caves in the Swabian Alps, during the early 1930s, that western Central Europe received some attention from rest of Europe. Under

Gustav Riek's excavation at Vogelherd cave, several ivory statuettes were recovered in layers of Aurignacian age (Dowson & Porr 2001: 165). The statuettes were referred to in *Proceedings of the Prehistoric Society* in 1938, together with the finds from another German cave, Petersfels and the finds from Mainz-Linsenberg (Bosinski 1982: 6). Still, these delicate ivory statuettes have been largely overshadowed by the seemingly more spectacular parietal art of France and Spain (Dowson & Porr 2001: 166). In international discussions they merely serve as evidence for the outer limit of the regional distribution of 'Palaeolithic art'.

### 2.3. TEMPORAL AND SPATIAL VARIATION

'Palaeolithic art' has a broad distribution which goes beyond Europe. In Europe parietal and portable 'art' have somewhat different distributions. 'Portable art' is found from the Iberian Peninsula and North Africa to Siberia, and has concentrated accumulations in Central and Eastern Europe, while 'parietal art' is found from southern Portugal and the very south of Spain up to the north of France (Bahn & Vertut 1997: 41, 45). Still the most influencing stylistic schemes (Breuil 1952, Leroi-Gourhan 1967) are based upon the 'parietal art' of Franco-Cantabria. Especially Leroi-Gourhan's scheme from 1967 has had major authority to the typological understanding of European 'Palaeolithic art'. As noted in sub-chapter 2.2., 'art' outside this region has for long merely functioned as evidence for drawing the outer limits of the distribution of 'Palaeolithic art'.

On the one hand, this section will provide an outline of the general trends in the temporal and spatial distribution of the different types of 'art' and the location of engraved plaquettes in time and space. On the other hand, it is also meant to illustrate the consequences of the emphasised interpretation of these media as 'art', where the perception of the cave art as the 'Master pieces' among 'Palaeolithic art' has not only outshined the less impressive portable pieces, such as the engraved images on plaquettes, but has also constituted a limited base for interpretations. I will do so by taking a starting point in the stylistic scheme given by Leroi-Gourhan (1967) that goes hand in hand with a criticism that has been made on the base of 'Palaeolithic art' registered outside the classic region.

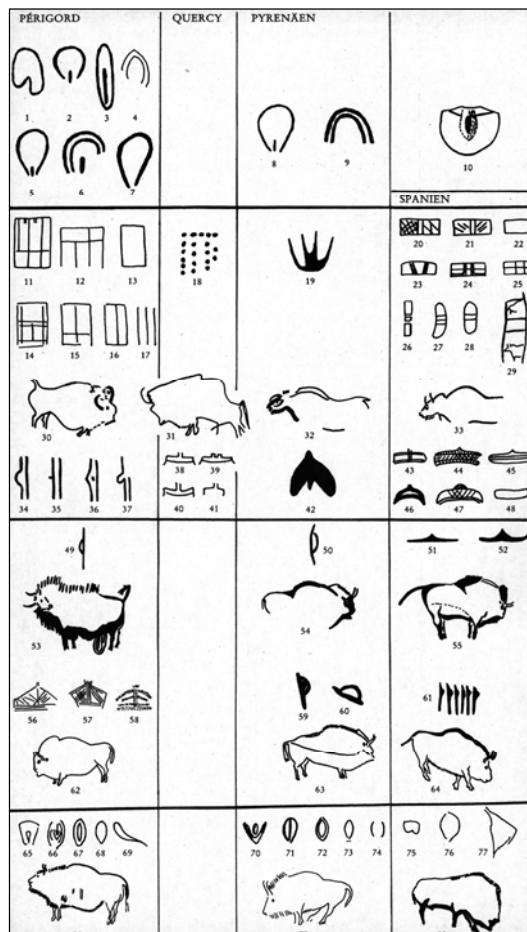
#### 2.3.1. *Leroi-Gourhan's Style I & II: Daylight paintings, statuettes and figurines.*

Leroi-Gourhan divided the 'Palaeolithic art' from the Early and Middle Upper

Palaeolithic into two styles: Style I, which covered the Aurignacian and Early Gravettian (ca. 30,000 – 23,000 B.C.); and Style II, which comprised the Late Gravettian and the Proto-Solutrean (ca. 23,000-17,000 B.C.).

According to Leroi-Gourhan (Leroi-Gourhan 1971: 248), Style I was characterised by deep incisions on blocks and fallen fragments of what might have been decorated walls in the daylight zones of caves and rock shelters. Additionally there existed a few painted and engraved bone fragments and stone plaquettes. The style itself was typified by depictions of rigid animal contours, together with a seemingly obsession with vulvas (fig 2). Other frequently depicted motifs were abstract signs like lines and dots.

Style II was, stylistically, to be seen as a direct continuity to Style I, and is characterised by a curving contour of neck and back, serving as the basic feature of the exaggerated curvature of the forepart of the animal body, often with an elongated head, an oval eye and twisted perspective (fig 2). In this phase the paintings and carvings are first found inside large ‘sanctuaries’<sup>2</sup>, although they still are restricted to the daylight zones or the first dark chambers of the caves. Still there were more portable than parietal ‘art’. The most pronounced media of this style was the statuettes and figurines. (Leroi-Gourhan 1971: 248-250)



**Fig. 2:** Stylistic characteristics of Leroi-Gourhan's scheme, with Style I at the top (Leroi-Gourhan 1971 abb.813).

Although Leroi-Gourhan's division of the Early and Middle Upper Palaeolithic ‘art’ be

<sup>2</sup> ‘Sanctuaries’ are large chambers inside caves with large galleries of images, which possibly housed some sorts of ‘holly activities’.

applicable on the ‘parietal art’ or the Franco-Cantabrian ‘art’ in general, it becomes quite problematic when attempted clothed on ‘portable art’ outside this region. In Central Western Europe all representations dated to the Early and Middle Upper Palaeolithic are restricted to the Aurignacian and the earliest Gravettian (Bosinski 1982: 11, 22; Dowson & Porr 2001: 168), thus there are no finds contemporary to Leroi-Gourhan’s Style II<sup>3</sup>. The interesting thing is, that the finds which *do* appear in these regions during Leroi-Gourhan’s figurine- and statuette-empty Style I, *are* animal statuettes and figurines of ivory! The Aurignacian statuettes and figurines are restricted to the Swabian Alps (southern Germany<sup>4</sup>) while the Gravettian finds only appears at two sites: at Mainz-Linsenberg in Mainz and in the Weinberhöhlen in Mauern.

A similar trend is notable in the region of Eastern Europe<sup>5</sup>, though the statuettes and figurines here are far more numerous than in any of the other regions. In fact, whereas the abundance of ‘Palaeolithic art’ in Western Europe reaches its peak during the Late Upper Palaeolithic, the abundance in Eastern Europe pinnacles during the Early and Middle Upper Palaeolithic (Soffer: 1997: 255). Where the Central Western European animal statuettes and figurines fell in the statuette- and figurine-empty Style I of Leroi-Gourhan, the many examples from East Europe falls within both Style I and II.

### *2.3.2. Leroi-Gourhan’s Style III: The peak of the great ‘sanctuaries’ and growth of ‘portable art’*

Style III covers the rest of the Solutrean and the Early Magdalenian (I and II) (ca 17,000 – 13,000 B.C.). This is the coldest phase within the last Ice Age, and is, perceptible in Western Central Europe as a more than 10,000 years long seemingly findless period between ca. 25,000 and 13,000 B.C. (Bosinski 1982: 22). Similarly, there seems to have been depopulation in Eastern Europe between ca. 20,000 and 13,000 B.C. (Soffer 1996: 247). Thus, Leroi-Gourhan’s device for Style III, becomes irrelevant for these regions, and therefore I will only give a short resume of the general trends put forth by Leroi-Gourhan.

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<sup>3</sup> This might be explained by the beginning of a very cold period in Central Western Europe.

<sup>4</sup> Except from the ‘Venus’ from Galgenberg in Austria, which dated Early Aurignacian (Bahn & Vertut 1997: 99).

<sup>5</sup> Main regions of the East European early and middle Palaeolithic art are concentrated in Moravia and on the Russian Plain.

In Style III, the darker chambers of the caves become decorated as well as the use of the great ‘sanctuaries’ reaches its peak (Leroi-Gourhan 1971: 250-253). The phase is associated with the famous depictions of the cave Lascaux. The contours of the different animal species lose their uniformity. The head and limbs are often under-dimensioned, and a semi-twisted perspective dominates (fig 2). Movements are expressed by particular conventions, and by the adding of independent details. The contours are often completed by fillings of ochre or magnate. Animals, humans and signs are now tightly connected, sometimes in clear compositions. ‘Portable art’ becomes more and more abundant and at the end of this phase we see the beginnings of large plaquette sites in the Central Pyrenees, Cantabria and Northern Italy (Davidson 1997: 147).

### *2.3.3. Style VI: Creative explosion and decline*

Leroi-Gourhan’s Style IV starts with Magdalenian III and ends by the exit of Magdalenian VI. The phase is further divided into an early and a late phase, whereas the first covers representations from the Middle Magdalenian (III and IV) ca. 13,000 to 11,000 B.C., and the latter representations from the Upper Magdalenian (V and VI), ca. 11,000 to 8000 B.C.

This phase is first and foremost characterised by an explosive upcoming of ‘Palaeolithic art’ in general, and ‘portable art’ in particular. Leroi-Gourhan registered that about 83 % of the portable representations and about 78 % of the parietal representations belonged to this stylistic phase (Leroi-Gourhan 1971: 282, 454). This is also the phase when the engraved plaquettes are most abundant. It is to this stylistic phase, Gönnersdorf belongs.

Accumulations of engraved plaquettes are found at ‘super-sites<sup>6</sup>’ both inside caves and open air. Characteristic types of portable items carrying decoration or depictions of style IV are strongly conventionalised figurines and decorated tools, like sculptured spearthrowers, contours *découpés* and *baguette demi-rondes*. The ‘parietal art’ is now situated in the darkest chambers of the caves. The images still carry some of the archaic traits from the previous phases, like the basic curvature of the animal back, but these do now play an integrated part of fully proportioned figures and have a large degree of detail, which gives the animals a more bodily impression. In the ‘parietal art’ this is

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<sup>6</sup> So-called ‘super-sites’ refers to large sites that are exceptionally rich in ‘art’.

merely done by using colours while it in the ‘portable art’ is done by fillings inside the contours, both methods giving the impression of movement and light reflecting in the fur. Leroi-Gourhan describes this style as more ‘academic’, in the sense that the animals seem more true to nature than ever. The animals are often executed in sceneries like grazing, galloping or herding. Along with the ‘professionalism’ mounting into the late phase of Style IV, animal depictions become surprisingly large compared to the earlier phases. This is of course something that happened gradually, and the change is often not perceptible before you compare an early example to a late. The diagnostic feature marking the transition between the early and the late phase of Style IV is the appearance of decorated harpoons. (Leroi-Gourhan 1971:258-260)

Except from the emergence of decorated harpoons, not many of these trends are detectable in the ‘portable art’, but some distinguishing traits are also to be found in this material (Bosinski 1982:50). Decorated tools and schematic figurines are still common, but the decorative execution offers some differences. The baguette demi-rondes gain a more figurative décor, and the reindeer reappear as a motif after a total absence during the early phase of this style. Other particular motifs of the late phase are fish and fishlike signs (zig-zags etc.). The end of Style IV is marked by a dramatic decline in the quality of the ‘Palaeolithic art’.

In western central Europe we have only finds from the latest phase of this style, that is, no earlier than Magdalenian IV. Bosinski (1982:50) finds this rather peculiar, since the climatic conditions should have made human activity possible in this region also during the first part of this phase. From Magdalenian IV there are four sites<sup>7</sup> with ‘portable art’ from this region. Additionally, the Hamburger culture is starting to spread in the north and two sites<sup>8</sup> contemporary to the late early Style IV offer decorated items as well (Bosinski 1982: 50).

All in all Style IV offers the distinction of at least three clusters of sites containing ‘Palaeolithic art’, firstly, south western France and northern Spain, which offers both a large portion of ‘portable art’ and cave paintings, secondly, western central Europe that only contends ‘portable art’, and thirdly, a small clustering in the Ukraine, which only

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<sup>7</sup> Kesslerloch, Freudenthal, Saalfeld and Oberkassel.

<sup>8</sup> Meiendorf and Poggenwisch.

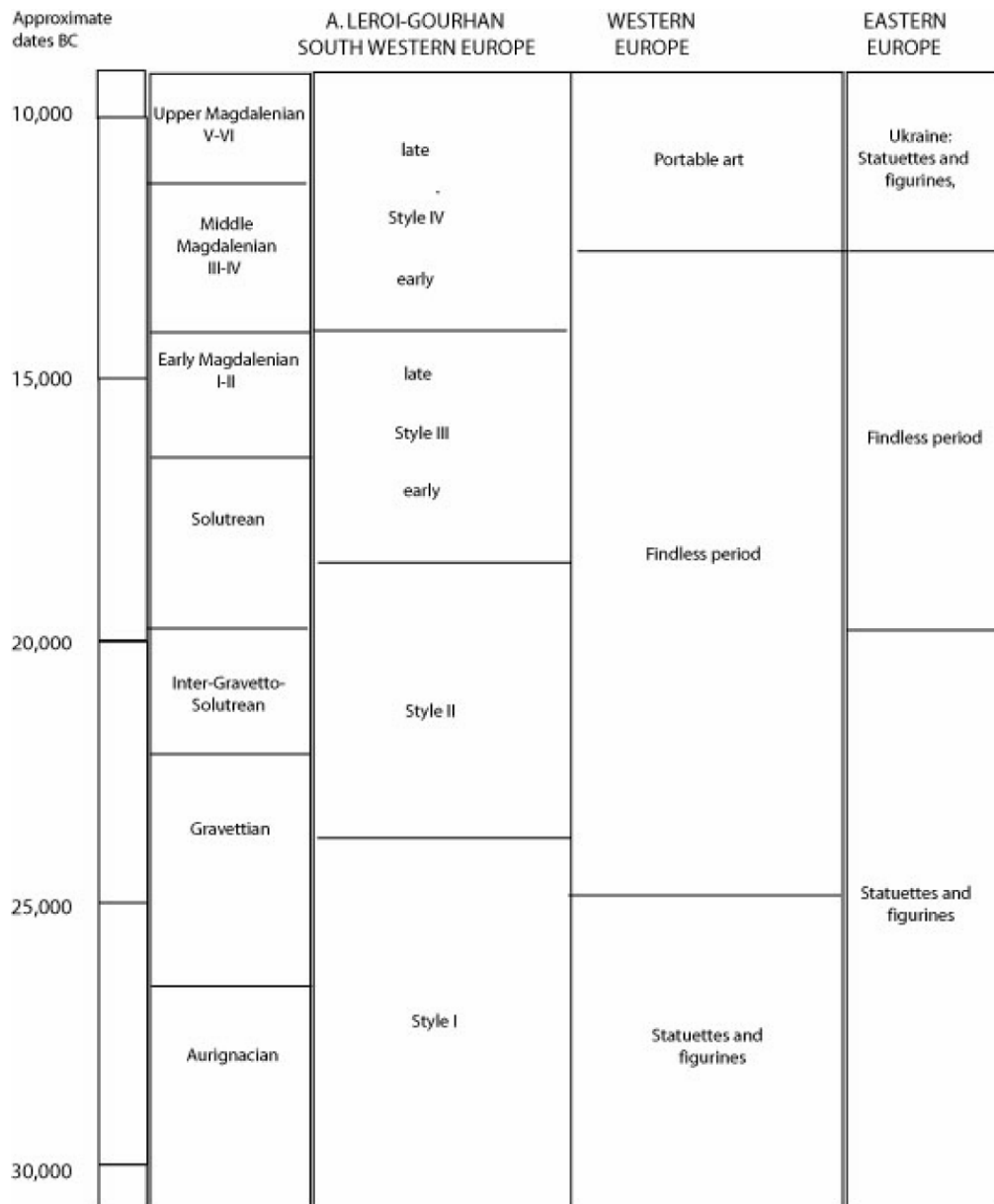
generates statuettes (Bosinski 1982:65).

#### 2.4. SUMMARY

In this chapter I have shown how the initial discoveries and research on ‘Palaeolithic art’ forms were characterised by an immense scepticism, and how the final acceptance of its antiquity triggered a kind of «gold-rush» of excavations for ancient art treasures. The immediate recognition of the phenomenon as ‘art’ made it possible to draw a complete line in the history of ‘art’ from the Palaeolithic until today. The cave paintings were conceived as the finest among ‘Palaeolithic art’ and this had consequences for the following research on ‘Palaeolithic art’. Firstly, the less impressive ‘portable art’ outside the classic region remained unpublished for long time, and in the construction of stylistic schemes, the ‘parietal art’ of the Franco-Cantabrian region was used as foregoing examples. This in spite of the fact that ‘parietal art’ has a very limited geographical distribution and variety exists both in the temporal and the spatial distributions of the different media of ‘art’.

When reconsidering the stylistic scheme of Leroi-Gourhan in relation to the empirics from western central Europe and eastern Europe, it is interesting to notice that the ‘Palaeolithic art’ of the region of western central Europe, during Style I/II seemed to have more similar traits to the eastern European finds, while during Style IV, the finds suddenly have more resemblances to the south western European materials (fig 3). Another interesting feature worth noting is that at the same time as the ‘parietal art’ moved deeper inside caves, starting in Style III and peaking in Style IV, the ‘super-sites’, with large amounts of ‘portable art’, started to spread with increasing numbers from France and into the western central Europe. Suddenly, at the end of Style IV both ‘parietal art’ and ‘portable art’ decline and almost disappears.

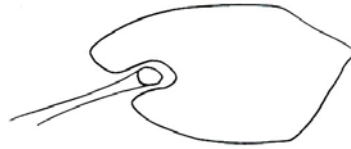




*Fig. 3. Leroi-Gourhan's style I-IV applied to the materials from Western Central and Eastern Europe. (After Bahn & Vertut 1997: fig 5.7; Bosinski 1982; Soffer 1997)*

## CHAPTER 3 VISUAL IMAGERY

### AESTHETICS-MAGIC- MYTHOGRAM



#### 3.1. INTRODUCTION

Since the first discoveries and the acceptance of the authenticity of ‘Palaeolithic art’ during the nineteenth and beginning of the twentieth century, archaeology has seen a myriad of explanatory and interpretative models. The immediate definition of the new find-category as ‘art’ has without doubt had some effect on the direction the focus was steered. As will be shown in the history of interpretative work, engraved plaquettes, and ‘portable art’ in general have been overshadowed by the more impressing and monumental examples of ‘parietal art’. This emphasis on cave paintings has further led to an emphasis on certain regions, that is, the regions where ‘parietal art’ is present. In this chapter I wish to illustrate this imbalance and show how these approaches have narrowed our potential for understanding the variation of this phenomenon that has commonly been termed ‘Palaeolithic art’. At the end of this chapter I suggest that we abandon this term, to the advance of more specific terms, which brings context into the analyses and visualises the broad variation of the various media in time and space, and the relations between them.

#### 3.2. APPROACHES TOWARDS ‘PALAEOLITHIC ART’

Until the 1970s archaeological models for explaining ‘Palaeolithic art’ has been focused on revealing the original meanings behind the imagery. The narrative of these theories can be divided into three phases which will be presented and discussed in this chapter. The first theoretical account, the *art for art’s sake* deals with the existence of ice age imagery, and is found during 1860-1906, that is simultaneous with the period of discovery and establishing of chronologies. In the second phase, 1906-1960, scholars started to search for the meaning of visual imagery, and the theories of *hunting magic* and *totemism* were adopted from anthropology. A third phase, the *structuralist approach*, was forwarded at the 1960s and early 1970s and represents the beginning of contextualising the material, although only on a within-site level of analysis. The

interpretation of collections of images as cosmologic *mythograms* proposed that the images were organised in relation to each other by some sets of structural rules.

### *3.2.1. Art for art's sake*

The art for art's sake theory came as an explanatory effort for elucidating the previous contradiction between the evolutionistic understanding of Palaeolithic man as primitive and the newly acceptance of the authenticity of 'Palaeolithic art' which related 'primitive man' to 'art'. The association of Palaeolithic cave paintings, carvings and engravings to the modern definition of the term 'art' made it implicit that also the production of 'Palaeolithic art' had to be seen as a special and separate activity that only a few gifted individuals engaged in, which was separated from daily tasks and normal people (Tomásková 1997: 268). The contradiction of 'primitives' conducting 'advanced' activities offered serious explanatory difficulties.

To be able to engage persons in non-utilitarian activities, such as in the production of 'art', certain social conditions needed to exist. Such conditions were during the nineteenth century normally subscribed what was thought as more civilised societies than that of Palaeolithic man, whose only activities were thought to be those needed to survive. Already in 1864, Lartet and Christy suggested that this dilemma could be explained in terms of exceptionally rich environmental conditions which made life easy with plenty of leisure (Ucko & Rosenfeld 1967:117). The impressive cave paintings were seen as 'Master pieces' that were exposed in 'galleries' made by particularly gifted 'artists'. Focus was of course mainly directed towards these. While the less exciting pieces of engraved plaquettes were perceived as sketches of the Masters, or sketches of pupils attending 'art classes'. Some scholars, such as Piette (1907, as cited in Ucko & Rosenfeld 1967:118-119) drove this theory to extreme lengths, by using descriptions like "exclusively artistic", "seeking perfection in art" and "eternally concerned with the cult of beauty". Art was made simply to please, thus the approach is known as the art for art's sake theory.

Having explained the external circumstances which made it possible for art to evolve, one still needed to explain how man from the beginning adapted the idea of making art and how the aesthetic sense evolved. Luquet (1930:113) drew analogies between children's art and the beginning of art in prehistory. Initially, art would happen by auto-

imitation, where non-purposely action would be intentionally repeated by an individual. Verworn (1909) suggested that art had its origins in play with techniques and the pleasure of repetition, like flaking stone beyond functional necessity. Both suggestions imply that since Palaeolithic man was at an evolutionary stage of a child, his art could not be anything but a thoughtless activity of play. This was also supposed to explain why early art was so naturalistic, while later art (from the Mesolithic) became schematic and indifferent to visual verisimilitude. The latter was a product of a more extensive reflection, expressing things how they were known, rather than how they were seen<sup>9</sup>. According to the art for art's sake approach, the cause was the same as the effect; the aim of art was art itself.

### *3.2.2. Totemism and hunting-magic*

At the end of the nineteenth century came the first analytic reviews of modern primitive life, which on the one hand, provided practical arguments against the art for art's sake theory and changed the understanding of the term 'Palaeolithic art', and on the other, resulted in a first theoretical framework that we now know as the comparative method. Studies of Australian Aborigines who had similar artistic representations as the Palaeolithic peoples showed that rich environments did not have to be a presupposition for production of art (Ucko & Rosenfeld 1967: 166). These analogies also demonstrated that this kind of art was not an expression of some universal artistic nature of man. Art had a purpose beyond itself, and this purpose could be detected through comparative analyses of ancient and modern primitive cultures. The major rethinking in archaeology now drew its inspiration from anthropology.

Anthropology during the late nineteenth and early twentieth century was still working within the frames of evolutionism, but showed considerable interest for how people actually lived. One was not only committed to the gathering of material and divisions of cultures through technological development, but to a large degree also paid attention to different levels of social adaptation, especially to that of magic and religion. Evolutionary ladders were proposed, which not only suggested the developmental

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<sup>9</sup> Recently (1987) the theory has been re-casted by Halverson who suggests that 'Palaeolithic art' belongs to a general category of play (a play of mind) and that it is the first cultural work of mankind to be freed from praxis. Halverson further suggests that the term 'art' should be replaced by the term 'representation' and the theory thus goes from being an 'art for art's sake' theory to become a 'representation for representation's sake' theory (Halverson 1987: 63-64, 70-71).

sequence of different types of religions<sup>10</sup>, but also illustrated the development of the human methods for explaining the relation between cause and effect<sup>11</sup> (Klausen 1981: 52-55). Common for the earliest stages of these evolutionary ladders, are their association to totemism, which defining criterion was supposed to rest on a special division of a society where every social sub-group have a special, ritual and taboo-instantiated relation to one or more classes of natural objects (Hylland- Eriksen 1993: 279).

Totemism further became the foundation of the more common theory of sympathetic magic, or hunting-magic, which drew a connection between the artistic life of the Palaeolithic hunters and their subsistence activities. The basic argument of the approach was that animals were depicted in order to gain control or influence upon the real animals. Depictions were made either to increase the abundance of game, to achieve luck in the hunt or to protect oneself against beasts or concurrent, like carnivores. Ethnographers Baldwin Spencer and F. J. Gilen's work on the life of the Arunta of Central Australia (1899 as referred to in Bahn & Vertut 1997:171), who performed ceremonies where they painted animal representations on rocks in order to multiply the numbers of game, inspired archaeologists to equate the ethnographic hunting-magic theories to archaeological records.

Salomon Reinach found it assumable that this could be a reasonable analogy to the artistic works of the Palaeolithic, and was, in 1903, the first to demonstrate that 'Palaeolithic art' had a utilitarian rather than an aesthetic origin. The basic arguments of his theory were that most of the Palaeolithic images were animals, that only food animals were ever represented and that they were placed in areas of limited access. Paintings made deep inside caves were taken as proof against the consideration of 'palaeolithic art' as mindless luxury decoration. If 'art' was just decoration or a result of play, why were only certain motives chosen and why were they made unavailable to the general audience? (Ucko & Rosenfeld 1967:123-127)

According to this view, 'art' had to be grafted on predominating social anxieties, and

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<sup>10</sup> Like Sir Edward Tylor's evolutionary scheme of religions from animalism, via polytheism to monotheism.

<sup>11</sup> Like Frazer's suggestion that the first attempt to penetrate this problem was made through beliefs in magic, and then followed by religions, and at last understood by science.

the principal anxieties of the Upper Palaeolithic society would be the daily pursuit of game, its multiplication by nature, and the success of hunting expeditions. According to Breuil (1952: 23) artistic activity was not a result of some individual fancies, but rather reflected the work of a collective social affair, which could be associated to various rites, like dances and ceremonies taking place often in inaccessible and hidden places<sup>12</sup>, where animals would be painted or engraved on panels by specialists, in order to gain control. The thesis was followed by Bégouën who added that some images seemed to have been ‘killed’ ritually by images of projectiles (Bahn & Vertut 1997:171). Marks at the mouths or nostrils of animals were interpreted as blood being vomited by a dying beast.

Although scholars primarily focused on ‘parietal art’, the theory was also thought to apply to the short-lived plaquettes, as the plaquettes seemed to compensate for cave paintings in those areas which lacked caves. The engraved plaquettes were seen as ‘portable sanctuaries’, which like the cave paintings, but as opposed to decorated tools, were perceived as non-utilised objects with religious significance (Bahn & Vertut 1997: 172). It was noted that many of the engraved plaquettes were broken into pieces and that some had been burned, and it was suggested that when the animals had been killed and the purpose was fulfilled, the piece was abandoned or discarded, either because it became useless or because it became a votive offering (Bégouen 1929: 18). The fact that many plaquettes had superimpositions when so many equally good surfaces were left blank was explained in terms of its magic values. If the drawing on a particular plaquette gave the desired result, it was taken as being a ‘good hunting’ panel, and was used again.

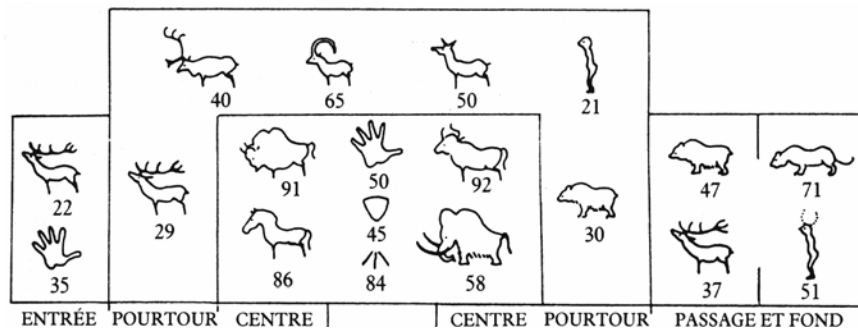
### 3.2.3. *Art as a mythogram*

The archaeology of totemism and hunting-magic was the first to touch upon the thought of ‘Palaeolithic art’ working as symbols. Still, the images were rarely seen in relation to each other, and caves were interpreted as collections of isolated pictures. Laming-Emperaire’s (1962) and Leroi-Gourhan’s (1965) examinations of Palaeolithic cave paintings got a revolutionary effect on the study of ‘Palaeolithic art’, both refusing the use of ethnographic parallels, and insisting that all interpretations must be exclusively

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<sup>12</sup> The location of the paintings, often in inaccessible corners and corridors, made Breuil interpret the caves as secret sanctuaries.

based on evidence extracted from the ‘art’ itself. Analyses must be based on the total corpus of figures in as many caves as possible, and not only on one or a few selected figures. Like the initiators of the hunting-magic theory, Leroi-Gourhan based his model primarily on ‘parietal art’. His argument was that paintings inside a cave, as opposed to portable pieces, represented a definite contextual frame. On the basis of systematic analyses of the distribution of animal species in more than sixty-five caves, certain features were revealed.



**Fig: 4.** Leroi-Gourhan's blueprint for the ideal cave layouts (Bahn & Vertut 1997: Fig 11.18)

Firstly, some animals seem to appear more often than others, like horse and bison. Secondly, some animals seem to never, or at least rarely, appear together, such as bison and aurochs. And, thirdly, some animals seem to occur together more often than others; this is particularly true of horse and bison. The latter, he concludes, must represent two coupled or juxtaposed themes, representing a sexual duality; whereas other animals must have played subordinated parts. Leroi-Gourhan organises the animal figures into four groups, whereas Group A, containing the horse, Group B the bison and aurochs, Group C animals such as deer, ibex and mammoth, and Group D the rarer animals such as bears, felines and rhinos. He further divides the caves into four zones: entrance zones, central zones, side chambers and dark ends. The systematic mapping of the distribution of the different animal groups in the various cave zones showed that about 90 per cent of the animals in groups A and B were concentrated on the main panels in the central areas, the majority of group C animals were situated near the entrance and on the peripheries of the central composition, while the group D animals were clustered in the more remote zones. These patterns constitute the basis for his famous blueprint for the ideal cave layout (see fig 4).

Later analyses have shown that his ‘ideal layout’ is too simplistic in form, since there are so many exceptions, contradictions and variations that his ‘blueprint’ hardly can be approved (Bahn & Vertut 1997: 192)<sup>13</sup>. The most important thing of his theory, though, is the acknowledgement that the Palaeolithic images are not just randomly distributed single figures, but rather organised compositions which follow distinct sets of structural rules corresponding to a certain mythology.

Leroi-Gourhan has suggested that plaquette collections are a chronological alternative to decorated caves, and he interprets the abundance of decorated plaquettes in the Late Magdalenian in Western France at a period when cave decoration is in decline, as an alternative to cave use. Like Breuil had done before him, Leroi-Gourhan also categorised the engraved plaquettes in the same basket as cave paintings. As opposed to decorated tools, the engraved plaquettes were, like the decorated caves, non-utilitarian, and its function had to be religious or mythical.

The adaptation of his theory which was basically made for the cave paintings, to collections of engraved plaquettes, offers some serious difficulties. Firstly, how are we to sort out compositions on or among engraved plaquettes? In caves all figures are seen as one composition where the figures are inter-related. The figures painted on cave walls are immobile and permanent, and are still in the same place as they were when they first were produced. The engraved plaquettes, on the other hand, can hardly be mapped in the same manners, as if they too had not been moved from their original spot of manufacture. Plaquettes are often broken into pieces and refitting of broken plaquettes has shown that the pieces have been moved or thrown around the site. The frequent breaking of plaquettes further complicates identifications of compositions on single plaquettes. Further, the plaquettes, as opposed to cave walls, sometimes provide two decorated panels, instead of just one. Does a composition consist of the figures of the whole plaquette, or does each panel represent different compositions?

Another problem with Leroi-Gourhan’s approach is that it demands that the interpretations of ‘art’ in first instance must be based on ‘art’ itself, and ‘art’ only, and

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<sup>13</sup> For a more detailed critique see Bahn & Vertut 1997: 191-196



thus takes little consideration of context. Although both cave paintings and engraved plaquettes may be seen as non-utilitarian, there are some contextual aspects which differentiate these two types of media. Most cave paintings are located in caves or parts of caves without any traces from settlements, while the majority of engraved plaquettes are found within the habitation area of a site, which could mean that their functions might have been different. Leroi-Gourhan's model lumps all cave paintings into one big basket as if the whole of it represents one tradition of some transcendent mythology, and further assumes that the engraving of plaquettes is a simple extension of this tradition.

### 3.3. FROM THE STUDY OF PALAEOOLITHIC ART TO THE STUDY OF ENGRAVED PLAQUETTES

Immediately after the first discoveries of engraved antlers and plaquettes of stone during the middle of the nineteenth century, these objects, together with cave paintings and statuettes, were conceived as 'Palaeolithic art', suggesting that variety of media lumped in under this term, had some universal and transcendental meaning which could be explored. The search for meaning behind the art is a common attribute of the three theoretic models which have been presented in this chapter. None of the theories have proved satisfactory in this attempt, and therefore it could appropriately be claimed, that the term 'art' has a narrowing effect on the research (Soffer & Conkey 1997; Davidson 1989; 1997 etc). In the following I will suggest that the term must be abandoned and further I will discuss how a particularisation of terms actually unlocks the door to a more general and comparative research.

#### 3.3.1. *From universalism to contextualism*

Lately, it has been suggested that the acknowledge of cave paintings, engraved plaquettes and statuettes as 'art' somehow manifests a self-congratulatory history of the achievements of the West (Soffer & Conkey 1997:3). Ontologically, 'Palaeolithic art' becomes representations of some transcendent quality that is supposed to have validity of men of all times and places. Because of its transcendent values, the material is classified as belonging to a distinct, aesthetic sphere, which stands beside the more utilitarian artefacts we find in the archaeological record.

Already in 1885, Cartailhac made the distinction between utilised objects, such as tools,

ornaments and weapons, and non-utilised objects, which usually referred to engraved stones and bones. In Leroi-Gourhan's classification of 'Palaeolithic art', a similar distinction is found. Leroi-Gourhan's group of non-utilised objects comprises three sub-groups: statuettes, portable pieces and cave art, which all, as opposed to the utilised objects, were thought of having more or less religious purpose. The magic-religious character of 'Palaeolithic art' has, as we have seen in the previous section, been a recurring subject when explaining 'Palaeolithic art'.

The term 'Palaeolithic art' with its connotations to modern art, has not only resulted in a centrism on particular regions or media, its ontological content has further narrowed our capabilities for uncovering temporal and spatial variation. Instead of determining differences, the transcendental implications have stimulated an emphasis on similarities. Maybe this ontological comprehension, that 'Palaeolithic art' equals art, and opposes utilitarian objects, is the reason why the material, until recently, has not been analysed on the basis of the same methodological constraints that we insist on in our research on archaeological material culture (which equals utilitarian objects). If we believe that also 'Palaeolithic art' has been produced for a variation of reasons and that it has been used for various ends, the relation of artistic objects and context becomes crucial. My suggestion is that if we particularise the terming of the different media, the material will be forced into a relation to context, which further will encourage sensitivity of variation, and not only similarity.

### *3.3.2. From 'Palaeolithic art' to "engraved plaquettes"*

Alternative terms to 'Palaeolithic art' which attempts to avoid the transcendental implications of the old term, have been proposed by several authors. Soffer & Conkey (1997) use the term 'Palaeolithic images' and visual 'imagery', White proposes that we use the term 'representation' (1997) or 'materials of representation' (1992), Davidson (1997) suggests the term 'PEDS', which equates paintings, engravings, drawings and stencils. The way I see it, it is not only the old term's implications regarded function and meaning that is disconcerting, more troublesome do I find the apparent obsession of clustering such a large variety of materials and expressions into one single hamper of 'art'. If we want to start searching for variation, what we do not need is another big basket to put all these media into! Rather we should start treating them as the distinctive and separate categories of material culture they really are. Cave paintings should be

referred to as cave paintings, statuettes as statuettes, sculptured weapons as sculptured weapons, and engraved plaquettes as engraved plaquettes.

In research history, engraved plaquettes have mainly been interpreted as some sort of sub type of cave paintings. But if we look at just a few basic contextual elements of the two, one cannot avoid realising that there is a great difference between them. Firstly, while cave paintings are generally found outside habitation areas, engraved plaquettes are almost consistently found within habitation areas. Secondly, while cave paintings are monumental and visible for thousands of years, engraved plaquettes are only visible during the situation when it is made. Thirdly, while the engraved plaquettes sometimes achieve a practical function through a secondary use, cave paintings remain where they were produced and can not have had any utilitarian purposes.

#### 3.4. SUMMARY

In this chapter I have presented the first theoretic interpretations of what was perceived as 'Palaeolithic art'. The history of research shows that emphasis was put on the 'parietal art', while the less impressive and more anonymous 'portable art', like engraved plaquettes, were overseen or taken as "sketches" or panels for practice, or as a substitute for cave panels in the regions where such locales were lacking. The general view presupposes the 'parietal art' as the original template, while portable pieces, like the engraved plaquettes, represented copies, results of practice or as a scarce substitute. I have argued that a major reason for such a unilateral approach can be subscribed to the immediate definition of this variety of media as 'art'. The immediate connotations to modern fine art thrust on this great variety of media a transcendental meaning validity is supposed to be timeless and independent of context. As a result, all media have been lumped into the same term and become interpreted as one, more than 20 000 year long tradition of 'art making'. Stylistic/regional/ diachronic (?) analyses have showed that there exist great variation both in time and spatial distributions (Bosinski 1982; Soffer 1997). There are also variations in which type of context the various media occur. It is therefore time that this variety is taken serious, and I have stressed that an important step towards doing this, is by leaving the term 'art' in advantage of more specific terms, which emphasise the differences, rather than the similarities and connotations that are promoted through the term 'art'. In my study of the engraved plaquettes from

Gönnersdorf I will be treating them as “engraved plaquettes” rather than ‘art’, and pay attention to the characteristics of this media and the context in which they are found.

CHAPTER 4  
**GÖNNERSDORF**  
FEATURES & FINDS- AND THE NATURAL ENVIRONMENT



#### 4.1. INTRODUCTION

The open-air site Gönnersdorf was discovered and partly destroyed in 1968, during the construction of a cellar for a private house in Feldkirchen-Gönnersdorf. After digging through the pumice, bones and slabs of stones appeared and it became clear that what one was dealing with was a location of the Late Glacial. A few days after the discovery, Dr. Gerhard Bosinski from the University of Cologne was put in charge of further investigations of the site. Two excavation campaigns were conducted the same year, excavating the part called Concentration I (CI). During these two campaigns what we today know from Gönnersdorf as the typical inventory was unearthed: the pulverised red hematite, a fireplace, features from habitation constructions, lithics, statuettes of ivory and antler, engraved slate plaquettes, jet beads, perforated animal teeth and a well preserved faunal record. Based on these finds it was early evident that Gönnersdorf was a site of inter-regional importance. (Bosinski 1979: 18)

The fieldwork and analyses continued, all in all with six campaigns between 1968 and 1976. Then, the Archäologische Denkmalpflege of Koblenz conducted a last campaign during the winter of 1994/1995, in the south-western part of the site. The site was excavated in manners of modern excavation techniques, inspired by the work of André Leroi-Gourhan at Pincenvent (Bosinski 1979: 46), and was a multidisciplinary effort involving palynologists, geologists, palaeontologists and archaeologists. Totally 687 square meters were excavated and five concentrations were documented<sup>14</sup>. The excavation was limited by the location of houses nearby, which explains the odd shape

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<sup>14</sup> Concentration V is a very small concentration that contains the finds from the campaign of 1994/1995 and is not yet published and will therefore not be discussed in this paper.

of the excavated area. The inaccessible areas on private property are preserved for future excavations (Bosinski 1979:14-29).<sup>15</sup>

In this chapter I will give a general outline of the site and its natural environment. I will present the different types of finds and features found at the site in relation to some of the interpretations. In the end of this section I will gather these descriptions in a more holistic interpretation of the four concentrations that are dealt with in this thesis.

## 4.2. THE ENVIRONMENTAL CONTEXT

### 4.2.1. Topography

The Upper Palaeolithic site Gönnersdorf is situated in the Neuwied Basin of Central Rhineland, in the province Rheinland-Pfalz, western Germany (*fig 5*). The topography of the basin has been shaped by tectonic activity and numerous volcanic eruptions



**Fig 5:** The localisation of Gönnersdorf

during the Middle and Upper Palaeolithic, and the *Rheinisches Schiefergebirge*, which is cut by the valleys of Mosel, Rhine and Lahn, dominates the geomorphology. The area is divided in four parts by the large rivers; the mountainous and hilly landscape of Hunsrück, Eifel, Taunus and Westerwald, where Gönnersdorf is located between the rivers Rhine, Lahn and Siege. The highest areas in Hunsrück reach about 800 m above sea level. The highland is rich in snow during the winters and has cool summers, while the valleys of the Rhine and Mosel have a very good climate, with warm winters and a long season for growth. The mid temperature in Koblenz

<sup>15</sup> For a more detailed description of the excavation history see Bosinski 1979:14-29

is 18, 5 C in July and 1, 9 C in January.

The site Gönnersdorf is situated at the right bank of the Rhine, at the north-western exit of the Neuwied Basin, about 15 km northwest of the city Koblenz and immediately east of the Andernacher Pforte (Andernach Gate) (fig 6). The site was found on a spur, of a triangular piece of land, which is 3 km long and 1 km wide (Roveland 1990:17).



**Fig 6.** Topography of the Neuwied Basin. The site Gönnersdorf is marked by circle. In the upper right corner, the remains of the Andernach Gate (Bosinski 1979: Tafel 5)

Directly west of the settlement, was a small stream running through a narrow, steep valley and draining into the Rhine. The valley both protected the people and supplied them with the slate that was used for pavement in the settlement area (Roveland 1990:17). Towards northwest, the site was protected by the slope of the high terrace, and was easily accessible only from the east (Roveland 1990:18). The settlement is strategically placed, oriented towards south and is exposed to the full trajectory of the sun and has an excellent view over the Neuwied Basin (Bosinski 1995:906)

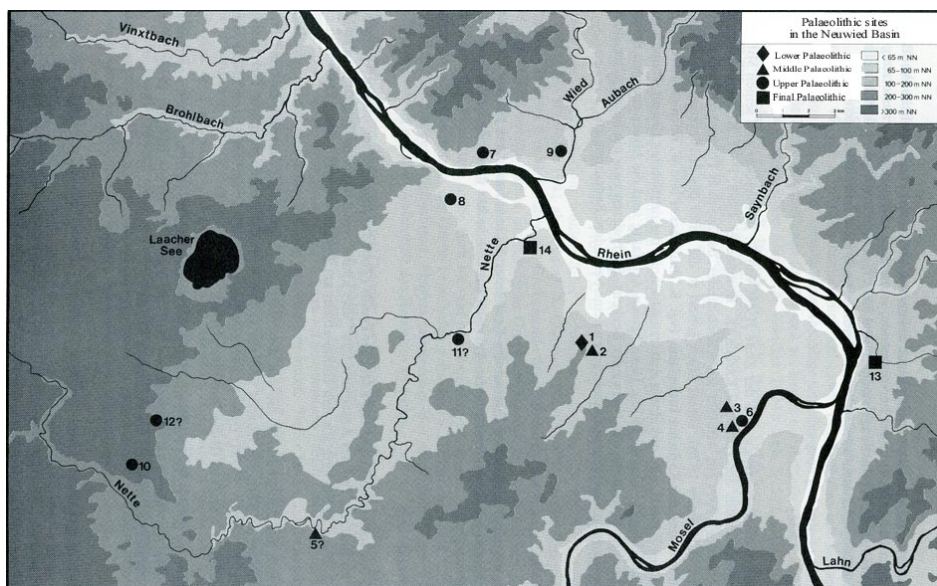
The settlement structures were buried by pumice after the last large eruption from the Laacher See Volcano (fig 7), located 11 km west of Gönnersdorf, at the middle of the Allerød interstadial, about 10 900 cal BC<sup>16</sup>. Due to this thick cover of pumice, the remains at the site are well preserved.

Although the settlement remains were protected by the cover of pumice, the material has still been affected by different taphonomic processes such as freezing and thawing action and bioturbation. These processes have caused the artefacts and ecofacts vertical migrations and may also be the cause of the breakage of many of the slate plaquettes. Because the site is placed on a middle terrace, with both down slope movements and

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<sup>16</sup> Personal communication Baales

sliding through solifluctuations from the high terrace we must also assume that material have both been moved away from the site, as well as been added to it. We should also keep in mind the time length existing between the times the site was settled until it was sealed by the pumice. (Roveland 1990:19)



**Fig 7.** The Neuwied Basin with the Laacher See and markings of Palaeolithic sites. 1) Kärlich horizon H, 2) Kärlich horizons Ja and Jb, 3) Metternich (Grube Weglau-Bassisschicht, 5) Polch, 6) Metternich (Grube Weglau), 7) Gönnersdorf, 8) Andernach - Martinsberg, 9) Irlich, 10) Mayen, 11) Rauschermühle, 12) Kottenheim, 13) Urbar, 14) Weissenthurm. (Bosinski 1979:5)

#### 4.2.2. Dating evidence

The Magdalenian horizon at Gönnersdorf is located between two volcanic layers, the Eltville Tuff horizon that was deposited during the Würmian Pleniglacial, about 20,000 years BP, and the Laacher See Tuff that was deposited during the middle of the Allerød interstadial, about 10,900 cal BC<sup>17</sup>. Above the Eltville Tuff horizon, the loess deposition was interrupted by the formation of a weakly developed soil (Soil III of the Würmian loess complex) of para-rendzia type, and below the Laacher See Tuff was another soil of a para-rendzia type that was formed during the early Allerød times. The settlement horizon lies between these soils. Thus, stratigraphically the settlement horizon must be younger than the Eltville Tuff Horizon and Soil III of the Würmian loess complex and older than the Early Allerød soil. (Brunnacker 1978: 246-47)

Traditionally the Magdalenian horizon at Gönnersdorf has been assigned to the end of

<sup>17</sup> Pers.comm. Baales



the Bølling interstadial, due to thermophilous elements in the pollen spectrum (Arl. Leroi-Gourhan 1978) that were supported by conventional radiocarbon dates on bulked bone of 12,380 (Ly-786) and 12,660 BP (Ly-1172) (Brunnacker (1978:247). None of the dating of molluscs (KN-1979 and KN-1980) was included in Brunnacker's publication. The younger Dryas dating (KN-1979) to ca 10,467 cal BC must be considered impossible if the eruption of the Laacher See volcano actually appeared about 10,900 cal BC. The Ly-1173 dating was neither approved, due to the problems related to conventional dating, as it had a derivation of 1300 years.

ID	Concentration	Description of sample	Dating in 14C BP
KN- 1979	CI?	Untreated molluscs from above Magdalenian horizon	10,540±210
Ly-1173	CI?	Bulked bone, collagen	11,100±650
OxA-2089	CII	Mammoth ivory, low collagen	11,830±110
Ly-768	CI?	Bulked bone, collagen	12,380±200
Ly-1172	CI?	Bulked bone, collagen	12,660±370
KN-1980	CI?	Pre-treated molluscs from below Magdalenian horizon	12,910±105
OxA-5728	CI	Bone fragment	12,730±130
OxA-5729	CI	Bone fragment	12,910±130
OxA-5730	CI	Bone fragment	12,910±130

**Fig 8.** Radiocarbon dates from Gönnersdorf. (After Housley *et al* 1997)

Later analyses have showed that the evidence of thermophilous elements was contradicted by the evidence of the mollusc fauna<sup>18</sup>, and new analysis of the thermophilous pollen suggest that the Magdalenian occupation falls before the phase of the large glacial warming (Street 1998: 46). The evidence is supported by new radiocarbon dates (OxA-5728, 5729 and 5730) published by Housley *et al* (1997), suggesting that the age of the Gönnersdorf settlement can be subscribed as far back as ca 12,800/12,900BP<sup>19</sup>, to the final Dryas I. The new dating from Gönnersdorf resemble the dating from the neighbouring site Andernach, and thus demonstrate that the Upper Magdalenian was well established at the north of the Upland zone by ca 13,000 BP (Street 1998:46).

Stylistically, the Gönnersdorf material is correlated with Magdalenian V, due to its resemblance to the Magdalenian of southwest France. This correlation is made on the base of a resemblance in lithic technology (like lacan burins and backed bladelets with

<sup>18</sup> For more information and arguments see Street 1998: 46

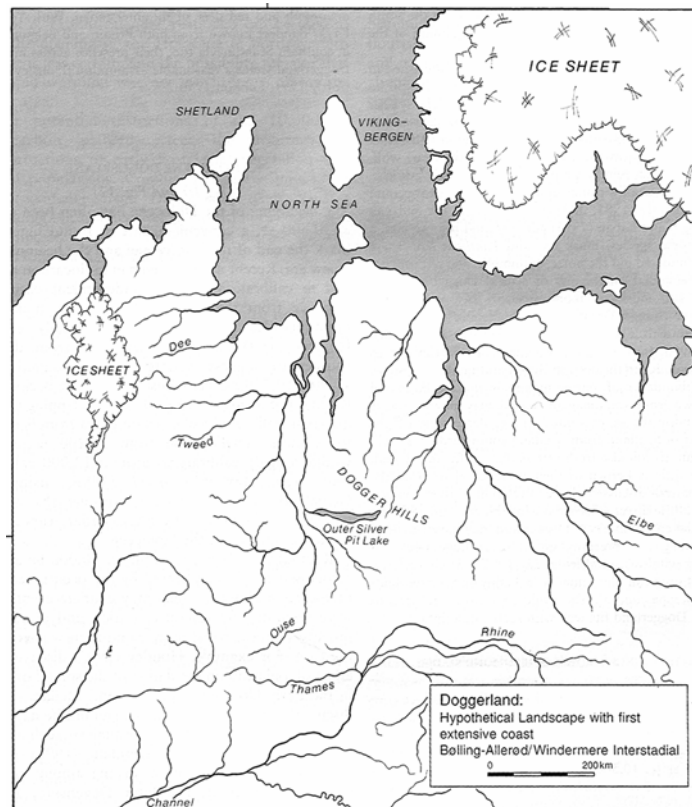
<sup>19</sup> Pers.comm. Baales

truncations) and baguette demi ronde with animal engravings and barbed points<sup>20</sup>. The women representations of the same type as the Gönnersdorf engravings have shown to be common in a wide range of time. This particular type is found in Magdalenian V-VI, as well as early and late Azilien/Federmessergruppen, so that they are not a very specific argument for dating the site (Bosinski 1998:99).

#### 4.2.3. Climate, vegetation and fauna

The early Late Glacial, which dates to ca 15.000 to 11.800 BP, was a period of pronounced climatic changes, involving a rather rapid succession of short-lived cold and relatively warm episodes (Rensink 1993: 87). The ice sheet had now withdrawn from the Continent, and now only covered Scandinavia and the northern part of the British Isles. The British Isles were connected to the Continent by land (fig 9) and Gönnersdorf was even more distant from the coast of the North Sea than it is today. At the time Gönnersdorf was ca 450 km from the coast of the North Sea and 800 km from the Atlantic (Serangeli 2001: 125).

Generally we can describe the climate during the Upper Palaeolithic as being very dry, with mild, dry and short summers and cold winters. The general outline of the vegetation development in Central Europe implies an Arctic tundra type of vegetation during Dryas I, with nearly treeless vegetation dominated by grasses and herbs. During Bølling, open tree vegetation evolved, consisting of mainly birch, willow and pine, which during



**Fig 9.** Doggerland at 13 000- 11 000 BP. (Coles 1998: Fig 9)

<sup>20</sup> Pers.comm. Baales

Dryas II changed again to more open vegetation dominated by herbs (Rensink 1993: 91-92).

This of course represents only a general description of the climate. Local variations probably existed, especially in the lower relatively wet areas, while the high plateaus seem to have remained relatively unchanged during the Late Glacial (Rensink 1993:91-92), and it would be preferable to characterise details of climatic succession on a local scale before adapting a global terminology. The best information for dating biostratigraphical zones is obtained from profile sections that cover most of the Late Glacial time span and that contain organic materials in different stratigraphical levels suitable for radiocarbon dating (op cit: 87-88). This is not always possible, and the study of the vegetation at the time of the Magdalenians is particularly problematic in loess areas, like where Gönnersdorf is situated, because of a scarcity of pollen-bearing layers of the Late Glacial age (op cit: 90). However, some botanical remains were rescued during the excavations of Gönnersdorf, and they all support the outline given above, as a landscape with the characteristics of «...eine grasreiche Lößsteppe mit vereinzelt und vor allem an geschützten Stellen und in den Flusstälern wachsenden Sträuchern und Bäumen» (Bosinski 1971: 12).

The Late Glacial large mammal fauna of the Neuwied Basin is dominated by species typical of open, continental to arctic conditions, which fit well to the vegetation and climatic conditions suggested above (Street 1998: 46-47). Remains from wild horse dominate the assemblage, and is common in all the concentrations of both Gönnersdorf and Andernach. Reindeer is also commonly represented, mostly by antlers, which probably was an important raw material for the inhabitants of the site. Another well-represented animal is the arctic fox, which have been suggested hunted for its fur rather than for its meat (Bosinski 1971:11). These three species dominate the faunal assemblage. In addition, various species of mammals, rodents, birds and fish were present in the assemblage (appendix 1).

#### 4.3. FEATURES AND FINDS

During the excavation campaigns, an enormous amount of cultural material and features were found. In this section I will give a description of these finds, with an emphasis on the plaquettes art. A section 4.4 will follow this section, which gathers the different

finds and features under an interpretation of the four concentrations.

#### *4.3.1. Features*

The most dominating feature of the site is the pavement, which covered large parts of the settlement surface. The pavement consisted of plaquettes of stone, mostly slate, of small (smaller than 10 cm in diameter) to medium (up to 30 cm in diameter) size, though really large plaquettes were also present. Generally the plaquettes have been broken at the site, and patterns of preparation of the edges have been detected (Bosinski 1979:100ff). The slate was extracted nearby, within a radius of 50 to 100 metres (op cit: 92). In addition to the plaquettes of slate, the pavement was also made up by large slabs of Quartz and quartz it and some plaquettes were of basalt lava. The transportation of the stones for the pavement must have required an intense effort. In CIII, for instance, these stones constituted a mass of more than 1000 kilos, which suggests that this was not a short-time settlement (Stapert & Terberger 1989: 2).

In connection to the plaquette horizon a layer of red sediment (1 mm to 5 cm thick) was recovered (Bosinski 1979:60). The red colouration was identified as pulverised hematite, and was documented in three of the four concentrations, and only in connection to the house constructions. In CII and III it only appeared in pits and under large stones and bones, while in CI also detached flakes of the red sediment were substantiated.

The four features interpreted as house constructions, were placed on a slope of the middle terrace, and were partly dug into the ground to gain a horizontal living surface (Bosinski 1988?). They consisted of rings of pits, interpreted as post holes, as well as the red colouration of hematite, which was concentrated within the features of houses, especially in pits and under large stones (Bosinski 1979). The houses were round with a diameter of approximately 6-8 meters and the floors were paved with plaquettes of slate, many of them engraved (Bosinski 1988:377). The middle post was placed in an especially deep pit or directly on the ground. Bosinski (ibid) believes that, animal hides, and most likely hides from horses covered the wooden frame (fig 10). If horses were used, approximately 40 hides would have been needed. In the centre of the house, next to the central post of the house construction was a fireplace, consisting of a pit that could be covered by stone slabs. In connection to the fireplace in CI, a mammoth thigh

was placed beside the fireplace as a part of a grill construction. In addition to the postholes other pits were also found, which functions are not always clear, but might have been used for cocking or storage or as containers (Stapert & Terberger 1989: 5). The main entrance was to the southeast and opened downwards. There was also a second wall opening on the weather side in the west. The function of this opening is thought being to force smoke out through the ridge hole (Bosinski 1988: 377). The houses of Gönnersdorf are proposed to show similarities with the Siberian jaranga



**Fig. 10.** *Reconstruction of house and tent in CI.*  
(Bosinski 1979: Tafel 18)

houses (Bosinski 1979: 189ff). Because the houses seem to have been large and heavy constructions, Bosinski suggested them been repeatedly settled for longer periods of time (Bosinski 1988?). Besides indoor fireplaces, several hearths were also recovered in the outdoor area. These will be described in section 3.4 under the description and interpretations of the concentrations.

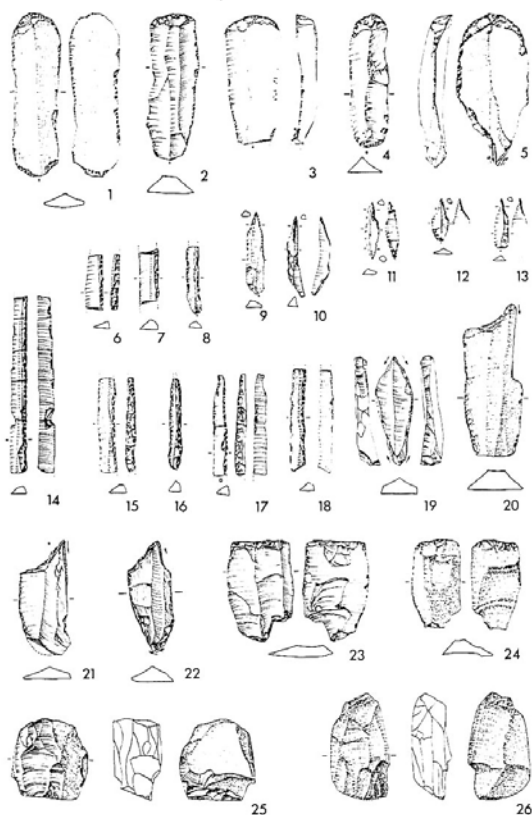
In addition to the houses, there were also two features interpreted as a tent rings (Bosinski 1979: 187, Terberger 1988: 141). The tent in CIV was about 5-5.5 m in diameter and contained a fireplace, while the tent in CI was about 2.5 m in diameter and had no fireplace. Common for both tents was that neither pits nor red colouration was identified. Bosinski (1981:54) has suggested a reconstruction similar to the Cumi<sup>21</sup>, where the stones probably served to fix a tent wall. Terberger (1988: 149) has though noted that the ring of stones could also have served to partition off the inner room of the tent, as we know from ethnographic documentation on Eskimos.

#### 4.3.2. *Lithic artefacts*

The most common find-type at Gönnersdorf is thus stone tools and debris from stone tool production. The analyses on the lithics from Gönnersdorf by Franken and Veil

<sup>21</sup> This form of tent, with a floor of about 13-14 sq m, a fireplace in the entrance zone and about 8-9 plaquettes of stone that fixed the tent wall, has been suggested for tent rings at Mal'ta in Siberia and Pincenvent in the Paris Basin (Terberger 1988: 148)

(1983) and S. Eickhoff (1989), registered more than 50 000 lithic artefacts greater than 1 cm in dimension, of these about 5000 represents retouched tools. Partly the lithics were made of regional raw materials, like tertiary quartzite and siliceous schist and partly of exogenous materials like «Baltic» or Nordic flint, (closest source by Duisburg in Lower Rhine, more than 100 km away) and western European flint from the Maas district (more than 75 km away) Bosinski 1975:46).

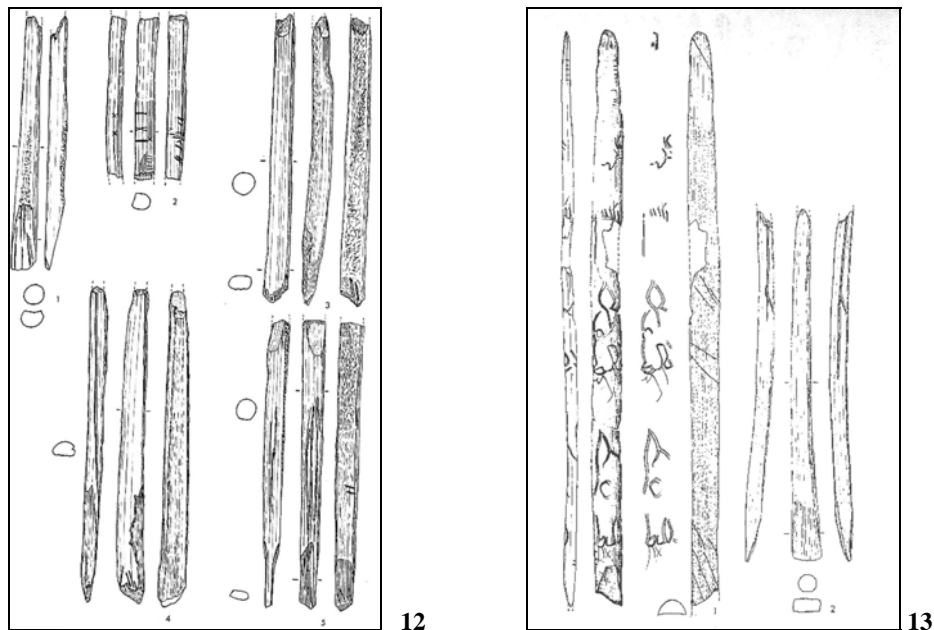


**Fig 11:** Typical stone tools from Gönnersdorf (1-5 scrapers, 6-8 & 14-18 backed bladelets, 9-13 drills, 19-22 burins, 23-24 "Ausgesplitterte Stücke", 25-26 cores) (Bosinski 1975: 45)

The lithic tool-types from Gönnersdorf are much standardised. The typical forms are burins on truncations, including the lacam type, dihedral burins, end scrapers on blades and many backed bladelets (fig 11)). Numerous small borers and splintered pieces were also found. As the houses seem to be repeatedly used, it has been difficult to separate activity zones. The long use of the houses may also have resulted in a mixing of the lithics. Some of the lithic tool types have been correlated to Magdalenian V due to its resemblance to the Magdalenian of the southwest France.

#### 4.3.3. Tools of bone, antler and ivory

Bone, antler and ivory were also used as a raw material for tools, but are not so commonly found as lithics. Shed reindeer antler, and probably also mammoth tusks were collected and brought to the settlement to be worked (Bosinski 1988:379-380). There are several examples of groove-and-splinter technique, and for the ivory we have examples of a technique that resulted in straight splinters in spite of the curved tusk. Points made of antler and ivory are well represented at Gönnersdorf (fig 12), while no points of bones are found (Terberger 1992:129). Some ivory points are larger than the other and are suggested being used in hunt on larger mammals (Terberger 1992:129). Harpoons are only represented by one single barb (Bosinski 1970:25). More common are short pieces of antler which at one or both ends are cut and then broken (groove and splinter technique?). These pieces are probably rest products from the production of points (Bosinski 1970:25-26). Needles (appendix 3.4) made from bone are the most common tool type made from organic materials found at Gönnersdorf (Terberger 1992:129-130). Hooks are present, but rare (Terberger 1992:129). The most impressive piece made of antler is a 24 cm long baguette demi-ronde (fig 13) with engravings of the head of a cervine and possibly also a bear (Bosinski 1970:25).

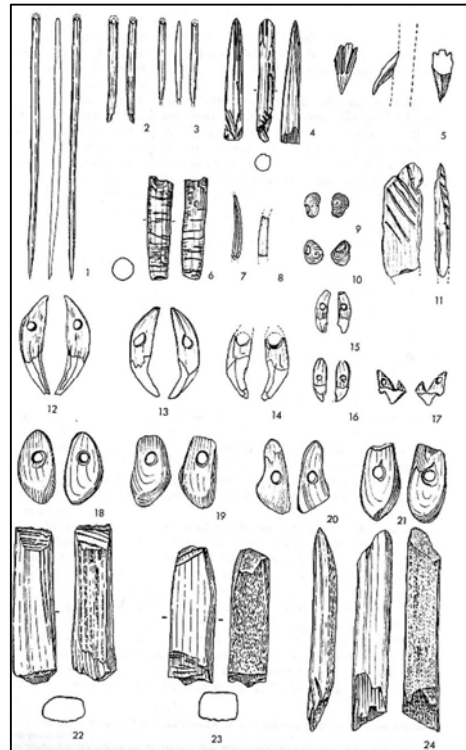


**Fig 12:** Projectiles of ivory and antler from Gönnersdorf (Bosinski 1970: 28).

**Fig 13:** 1. Baguette demi-ronde from Gönnersdorf, 2 Projectiles of bone from Gönnersdorf (Bosinski 1970: 27)

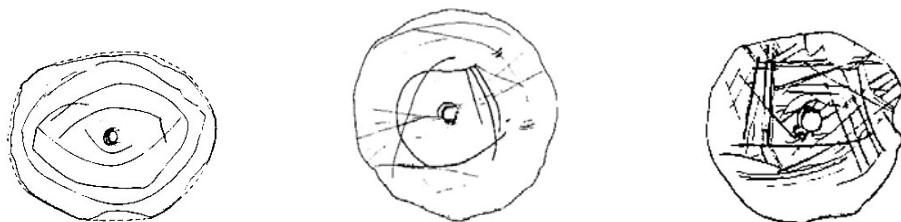
#### 4.3.4. Personal ornaments and rondelles

Under the category of personal ornaments different materials have been used. Beads of jet, teeth, hematite (Terberger 1992: 130) and fossil bones were found, and the production of jet beads at the site is demonstrated by the presence of half-finished specimens (Bosinski 1988:381). A necklace with ca 30 jet beads and perforated fox and deer teeth were found in a pit (Bosinski 1988:381). Perforated teeth (fig 14)) and snail shells from Tertiary deposits and from the Mediterranean occurs at the site, which is quite common in the Magdalenian period (Bosinski 1988:381). The function of this small art is not clear; it may have functioned as pure ornamentation (jewellery) or as personal totems for medical purposes.



**Fig 14:** 1-3 Needles of bone, 4 point of bone, 5 barb from a harpoon, 6 artifact of ivory, 7-8 teeth, 12-17 perforated teeth of fox, 18-21 perforated teeth of "Hirsch", 22-24 cut and splintered pieces of antler (Bosinski 1970: 29)

An unresolved mystery is the «Rondelles» (fig 15). They are perforated slate discs and are very numerous at the site, about 400 are found, and some of them are engraved. These are not interpreted as jewellery, but are thought having some sort of a function (Bosinski 1995:910). An overview on this material is given by H. Bosinski (1977), while the further analysis on the subject remains to be done.

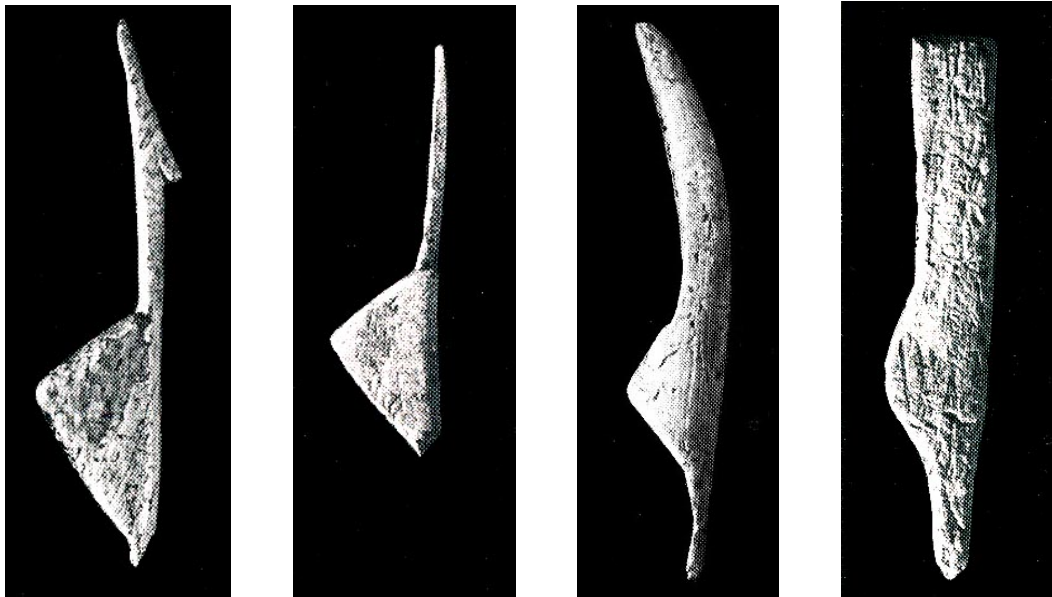


**Fig 15:** Rondelles from Gönnersdorf (Bosinski 1975: 47)



#### 4.3.5. Figurine statuettes

Figurines are represented both through statuettes (fig 16) made of antler, ivory and slate, and engravings on slate plaquettes. The figurines, both as statuettes and engravings, show the same schematic style, only the torso is represented, and always from the side. Parallels have been drawn to Late Upper Palaeolithic finds, especially from central and eastern Europe<sup>22</sup>. The figurine statuettes seem to have been bound with a much greater investment of time and effort than the rapid engravings on slate, and Bosinski (1991: 58) has proposed that the statuettes probably had a greater significance on the long term, than the engraved figurines. At Gönnersdorf there were found twelve complete or fragmentary figurines of ivory and antler (Bosinski 1991:58), and three figurines made of slate (Terberger 1992:133).



**Fig16:** *Figurines of bone, antler and ivory from Gönnersdorf (Bosinski 1981: Tafel 56)*

The better preserved figurines of ivory and antler were found in pits. This is also the fact for several other sites, and has led to the belief that such figurines were intentionally deposited in pits. Still, Bosinski (Bosinski 1991:61-62) claims that at Gönnersdorf this is somewhat different. The figurines were only found in those pits which also contained large amounts of stone artefacts, bone fragments and other settlement debris. Since these artefacts and bones certainly are garbage, the figurines

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<sup>22</sup> Figurines of similar style are for example found at Nebra (Saxon-Anhalt) and Oelknitz (Thuringia), which sites also demonstrate equally complex settlement systems (Bosinski 1991: 64).

simply found their way into the pits along with other waste! Interpretations of their function, together with the engraved figurines, have been correlated to the complexity of the settlement system. Man magazine theories that interpret female representations as lust objects for men, are rejected (Bosinski & Fischer 1974:119). Instead, focus has been directed to the (possibly) particular and important role of women at the site: «*Im Zusammenhang mit der hervorgehobenen Bedeutung der Frau in dieser Gemeinschaft kann daran gedacht werden, ob es sich bei der hier zusammenlebenden Gruppe vielleicht um eine mutterrechtlich organisierte Sippe handelte*» (ibid).

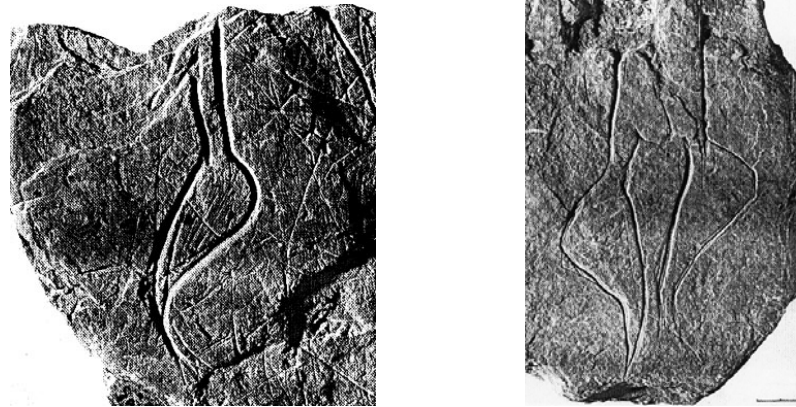
#### 4.3.6. Engraved slate plaquettes

The most numerous art form at Gönnersdorf, are the engraved slate plaquettes, and these come in four different categories of motives: female figures, animals, anthropomorphic motives and abstract symbols. Most of the engraved slate plaquettes are used as pavement within the living area. Of the amount of plaquettes found at the site, only 9 percent were engraved, which makes about 500 plaquettes. Several of the engraved plaquettes were engraved over and over again. The slate could be collected in the region, about 50-100 meters away from the site across the small ravine to the west of the site. The slate varied in quality and colour. Bosinski maintains that the slate was brought to the site initially to function as a pavement rather than as drawing surfaces, this because the inhabitants had chosen to use schist that had fallen from an outcropping rather than water-worn, and more suitable, schist from the nearby Rhine. (Roveland 1990:28)

Experiments with different tools have revealed that burins probably were used for engraving the plaquettes (Bosinski & Fischer 1980:3-4). The thin lines of the engravings were highly visible as long as the white dust after the production lay inside the incising. After washing the plaquette properly, the engraving was almost not visible anymore, and if a new engraving was made on top of the first, the impression was that the new engraving was made on a blank plaquette with no other depictions on it. Without the white dust, the engravings are only visible when light from the side casts shadows inside the incising. Even then they are hard to detect, because most of the engravings are so thin (normally with a depth between 0,05 and 0,2 mm). Eventually purposely made superposition on the plaquettes, would thus not have the same symbolic effect as superimposed paintings, where the old painting would still be visible under the

new.

This form of engraving slate plaquettes has many parallels elsewhere. Such engravings are known from the whole period of the Magdalenians and from different areas, but first and foremost southern France. Good examples are La Marche and Limeuil, both located in southern France, where a large number of engraved plaquettes were discovered (Bosinski 1971:25). When it comes to the stylistic correlations I will discuss these under each section of the different motives.



*Fig 17: Figurines engraved on slate plaquettes, Gönnersdorf. (Bosinski 1981: Tafel 53-55)*

The most common motif depicted at Gönnersdorf is the female representations. There are about 300 representations of female humans from Gönnersdorf (Bosinski 1991: 51). All the engraved figurines are depicted strictly in profile and, with few exceptions, executed purely in outline (fig 17)). The majority (overwhelming 75%) faces to the right. By stylistic analyses, Bosinski (1991) has suggested that there exists a continuous transition between the different stages of abbreviation of the female engravings. The depictions in Gönnersdorf are according to Bosinski, produced at the same time; though the styles of the representations are very diverse (1991:53-54). Most of the depicted figurines appear in compositions that include several figures, whereas the largest includes 9 figures on one plaquette (1991:54). The many female figurine depictions are often arranged in something, which is interpreted as dancing scenes. While animal depictions are very naturalistic and include a lot of details, the female figure depictions are very schematic, without head and feet. Their buttocks are pronounced and this is typical for the Magdalenian style and period. There are also other depictions connected with sex and gender, like depictions of vulva and one depiction of vulva and phallus

combined. (Bosinski 1995:909)

Animals are also represented with numerous depictions and these are, unlike the female figurines, very naturalistic, and are in some cases also very detailed. The animals depicted are mostly the same as those represented among the faunal remains (appendix 1). But as we will see below, the frequency of the different animals as engravings on the plaquettes is not representative for the frequency of the same animals among the faunal remains.

Mammoth (appendix 5.1), which is not largely represented in the faunal material, is actually one of the most frequently depicted animals on the plaquettes (Bosinski 1975:51). There are identified 61 mammoth engravings on 46 plaquettes (Bosinski & Fischer 1980:133). Faunally, the animal is represented by two tusks, one femur and one large piece of a long bone (Bosinski 1971:17). The animals are seen from the side so that it is the silhouette that is depicted. Many of the depictions of mammoths at Gönnersdorf show the entire body of the animal, although some only show the head (Bosinski 1970:34). The mammoths seem to be standing still, and are not recognised in any sorts of scenery (Bosinski 1975: 51). Surprisingly only a few of the depictions of the mammoths show the tusk, and when it is engraved it is often minimised (Bosinski 1971: 16).



*Fig 18: Engravings of mammoth on slate plaquettes from Gönnersdorf (Bosinski 1981: Tafel 50)*

Mammoth depictions are known from at least 64 sites in Europe, represented on cave walls, plaquettes, statuettes and also a few on weapon (Bosinski & Fischer 1980:60). Among the sites with most numerous representations of the animal are Rouffignac, Gönnersdorf, Peche-Merle and Font-de-Gaume, but representations of the animal are known from various sites in northern Spain, southern France, Belgium as well as a few sites from Eastern Europe throughout the whole Upper Palaeolithic (Bosinski & Fischer 1980:60).

The most common animal depicted is the wild horse (fig 19), with 74 representations on 61 plaquettes (Bosinski & Fischer 1980:133). The wild horse is also the most common

animal represented in the faunal material, and was probably also a familiar sight in the daily life of the inhabitants of the site (Bosinski 1971: 19). Where the whole body is engraved, the horses look very much alive, as if they are in movement, and the depictions often include many anatomical details (Bosinski 1971:19). Depictions of the head are more common than depictions of the entire animal (Bosinski 1982:41). It is difficult to make any comparisons in style to representations from other sites, as the horse is the most depicted animal throughout the whole Palaeolithic, this resulting in greater variety (Bosinski & Fischer 1980:126).

19b



19a

19c

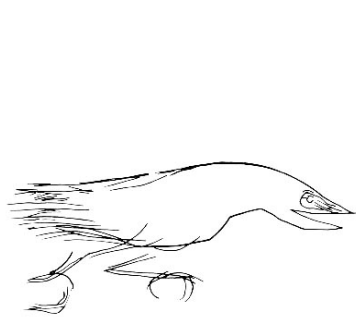
**Fig 19:** *a*) Engravings of horses on slate plaquettes from Gönnersdorf (Bosinski & Fischer 1980: Tafel 67), *b*) Segment from *c*) possible composition with horse(s), birds and an anthropomorphe engraved on a slate plaquette from Gönnersdorf (Bosinski & Fischer 1980: Tafel 96)

All the other animals are much more seldom represented. Woolly rhinoceros (fig 23) is represented with about ten depictions (Bosinski 1982:41) and is also uncommon in the faunal remains from Gönnersdorf (Street 1998:47). Other animals are also represented (fig 21-24) but are far less common, like bovid, deer, reindeer, saiga-antelope, wolf, bear, lion, fish, bird and seal. All of these species are also represented in the faunal material from the site, with notable exception of seal and lion (fig 20) (Bosinski 1995:909). It is interesting to notice that the reindeer, which is very common in the faunal material, hardly occurs among the engravings, and the fox, which also is well

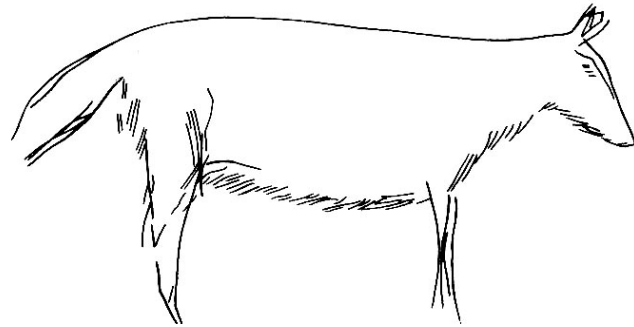
documented among the faunal remains, do not occur at all among the depicted motives (Bosinski 1971:22).

Species	(in latin)	Gönnersdorf concentration				
		I	II	III	IV	V
<i>Proboscidea</i>						
Mammoth	<i>Mammuthus primigenius</i>	x	?	O		
<i>Perissodactyla</i>						
Horse	<i>Equus</i> sp.	X	X	X	X	?
Rhinoceros	<i>Coelodonta antiquitatis</i>		x	?		
<i>Artiodactyla</i>						
Bison	<i>Bison priscus</i>	x	x	?		
Saiga Antelope	<i>Saiga tatarica</i>	x				
Chamois	<i>Rupicapra rupicapra</i>		x	?		
Red deer	<i>Cervus elaphus</i>	O	O	O		x
Reindeer	<i>Rangifer tarandus</i>	X	x	X		
Elk	<i>Alces alces</i>					x
<i>Carnivora</i>						
Wolf	<i>Canis lupus</i>	x	x			
Arctic fox	<i>Alopex lagopus</i>	X	x	x		
Red fox	<i>Vulpes vulpes</i>	x				
<i>Lagomorpha</i>						
Arctic hare	<i>Lepus timidus</i>	x	X	x		
Pika	<i>Ochotona pusilla</i>		x	x		
<i>Rodentia</i>						
Wood mouse	<i>Apodemus</i> sp.	?	x			
Hamster	<i>Phodopus sungorus</i>		x			
Hamster	<i>Cricetus</i> sp.	x	x			
Bank vole	<i>Clethrionomys glareolus</i>	x	x	x	x	x
Collared lemming	<i>Dicrostonyx</i> sp.	x	X	x		
Water vole	<i>Arvicola</i> sp.	X	X	x	x	x
Root vole	<i>Microtus oeconomus</i>	x	x	x		
Voless	<i>Microtus arvalis/agrestis</i>	X	X	X	X	x
Narrow skulled vole	<i>Microtus gregalis</i>	X	X	X		
<i>Aves</i>						
Swan	<i>Cygnus olor / Olor cygnus</i>	x				
Goose	<i>Anser</i> sp.	x				
Ptarmigan/grouse	<i>Lagopus</i> sp.	x	x	x		
Seagull	<i>Larus?</i>	x				
Snowy owl	<i>Nyctea scandiaca</i>	x				
Raven	<i>Corvus corax</i>	x	x			
<i>Pisces</i>						
Salmon/trout	<i>Salmo</i> sp.	x				
Burbot	<i>Lota lota</i>	x				
<i>Phoca</i>						
Seal	<i>Phoca</i> sp.	O	O	o	o	

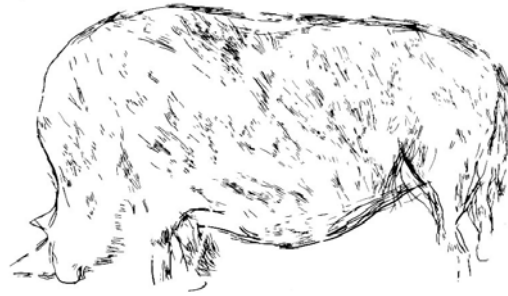
**Fig 20:** Composition of the faunal remains from Gönnersdorf (X) common, (x) present, (O) only represented artistically, (o) possibly represented artistically. (After Street 1998: 47)



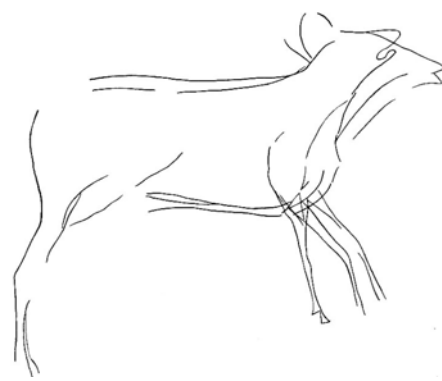
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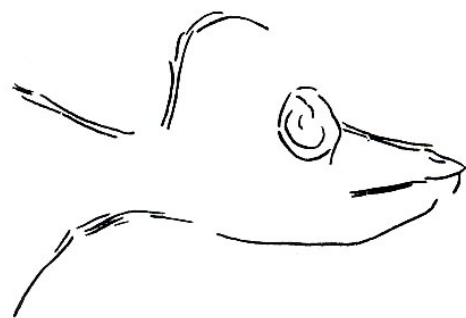
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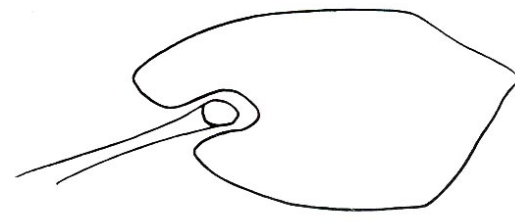
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**Fig 21-26: Animals, anthromorphes and signs from Gönnersdorf**

**Fig 21** Bird (Bosinski 1981: Tafel 66), **Fig 22** Wolf (Bosinski 1981: Tafel 68), **Fig 23** Rhinoceros (Bosinski 1981: Tafel 65), **Fig 24** Stag (Bosinski 1975:55), **Fig 25** Anthromorphe (Bosinski 1981: Tafel 57), **Fig 26** Sign (for fertility?) (Bosinski 1981: Tafel 69)



*Fig 27: Possible composition of "dancing women" and a child (Bosinski et al 2001: Tafel 99: fig 87b)*

Animals of the same species do not often occur on the same plaquettes. There are a few examples where the same species appears on the same plaquette, but more often they occur alone or together with other animals, humans or abstract motives (Bosinski 1971:23). Mostly there does not seem that the depicted figures stand in relation to each other in some sort of a scenery, and those interpreted as such are not really clear (Fischer 1979:243). One example where such a scenery is identified, is the constellation of four women and a child(?) on one plaquette (Fischer 1979:243) which has been interpreted as 'dancing women', maybe doing some kind of a ritual (fig 27). In some of the animal depictions there occur lines that are interpreted as points or spears, which may indicate some sort of a hunting scene (Bosinski 1971:25).

Another attempt at interpreting or identifying scenery is provided by G. Fischer (1979). Although the animals depicted on the plaquette she uses does not belong to the same ecological zones, she stresses that they may belong with each other in a symbolic world, though without going deeper into the issue. At least this is a step towards the right direction. I think lots of opportunities can be won if we dare thinking beyond terms of economy, one-to-one relations and animals just as food.

One type of depictions, which has not been analysed properly, is the abstract or symbolic motives. These motives are represented with geometric figures, circles and above all, lines. Some motives have been suggested to be symbols of fertility. These are depictions reminiscent of vulvas and penises, and at least one depiction with both in action (fig 26). Other lines have been interpreted as points or spears (Bosinski 1971:25).

#### 4.4. THE INTERPRETATION OF CONCENTRATIONS

##### 4.4.1. Concentration I

Concentration I, 96m<sup>2</sup> large, is situated in the south eastern part of the excavation area



(fig 28) and was excavated during the first campaigns in 1968. Together with all the typical finds at Gönnersdorf (the pavement, the red colouration and a large amount of lithics and bones) the concentration contained two features interpreted as remains of settlement constructions. The main concentration, situated in the southwest corner of the building trench<sup>23</sup>, has been interpreted as a house or a dwelling with entrance the south east, while the small circle of stones east of the main concentration has been interpreted as the remains of a tent, with entrance to the west (Bosinski 1970:16). A pavement of stones leads from the entrance of the house to the entrance of the tent, and Bosinski believes that the tent and the house were contemporary.

In the central part of the house was a hearth recovered, together with a mammoth femur interpreted as a part of a barbecue construction (Bosinski 1970:16). In addition to the outer ring of pits correlated to the house construction, were also several small pits recovered, some covered by stone plaquettes, which might have served as storage pit, while things would be deposited in others (Bosinski 1970:16). An activity zone, of lithic tool production, has been detected close to the entrance of the house (Bosinski 1970: 16).

The faunal remains found in this concentration suggest a winter occupation (Bosinski 1995: 907-908). The lithic raw material dominating in this concentration (tertiary quartzite, chalcedony and Baltic flint) suggests that the inhabitants of this concentration migrated from the northwest along the Rhine valley (Bosinski 1995: 908-909). Most of the depicted seals are found within this concentration (Plaquette nr 59, 93, 96, 163, 283, 285, 288 and 289). Most of the mammoth depictions are also found in CI, and horses are also well represented here (Bosinski and Fischer 1980). Several radiocarbon dates are made in this concentration (fig 8). The conventional dates gives the determinations \*10,540±210 BP, \*11,100±650 BP, \*12,380±200 BP, \*12,660±370 BP, \*12,910±105 BP and the AMS dates the determinations \*\*12,730±130 BP, \*\*12,910±130 and \*\*12,790±120 BP (Housley et al 1997:29).<sup>24</sup>

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<sup>23</sup> This feature was partly destroyed in its northeast corner by the building trench.

<sup>24</sup> \*are not certain that they are taken in CI, \*\* the AMS datings are made from pits sealed by the pavement of CI and were located among wet sieving residue which have not been treated with preservatives (Housley *et al*, 1997: 38)

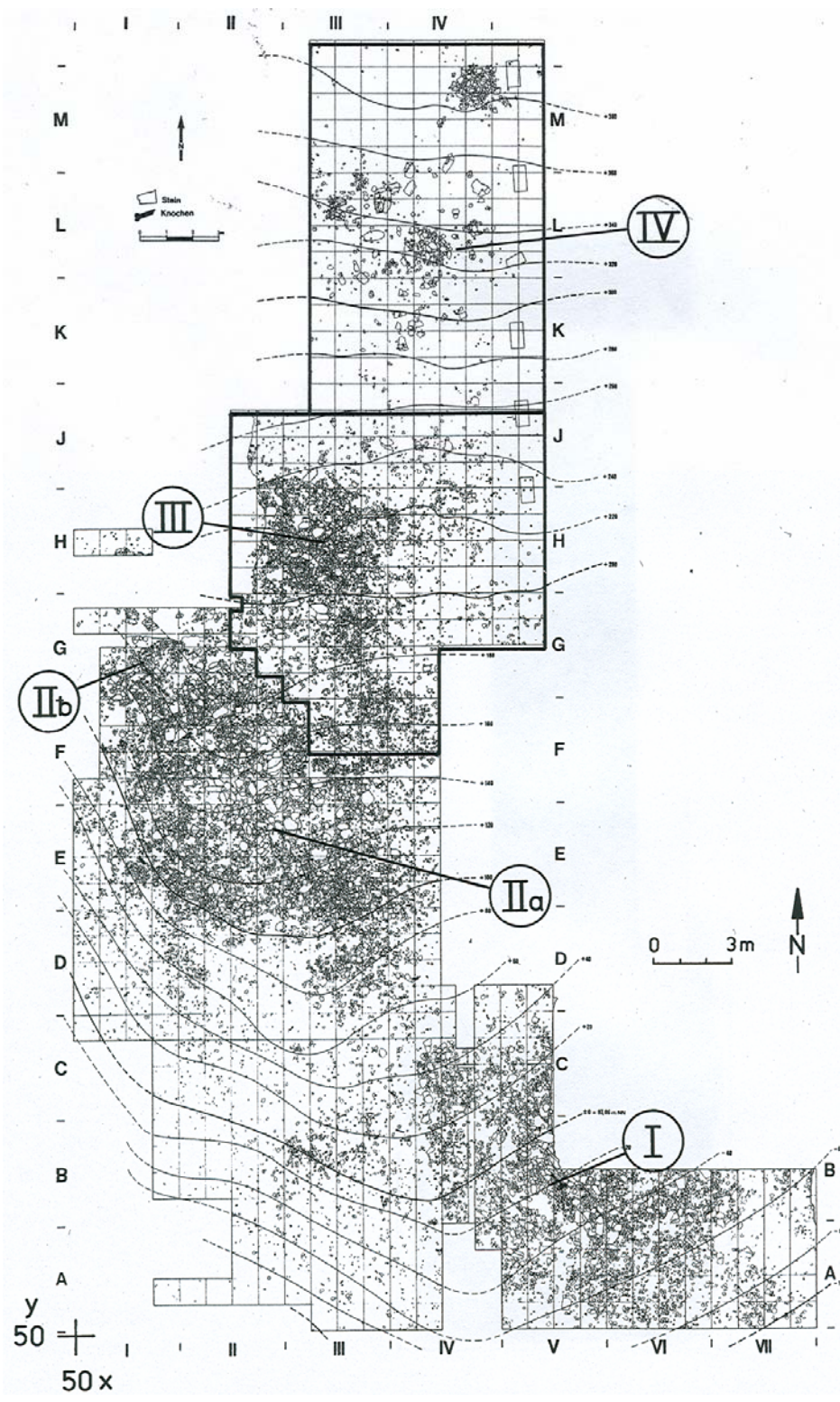


Fig 28: Plaquette surface, Gönnersdorf, with demarcation of the four concentrations (Terberger 1997: Abb 1)

#### 4.4.2. Concentration II

Concentration II is defined as the part northwest of CI and was excavated in 1970-1973 (fig 28). This concentration remains to be analysed. This concentration included two features, CIIa and CIIb, both interpreted as houses or dwellings. CIIa is situated in the middle of the concentration and contains a complete circle of postholes and the red colouration, while CIIb, which lies immediately northwest of CIIa is shown as a semi-circle, cut by the border of the excavation. The faunal assemblage from CII indicates a summer occupation (Bosinski 1995:907-908). The lithic raw material in CII is dominated by Meuse flint. A migration route for the inhabitants of CII is suggested to go from the northwest through the Eifel and the Ardennes to Gönnersdorf (Bosinski 1995:908-909). One conventional radiocarbon date from this concentration has a determination of  $11,830 \pm 110$  BP (fig 8) (Housley et al 1997:29). One depiction of seal is found in this concentration (Plaquette 187). Horse is also well represented (Bosinski and Fischer 1980)

#### 4.4.3. Concentration III

This concentration,  $130 \text{ m}^2$  was excavated in 1974, and is located north to northeast of CII (fig 28). Bosinski (1979) has identified a feature similar to the house in CI, while Terberger stresses that the concentration is more complex and that the premises for interpreting the concentration as the remains of a house, are not the same as they were for CI (Terberger 1992). By examining the stratigraphy of the pits, Terberger postulated the thesis of multiple habitation phases for CIII, and identified 6 features, one possible house or tent, and 5 hearths, in this concentration (Terberger 1992).

The first phase is characterised through tools made of tertiary quartzite, chalcedony, siliceous oolite and North European flint, and there are indications suggesting a contemporaneity with the settlement structures in CI<sup>25</sup>. As most of the features seem to belong to this phase, Terberger (1992:135) has suggested that these remains represent a habitation of longer duration. The faunal remains have suggested a habitation during winter. The possible house structure in CIII is identified through similar attributes as the houses in CI and CII, with the accumulation of bones, lithics, artistic items and plaquettes and slabs of slate, quartzite and quartz, as well as the red colouration and

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<sup>25</sup> Pers. comm.. Terberger

pits. A unique pattern for this feature though, is the accumulation of large stones (blocks and plates). Six of the stones weigh more than 20 kilos; five more than 40 kilos and the largest block of quartzite weights 55 kilos (Terberger 1992: 69). Terberger (1992: 69-70) has suggested that the large stones have been used to sit on, work on or that they have served as a reserve of raw material, as elements of the house construction or even as fortification. A hearth was also recovered in the centre of this house, and some patterns of activities were registered in connection to the hearth. A belt with less finds around the fireplace may be interpreted as a sitting area, while the following rich belt might have been a work- and waste area (Terberger 1992: 135).

Other unique patterns of CIII are the distribution of the red colouration and the pits. In CIII the red colouration is also found scattered outside the main feature and it is not possible to use the colouration as a limiting outline for the house construction. The stratigraphic examination of the 21 pits recovered that only 17 belonged to the first phase of occupation and no outer ring of pits was identified as in CI. Terberger (1992) has proposed that the pits in CIII rather had some sort of connection to activities carried out in this zone. One pit (pit 77) is, due to its large amount of special finds as well as a large number of tools<sup>26</sup>, interpreted as a possible depot connected to some kind of specialised work, maybe the making of clothes. Another pit (pit 83), situated close to the central hearth, contained a large number of backed bladelets, and could be interpreted a result of the preparation of weapons before hunting. Additionally two pits were interpreted as cocking pits.

Two later phases were determined on the basis of the stratigraphic examination of pits, one characterised by West European flint and siliceous schist, and one characterised by the use of siliceous schist and a tool inventory dominated by Rückenmesser (Terberger 1992). Because it was not possible to determine which came second and which came third, the later phases are just defined as Phase IIa and Phase IIb. Phase IIa seems to be connected to a reuse of the central hearth of the main concentration, as well as fireplaces 3 and 4 in the southern part of the concentration, which might open for a connection to CII (op cit: 99, 137). In phase IIb the small Rückenmesser together with burned artefacts of siliceous schist witness of another possible reuse of the central hearth of the

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<sup>26</sup> The pit contained several borers, burins and fragments of needles and of pieces of jet.

main concentration, and a correspondence to fireplace 3 is found as well. It is unclear if both fireplaces were in use at the same time or if they are the remains of two separate visits. Anyhow, Terberger (ibid) has interpreted the distribution of the material as remains of a specialised work-zone, perhaps from arming hunting weapons and that phase IIb was characterised by short visits with special tasks.

#### *4.4.4. Concentration IV*

CIV, 126 m<sup>2</sup>, is the most northern part of the excavated area (fig 28), and was explored partly in 1974 and was completed in 1976. The concentration contained three features; one ring of stones, interpreted as a tent ring with a hearth, one isolated hearth northwest of the tent ring and one unclear hearth west of the tent ring (Terberger 1992: 6).

The main feature, interpreted as a tent ring with a central hearth, was recognised through an almost circular, but not complete, ring of stones, with a diameter of 5-5, 5 m (Terberger 1992:6). There were no pits and no red colouration as we know from CI, II and III (Terberger 1992 :). Immediately west of the fireplace inside the habitation structure was a large slate plaque, which probably served as a foundation for working (Terberger 1992:7). In the centre of the hearth was a large, broken block of basalt, which is suggested to have covered the fireplace to exploit the effect of the heat: «Mit der Abdeckung des Feuers wurde eine Verringerung der Luftzufuhr erreicht, so daß sich die Glut, über längere Zeit, wie z.B. die Nacht, hielt.» (Terberger 1992:8)

Almost no artefacts were found in the northern part of the tent, and this area has been suggested to have been a «Ruhe-Zone» or a sleeping area, while the opposite side of the tent (the southern area) has been interpreted as an activity-zone, because of the distribution of numerous lithic artefacts (Terberger 1992:9). The eastern part of the tent probably served as an area of production of basic forms of lithics (Terberger 1992:9). Because these zones are so clear Terberger finds reasons to believe that the area was inhabited only once in a limited range of time (maybe a few days) and by a small group of people (Terberger 1992: 9). The dominance of backed bladelets in the lithic inventory, supports the theory that these remains represents a short term hunting camp (op cit: 9). The most common raw materials of this concentration are chalcedony, tertiary Quartzite and north European flint.

Northeast of the tent-ring, was another isolated feature, consisting of stones, interpreted as another hearth (Terberger 1992:10). A refitting of the stone tools indicated that the tent and this second hearth were contemporary, though it seemed like this hearth had another function than the one inside the tent. The hearth inside the tent seem to have been related to tool production, while the hearth outside the tent seems to have been used for preparing of food (Terberger 1992:11).

West of the tent-ring is another, less clear, feature which is interpreted as a third, small hearth (Terberger 1992:12). The refitting of the lithics, showed that this feature had 'visits' from the tent-ring in the east, suggesting that this fireplace was used after the tent was inhabited, and that the people who used this third hearth took stones from the tent-ring (Terberger 1992:12). About 1m from the hearth, up to 1 m large slate plaquettes were found, which probably were used as working benches (Terberger 1992: 12). The lithics were mostly made from siliceous schist and several finds of cores in this area indicate that this was a zone for production of stone tools (Terberger 1992: 12).

Just a small amount of bones and teeth were found in this concentration and the analysis of these still remains to be done (Terberger 1988:157). Few 'special' finds were done in this concentration. There were about 20 intentionally engraved slate plaquettes (Terberger 1992: 37). Three plaquettes were engraved with female figurines (Terberger 1992: 37). In addition to these, one possible mammoth and one possible seal were identified (Terberger 1992: 38). In addition to the engraved plaquettes, one complete rondell was found and small pieces of hematite (Terberger 1992:38 and 42). This concentration has no radiocarbon dates, but due to the lithics and the raw materials used, two phases of occupation are suggested for the concentration. There are some indications of refits of lithics and by the composition of raw material indicates that phase I is contemporary with phase I of CIII<sup>27</sup>. The second phase is suggested to be quite younger than the rest of the Gönnersdorf occupation, indicating a settlement from the Final Palaeolithic (Federmesser-complex) (Terberger 1988:157). One possible depiction of seal is found in CIV (Plaquette 284).

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<sup>27</sup> Pers.comm. Terberger

#### 4.5. SUMMARY

The various types of finds and features from Gönnersdorf suggest a complex history of settlement with both habitations of long duration as well as short term visits for special tasks, and a reuse of particular features. Analyses of the faunal remains have indicated different seasons of habitation, with a summer occupation in CII and winter occupations in CI and III. Examinations of lithic raw materials have further indicated different directions for migration routes for the habitants of the four concentrations. CI and III<sup>28</sup> had a dominance of Baltic flint in the lithic inventory, which suggests a connection towards north at least as far as Duisburg. The lithic inventory of CII and III<sup>29</sup> was dominated by West European flint, indicating a connection towards west, to the Maas district.

Distributional analyses of the engraved slate plaquettes (female figurines, horses and mammoths) have revealed that the majority of the depicted plaquettes are situated within the house structures or close to the entrance zone. The majority of the mammoth depictions are found in CI (but are also represented in CII), while horse depictions are common in both CI and II and also occur in CIII. Seal depictions are found in all four concentrations but the majority belongs to CI.

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<sup>28</sup> First phase of occupation

<sup>29</sup> Phase

CHAPTER 5  
**REPRESENTATIONS OF SEALS**  
TRAVELLING SEALS OR HUMAN TRAFFIC?



5.1. INTRODUCTION

The first section of this chapter will address the representations themselves. Here I will give a presentation of the seal depictions from Gönnersdorf, and further discuss the difficulties and criteria in the process of identifying animals in Palaeolithic visual imagery. I will also compare the proposed seal depictions from Gönnersdorf with the other representations of seals from Upper Palaeolithic sites in Europe. Are there any stylistic similarities or differences? On what kind of material do the representations come? Can any compositions be recognised? Are there any patterns for associations between seals and other animals or figures, and what kind of sites do these representations occur on?

The next section concerns the few theories that have been applied to explain the presence of seal depictions. The majority of these theories deal with ethological questions as to where the people may have seen the animal, which exact species are represented. They also involve questions concerning subsistence issues, and the assessment of the significance of marine resources during the Upper Palaeolithic. Although some of these questions are very interesting, and will be discussed in this chapter, I will emphasise that animal depictions cannot and must not be granted the same attributes for providing us information about past ecological realities as faunal remains may do. The seal representations from Gönnersdorf are just what they are; visual representations on slate plaquettes, and not bones. Thus, I will by the end of this chapter argue that we in our effort to understand these representations necessarily will have to go *beyond seals*.



## 5.2. THE DETERMINATION OF ARTISTIC REPRESENTATIONS OF SEALS

### *5.2.1. The process of identifying animal representations in visual imagery*

Before presenting the possible seal depictions from Gönnersdorf it is necessary to stress the many difficulties that concern the identification of animal depictions. Some of the depictions are very naturalistic and detailed, but on the other hand many rather seem like poorly and unfinished scribbling, which is hard to define. At plaquette sites, both perfectly proportioned animals and ones with rough and awkward lines are found together (Clottes 1989: 27). This is also the case for Gönnersdorf. Theories about these differences in ‘quality’ have suggested that the plaquette sites were ‘schools’ or ‘workshops’ for masters and students. As stressed by Clottes (1989: 27), it is not easy to decide which of the indeterminate animals are a result from the lack of skill, and which, are representing a deliberate attempt at an indeterminate form.

Anatomical errors also occur on apparently perfect naturalistic representations. Horses are always drawn too long (Clottes 1989: 27) and at Gönnersdorf we have already seen that mammoths are engraved without tusks, or with minimised tusks (Bosinski 1984:301). We have also seen that different creatures have been combined in the same representation, like the human-animal creature statuette from Hohlestein-Stadel (Dowson & Porr 2001: 169). We do not know what conventions laid behind the ways Palaeolithic people chose to form their representations, and in many cases the conventions may well dominate the representations (Leroi-Gourhan 1965: 153, Clottes 1989: 27). It would seem that these conventions are a result of the Palaeolithic ‘artists’ not only representing the animals as they saw them, but also how they knew them.

A particular problem with the plaquette art is that the plaquettes are often broken and we are left with just a part of the represented animal to base our identification on. Identification of incomplete subjects is a risky task, which has been demonstrated by several examples where subjects have had to be reinterpreted after missing pieces have been found<sup>30</sup>. A broken plaquette from Gönnersdorf showing the lower part of an indeterminate body was for a long time interpreted as the only representation of a man, due to the hairy legs (Bosinski 1982:41). The missing piece has not been found but a reconsideration of the image has opened up for the suggestion that it might be a

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<sup>30</sup> See two examples in Clottes 1989: 31 with imagery from Labastide and Enlène.

representation of a horse<sup>31</sup>. The true answer can not be revealed if the missing piece is never found, and even then it is not certain that the figure can be determined. Many of the plaquettes with possible seal depictions are also broken, contributing to the uncertainty of the determination.

Our identification often starts with the division of the representations into the three main categories- human, animal or sign- but is not always as easy as we might wish. «Prehistoric artists did, on occasion, pursue ambiguity and play with shapes” (Leroi-Gourhan 1965, p 96), so that in certain border-line cases, basic distinctions between animal-human, animal-sign, or human-sign are difficult to establish» (Clottes 1989: 33). As we will see later, some proposed seal depictions may also qualify as human representations. The next step in the process of identifying animal depictions is to determine its species. Where the first step was difficult, step two often becomes even harder. As we already have seen above, attributes are often left out, minimised, maximised or are represented in a twisted perspective. As we do not know the conventions structuring the styles of representing imagery, an identification based solely on ‘true’ zoological criteria can not be done. Some researchers (Bosinski & Bosinski 1991) have tried to determine not only species but also sub-species. My arguments against such approaches will be presented in section 5.3.

With these introductory thoughts concerning the problems of identification in mind<sup>32</sup>, I will move on to present the proposed seal depictions from Gönnersdorf, and then broaden the perspective to proposed seal representations from other Upper Palaeolithic sites in Europe.

### *5.2.1. Seal depictions from Gönnersdorf*

Bosinski and Bosinski (1991) have suggested the possibility of three seal depictions among the figures engraved on plaquettes from Gönnersdorf.<sup>33</sup> Plaquette nr 163 (PI-163) (fig 29) shows a detailed depiction of the complete animal, and is by the authors assumed to be the only unambiguous seal depiction in the material, a recognition that I fully support. The figure shows the silhouette of a massive, streamline shaped animal

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<sup>31</sup> Personal communication Michael Baales

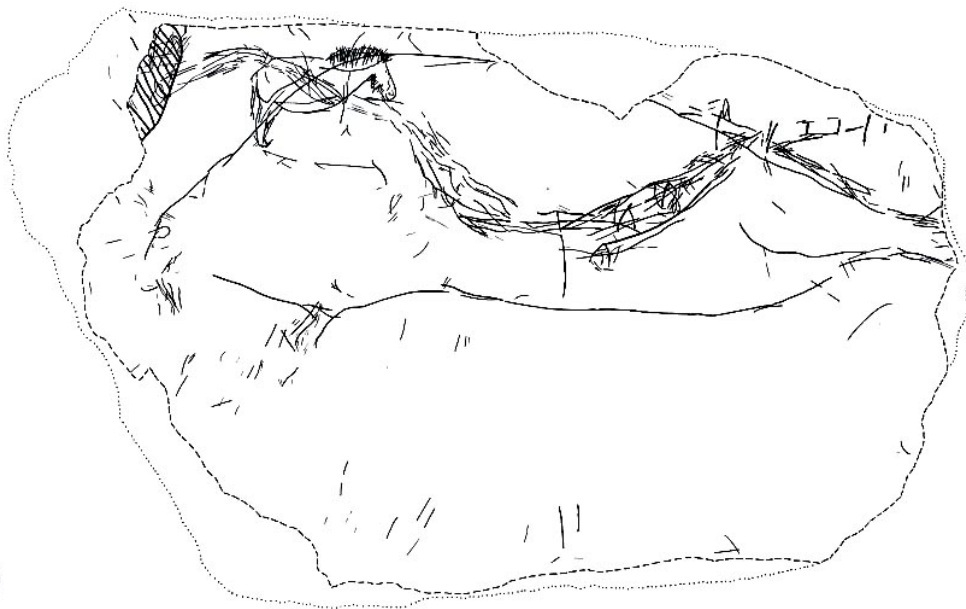
<sup>32</sup> For a more detailed discussion about the problems concerning identification of animal depictions, see Clottes 1989

<sup>33</sup> Description of all possible seal depictions from Gönnersdorf in appendix 8.

with the details of an eye and whiskers as well as flippers and tail, that can not be anything else than a seal.



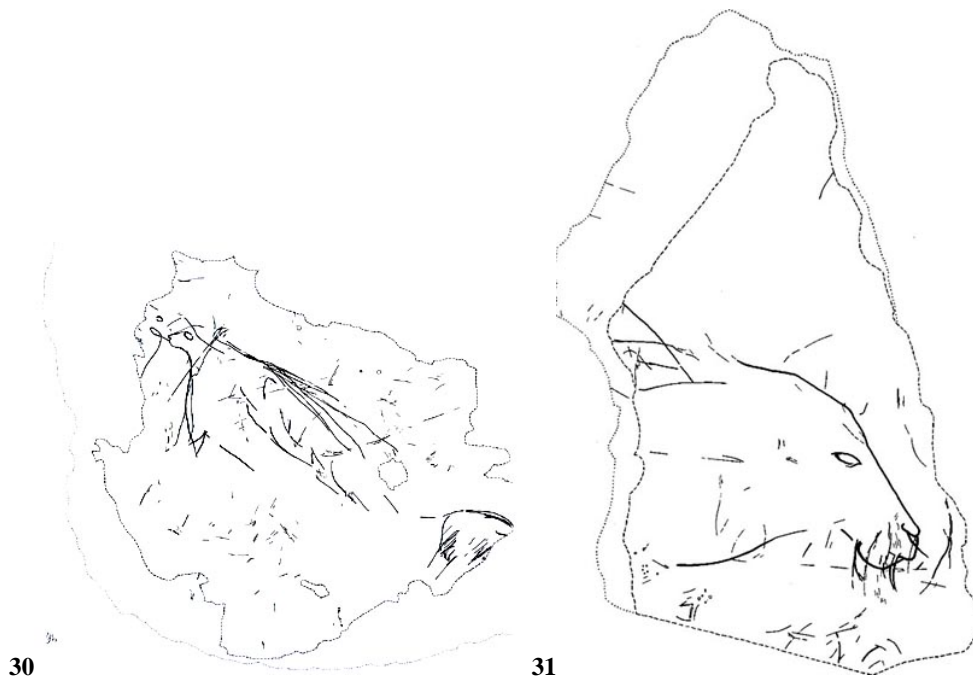
29a



29b

**Fig 29:** A possible representation of a seal, partly overdrawn by a tiny horse at Pl-163. Found within pit inside house structure in CI. Size of the plaquette: 22 x 15 cm. (Drawing: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM)

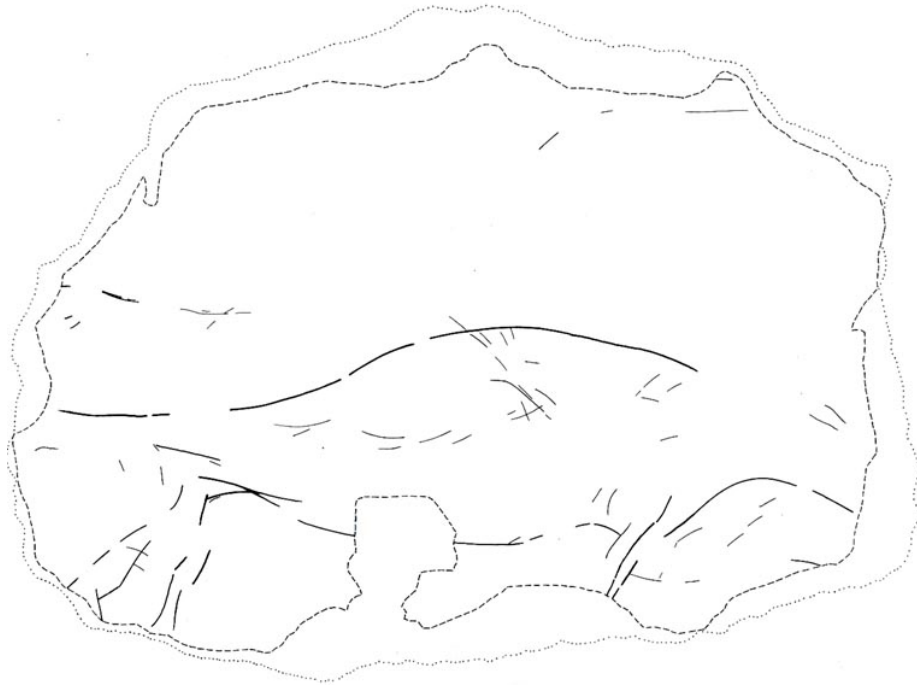
Further possible seal representations are the figures on Pl-59 B (fig 31), with a detailed outline of the head of an animal, and Pl-96 (fig 30), with the outline of the head and upper part of the body of an animal. Although these representations must be considered as indeterminate, I agree with the authors that they possibly are depictions of seals. The head, engraved on Pl-59 B, is also depicted from the side, and shows a narrow face with snout, whiskers and an oval eye, very similar the attributes of a seal. The plaquette seems broken so that parts of the depiction may be lost. The execution of the engravings of both Pl-163 and 59 B seem very precise, while the figure represented on Pl- 96 is of a more sketchy character. This silhouette also has the details of an eye and a flipper, but no whiskers. Even though the whiskers are missing, the attributes of the motif has the typical seal attributes. I can also mention that this representation resembles the proposed seal depiction from the neighbouring site Andernach.



**Fig 30:** Possible representation of a seal and the back of a small mammoth at Pl-96. Found within a pit belonging to the outer ring of pits of house structure in CI. Size of the plaquette: 17 x 17 cm. **Fig 31:** Possible representation of seal at Pl-59b. Found in the centre of the tentring in CI. Size of the plaquette: 24 x 14 cm. (Drawings: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM).

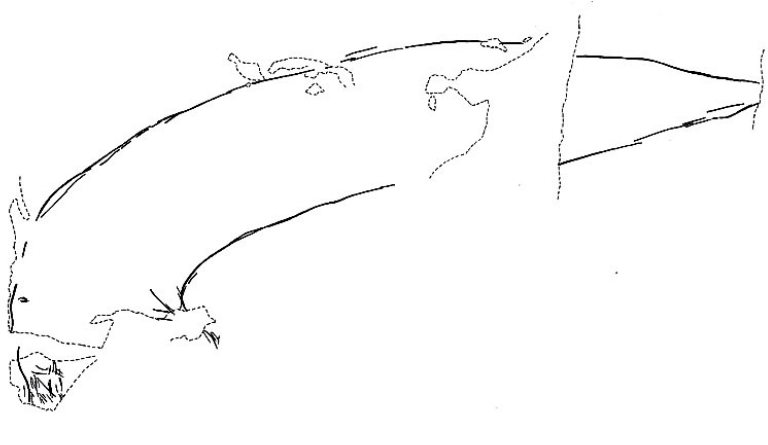
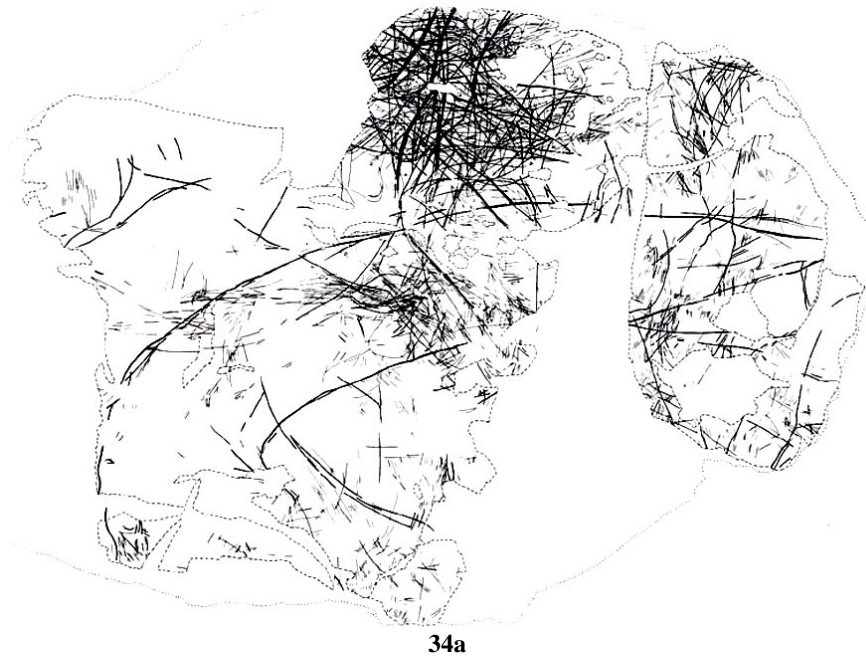
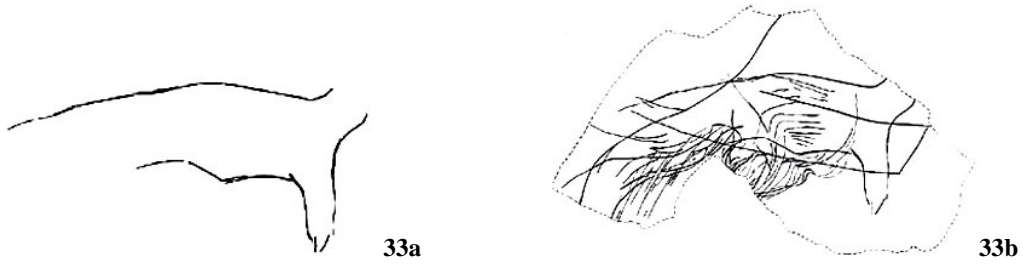
Recently, Serangeli (2001), who also agree with the proposed seal representations above, has suggested that also the figure on Pl-286 (fig 32) also must be considered a possible seal representation. In contrast to the three figures presented above, this shows no head, only the lines of what might be the body of a seal, massive and streamlined as the depiction on Pl-163, and the features of a flipper and the beginning of a neck and a

tail. The lacking of a head can in this case not be explained by breakage, as the plaquette seems complete. The figure on Pl-286 is actually the only possible seal depiction registered in the Palaeolithic European record that has deliberately been represented without the head. The shape of the lines has resemblances to the complete seal on Pl-163, and can thus be considered as another possible representation of the animal.



*Fig 33: Possible representation of a seal at Pl- 286. Found outside of house structures in CIII. Size of the plaquette: 40 x 31 cm. (Drawing: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM).*

In addition to these four proposed representations, I will also suggest that the figures on Pl- 93, 256, 284, 287 and 288 possibly may represent seals. The figure on Pl-93 (fig 33) do like the figure on Pl- 286 show an incomplete body of a possible seal, with a flipper and the beginning of a neck and possibly also a tail. In contrast to the incomplete example on Pl-286, this body does not seem so massive and is not executed with the same precision, but still shows features resembling the body of a seal. The plaquette seems broken so that it is possible that the figure originally was depicted with the head.



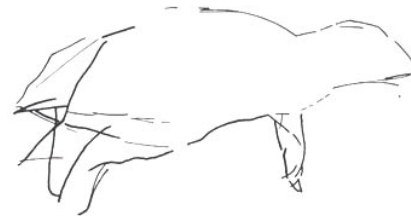
**Fig 33:** Possible representation of a seal at Pl- 93. Found within a pit belonging to the outer ring of pits to the house structure in CI. Size of the plaquette: 16 x 9 cm. **Fig 34:** Possible representation of a seal at Pl-256. Found in southern part of house structure in CIII. Size of the plaquette: 40 x 31 cm. (Drawings: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM)



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**Fig 35:** Possible representation of a seal at Pl- 284. Found between tentring and hearth in CIV. Size of the plaque: 21 x 17 cm. **Fig 36:** Possible representation of a seal at Pl- 287. Found immediately west of house structure in CII. Size of the plaque: 35 x 29 cm. **Fig 38:** Possible representation of a seal at Pl-288. Found outside house structure in CI. Size of the plaque: 15 x 13 cm. (Drawings: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM).

If we look at seal depictions from other sites<sup>34</sup>, we also see that not all representations are made as massive as the examples on Pl-163 and 286. On the very overdrawn Pl-256 (fig 34) one large figure has been separated that may possibly be identified as the body of another seal. This long, torpedo shaped figure shows details of a possible flipper and whiskers. This figure is not so precisely executed as the figure on Pl-163, but still the shape of the figure does resemble the shape of a seal, and I will therefore also include this figure as a possible seal representation. The figure has also some likeness to the seal depictions from Cosquer (fig 41).

Pl-284 (fig 35), another indeterminate, consists only of a curved line that can resemble the silhouette of the head and upper part of the body of a seal. This plaquette also seems to have been broken so that a part of the complete depiction is missing. The depiction shows no details as eyes, whiskers or flippers, but the shape of this figure has resemblances to the shape of the head and upper body of the figure on Pl-96, and I will thus propose it as a possible seal depiction. The engraving on Pl-287 (fig 36) shows the head and neck of another indeterminate animal, detailed with an eye and short whiskers, but no ears. Although we know that various attributes in animal depictions have been minimised, maximised and even excluded, I find the lack of this attribute as a reason to at least open up for the possibility that also the figure on Pl-287 may qualify as a *possible* seal depiction. At last, the figure on Pl-288 (fig 37) shows a rather sketchy silhouette of a complete body that might be a seal. The figure shows no details like eyes or whiskers, but features that can be interpreted as a flipper and a tail are present. The mere shape of the figure resembles, though in a more sketchy execution, the seal depiction from Lachaud (fig 55).

I will on the basis of this argumentation propose the probability of totally nine seal depictions in the Gönnersdorf material. The seal depictions are present in all four concentrations of the site, though the majority (Pl- 59 B, 93, 96, 163 and 288) were found in CI. Uniquely for CI is also that three of the representations were found in pits. Pl-93 and 96 were found in pits belonging to the outer ring of pits of the house structure, and Pl-163 was found in one of the pits in the central part of the structure. The plaquettes were found in the pits together with various amounts of lithics and

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<sup>34</sup> See f.ex. the representations from Lachaud, Cosquer and Duruthy (appendix 10. 2-5, 10 & 13)



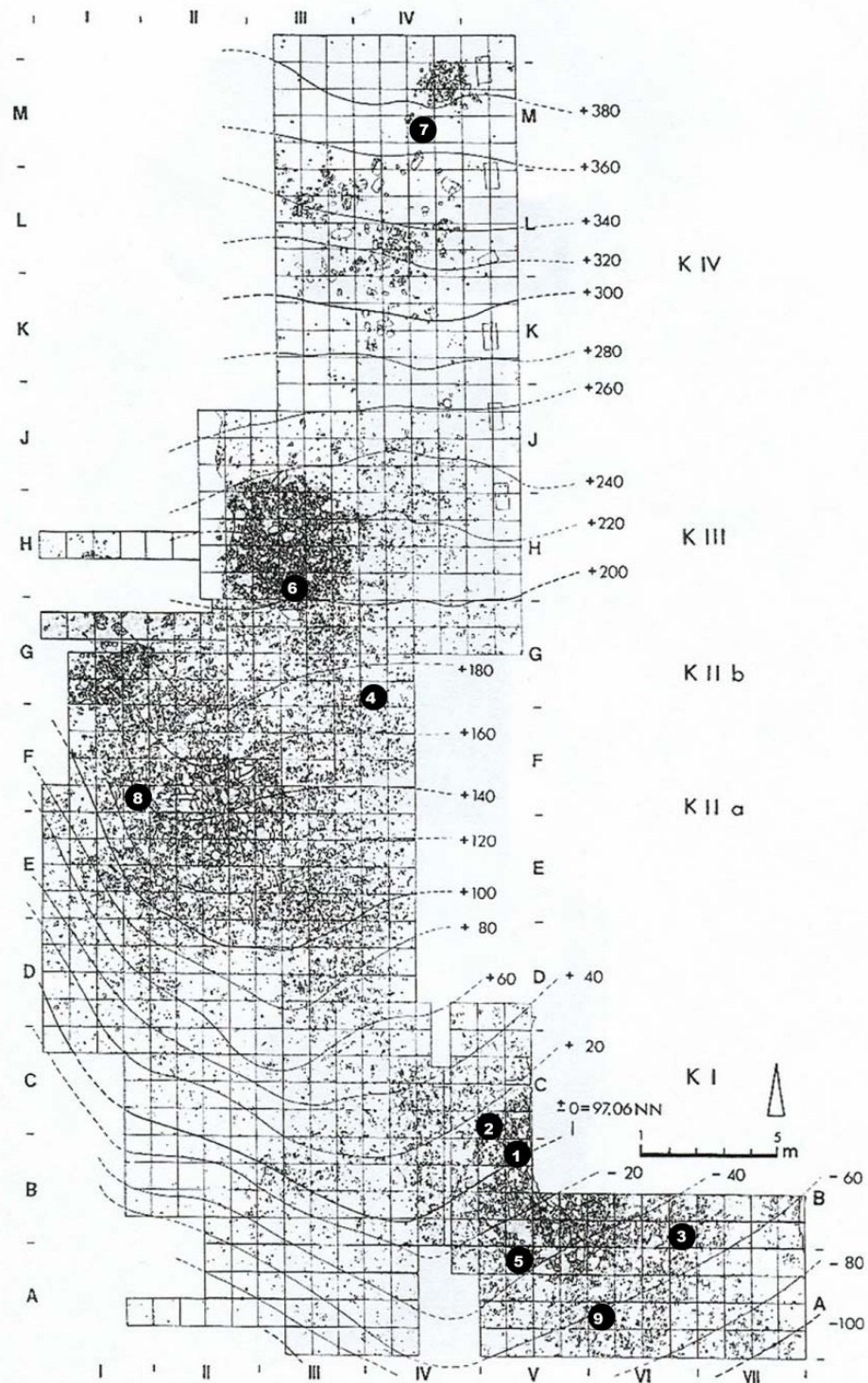
bones. In the pits containing PI-93 and 96, fragments of needles were additionally found (one together with PI-93 and two together with PI-96) (Bosinski 1979: 144). The pit containing PI-163 also included a fragment of a projectile fragment, two dentals and a perforated tooth from fox (ibid). With exception of the perforated tooth, most of the finds seem like rubbish. However, this does not necessarily imply that these objects were anyhow 'out' of the social system or out of human care. Material things do not live a static life, they are constantly 'repositioned and reincorporated in society as they become absorbed in our circumspection' (Thomas 1996: 60). Rubbish can be significant in structuring cosmological divisions between purity and defilement, and defiled substances can perform important roles in society.

Common for the majority of the representations is that they were distributed inside or in the close vicinity of either the house structures (PI-59 B, 93, 96, 163, 287, 286 and 288) or inside (PI-283) or in the close vicinity (PI-284<sup>35</sup>) the tent rings (appendix 7). Only PI-286 is situated more than three metres away from such features. The location of the seal representations thus follows the general pattern of distribution of the engraved plaquettes at the site, being clustered inside or in the close vicinity of the houses structures and the tent rings (fig 38). It would therefore be reasonable to suggest that the depicted plaquettes have a direct connection to the settlement phases of each house/tent.

As we have seen the figures vary in degree of detail and precision. Some show the complete body, while others only show the head, the head and upper part of the body or the body without the head. Eye, whiskers and snout are present on some, while lacking on others. The same applies to flippers and tail. None of the figures seem to be part of any sort of compositions, but two of the representations are drawn on plaquettes with other identifiable figures. The seal representation on PI-163 is partly overdrawn by a tiny horse (fig 29) and the seal depicted on PI-96 share the drawing surface with a small mammoth (fig 30). Common for these two plaquettes is that they were all found within pits connected to the house structure in CI. We shall now take a look on artistic representations of this animal from other European sites and I shall also conduct an evaluation of these compared the seal depictions from Gönnersdorf.

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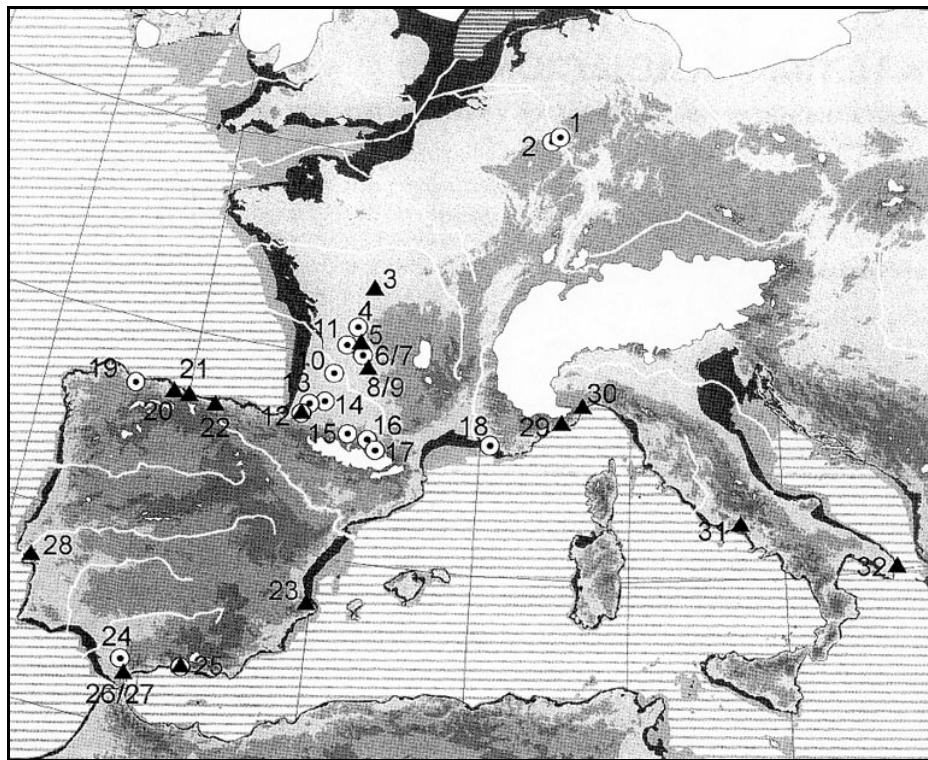
<sup>35</sup> PI-284 is situated in the open air in CIV between the tentring and a hearth.



**Fig 38:** Distribution of plaquettes with seal depictions. 1) Pl-163, 2) Pl-96, 3) Pl-59B, 4) Pl-286, 5) Pl-93, 6) Pl-256, 7) Pl-284, 8) Pl-287, 9) Pl-288

### 5.2.2. Seal depictions from other European Upper Palaeolithic sites

Seals are not very common in the Palaeolithic material from Europe, neither among faunal remains or artistically. Artistic representations of seals have been identified at seventeen sites scattered in France, Spain and Germany (fig 39). Compared to the five thousands animals in Palaeolithic art they are indeed few, but are still more numerous than representations of for example saïga-antelope, fox or glutton (Cleyet-Merle & Madelaine 1995: 306). The majority of these seventeen sites have only one or two seal depictions, while a few, Gönnersdorf (9), Cosquer (8) and Nerja (6), have more than five<sup>36</sup>. The location of the sites shows some variation.



**Fig 39** Sites with representations of seals by: ( ▲ ) osteological remains, and ( ● ) artistic representations. 1, Gönnersdorf; 2, Andernach; 3, La Marche; 4, Mège; 5 Raymonden; 6, La Madeleine; 7, Lachaud; 8, Castanet; 9, Lartet; 10, Le Morin; 11, Montgaudier; 12, Isturitz; 13, Duruthy; 14, Brassempouy; 15, Gourdan; 16, Enlène; 17, La Vache; 18, Cosquer; 19, Pena del Candamo; 20, Tito Bustillo; 21, La Riera; 22, Altamira; 23, Les Cendres; 24, La Pileta; 25, Nerja; 26, Gorham's Cave; 27, Devil's Tower; 28, Figuera Brava; 29, Grimaldi; 30, Arene Candide; 31, Grotta di S. Agostino; 32, Romanelli, (After Serangeli 2001: 124)

<sup>36</sup> The portable examples are counted as items with representations of seals per site and not the number of animals in total. The perforated baton from Le Morin had engravings of seven seal heads, and is counted as one representation.

Some sites are situated close to the coast, like the sites at Cosquer, Isturitz, Duruthy, Pena del Candamo, La Pileta and Nerja, while others are located in the interior, mostly in the Central Pyrenees<sup>37</sup> and Perigord<sup>38</sup> at a distance of 150- 200 km from today's shoreline. Two sites, Andernach and Gönnersdorf are situated more than 450 km from the coast. Gönnersdorf is thus not only one of the sites with the most representations; it is also one of the sites situated furthest from the coast.

The depictions have been done on various materials. The majority of the seals are to be found as different portable media, such as engravings on schist, bones, antlers or teeth. There is only one sculptured example. From walls we only know the engraved representations from the Spanish caves La Pileta, Pena del Candamo and the French flooded cave Cosquer, and the painted representations from the Spanish cave Nerja. At Cosquer marine mammals make 11 % of the overall number of artistic figures<sup>39</sup>, which opens up for a reconsideration of the significance of marine resources in the coast near regions during the Upper Palaeolithic.

The seal depictions vary greatly in style, and in the level of details and precision. There are very detailed and naturalistic examples, like the figure on Pl-163 from Gönnersdorf, and the depictions from Montgaudier, Isturitz, Duruthy and Mège (fig 48, 49, 51 and 45), where the complete body have been depicted with the details of eyes, whiskers, flippers and tail. Some of the French examples are filled with hatches (Montgaudier and Mège). Hatches are also present on some of the more schematic examples, as two of the representations at Nerja (fig 47) and one of the depictions from Cosquer (fig 41-44), though most of the more conventionalised figures merely consist of a clean silhouette without any hatches inside the outline<sup>40</sup>. A unique feature of the representations from Cosquer is that all of the seal depictions seem to be related to lines going from different parts of the body and out of the figure (fig 41). This is a feature which, according to the hunting-magic theory, could be interpreted as spears hitting the animals.

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<sup>37</sup> Like the sites Gourdan, Enlène and La Vache (see map)

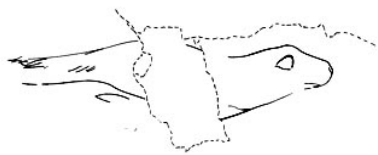
<sup>38</sup> Like the sites Castanet, Mège, La Madeleine and Lachaud (see map)

<sup>39</sup> <http://www.culture.gouv.fr/culture/archeosm/archeosom/en/co-ping.h>

<sup>40</sup> See the representations from Nerja, La Pileta, Pena del Candamo, Gönnersdorf, Andernach, Brassempouy and Cosquer.



40a



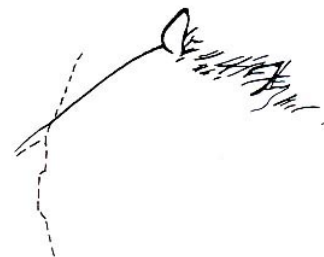
40b



40c



40d



40e

**Fig 40:** Andernach a) The whole plaquette, b) seal, c) female, d) horse head, e) horse head (Drawings: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM)



41



42



43a



43b

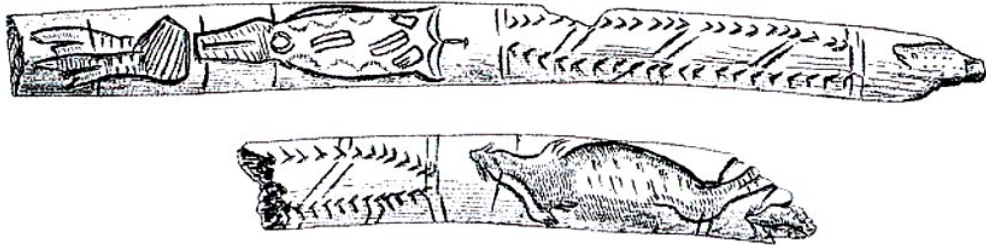


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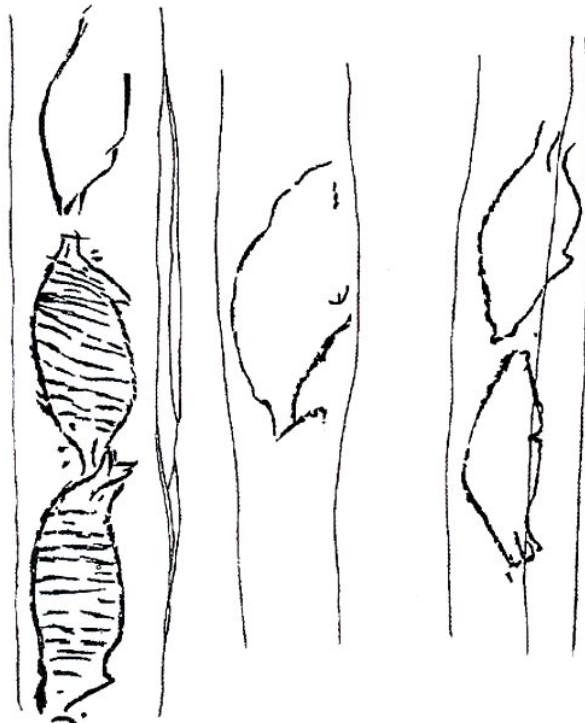
**Fig 41-44:** *Cosquer. 41) All eight seal depictions, 42) Seal inside horse, 43) Seal in front of horse head, 44) Seal and ibex.* (Clottes & Courtin 1995)



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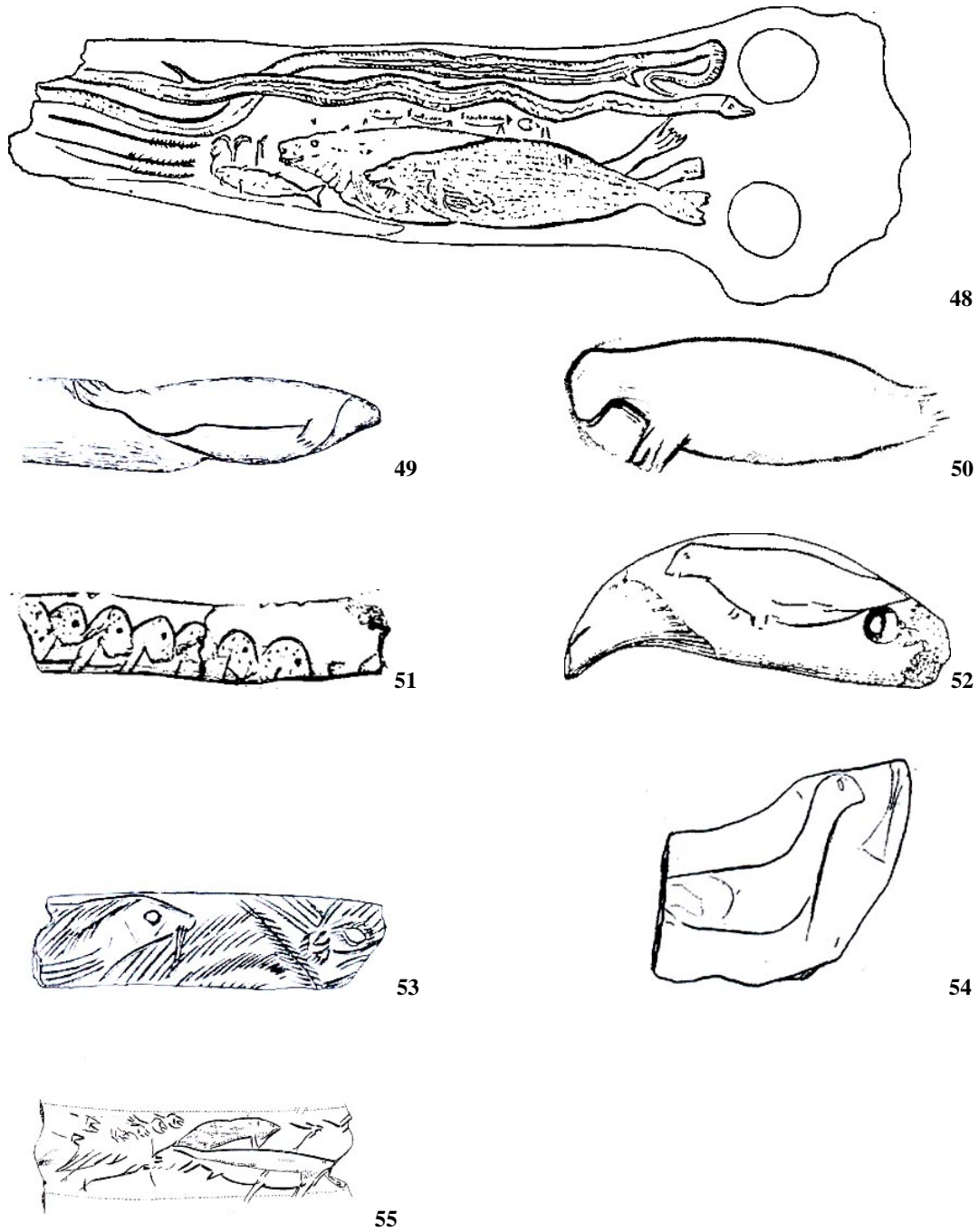


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**Fig 45-47:** 45) Enlène (Thiault & Roy 1996), 46) Mège (Sonneville-Bordes & Laurent), 47) Nerja (Clottes & Courtin)



**Fig 48-55.** 48) Montgaudier (Sonneville-Bordes&Laurent 1983), 49) Isturitz (Sonneville-Bordes&Laurent 1983), 50) Brassempouy (Sonneville-Bordes & Laurent 1983), 51) Abri Morin (Sonneville-Bordes & Laurent 1983), 52) Duruthy (Sonneville-Bordes&Laurent 1983), 53 and 54) La Vache (Sonneville-Borde & Laurent 1983), 55) Lachaud (Cheynier 1965)





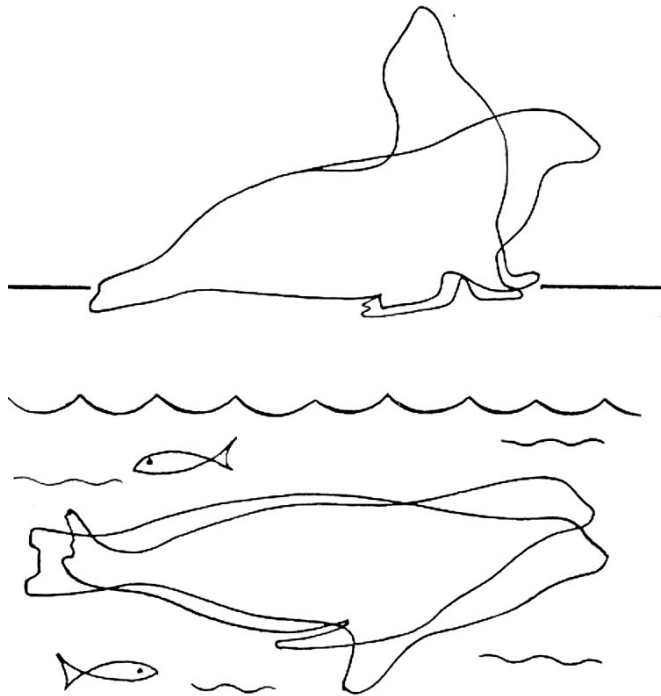
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57a



57b



58

**Fig 56-58:** 56) La Pena de Candamo (Clottes & Courtin), 57a) La Pileta (Clottes & Courtin), 57b) La Pileta<sup>41</sup> 58) Typical postures of seals on land and in water (Sonneville-Bordes & Laurent)

<sup>41</sup> <http://www.turismoderonda.es/excursiones/eng/pileta.htm>

Mostly the figures appear isolated, but there are also examples of compositions. The most famous is perhaps the Montgaudier bâton (fig 48) where two seals seem to be swimming after a fish. Above these three figures, two figures, possibly snakes or eels, are stretching. On a perforated bâton from Le Morin (fig 51), seven proposed heads of seals are engraved in a row. The painted seals in the cave Nerja (fig 47) also seem to be organised in some sort of a composition.

In some cases seal depictions occur together with other figures in representations that can not immediately be identified as a composition, like the three examples from Gönnersdorf, where a seal depiction was overdrawn of a tiny horse and two other examples were depicted together with representations of mammoth. It is difficult to reveal any patterns of associations between seals and other figures on the basis of such a small number of references. But it is noteworthy that also the depiction from Andernach are made on the same plaquette as depictions of two horse heads, one partly overdrawing the seal (fig 40), and that one of the representations from Cosquer is engraved inside a horse depiction and another representation of a seal is placed in front of the head horse (fig 43). It would be tempting to conclude that seals have some kind of association with horses, but more likely this is due to the fact that horses is one of the most frequently depicted animals of the Palaeolithic.

At Cosquer the representations of seals might have a relation to the ibex. One example is a seal engraved just above an ibex (fig 44), while another four representations are depicted close to a series of ibex representations (Clottes & Courtin 1995: 134). There are two examples of seals represented in relation to fish. We have already mentioned the figures on the baton from Montgaudier (which also seem to be part of a composition). A second example is found in parietal art from La Pileta (fig 57), where a seal is engraved inside the outline of a schematic executed fish representation. Additionally there are several examples where seals are depicted in relation to unidentifiable figures, like the compositions from Mège (fig 46) and La Vache (fig 54). The representation from Andernach is in this relation unique, with the only seal depiction that come together with a human representation (a female) (fig 40 a & c).

It is difficult to detect any stylistic conventions for the seal depictions. The parietal examples show a specific style for each cave, where all representations in each cave

seem to have followed the same conventions for style. The parietal examples that we know of are all of a schematic character. In portable art we have both naturalistic and schematic examples, and among figures engraved on plaquettes, both precise and more rude examples appear at the same site (Gönnersdorf). The latter is a pattern that is common for all types of animal figures in the plaquette art. Headless representations are only found at Gönnersdorf, but in most of the cases this can probably be explained by the fact that many of the plaquettes were intentionally or accidentally broken, and thus important attributes (like the head) may be lacking. Generally, the engravings on bone and antler seem more precisely executed than the majority of the engraved schist. Since we only have one or two engraved items at each site (with Gönnersdorf as the exception), it is difficult to put forth any generalised stylistic scheme. Noteworthy is that, like the majority of all animal depictions from this period, also the majority of the seals have been depicted from the side. A possible exception is registered at Cosquer, where two of the represented seals seem to have been depicted from above (fig 41).

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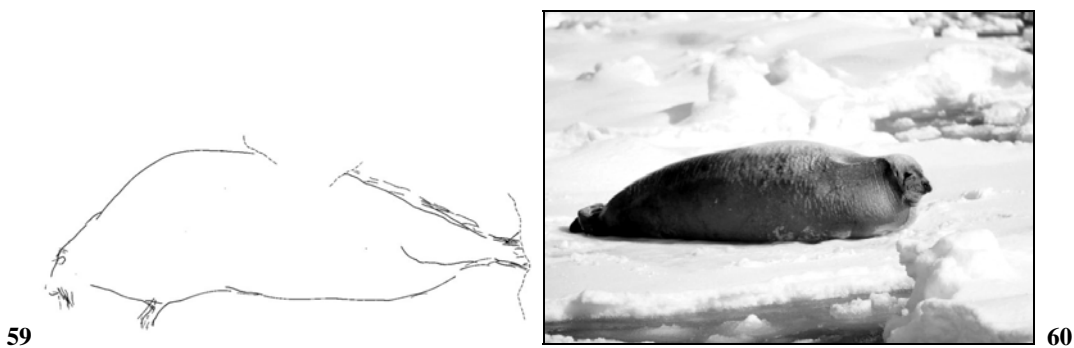
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#### *5.2.4 Extended identifications*

Extended identifications, beyond the mere identification of the species in the familiar meaning of the word have been applied to these depictions (Clottes 1989:35), and

stressed that the study of Palaeolithic animal figures should build upon precise zoological systematic (classes, orders, families, genera, species) with the aim at generating a ‘type-list’ of depicted animals similar to those used for lithic industries. Further, also seasonal information has been attempted extracted from depictions. On example is Marshack’s (1970: 327) determination of the scenery on the Montgaudier baton (fig 48). This scenery shows seals following a fish he interprets as salmon, concluding that the depiction is meant to represent spring-time. For other animals attempts have also been made to extract information about age and sex of the animals, but this has not yet been an issue for the identification of the seal representations. To determine such qualities of these animals, the presence of differences in size and proportions are necessary, which is difficult since the majority of the figures appear isolated from others. Another form of extended information scholars have tried to extract from animal depictions are cues about the environment these animals were observed in (Mithen 1988; 1991). Notions of postures have been made by Sonnevile-Bordes and Laurent (1985: 73) on the French depictions, attempting to say something about whether the animal is seen on land or in the water (fig 58). Following this scheme the depicted animals from Pena del Candamo (fig 55) would express a posture typical for the animals when they rest on land, while many of the figures from Gönnersdorf, together with the majority of the depictions from other sites rather seem to express the posture typical for the animal when it is in the water.



**Fig 59:** Seal depiction on Gönnersdorf Pl-163 suggested representing a bearded seal (*Erignathus barbatus*) (Drawing: Petra Schiller, Forschungsbereich Altsteinzeit-RGZM. **Fig 60:** Bearded seal (*Erignathus barbatus*)<sup>42</sup>.

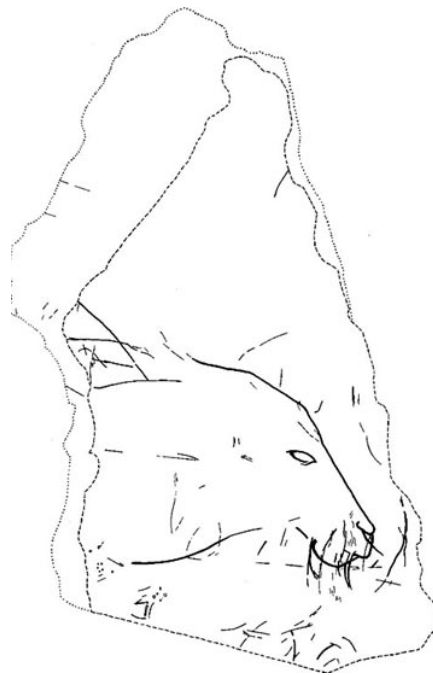
The only attempt at deriving extended information from the Gönnersdorf

<sup>42</sup> <http://www.photolib.noaa.gov/animals/images/big/anim0219.jpg>

representations have been made towards determining specifically which species, in the zoological definition of the word, are represented. In an article of Bosinski and Bosinski, (1991) where three of the seal representations from Gönnersdorf were presented, a specific identification of the examples was also attempted. First of all, the authors ascertained that the depictions represent species of the group *Phocidae*, and not *Otariidae*, because none of the figures were represented with ears. Further attributes together with the proportions of the animals were used to determine the particular species that they supposedly represented. On this basis, the complete depiction on Plaquette nr 163 (fig 59) was suggested to represent a bearded seal (*Erignathus barbatus*).



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**Fig 61:** Close up of the beard which is the name giving feature of the bearded seal (*Erignathus barbatus*)<sup>43</sup>. **Fig 62:** Seal depiction on Gönnersdorf Pl-59b suggested representing a bearded seal (*Erignathus barbatus*) (Drawing: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM).

The body seems compact, and the head, its form being more narrow rather than round, seems small compared to the body (fig 60). A further indicator is the mighty whiskers, the attribute giving the bearded seal its name (fig 61). Bosinski & Bosinski (ibid) also found these attributes present on the depicted head on Plaquette 59B (fig 62), which also is suggested to represent a bearded seal. The outline of the incomplete seal on Plaquette 96 (fig 63) shows an animal with a rounder head and a shorter snout than the

<sup>43</sup> <http://www.transboreal.fr/galleries/regions/spitzberg/spitzbergimages/spitzbergphoto7.jpg>

previous examples. Despite the incomplete outline of the body, Bosinski & Bosinski (ibid) found that the body of this animal was not as massive as the one depicted on Plaque nr 163. Therefore, the representation on Plaque nr 96 is suggested to be a representation of a harbour seal (*Phoca vitulina*) (fig 64). Similar attempts of determining species have also been made on the French and Spanish seal depictions<sup>44</sup>.



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**Fig 63:** Seal depiction on Gönnersdorf Pl-96 suggested representing a harbour seal (*Phoca vitulina*) (Drawing: Petra Schiller, Forschungsbereich Altsteinzeit- RGZM). **Fig 64:** Harbour seal (*Phoca vitulina*).<sup>45</sup>

Ucko (as referred to in Clottes 1989: 36) has strongly criticised this approach striving to build a zoological type-list out of artistic representations. First of all, ‘there exists so many indeterminate animals’ and secondly, this zoological approach ‘appears to assume that Palaeolithic artists were concerned with clearly indicating the species and subspecies’ (Clottes 1989: 36). We can not assume that these peoples based their categorisations on the same references that we do today, and we can neither treat the artistic expressions as Polaroid snap-shots of a past ecologic reality. As Ucko asked: if they were not concerned with these matters, why should we?

I suspect that the intention behind this approach has nothing to do with thoughts about the artistic conventions of the Palaeolithic artists or their way of categorising nature, but has its base in the academic attempt to reconstruct the environment surrounding these people. In this manner, artefacts are actually being treated like ecofacts. As stressed earlier, we can not determine what conventions existed in the making of animal representations. Since it is clear that many animal features have been minimised,

<sup>44</sup> See Sonnevile-Bordes & Laurent 1983: 73 ff.

<sup>45</sup> [http://www.mammalogy.org/mil\\_images/images/mid/135.jpg](http://www.mammalogy.org/mil_images/images/mid/135.jpg)



maximised or even left out on various animal representations, it should follow that artistic representations can not be treated as photographs of the past environment.

In the following, we will see that attitudes originating from this approach also heavily have influenced the attempts to understand the meaning of the seals. These attempts have been dominated by the questions of where these people learned to know the seal, and what significance this animal had as a resource in the subsistence of Upper Palaeolithic peoples.

### 5.3. MIGRATING PEOPLE, OR MIGRATING ANIMALS?

Due to the rareness of the seal representations, the ecological approach's treatment of artefacts as ecofacts becomes particularly visible in the interpretative attempts on seal depictions. The majority of the sites that have representations of seals have either one or few faunal remains or one or few artistic representations. Only Isturitz and Nerja have both. Many of the sites with seal representations are located more than hundreds of kilometres from the coast. These two factors have put forth the question where the people who either brought the ecofacts to the sites or made the artistic representations knew this animal from.

Both types of representations need an answer to the same question and it can thus become tempting to use artistic representations in the same manners as faunal remains of the actual animal, also to answer other ecological related questions, like those referred to above. Before going into these matters I will consider the attempts on explaining the representations of seals on sites distant to the coast.

Four different solutions have been proposed to this question. I will first present the different proposals and the arguments of those advocating these theories before I present my own opinion in a discussion where the theories are applied to the Gönnersdorf material.

#### *5.3.1. The migrating people theory*

The first notion of the phenomenon, of seal representations on sites distant to the coast was made by Lartet and Duparc in 1874 about the findings of seal bones in the

Dordogne (Clark 1946: 17). At Castanet<sup>46</sup>, a rock shelter situated 200 km from the present shoreline of the Atlantic, two mandibles of a ringed seal (*Phoca hispida*) were found in an Aurignacian layer, and at Raymondon, a cave site located 190 km from the present coast line, a single mandible of a harp seal (*Phoca groenlandica*) was found in a late Magdalenian level (map 8). Lartet and Duparc suggested that the seals were caught on the distant sea-coast, possible during a seasonal migration, and then carried inland to the caves (ibid). The discovery of the first seal engraving at Gourdan in the Central Pyrenees lead Piette (1873, cited in Bahn 1977: 254) to a similar theory for artistic representations: «It is incontestable that the one who engraved this amphibian has travelled along the coast, and since Gourdan is situated in Haute Garonne in the middle of the Central Pyrenees, one must grant that the people who inhabited this cave, followed the path from the foot of the range of mountains all the way to the ocean» (authors translation)<sup>47</sup>. This ‘migrating people’ theory has long stood as one of two main solutions.

### 5.3.3. *The migrating animal theory*

The second dominating idea suggests an animal migration rather than a migration of people. This was first proposed by E. Harlé (1913) who registered that seals in modern times had been observed travelling distances up to 400 km from the sea in pursuit of salmon. In his view such migrations would also have been possible during the Palaeolithic, so that the faunal remains from, for instance, Castanet possibly stemmed from animals caught and slaughtered in the local environment. These notions were later followed by J.G.D. Clark (1946). An important argument against the ‘migrating people’ approach, was that the artistic representations such as the engraved representation on a bear’s tooth from the Magdalenian burials at Duruthy and the engravings on bone and antler from Brassempouy, Gourdan, Mége and Montgaudier were made with such detail that they would have had to been made on impressions gained in the local area, or at least by fresh impressions: «These works of art bear sure witness to the interest attracted by the occasional seal, which found its way into the interior of the country by way of rivers and so intruded into the environment familiar to the reindeer-hunters» (Clark

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<sup>46</sup> For location on map of the mentioned sites in this section see the previous fig 11

<sup>47</sup> The direct citing on the original language as presented in Bahn (1977: 254) is «Il est incontestable que celui qui a gravé cet amphibie a voyagé sur les bords de la mer, et comme Gourdan se trouve dans la Haute Garonne, au milieu de Pyrénées centrales, il faut bien admettre que les hommes qui habitaient sa grotte parcouraient le pied de la chaîne de montagnes jusqu’à la mer.»

1946: 17). As earlier mentioned, the idea that seals would follow salmon up rivers has later also been extracted by Marshack from the representations on the Montgaudier baton. However, the ‘migrating animal’ theory has also met criticism and the ‘migrating people’ theory has been proposed in a more detailed version.

P.G. Bahn (1977: 252) agrees with Clark that some of the seal depictions display such scrupulous exactness that they probably were drawn from nature rather than memory. When it comes to the representations on the baton from Montgaudier and the representations from Duruthy, Brassempouy and Isturitz, do not necessarily imply long-distance movement by the artist since the sites are relatively close to the Atlantic coast (op cit: 253). Other artistic representations, such as those at the Abri Mège, La Vache and Gourdan, definitely involve great distances (op cit: 254). The faunal representations from France also involve long distances, apart from the tooth from Isturitz, originate from sites in the Perigord<sup>48</sup>. Species have been determined at Castanet and Raymonden to ringed seal (*Phoca hispida*) and harp seal (*Phoca groenlandica*), which are both species of the open sea (ibid). Using both ethological and archaeological arguments, Bahn refuses Harlé (1913) and Clark’s (1946) assertions of long excursions upstream by the animal:

However, where seal behaviour is concerned, such journeys inland are not only rare but abnormal, and it is unlikely that the patchy archaeological record would conveniently preserve so many faunal and artistic records of a very occasional event. It seems more reasonable for ethology to overlook the exception in favour of the norm, and therefore to accord the seal its normal habitat in prehistory and accept the consequences of the archaeological evidence: namely that human groups in the late glacial SW France made long-distance journeys» (Bahn 1977: 254).

As Bahn sees it, we have no evidence of seals swimming hundreds of kilometres up rivers during the Palaeolithic, but we have evidence for the mobility of people.

### 5.3.3. *The lake theory*

A third, alternative, solution has recently been suggested by Serangeli (2001). His idea

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<sup>48</sup> Abri Lartet, the Grotte Raymonden, Abri Castanet and La Marche.

is that colonies of seals could have settled or been trapped in interior lakes in the lowlands of northern Germany or the Netherlands/Belgium during the Palaeolithic. We know that the low sea level at the time had a significant impact on the topography of Europe at the time and it is possible that these flat areas roomed lakes, or pools of still water in the rivers. Lakes have existed in these areas up till 200 years ago<sup>49</sup>, and we have examples from Finland and Russia of seals living in fresh water. The retreat of ice during the last glaciation caused the Baltic ringed seal to become separated from the Arctic ringed seal about 11,000 years ago, and also caused the Saimaa and Lagoda seals to be trapped in their respective freshwater lakes about 8,000-9,000 years ago<sup>50</sup>. Serangeli suggests that such events could also have been the case during the Upper Palaeolithic. If this idea is correct the migration distance for either men or animals would be significantly shorter. Through this hypothesis Serangeli strives to keep an open mind, not ruling out seals swimming up rivers from lakes, nor people migrating to the areas of the lakes.

#### *5.3.4. Importation or exchange*

A fourth possibility is that people have either imported the representations (artistic and faunal) by exchange from coastal communities or they have learned about this animal by people they have met during seasonal migrations, who have had closer contact with the animal. This is a hypothesis that has not been considered very plausible so far. It has thus received little attention (as in Bahn 1977: 254, Serangeli 2001: 125). Firstly, as already pointed out above (Clark 1946, Bahn 1977), some of the depictions are made with such detail and anatomical knowledge that it is unlikely that the images could have been made by people who had not actually seen the animal. Secondly, some of the engravings, like those at Gönnersdorf, are made on materials not suitable for transportation hundreds of kilometres, and they are found in a context with hundreds of other animal depictions. This makes it rather improbable that only the seal depictions would be imported, while they all impossibly can have been imported.

Having already rejected solution number four as a possible explanation for the Gönnersdorf material, it is now time to consider the probability of the ‘migrating animals’, the ‘migrating people’ and the ‘lake’ theories.

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<sup>49</sup> Personal communication with Jordi Serangeli

<sup>50</sup> <http://www.pinnipeds.fsnet.co.uk/species/ringed.htm>

#### 5.4. DISCUSSING SUMMARY

Not much work has yet addressed this subject and it is also evident that none of the theories can be empirically tested. I must thus emphasise that the goal of this discussion is not to postulate a final answer to the question, but rather to assess which theories are the most probable. I will start with the ‘migrating animals’ theory, and evaluate the possibility of seals migrating all the way from the coast up the river to the Neuwied Basin.

In order to test this theory, an amount of bones would have had to have been present in the faunal record at the site. This amount would have to extend the reasonable amount that could have been brought to the site as a result of exchange or import, showing that seals were present in the area of the settlement, and that seals were hunted. Since it was impossible to identify bones from seals in the faunal inventory, we have to accept that the theory can not be tested in an empirical way. What we *can* do, is estimate some of the conditions that would have had to have been present to enable seals migrating up rivers. First of all, what kind of seals swim up rivers, and can the presence of these species be traced at the coast of the southern North Sea in the Pleistocene? Secondly, was it physically possible for these animals to conduct long distance migrations all the way up to the Neuwied Basin?

As Bahn (1977) has already pointed out, the execution of long excursions up rivers represents an abnormal behaviour for most species of seals. It certainly happens, but as we know from modern times, it happens rarely and it represents a behaviour that is distinct for only a few species. In 1896 one specimen of Greenland seal (*Phoca groenlandica*) was observed in l’Elbe 500 km from the sea shore (Serangeli 2001: 125). In France has also exemplars of grey seal (*Halichoerus grypus*) been observed as far as 100 km from the coast (Sonneville-Bordes?), and in Volga individuals of the Baikal seal (*Phoca sibirica*) has been observed 300 km from the sea (Serangeli 2001: 125). These incidents must be regarded as exceptional cases, since these species not habitually makes excursions in rivers. These incidents must be regarded as exceptional cases, since these species not habitually makes excursions in rivers.

Our most common visitor, upstream rivers today, is the harbour seal (*Phoca vitulina*)

which lives along the coasts of the northern Pacific and the North-Atlantic. It often resides in fjords and occasionally follows salmon up rivers (Semb-Johansson 1990: 16-19). We know that this species also made excursions up rivers during the last glaciation in Finland and Russia (see chapter 5.3.3). In Canada another sub-species known as the Ungava seal (*Phoca vitulina mellonae*) also resides in freshwater<sup>51</sup>.

During the Upper Palaeolithic, the Rhine flowed into the Doggerbank, in the southern part of the North Sea. We do not know much about which specific species of seal lived in this area at that time. Fossil remains are rare, since the land that at that time connected the Continent to the British Isles today is situated below water. A few fossil remains from the Pleistocene have been found and they include examples of harp seal (*Pagophilus groenlandicus*), ringed seal (*Phoca hispida*) and bearded seal (*Erignathus barbatus*) (Post 1999:71). None of these species do today have as a habit to wander up rivers, but the behaviour may well have changed since the Pleistocene. The harbour seal (*Phoca vitulina*) is not yet known from the Pleistocene of the southern North Sea and all former announcements of this species have turned out to be based on erroneous identified fossils of harp seal (Post 1999:71). This does of course not exclude the possibility that it did exist in this area at that time. Keeping in mind the freshwater colonies in Finland and Russia, it even seems probable that the harbour seal occupied the southern North Sea during the late Upper Palaeolithic.

Another problematic factor is the geographical distance involved. Gönnersdorf was situated more than 450 km from the sea which represents a very long distance for seals to migrate. Even though there have been occasions in modern times where seals have migrated such distances, is it important to stress that these incidents happened under conditions very different from those which were the reality during the Pleistocene. At the time when Gönnersdorf was inhabited, the Rhine was wide and shallow with various obstacles like sandbanks, small islands and fords<sup>52</sup>, which at least during cold or dry seasons would have made it difficult, if not impossible, for seals to conduct such extensive migrations up the river.

Thus, on the basis of the ethological factors, together with the distance and topographic

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<sup>51</sup> <http://www.pinnipeds.fsnet.co.uk/species/harbour.htm>

<sup>52</sup> Personal communication with Michael Baales

conditions involved, I will have to suggest that eventually migrations of seals up the river Rhine from the southern North Sea to the Neuwied Basin must be estimated as rather unlikely. If such incidents actually happened, they would at least be limited to a very few occasions. This is contradicted by the archaeological material. At Gönnersdorf the seal depictions are found in all four concentrations, clustered inside or in the immediate vicinity of the hose/tent- structures, thus they can be ascribed the habitation phases of the respective houses/tents. This means that the seals were depicted during at least two different habitation phases, and maybe during three or more. Therefore, the seals were a part of people's imagery over a long period of time, indicating either repeated visits of seals, or astoundingly accurate mnemonics, spanning generations.

So far we have no evidence of migrating seals up the river Rhine, but the ethological facts together with the existence of harbour seals in freshwater lakes in Russia and Finland today, does not rule out the possibility of migrating seals in rivers running into the southern North Sea. However, due to the extensive distance and the topographical obstacles of the Rhine during the Upper Palaeolithic, it must be considered unlikely that seals managed to find their way all the way up to the Neuwied Basin. We must therefore consider a different approach to explaining the presence of seals here. While there is no positive evidence for the physical presence of migrating seals in the Neuwied Basin, are there far more indications for migrating people.

The mobility of people is traceable in the archaeological material through the presence of exotic raw materials. The most exotic material found at Gönnersdorf is Mediterranean shells originating from a distance of ca 1000 km (Brunnacker 1978:232). It would be tempting to use these as an evidence for long distance migrations, but we must remember that molluscs are distributed to most parts of Europe during the Palaeolithic, and it is thus probable that these exotic objects were imported through networks rather than being collected by the Gönnersdorf people at the very distant coast.

The various types of lithic raw materials might be a more reasonable unit for understanding migration routes. At Gönnersdorf large amounts of 'Nordic' or 'Baltic' flint was recovered, originating from at least as far away as Duisburg. There were also significant amounts of western European flint, originating from the Maas/Aachen-

district. There are thus evidences for migrations from the lowlands where Serangeli (2001: 131) has suggested the possibility for interior lakes. Before any conclusions can be drawn we need to know more about the site Gönnersdorf itself. What kind of site was it? How was the life of the inhabitants organised, and where did the people move and why?



CHAPTER 6  
**HUMAN TRAFFIC WITHIN AND BETWEEN**  
- UPPER PALAEOLITHIC SETTLEMENT PATTERNS-



### 6.1. INTRODUCTION

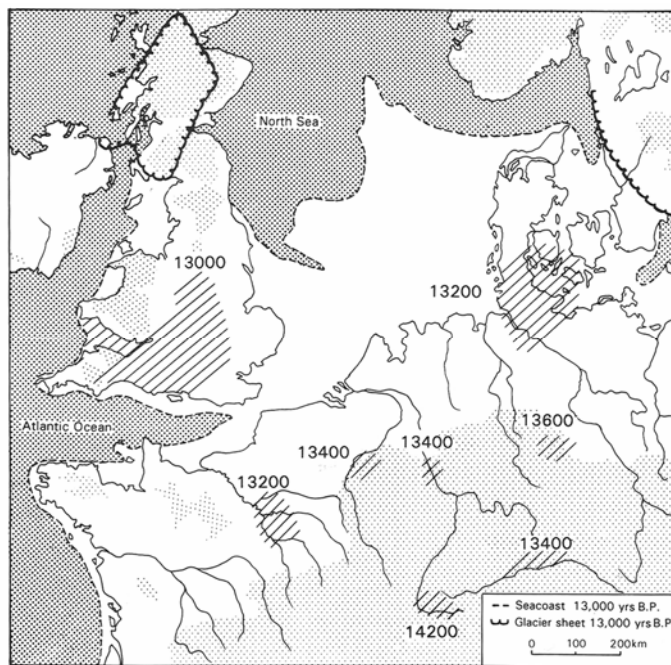
Although ethological properties of certain types of seals speaks for the possibility of seals migrating up rivers, running into the North Sea, it is still questionable whether seals actually managed to find their way up to the Neuwied Basin, due to the actual geographic distance, and the topography of the river Rhine at that time. At the present, we have no positive evidence for such incidents, while we do have indicators of human traffic between interior and coastal sites. This chapter has two sections. In the first I will try to say something about how Gönnersdorf fit in a settlement pattern associated to other sites, both in a temporal and spatial perspective. In the second part I will focus more on those types of materials which can provide indications of human traffic, not merely within regions, but also between geographic regions. I will investigate whether this material can say something concrete concerning the directions and extent of such traffic.

### 6.2. HUMAN TRAFFIC AND SETTLEMENT PATTERNS IN A TEMPORAL AND SPATIAL PERSPECTIVE

How does Gönnersdorf fit within the temporal settlement patterns of late glacial Europe? May the qualitative and quantitative attributes of Gönnersdorf as well as its location have any links to pre-fating events? What kind of site was Gönnersdorf and how does it fit with contemporaneous settlement patterns? Firstly, I will try to place Gönnersdorf in a broader temporal perspective. Secondly, I will compare Gönnersdorf to contemporaneous sites as to determine site types and patterns within regions. In the end of this section I wish to draw together various attributes as to say something about regional settlement patterns and the relations between different types of sites.

### 6.2.1. Re-colonisation of North-Western Europe

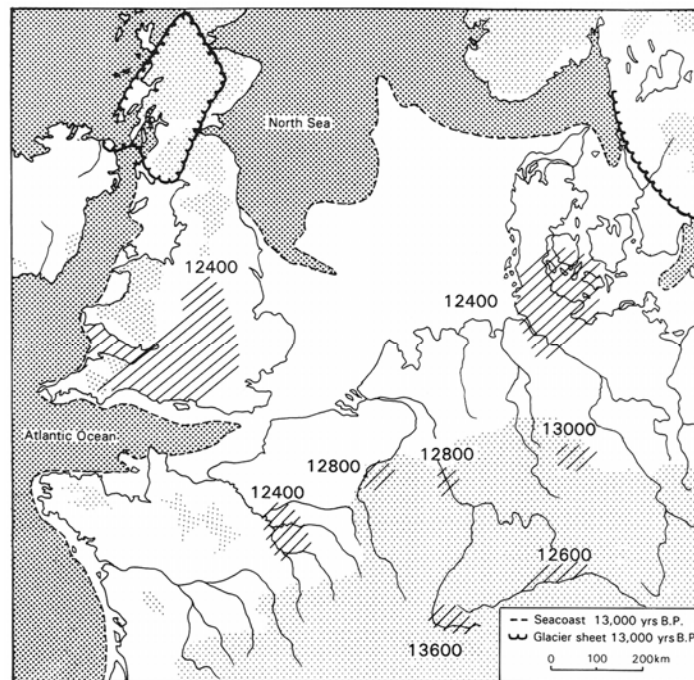
Gravettian sites are in Germany found in three regions, inclusive the Rhine Valley. These sites all pre-date the Last Glacial Maximum (LGM) and cluster to 23-24, 000 BP. Magdalenian sites are found along the major river systems, and all radiocarbon dates post-date the LGM, clustering to 12-13 000 BP. There is no overlap between these two cultural phases, and this seems to indicate that most of Northern Europe was unoccupied at the height of the Last Glacial Maximum, between 20 000 and 15 000 BP. Refugees may have existed in south-west France and Cantabria, and along major rivers in the Ukraine and the central Russian Plain. A very rapid increase in radiocarbon dates between 12 000 and 13 000 BP has been interpreted as a process of re-colonisation of the previously abandoned regions (Housley *et al* 1997: 26).



**Fig 65:** Map showing timing of the start of the re-colonisation of North Western Europe (Housley *et al* 1997: Fig 14)

Housley *et al* (1997: 44-47) has envisioned a two-stage process consisting of one ‘*initial pioneer phase*’ and one following ‘*residential camp phase*’ (fig 65 & 66). During the initial phase only a few small hunting parties moved to explore and exploit the previously unpopulated areas. This phase of seasonal and logistic use supposedly lasted 400 to 600 years and was followed by the establishment of larger, but possible not permanent, occupations (Housley *et al* 1997: 45). In this analyse the re-colonisation

process is mapped through a comprehensive radiocarbon programme. According to the results, the process started in the Upper Rhine somewhat before 14 800 BP and progressed into central and northern Europe reaching the middle Rhine at about 13 400 BP (Housley *et al* 1997: 25). According to the authors, the radiocarbon dates demonstrates that a ‘residential camp phase’ must have started in the Upper Rhine about 13 600 BP, and then expanded northwards and westwards, reaching middle Rhine at about 12 800 BP (Housley *et al* 1997: 48). The authors suggest that the large and comprehensive sites such as Gönnersdorf, Andernach, Ölknitz, Stellmoor and Meiendorf are particular for the ‘residential camp phase’ and that new pioneer operations was launched into unoccupied territory from these sites (Housley *et al*: 1997: 45).



**Fig 66:** Map showing the timing of the “residential” phase (Housley *et al* 1997: Fig 15).

### 6.2.2. Site types and distributional patterns

Variation in site type and the content of a site may have its cause in different seasonal types of settlement. Aggregation and dispersion have in ethnography been held as typical features of the organisation of hunter-gatherers. In Palaeolithic archaeology, especially large sites, rich on visual imagery such as engraved plaquettes, statuettes and/or cave paintings, have recently been associated with aggregation (Conkey 1980,

Davidson 1997, Gamble (1982), Jochim (1983), Rensink (1993)). This has also been applied to Gönnersdorf (Bosinski 1975, 1988; Rensink: 1993:126-127). Ethnographic studies have shown that the aggregation/dispersion settlement pattern by no means is an *a priori* attribute of hunter-gatherers and there exists great variation in content and extent of aggregations. Thus, the identification and definition of Palaeolithic aggregation sites is a very complicated task.

One of the basic rules for defining an aggregation of any kind is that it is a phenomenon of limited temporal existence. An aggregation is thus not just any large settlement; it is a settlement which only exists in the space between arrival and departure of some human groups. The mere duration may, however, vary greatly, from a few weeks to several months, mainly depending on the reasons for aggregating, and on the availability of resources necessary to maintain the aggregating people (Conkey 1980:610). The duration of an aggregation can often be difficult to measure, as some aggregation sites have been re-used several times. Often, but not always, the fission and fusion of people follows a pattern organised by the leap of the seasons.

A second important factor is that aggregations involve the gathering of people of otherwise dispersed people: *an aggregation site among hunter-gatherers is a place in which affiliated groups and individuals come together (...). In its basic form an aggregation refers to the concentration of individuals and groups that are otherwise fragmented* (Conkey 1980: 612). An aggregation always consists of a gathering of two or more groups of people, who do not operate together on an everyday basis.

Ethnographic studies (Yellen 1971) have demonstrated that larger occupations should leave traces of greater investments and maintenance of the sites and its features. By longer durations, it should be expected to encounter materials reflecting a greater variety of activities to occur. Further, remains of ritual activities should be expected, not only as a result of religious activities, but also because aggregations would require a reorganisation of social structures, involving negotiation and manifestation of new social orders (Conkey 1985:306).

Weniger (1987; 1989; 1991) has divided the Magdalenian site types in Western central Europe in large, medium and small sites. Small sites are interpreted as short-term field

camp or small task camp, while large sites are interpreted more in the direction of aggregation sites, either of single or repeated occupations (Weniger 1989:354). The most difficult site type to interpret, are the medium sized sites, which are less homogeneous than the small and the large ones. Weniger bases this presupposed segmentation upon a set of combined quantitative and qualitative characteristics.

Site size is measured by three proportions (Weniger 1989:344). On the one hand, it is measured by the number of stone tools and cores (fig 67). In this table, Gönnersdorf, having more than 300 cores and almost 4400 stone tools, is an obvious Ee-site, which is the largest subtype in the category of *large* sites. This Ee-type Weniger interprets as large sites with *repeated* occupations. Secondly, the size of an assemblage often correlates to the size of habitation area, and if following Weniger's definition of a large site (that is more than 100 m<sup>2</sup>) Gönnersdorf with its extension of more than 700 m<sup>2</sup>, correlates well to its assemblage. Thirdly, site extension and lithic assemblage size normally reflects the size of the faunal assemblage (fig 68). Gönnersdorf fits to class 3, the second largest site type. However when this analysis was done only CI of the Gönnersdorf faunal material was available. When the entire faunal material is included, it is likely that the site belongs to class 4, the largest of the large site types (fig 69).

A:	1-20 cores	a:	1-50 tools
B:	21-50 cores	b:	51-100 tools
C:	51-100 cores	c:	101-200 tools
D:	101-200 cores	d:	201-500 tools
E:	> 200 cores	e:	> 500 tools

**Fig. 67:** Weniger's division of site types by lithics (Weniger 1989: fig 4)

Class 1	1-10 MNI (minimum number of individuals)
Class 2	11-20 MNI
Class 3	21-50 MNI
Class 4	> 50 MNI

**Fig. 68:** Weniger's division of site types by faunal remains (Weniger 1989: 346)

In this analysis of Magdalenian sites from Western central Europe, Weniger (1989: 347) has also found that there are some qualitative attributes that seem to follow the quantitative patterns. One of the most striking qualitative differences between large and

small sites is the structuring of habitation structures. Hearths, although present in all site types, are structurally different in the medium and large sites where they are circled by stone slabs (Weniger 1987: 203). Stone pavements only occurs at large sites and some medium sized sites (Weniger 1989:347), which supports Conkey's (1980: 612) suggestion that large aggregation sites should demonstrate greater efforts in habitation constructions. Another striking qualitative difference between large and small sites concerns the representation of visual imagery. Such objects are almost exclusively found at large sites. A few of the large sites, such as Gönnersdorf, show vast accumulations. From Gönnersdorf we know more than 500 engraved plaquettes, and 14 figurines as well as numerous specimens of personal ornaments, such as jet beads, perforated teeth and bones, and ornamental molluscs originating from the Mediterranean and Atlantic oceans (Rensink 1993: 144).

Site	Nr. of cores	Nr. of tools	Most frequent tool class	2 <sup>nd</sup> most frequent tool class	3 <sup>rd</sup> most frequent tool class	Nr. of bone/antler tools	Sewing needles	Jet	Pendants from teeth	Pendants from molluscs	Mobile art	Hearths without stone slabs	Hearths with stone slabs	Habitation structures. pavements etc.	Representativity of sample	Site-type
Middle Rhine area																
Wildscheuer V	10	48	Bu	Pf	Es/Tr	1	-	-	+	-	-	+	+	+	?	Ab-1 small/medium?
Wildweiberlei	28	55	Bb	Bu	Pf	1	-	-	-	-	-	+	-	+	?	Bb-1 small/medium?
Andernach	36	492	Es	Bu	Bb	10-20	+	-	+	+	+	-	+	+	+	Bd-3 large
Alsdorf	107	361	Bu	Bb	Tr	-	-	-	-	-	-	-	+	+	+	Dd-? large
Gönnersdorf	309	4395	Bb	Bu	Pf	10-20	+	+	+	+	+	-	+	+	+	Ee-3 large

*Fig 69: Site types in the central Rhineland (after Weniger 1989: Table III)*

### 6.2.3. Seasons and sites

Upper Palaeolithic faunal assemblages from Northern and central Western Europe does in some cases contend information on seasonality, and further implications on possible patterns of mobility and land-use. Studies of faunal assemblages have offered several probable patterns.

Firstly, samples from all over the Northern and central Western Europe are heavily dominated by horse and reindeer, although it varies between regions, particularly between Southern and Northern regions, which of the two were the most densely populated. Generally, reindeer is more dominant in faunal assemblages from Northern Switzerland and South-Western Germany, while horse occurs most frequently in assemblages from South-Eastern Germany, the middle Rhine and throughout central Germany (Weniger 1989:330-332).

Secondly, there seem to be some relation between the species hunted and season. This pattern does seem to be general and in correspondence to all regions in northern and central Western Europe. Whenever the assemblage was dominated by reindeer, spring and autumn was indicated, and whenever the assemblage was dominated by horse, the seasonal evidence pointed to winter and summer (Bratlund 1996: 27).

A third pattern that has been suggested is that there are differences in faunal composition between site-types, at least within some regions (Weniger 1989:347). Large sites in the southern part of central Western Europe seem to be dominated by reindeer, while many medium and small sites are either dominated by horse, or horse and reindeer are equally represented on the sites. Large sites in the middle Rhine are clearly dominated by horse, while reindeer seems more important at the small/medium-sized sites. In central German all site-types are dominated by horse. (Weniger 1989: 333)

The interpretation is difficult in the middle Rhine due to the fact that very few sites are reported. The assemblage from Andernach is dominated by horse and is seasonally associated to the cold season. Gönnersdorf CI yielded more than 2500 identified remains of bone fragments and teeth, which indicated that horse probably was the most important game animal. Another important component of this concentration was arctic fox, together with the remains of a horse foetus, suggest that CI was occupied during the cold season (Rensink 1993:101-102). Likewise, horse also dominated Gönnersdorf CII and CIII, although according to preliminary studies (Rensink 1993: 102), these seem to have been used during summer time, which would imply that Magdalenian groups in the central Rhineland were able to hunt horse during both seasons. In the small

concentration IV remains from at least two horses are found, while in the small assemblages of Wildscheuer and Wildweiberlei, the two small cave sites in the Lahn valley, close to the Neuwied Basin, both horse and reindeer are found in more or less equal numbers. (Rensink 1993: 101.102) Seasonal data lacks from these two sites, but bones of foetal reindeer from Wildscheuer and a high frequency of very young herbivores at Wildweiberlei may suggest that these sites were occupied during spring or summer.

Based on these studies a pattern of settlement types in the lowland Rhine valley emerges. In the lower valley areas there were large autumn-winter aggregation sites, from which large scale horse hunting was conducted. In the upland there were smaller sites, where the hunting of reindeer seems to have been at least as important as horse hunting (Weniger 1989: 354). In addition, the pattern of raw material procurement suggests that there were further summer camps to the west and northwest (Weniger 1989:364). Within this pattern, sites such as Gönnersdorf and Andernach functioned as aggregation sites where horse was the main prey, while the smaller upland sites, Wildweiberlei and Wildscheuer might represent smaller hunting camps where reindeer was hunted.

### 6.3. HUMAN TRAFFIC WITHIN AND BETWEEN

There are several types of archaeological records which provide indications on human traffic, its directions and extensions. Here similarities in visual imagery, the distribution of molluscs and lithic raw material procurement will be emphasised, and then be related to the distribution of 14C-datings and indications of pioneer settling of the European Continent after the retreat of the glaciers.

#### *6.3.1. Procurement of lithic raw materials*

In the Magdalenian of North-West Europe, lithic raw materials were mainly procured from local sources. In regions with good quality flint outcrops, like in Southern Germany (Weniger 1993), the Paris Basin and the Belgian-Dutch Maas area (Rensink, Kolen & Spieksma 1991: 150), imported lithics are absent or occur in minimal quantities. In regions lacking such sources, the portion of imported components in the lithic assemblages can be much higher, as for instance in the German middle Rhine area (*ibid*).



Among the local available raw materials that were used in middle Rhineland were Tertiary quartzite, siliceous slate and chalcedony. Source locations of quartzite have been identified 10 to 40 km from Gönnersdorf and Andernach (Rensink 1993: 109). Despite this availability of quartzite, the inventories of Gönnersdorf and Andernach show significant portions of imported flints. Baltic flint and so-called West-European flint were abundant, but unevenly distributed in different concentrations and possibly associated to particular concentrations (fig 70-71). The Baltic erratic flint originates in the moraine area about 100-120 kilometres north of Gönnersdorf, and represents 40% of the total assemblage of CI and 5% of CIII. The West-European flint originates in the Cretaceous formations in the Maastricht-Aachen region more than 100 kilometres northwest of Gönnersdorf, and is the most abundant raw material in Gönnersdorf CII . Additionally, brown flint from the Mainz Basin, about 70 km South from Gönnersdorf, is commonly present in CIII . In lesser frequency is also an exotic Palaeozoic quartzite, with hitherto unknown origin, represented in CII, CIII and CIV (Rensink 1993: 109)

	CI	CII	CIII	CIV
Tertiary quartzite	●		●	●
Silicified slate			●	●
Chalcedony			○	●
Palaeozoic quartzite		○	○	○
Brown flint			○	●
Baltic flint	●		○	●
West-European flint		●		

**Fig 70.** Lithic raw material contents of the Gönnersdorf concentrations. ●=most employed stone material, ●= commonly present, ○= scarce. (After Rensink 1993: Table 9).

A problem with the Gönnersdorf material is the probable repeated use of the site, assumable also during different seasons (Bosinski 1995: 907-908). One may also assume that the site fulfilled different functions during its history of occupation, so that it is difficult to sort out and determine mobile patterns and land use of its inhabitants. On the other hand, Gönnersdorf does not stand out as the only conglomerate site in the Neuwied Basin at this time, as the neighbouring site Andernach shows many similarities to Gönnersdorf in both geomorphic setting, as well as archaeological content (Rensink

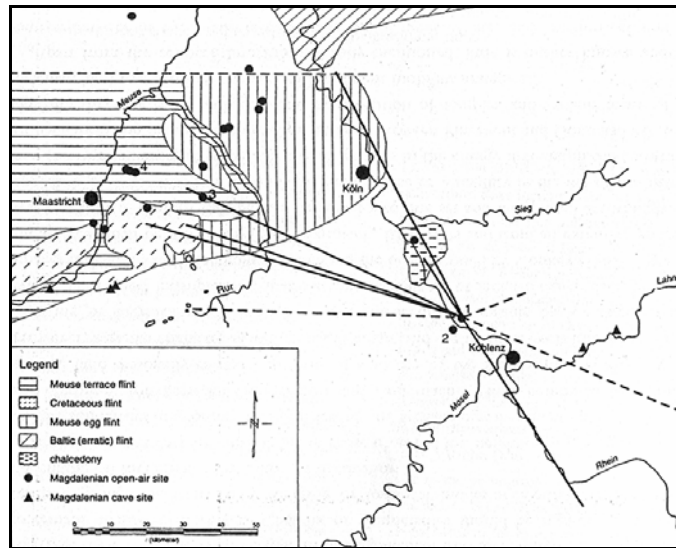
*et al* 1991: 102). Further the two small cave sites in the Lahn valley, close to the Neuwied Basin, Wildweiberlei and Wildscheuer, contains the same imported raw materials that are found in Gönnersdorf and Andernach (Rensink 1993: 112). The combination of these records altogether points to specific patterns of land use by the Magdalenian groups involved. These sites seem to have been in the centre of one extensive raw material network, stretching over a large area that extends from the Mainz Basin in the South to the moraine area in the North (Rensink 1995: 99).

Concentration	Local	5-30 km	30-50 km	50-80 km	80- 100 km	>100 km
CI	44,8%	-	1,1% N	-	-	39,6% N
CII	-	-	-	-	12,8% NW	68,8% NW
CIII	14,8%	-	7,0% N	7,8% SE	-	4,8% N
CIV	17,7%	-	21,4% N	8,4% SE	-	11,4% N

**Fig 71.** The relationship between the distances from the site to raw material source areas and the percentage of raw materials within each concentration of the site. Distances are approximations based on known outcrops of materials. N (north), NW (north-west), SE (South-east) indicate the directions of transport. (After Rensink *et al* 1991 figure 5).

The variation in the directions of transport, by Rensink described as ‘a radiating pattern’ (1995:99), differs from sites in the Paris Basin, like the Pincevent, and indicates a mobility of groups from dispersed source areas to the Neuwied Basin (Rensink 1995: 99). Taking into account the variety of raw material types imported from different directions and the weight of transported material, it is not likely that the deposition was the result of activities of one single group during one single occupation phase (Rensink 1995: 99). The tools from these flints seem to have had the same usage, in the same areas as tools made from local raw materials. It is therefore not possible to deduce a special value being attached to these imported raw materials (Rensink *et al* 1991: 151). It thus seems reasonable to assume that the West European flint and the Baltic flint were procured in the course of seasonal movements or logistical organised hunting trips about 100-120 kilometres to the North West and north of the Neuwied Basin (fig 72) (Rensink *et al* 1991: 151). In the Maastricht-Aachen, one of the source areas used by the

occupants of Gönnersdorf and Andernach, smaller Magdalenian open-air sites are known (Alsdorf, Sweikhuisen). At the present time there is no evidence for large settlements exhibiting a high investment in the construction of habitation structures here. Flint materials are predominantly of local origin, in some cases of the same type as documented in Gönnersdorf and Andernach. These sites could be short-term camps associated with seasonal activities of groups who were based in the middle Rhineland during other periods of the year (Rensink 1995:101).



**Fig 72:** Location of distant raw material source areas used by the inhabitants of Gönnersdorf. Transfers of lithic materials are indicated by solid lines Dashed lines represent possible lithic transfers. 1) Gönnersdorf, 2) Andernach, 3) Alsdorf, 4) Sweikhuizen (Rensink 1995: fig 7).

### 6.3.2. Stylistic links

The indications of interconnected networks and human traffic are further supported by stylistic links. Ornaments and visual imagery from Gönnersdorf is usually associated to the Magdalenian V of South-Western Europe (Bosinski 1982: 66). These links are mainly based upon the similarities in engraved material, such as engraved plaquettes and decorated objects made of bone, antler and ivory. The engraving of animals and conventionalised women represent a typical feature of the Franco-Cantabrian imagery, as opposite to the imagery of Eastern Europe. These links, together with the occurrence of harpoons and baguette demi-rondes, point towards a connection between the middle Rhine and the Franco-Cantabrian regions.

Engravings of animals and conventionalised women are, although not as commonly as at Gönnersdorf, also present in the material from Central and Southern Germany and Switzerland. There were found 45 statuettes made from different materials at Gönnersdorf. Whereas engraved figurines are common and almost exclusively found in South-Western parts of Europe, Venus statuettes are almost exclusive to the central and eastern parts of Europe.

As inferred by Bosinski (1982: 66), it seems like Gönnersdorf is situated in an area which at that time was strongly influenced by the Magdalenian tradition which was widespread in South-Western Europe, but also affected by the traditions of the eastern and central parts of Europe.

### 6.3.3. Exotic and marine molluscs

Another data which point to human traffic are marine molluscs, often perforated and sometimes covered in ochre (Bahn 1982: 255). Important sources of fossil molluscs are the Mainz Basin and the Paris Basin, while marine molluscs come from the Mediterranean Sea and the Atlantic coast. From Gönnersdorf and Andernach there are examples of fossil molluscs from the Mainz Basin. These are also found in Southern Germany and Northern Switzerland. This indicates the existence of social networks in the proximity of major river valleys connecting Northern Switzerland and Southern Germany with the Neuwied Basin (Weniger 1987: 213; Rensink 1993: 116).

Species	Number	Source area	Distance (km)
<i>Glycenaesus</i>	?	Mainz Basin	70
<i>Homalopoma sanguineum</i>	5	Mediterranean	800
<i>Dentalium vulgare</i>	17	Mediterranean/Atlantic	800
<i>Detalium inaequicostatum</i>	5	Mediterranean	800

**Fig 73:** Ornamental molluscs from Gönnersdorf with distances to source areas in km. (After Rensink 1993: Table 11).

Marine molluscs from the Mediterranean and the Atlantic sea are not unusual in Northern Magdalenian, although they usually come in single examples. Exceptions are found at some exceptionally large sites. Andernach, for example, had an accumulation of 46 Mediterranean molluscs, while Gönnersdorf had 27 (fig 73). These finds are often taken as evidences of interregional contacts and the existence of widespread exchange

networks (Bahn 1982:248; Weniger 1987:213; Rensink 1993: 116). It is important to note that the distribution of molluscs varies. In the Paris Basin only local and regionally procured molluscs are present while there is no indication of long distance exchange (Rensink 1993: 115), while in central Europe the import of molluscs is generally scarce (Rensink *et al* 1991: 152).

#### 6.4. SUMMARY

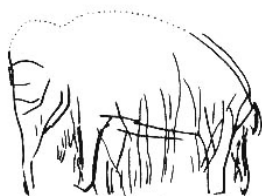
According to radiocarbon chronologies the settlement of Gönnersdorf was used during the time of re-colonisation of the Northern European regions after the Last Glacial Maximum. The site most probably was a residential camp, and from this site further colonisation of previously unoccupied territories was launched (Housley *et al* 1997).

Large sites like Gönnersdorf appear some 400-600 years after the initial settlement of the region. Characteristic of these sites are their size, their solid house constructions and their richness in visual imagery. On the other hand, the material from Gönnersdorf and other similar sites suggests that the settlements after the LGM were more sedentary than the previous Gravettian ones, as well as the later Late Palaeolithic and Mesolithic settlements. Seasonal movements included traffic within regions as well as between. On the other hand, materials like imported lithic raw materials, exotic items like molluscs, as well as stylistic links, indicate that there to a large extent also was some kind of traffic and contact between regions. Large sites, like Gönnersdorf, Andernach and Ölknitz, may have played an important part in these networks, as locations where groups of people originating from different regions aggregated repeatedly at specific times of the year.

Still, there is no hard evidence that links the people who lived at Gönnersdorf directly to coastal regions. The sources of the imported lithic raw materials can only determine human traffic as far as 100-120 km North and North-West from Gönnersdorf. Exotic molluscs may well have been acquired through exchange or trade. However, these facts do not cancel out the possibility that people could have conducted travels that extends the perimeter of lithic raw material procurements.

## CHAPTER 7

### OF MEMORIES OLD AND NEW THINGS TOLD



#### 7.1. INTRODUCTION

In the previous chapter I have evaluated the context of the engraved plaquettes, with particular attention to what kind of site they are found at, and how this site locates within an environmental and social setting that is characterised by human movements and re-occupation of the newly revived landscapes of western central Europe. I have derived that Gönnersdorf probably worked as an aggregation site during some of the phases of its settlement history. The first section of this chapter will address the subject further by trying to understand the relation between mobility and meetings, suggesting that there is a relation between changing environments, human migrations and mobility and the need for social networks and flow of information. Part two of this chapter concerns how mobility and meetings relate to the practice of engraving images to plaquettes. I will present two theories, that in different ways, have suggested that style and some types of visual imagery have worked as communicative means for either effectuating information exchange, or for manifestation and negotiation of social structures. By approaching the practice of engraving plaquettes as a form of communication which has similarities to that we find in storytelling and performance, I find reasons to suggest that there are aspects of both information exchange and ritual communication that are applicable to the plaquettes.

#### 7.2. PLAQUETTES, MOBILITY AND SOCIAL NETWORKS

I have argued, in chapter 5, that the representation of seals at Gönnersdorf must have been made by someone who did actually see the animal, since the animal, at least in one of the representations (PI-163), was executed with strikingly high level of detail and exactness in proportions. I further argued that although the plaquettes are portable, it does not seem probable that any of the plaquettes belonging to the pavement at

Gönnersdorf were brought to the site from other sites or regions. As opposed to exotic goods like molluscs, the representation of seals is not something that reached the site through polynomial segments of exchange, neither through exchange of plaquettes nor as exchange of knowledge. The knowledge of this creature must have been exchanged at the site by the same person who once procured it directly at its source. This relates the engravings to long distance movements, either of people from the western central Europe visiting the coast, or of people from groups closer to the coast visiting the Central Rhineland. In this section I will investigate how the engravings of seals relate to long-distance movements and the maintenance of social networks.

### *7.2.1. Three types of mobility*

In the last chapter I showed how the analyses on lithic raw material procurement and the distribution of imported raw materials in the four concentrations at Gönnersdorf indicates that the site must have been inhabited by groups of people, who prior to their arrival to the Neuwied Basin exploited regions of different geographical directions (Rensink 1993: 126). One exploitation area is found to the north-northwest, at least as far as 120 kilometres from Gönnersdorf, in the area of Duisburg. Another exploitation area is located to the northwest, at least as far as 100 kilometres in the Maastricht-Aachen district. A third exploitation area is identified to the south, at least as far as 70 kilometres from Gönnersdorf in the region of the Mainz Basin. The material indicates that there have been people at Gönnersdorf who have been at these regions or as a minimum have been in contact with someone who has. The large amount of imported raw materials found at the site could be used as an argument favouring the theory of direct procurement (Rensink 1993:126). Analyses of the faunal remains from Gönnersdorf and other sites in the Central Rhineland have also indicated that there were seasonal movements that were ascribed to the exploitation of food (Weniger 1989: 347). There was obviously much mobility that was related to utilitarian strategies of getting food and raw materials, but there were also indicators of mobility which cannot relate directly subsistence and adaptation to the environment.

In chapter 5, I argued that the depictions of seals must relate to the mobility of people. There are no indications that seals, or other marine animals, had any economic importance to the people who used the site at Gönnersdorf, and there is no hard evidence that let us suggest that coastal regions were part of the exploitation area. Signs

of a marine “turnover” are not visible in the archaeological material before approximately 10 000 BC (Bjerck *in press*: 1). There are, however, data which indicates that some human activity did take place in the littoral zones prior to the so-called “turnover”. Nordqvist (2001: 13) has reported registrations of human activity at coastal sites from south-western Sweden which dates 13 000 to 11 000 BP. According to Nordqvist<sup>53</sup>, these data do probably not refer to residential settlements, but rather to sporadic and occasional visits of Continental groups of people whose residential bases were located further to the south. There are also finds from two northern German sites, Meiendorf and Poggenwisch, with radiocarbon dates spanning from 13 800 to 9800 BC (Bosinski 1982: 47-48). On the basis of the lithic inventory, these sites have been identified as belonging to the Hamburgian culture. However, finds of one decorated disc of amber with the engraving of a horse head, one engraving of a carnivore to a pebble of sandstone, and one decorated baguette demi-ronde, might propose that there is a link between these sites and the Magdalenian groups of western Central Europe. All these data fit well with the proposition of Housley *et al* (1997:45) that after the re-colonisation of central Western Europe, further expansion towards the north was launched from residential settlements in the re-colonised regions in central Western Europe. The depictions of an exotic creature such as the seal at Gönnersdorf might relate to mobility of exploration and expansion, or as suggested by Whallon (2006: 263) as “information mobility”, in which the gathering or refreshing of information is primary.

Further, exotic molluscs can be interpreted as indicators of a third type of mobility being present at Gönnersdorf. The directions of movements indicated by the sources of the molluscs are transversal to the patterns of movements that were demonstrated for the seasonal round of subsistence activities. This would mean that molluscs would either be procured through special trips to the sources, or through trade or exchange. Most often, the distribution of molluscs is explained by theories of exchange through social networks, which implies that there was periodic contact between groups at this time. It has been suggested by many (Gamble 1983; Jochim 1998 and Kelly 1995), that the establishment and maintenance of regional and farther social ties is an important part of hunter-gatherer adaptations to uncertain environments (Whallon 2006: 260). According

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<sup>53</sup> Personal communication



to this ‘alliance theory’, social networks function as “safety nets” which are critical to survival if local resources were to become scarce or fail (Whallon 2006: 261). In such situations the connections people have within these networks allow them to move from their own area and get access to sufficient resources in other places. To be effective as a kind of “safety net” the rights and obligations created by these regional social networks must be maintained, and the information flowing through these networks must be kept current and accurate. Therefore meetings must take place often enough to keep both social relations and information solid and reliable (Whallon 2006: 261).

According to this theory, social networks are particularly important in times when resource accessibility is unstable. The period after the Late Glacial Maximum to the Pleistocene/Holocene transition offered huge changes in climate, topography as well as in the ecosystem. Landscapes were re-colonised and expansions continued to the North. This was a time of great changes and new possibilities, and I find that many of the challenges that follow colonisation and expansion are very similar to hunter-gatherer responses to uncertain environments and unstable resources. As stressed by Whallon (2006: 261), people must know the resource conditions in any area to which they might move, since a false move to an area without the sufficient resources “uses up energy to no avail, increasing subsistence stress and risking starvation and, ultimately, death- the ultimate maladaptation”. Information of current conditions at potential destinations is essential and critical before any movement can be undertaken.

People need not only to assure that necessary resources are present, they also need to be certain that they have the necessary technology and equipment to exploit them. When new land is explored, the explorers are also dependent on having a safety net to fall back on, until all the necessary aspects of the new possibilities are mapped and solutions to possible challenges are found. In a situation of expansion and exploration having a safety net in form of a social network seems to be crucial, both for having something to return to as well as a medium for the exchange of important information. I will therefore suggest that the maintenance of social networks and information exchange must have become particularly important in a time when land was re-occupied and new landscapes were explored.

### *7.2.2. Social networks and aggregations*

In chapter 6, it was argued that Gönnersdorf have attributes which allows us to suggest that the site functioned as an aggregation site (Bosinski 1975, 1988; Weniger 1989:347; Rensink 1993: 126-127), at least during some periods of its occupation history. The distribution of lithic raw materials within the sites suggests that the people who used Gönnersdorf exploited different regions prior to their arrival at the site. The loess sediment in which the material is found, together with the complexity that follows by continuous re-occupations of the site, has complicated determinations of which structures were contemporaneous and which were not, and hence if raw materials from different sources were in use at the same time (Rensink 1993: 126). Faunal data has indicated that some concentrations were used at different seasons (Rensink 1993: 101-102). In concentration III, however, lithic raw materials from different directions (brown flint from the Mainz Basin, and West-European flint from the Maastricht/Aachen district) belonged to the same habitation phase, which might verify the hypothesis that, at least at some point, groups of people who came from different regions *were* present at the site at the same time (Rensink 1993: 126).

There are many reasons to why people aggregate. Sometimes people gather to carry out cooperative subsistence strategies, like big scale hunting. Other times the reasons are social, as for attending to rituals, ceremonies and feasts, or reasons may be socio-political, as for building or maintaining social bonds and alliances, and for exchanging goods, people and information. Like determining contemporaneity among settlement structures and separating settlement phases, the identification of particular activities at a complex site such as Gönnersdorf is problematic. It has not been possible to identify evidence for communal subsistence strategies, other that we know that horse must have been an important component of the diet. The abundance and large diversity in the faunal remains of both Gönnersdorf and Andernach suggest that the ecological conditions in the region were very rich, and that aggregation of larger numbers of people would at least have been sustainable (Rensink 1993: 127). Although molluscs are found at the site, we cannot determine that they were actually exchanged in Gönnersdorf. If we look to the neighbouring site, Andernach, we find that 40 molluscs were deposited in an artificial pit. It has been suggested that this pit represents a cache and that the site had a certain function in relation to exchange of molluscs and other material goods (Rensink 1993: 127). It is very difficult to identify why people

aggregated at places such as Gönnersdorf and Andernach, and how these aggregations were organised and what activities were carried out.

There are, however, a few things that we can derive from this material. Firstly, the site was used repeatedly, which implies that this place must have been given a central function in the yearly cycle of some people (Rensink 1993: 126). Secondly, people have met at this place at least during some times of the settlement history of the site. Thirdly, if Gönnersdorf and Andernach had the same function, the deposited molluscs at Andernach could indicate that these sites had special functions related to exchange of exotic goods (Rensink 1993: 127). Fourthly, the accumulations of engraved plaquettes to these sites may further support the hypothesis that the function of the site was also of social character, since the plaquettes represent a special activity which seem to have been centred to very few, but widely scattered sites. In the next chapter, I will try to elaborate this proposition by discussing recent theoretical approaches which suggest that visual imagery can have communicative attributes that particularly relates to interfaces between otherwise fragmented groups of people.

### 7.3. PLAQUETTES AND MEETINGS: TO FIND AND BE FOUND

‘Palaeolithic art’ and engraved plaquettes regarded as such, has traditionally been perceived as aesthetic expressions defined on the basis of their attributes contradicting utilitarian, instrumental and functional artefacts. In the previous chapter we saw that engraved plaquettes have a restricted distribution to a few sites, where they, however, are found in large numbers. It has been suggested by many (Conkey 1980, Weniger 1987, Davidson 1996) that these large and rich sites may have functioned as locales for aggregations of otherwise dispersed groups of people at particular times of the year. The practice of engraving images on plaquettes therefore seems to be linked to meetings or interfaces between people which do not operate together on an everyday basis. Lately, two theories have been proposed, the information-exchange theory and the ritual communication theory, which both suggest that visual imagery can be achieved as communicative tools that have an accentuated function particularly in situations of interfaces between socially or culturally distanced people.

#### *7.3.1. Communication as transmission- the ‘information exchange theory’*

According to media scientist, James Carey (1992: 15-17), the view of communication as transmission is the most common comprehension of communication in industrial cultures. This view is formed on the basis of a metaphor of geography or transportation, and associates to terms such as *imparting*, *transmitting* or *giving information*. In the nineteenth century, the movement of goods or people and the movement of information were seen as essentially identical processes and both were described by the common noun *communication*. In this view, communication is defined as the transmission of signals and messages across geography for the purpose of controlling space and people. The idea derives from what seems to be one of the most ancient human dreams: the desire to increase the speed and effect of messages as they travel in space.

In archaeology, the transmission view of communication finds its equivalent in the information exchange theory. Particularly important were the contributions of Clarke (1968) and Wobst (1977) on cultural information-systems, stylistic behaviour and information exchange. According to Clarke (1968: 66), society can be divided in a series of cultural subsystems, which act through complicated processes of interchange with environmental systems. Within these processes of interchange, culture works as an information system where material culture is the means to transmit survival information. Thus, style becomes a form of adaptation towards natural and social environments, or as stated by Wobst (1977: 321), style is “... *that part of the formal variability in material culture that can be related to the participation of artefacts in processes of information-exchange*”. This means that style has the potential of generating information through artefacts and may therefore function as a means for communication that increase the capacity of human agents to interact successfully with their environments. In short, stylistic communication allows human groups to cope more readily with environmental stress and makes social intercourse more predictable.

In general, information exchange involves the emitting and reception of information. By materialising messages, emitters have the opportunity to produce messages in the absence of any receivers, and materialised messages can be received without any emitters being physically present (Wobst 1977: 322). Information exchange that is communicated through material culture is most advantageous when contact is being made with social distant populations. In contact with people that are socially close, visualisation of communication does not have the same cost saving effect as in contact

with people that are more distanced. Messages that are transmitted this way often concern information about group membership and internal differentiation.

If we try to relate this theory to the practice of engraving plaquettes, there are some immediate divergences. Firstly, although the plaquettes were movable, it does not seem probable that they were carried around or transported out of the site. The function as cultural or social idioms does therefore not seem very likely. It is not likely that the engraved plaquettes were something anyone carried with them, or wore, as to signal cultural or social affiliations, although, as I will come back to in the last section of this chapter, some of the messages that were communicated through the plaquettes may have had some functions that can relate to identity. Secondly, engraved plaquettes do not fulfil intentions of increasing the efficiency of message transmission to the point where messages can be read without the emitter still being present. As pointed out in chapter 4.3.6., experiments have shown that the engravings on slate are only visible for a short time after they are made. The communication mediated by the plaquettes is therefore characterised by immediacy.

If some of the mobility indicated by the Gönnersdorf material relates to exploration and gathering information, we might also suggest that those people who did explore and gather information would also need a media channel in which gathered information could be transmitted or exchanged. Steven J. Mithen (1988) has related ethnographic examples on how modern hunter-gatherers gather information about animals and vegetation through various marks in nature to engravings on antler, bone and stone, suggesting that these objects could have functioned as media for storing and/or exchanging information that has been gathered. Various marks from animals, like tracks, trails or grassing would be collected by the Palaeolithic people during his/her daily tasks in his/her environment and then either be used directly (by initiating a stalk or attempt a kill), or it would be stored and exchanged with other members of the group (Mithen 1988: 297). Because of the immediate character of the engravings, as described above, it seems unreasonable that the plaquettes were used for long term storage of information. Further, if the content of what was communicated through the engraved plaquettes was practical information for everyday tasks, there would be no reason why engraved plaquettes would be concentrated only to a few sites. I would rather suggest

that engraved plaquettes as panels for visualising what is communicated, as visualisation *could effectuate* communication between geographically distant people.

### 7.3.2. *Communication as ritual- the ' ritual communication theory'*

Semantically, the word “communication” has archaic relations to religion and is further associated to terms such as *commonness*, *communion* and *community*. In the ritual comprehension of communication, its manifestation is seen not in the transmission of information as knowledge, but in the construction and maintenance of an ordered, meaningful cultural world that can serve as a control and container for human action. In the archetypal case communication viewed as transmission is the extension of messages across geography for the purpose of control, while viewed in a ritual context communication is the sacred ceremony that draws persons together in fellowship and commonality. (Carey 1992: 19-23)

In archaeology, ritual activity, have, often been defined merely as a dichotomy to utilitarian activities, whereas artefacts or sites that could not be explained according to a functional rationale became relegated to a residual ritual category. There has also been a functional aspect to this model in which ritual as an interwoven part of religion is seen as a strategy towards adaptation to the environment (Rappaport 1971). Since the 1980s, archaeologists have come to focus more upon the social role of ritual practice (Conkey 1985). The latter model is closer to the ritual view of communication as described by Carey (1992: 18), in which it proposes that ritual may work as a tool for people to organise their world and to structure it the way that they want it to be. This model has, on the one hand, the component of organising and making the social structures meaningful, and on the other hand, the possibility of negotiating and manifesting the prevailing world view. This production and manifestation of social theory is something, which according to Conkey (1985: 306), becomes particularly relevant in situations of social change. In such situations there will be a need for introducing and legitimising new social structures. Ritual communication might work as a means for making these structures seem natural and necessary, thereby neutralising opposition and divergence.

Conkey (1985: 299) sees the increment of visual imagery in the Upper Palaeolithic in relation to a growing social complexity, and argues that some of this visual imagery comprises formal, repetitive systems that can be interpreted as ritual communication.

She bases her theory very much on Bloch (1977), who has suggested that there are correlations between the amount of social structure, the degree of ritual communication and the level of institutionalised hierarchy (Conkey 1985: 304). According to Conkey (and Bloch), ritual communication is not an aspect of all human activity, it is not general and everyday, but rather formalised and repetitive, containing ceremonies, greetings, joking relationships and other formalised, predictable, rule-bound, repetitive behaviours (Conkey 1985: 304-305). Since ritual is typically materialised, it should be possible for archaeologists to recognise ritual communication, by looking for formalised, repetitive, rule-bound systems for production of material forms, followed by formalised, repetitive, rule-bound contexts for the use of these forms (Conkey 1985: 305).

If we then look to the ritual communication theory and attempt to identify formalisations and repetitions in production rules and contexts of use, we find that there are some traits attached to the material which is indicative of ritual. Firstly, there are at least some formalised, repetitive and rule-bound aspects as to the design of the engraved plaquettes: they are made on slate plaquettes and the collection of motifs is restricted to women, animals and signs. It is here worth noting that the women are *always* conventionalised without heads and distal parts of arms and legs missing, while the animals are more naturalistic. Secondly, engraved plaquettes are not found everywhere; they are restricted to a few sites where they, however, are found in large amounts. And as pointed out by Weniger (1987: 203), engraved plaquettes, like most other types of visual imagery, are restricted to especially large sites, which may have been venues for aggregations. This may further imply that the practice of engraving plaquettes is one which belongs to a different setting than that of the everyday practices.

I will suggest that the practice of engraving plaquettes is something which relates to social mobility, and that this social mobility was a response to “information mobility” and processes of re-colonisation, exploration of potential exploitation areas and further expansions. In such times, people do not only need to meet in order to exchange information, they also need to maintain social bonds so that those who explore has something to fall back on, at the same time as those who do not explore are dependent on having a good relation to those who explore in order to receive the information which has been gathered. In times of migration a dynamic between information

exchange and maintenance of social ties is necessary if migrations shall be successful. In the last section of this chapter I wish to illustrate how both information exchange and ritual communication might be embedded into the practice of engraving plaquettes.

### *7.3.3. Travelling and meeting: the sense of telling stories*

The character of immediacy in the practice of engraving plaquettes is something that is common with other forms of communication, such as storytelling and performance. There are formal, rule-bound and repetitive traits related to both context and execution, which suggests that the practice of engraving plaquettes was of ritual character. The practice is one that occurs on sites that to large extent are interpreted as locations where people have met, coming from regions adjacent to the site or from more distant regions. It is in such settings where people are gathered, that telling stories might have an important function of reminding people of common origins and shared history, manifesting social orders, negotiating how elements of the world are related, giving ethical advices, educating the youngsters, providing solutions, motivating people, and emitting knowledge and information. Seen as a communication form similar to, or being part of, the tradition of storytelling, it is reasonable to suggest that the engraved plaquettes are not either media for information exchange or ritual communication, but both.

Storytellers narrate about the world, not descriptively or necessarily as it is, but rather of how it is perceived, interpreted, and even about how the world is desired to be (Biesele 1986: 159). On the one hand, storytellers narrate stories of mythological or cosmological character, of things which have happened in the past, like beginnings and creations; of things that are to happen or may happen in the future, as for example prophecies, utopias and afterlives; and of relations between elements of the present, either belonging to the earth, above in the heavens or below in the netherworlds. On the other hand, storytellers narrate historical accounts, of genealogies, historical events, like wars, catastrophes etc., and things that have been experienced. As pointed out by Damm (2005: 76), it is often difficult to distinguish between the two, and more importantly, it is perhaps not correct to do so. In traditional cultures these two types of narrative are often interwoven and inseparable.



A typical trait of storytelling is that the stories are often dramatised and exaggerated. The characters of the stories can be transformed into imaginative representations and metaphors (Biesele 1986: 159). Animals are often used as representations in hunter-gatherer cultures (Kroeber 1899: 17) where they often act like people, speaking and thinking like men but with some characteristics of the specific animal kept intact (e.g. the coyote trickster in Native North American mythology). Further, the representation can be metaphoric; or humans represented by names of animals; humans who have assumed the shape of beasts, or animals which have transformed into becoming human. Stories using representations often work as parables for situations that are relevant in life. Parables typically have moral connotations that are not clearly instructive, but rather encourage its audience to find the right answers themselves. In other words, parables motivate people to reflect and act in certain ways. An advantage of telling by representations, rather than referring to memories of concrete experiences is that one story, or the essence of one story, can be used to illustrate a myriad of situations. In this way social theory becomes easier to remember and work as memory-aids for things that are useful and need to be remembered.

Another trait of storytelling is that the expression might be ritual in character. Storytelling is often reserved to particular contexts and there are repetitive traits of content and composition. Often certain motifs or characters are used repeatedly, like certain animals or particular constellations of either animals, or animals and humans, and typically the same stories are told over and over again (Kroeber 1899: 17). In some cultures the stories are strictly rule-bound, emphasising that composition and content remains the same every time the same story is retold, while in other cultures essential parts of stories remains the same while some elements are removed and replaced by new ones (Damm 2005: 76-77). The first type can be explained by a situation where stories are used for manifesting or legitimising certain social structures, while the second type might relate to a situation where social bonds are not only maintained through manifestation, but where negotiations are allowed and maybe even wanted, where new information need to be evaluated and defined into the existing corpus of social theory. The latter provides a frame in which new information can be exchanged effectively, as it embeds into the existing corpus of the social world.

Among the engraved images at Gönnersdorf there are also some motifs which are used repeatedly, particularly conventionalised women and large mammals like horse and mammoth. When seen in relation to motifs represented in Upper Palaeolithic visual imagery in general, we find that the most frequently used motifs correspond to those which were most frequently engraved on the slate plaquettes from Gönnersdorf. This might indicate that these representations are based on ideas or myths that originate in a distant past. On the other hand, there were also motifs among the engravings which are not so common, neither at Gönnersdorf nor in Upper Palaeolithic representations in general. These are for example representations of seals, felines, birds and carnivores. The presence of these elements may indicate that although the practice of engraving plaquettes has some formal and repetitive traits, this practice probably embodied a communicative form that allowed new elements to enter the existing narrative inventory.

If embedded into the traditional stories, the information of seals and the landscape of which they were part, did not only have an informative effect, it would also be defined, evaluated and understood against the corpus of social ideas which already existed. The engraved seals must therefore have had multiple layers of information attached to them, conveying knowledge of a distant landscape and its properties and possibilities, but at the same time carrying forward unifying mythologies and values. By mixing new characters with familiar plots, new ideas and values could have been introduced, negotiated and accepted. The enactment and dramatisation of the stories, through impermanent motifs on permanent medium, could have had the effect of inscribing these values into the audience, thereby making them durable and active also after the departure from the scene and the site. Finally, the stories and their connotations could therefore have rendered possible changes in the social worlds of these societies.

#### 7.4. SUMMARY

The Late Pleistocene was a period offering great changes in climate, topography and ecosystems. After the re-colonisation of western Central Europe, expansion continued towards the North with further exploration of the coastal regions of Northern Europe (Housley *et al* 1997: 45, Nordquist: personal communication). In this chapter I have argued that through this mobility, people became aware of marine animals like the seal. The strikingly high level of detail and exactness in proportions in at least one of the seal

depictions found at Gönnersdorf, suggests that the execution of this representation was probably made by someone who had seen the animal at its original source. There were no data from the Gönnersdorf material which would imply that the coastal regions constituted a part of the exploitation area of these people. The mobility implied by the representation of seals would therefore be motivated by something other than subsistence and raw material procurement.

There are indications in the material that suggest that Gönnersdorf functioned as an aggregation site at least during some phases of its settlement history. Repeated habitations suggest that the site must have been given a central function in the yearly cycle of some people. Further, there are indicators that imply that at some times people coming from more than one direction met at the site (Rensink 1993: 126). The presence of exotic molluscs and abundance of visual imagery further suggest that some special activities must have been related to this particular site. In this chapter I have argued that in situations of expansion and exploration, having a safety net must have been crucial, both for having something to return to as well as a medium for the exchange of important information. I have suggested that aggregations at sites like Gönnersdorf could have constituted a frame for such activities. Information exchange theory and ritual communication theory have, in different ways, suggested that style and visual imagery have worked as means for either effectuating information exchange, or for manifestation and negotiation of social structures.

The practice of engraving images to plaquettes has a character of immediacy which is similar to communication forms such as storytelling and performance. By seeing the practice of engraving plaquettes as a communication form that is similar to, or being part of, the tradition of storytelling, I have found that it is a communication strategy which not only has the opportunity of strengthening social bonds by referring to a corpus of shared memories and traditional stories, but also provides a frame for introducing new information. By embedding new information directly into the already existing social ideas, this new information would not only be exchanged, but would also become immediately evaluated, discussed and defined against the prevailing social theory.

## CHAPTER 8

### SUMMARY



Images of seals from the Magdalenian site Gönnersdorf in the Central Rhineland has raised questions concerning the nature of the relation between people living in the interior landscape and coastal elements, represented by the depictions of seals. The location of the site more than 450 kilometres from the Late Pleistocene seashore of the North Atlantic Ocean has made these finds somewhat enigmatic. In this thesis I have argued that the representation of seals at Gönnersdorf must have been made by someone who did actually see the animal, since the animal, at least in one of the representations (Pl-163), was executed with strikingly high level of detail and exactness in proportions.

Traditionally, engraved plaquettes have been perceived as ‘Palaeolithic art’, a term which I have argued has strong connotations to modern fine art. These connotations are the reason why emphasis and interpretations have been mainly based on the Franco-Cantabrian cave paintings. Another popular approach is one that has perceived animal representations as ecofacts, rather than artefacts (Bosinski & Bosinski 1991), using visual imagery for reconstructing past environments. In this thesis I have argued that both these approaches need to be abandoned. I have stressed that we rather should not understand the motifs as seals *per se*, nor should the objects be categorically approached as ‘art’. I have advocated an understanding of these objects as a type of material culture, namely ‘engraved plaquette’. These are made by people in certain situations for certain reasons, and must consequently be understood in the context of which they were made and used.

The engraved plaquettes at Gönnersdorf constituted about 9 % of an accumulation of slate plaquettes that formed a pavement for the habitation at the site. The seal was one of many motifs, mainly consisting of naturalistic animals, conventionalised women and abstract signs, which were engraved on more than 500 plaquettes of slate. Several

features which were documented as four separate concentrations has been interpreted as four structures that probably are the remains of dwellings or houses, two tent rings and several of hearths. The site was very rich containing more than 50 000 lithic artefacts and a great number of artefacts made of bone, antler and ivory. Additionally, there were found a large number of 'artistic' artefacts made from various materials, such as figurines made of slate, ivory and antler, engraved and carved objects of bone, antler and ivory, engraved plaquettes of slate and personal ornaments including exotic molluscs.

The composition of the site probably reflects a special usage during several phases of occupation. A credible interpretation is that the site was a venue for seasonal aggregation of people from close and more distant regions. Analyses of the distribution of imported raw materials of the site, has suggested that people exploited different regions prior to their arrival to the Central Rhineland (Rensink 1993). Due to the complex settlement history, identification of activities which can explain *why* people aggregated has been difficult to derive. Finds of exotic molluscs and the accumulation of visual imagery provide reasons to assume that the site had a special function in the yearly cycle of some groups of people and that one motive for aggregation could have been social.

The gathering of otherwise separate people is a situation where social ties can be established and strengthened, and where information can be exchanged. The Late Pleistocene was a phase which was characterised of great changes in the climate, topography and ecosystem. The previous abandoned regions of western Central Europe became gradually re-colonised (Housley *et al*: 1997). An increasing number of data also indicates the beginnings of a further expansion towards the North with an early exploration of the northern coasts (Nordqvist 2001). In this thesis I have stressed that in settings like this, information exchange and maintenance of social networks must have been crucial before any expansion was undertaken. I have further suggested that social mobility between residential sites in western Central Europe and pioneer settlements closer to the northern seashores, can explain how this marine element represented by engraved seals, reached the interior site, Gönnersdorf, in the Central Rhineland.

Information exchange theory (Clarke 1968; Wobst 1977) and ritual communication theory have (Conkey 1985) have, in different ways, suggested that style and some types of visual imagery could have worked as communicative means for, either, effectuating the flow information, or for maintaining, negotiating and justifying social structures. In this thesis, I have argued that there are aspects in both theories that are applicable to the practice of engraving images to plaquettes and that the practice of engraving plaquettes could have worked as a means in the communicative system that keep social networks running and information flowing.

I have stressed that seen as communication; the practice of engraving plaquettes has a character of immediacy which is common for communication forms such as storytelling and performance. These communication forms narrate about different aspects of the world. A typical trait of storytelling and performance is that the stories often are dramatised and exaggerated, and characters can be transformed into imaginative representations, like animals. Such stories often work as parables for situations that are relevant in life and typically have moral connotations which motivate people to reflect and act in certain ways. In some traditions storytelling and performance are strictly repetitive in both inventory of characters, execution of performance and selection of plot. In other traditions essential characters and plots may be repeated, while some elements can be removed in order to be replaced by new ones.

In the practice of engraving plaquettes, some motifs have been used repeatedly, and even accord to the motifs used most frequently in Upper Palaeolithic representations generally. Others, like the seal, are more sporadically and random. I have argued that the mixture of these elements, some old and some new, may indicate that, although the practice of engraving plaquettes has some formal and repetitive traits, this practice probably embodied a communication form that allowed new elements to enter the existing narrative inventory. Seals representing something new and distant, but put in a familiar context, they can open up for the introduction of new and hitherto unfamiliar events, places and ideas.

In a fast-changing natural world it is reasonable to assume that also the social structures must have been challenged. Therefore, it must have been necessary to utilise strategies for maintaining a stable society, while at the same time creating acceptance for change.

The narratives told through the seals on slate can have been part of such a strategy. The medium of the narrative- permanent slate but impermanent images- can have been effective as a performance for inscribing the values conveyed by narrative into the audience. In this way the values would have been active and unifying also after the departure from the aggregation site.

Seen in relation to the upcoming marine “turnover” at the Pleistocene/Holocene transition, I will suggest that the representations of seals may be seen as a signpost for future directions. Could the plaquettes have been a strategy which contributed to pave the way for willingness to go beyond the familiar and old- and ultimately also to go beyond seals?

## Bibliography

- Bahn, P.G.  
1977: Seasonal migration in S.W. France during the late glacial period. *Journal of Archaeological Science* 4. (245-57)
- 1982: Inter-site and inter-regional links during the Upper Palaeolithic: the Pyrenean evidence. *The Oxford Journal of Archaeology* 1. (246-68)
- Bahn, P. G. & Vertut, J.  
1997: *Journey through the Ice Age*. University of California Press. Berkeley & LA.
- Biesele, M.  
1986: How hunter-gatherers' stories "make sense": Semantics and Adaptation. *Cultural Anthropology*. Vol 1, No. 2, The Dialectic of Oral and Literary Hermeneutics. (157-170)
- Bjerck, H.  
(*In press*): Colonizing seascapes: Comparative perspective on the development of maritime relations in the Pleistocene- Holocene transition in NW Europe. Paper presented at MESO2005, The 7<sup>th</sup> International Conference on the Mesolithic in Europe, Belfast 2005. (The conference proceedings will be published by Oxbow Books).
- Bloch, M.  
1977: The past and present in the present. *Man* 12 (2). (278-92)
- Bégouen, H.  
1929: The magic origin of prehistoric art. *Antiquity* 3 (5-19)
- Bosinski, G.  
1970: Der Magdalénien-Fundplatz Feldkirchen- Gönnersdorf, Kr. Neuwied Grabung 1968. *Germania* 47. (1-52)
- 1971: *Die Tierdarstellungen des Magdalénien- Fundplatzes Gönnersdorf bei Neuwied*. Eerste Kroon-Voordracht, Amsterdam. (7-53)
- 1975: Der Magdalénien- Fundplatz Gönnersdorf. *Ausgrabungen in Deutschland*. Monographien des Römisch- Germanischen Zentralmuseums 1. Teil I. (42-63)
- 1979: *Die Ausgrabungen in Gönnersdorf 1968-1976 und die Siedlungsbefunde der Grabung 1968. Der Magdalénien-Fundplatz Gönnersdorf* Band 3. Wiesbaden.
- 1981: Gönnersdorf – Eiszeitjäger am Mittelrhein. Band 2 der Schriftenreihe der Bezirksregierung Koblenz. Koblenz.
- 1982: *Die Kunst der Eiszeit in Deutschland und in der Schweiz*. Kataloge Vor- und Frühgeschichtlicher Altertümer. Band 20. Dr. Rudolf Habelt GMBH, Bonn.
- 1984: The mammoth engravings of the Magdalenian site of Gönnersdorf (Rhineland, Germany). In H-G. Bandi, W. Huber, M-R. Sauter and B. Sltter (eds): *La Contribution de la Zoologie et de l'Ethologie à l'Interpretation de l'Art des Peuples Chasseurs Préhistoriques*. Fribourg: Editions Universitaires (295-322).
- 1988: Upper and Final Palaeolithic Settlement Patterns in the Rhineland, Western Germany. In: H.L. Dibble & A. Montet-White (eds): *Upper Pleistocene Prehistory of Western Eurasia*. University Museum. (375-386)
- 1991: The representation of female figures in the Rhineland Magdalenian. *Proceedings of the Prehistoric Society* 57. (51-64)



- 1995: The Palaeolithic and Mesolithic of the Rhineland. Quaternary Field trips in Central Europe 15, Vol. 2 (W. Schirmer [ed.]). 14. INQUA-Congress Berlin.
- 1996: Die Gravierungen des Magdalénien-Fundplatz Andernach- Martinsberg. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz* 41, 1994. (19-58).
- 1998: Représentations féminines dans la Grotte du Planchard (Vallon Pont d'Arc, Ardèche) et les figures féminines du typ Gönnersdorf dans l'art pariétal. *Bull. Soc. Préhist. Ariège-Pyrénées*, tome LIII.. (99-140)
- Bosinski, G, D'Errico, F. & Schiller, P.  
2001: *Die Gravierten Frauendarstellungen von Gönnersdorf. Der Magdalénien-Fundplatz Gönnersdorf* Band 8. Wiesbaden.
- Bosinski, G. & Bosinski, H.  
1991: Robbendarstellungen von Gönnersdorf. *Sonderveröffentlichung des Geologischen Institutes der Universität Köln* 82 (Festschrift Karl Brunacker). (81-87)
- Bosinski, G. & Fischer, G.  
1974: *Die Menschendarstellungen von Gönnersdorf der Ausgrabung 1968. Der Magdalénien-Fundplatz Gönnersdorf*, Band 1. Wiesbaden.
- 1980: *Mammut- und Pferdendarstellungen von Gönnersdorf. Der Magdalénien- Fundplatz Gönnersdorf*, Band 5. Wiesbaden.
- Bosinski, H.  
1977: Die Rondelle des Magdalénien- Fundplatzes Gönnersdorf. Ein Arbeitsbericht. *Quartär* 27. (153-160)
- Bratlund  
1996: Archaeozoological commets on the Final Palaeolithic frontiers in South Scandianvia. In L. Larsson (ed): *The Earliest Settlement of Scandinavia- and its Relationship with Neighbouring Areas*. Acta Achaeologica Lundensia. Series 8. No 12. Stockholm. (23-34)
- Breuil, H.  
1952: *Four Hundred Centuries of Cave Art*. Centre d'Etudes et de Documentation Préhistoriques: Montignac.
- Brunacker, K.  
1978: *Geowissenschaftliche Untersuchungen in Gönnersdorf. Der Magdalénien –Fundplatz Gönnersdorf* 4 (Wiesbaden)
- Carey, J. W.  
1992: *Communication As Culture: Essays on Media and Society*. Routledge: New York and London.
- Cheyrier, A.  
1965: L'abri Lachaud à Terrasson, Dordogne. *Préhistoire* XVI.
- Clark  
1946: Seal-hunting in Stone Age of North-western Europe: A study in economic prehistory. *The Prehistoric Society* No. 2. (12-48)
- Clarke, D.L.  
1968: *Analytical Archaeology*. London: Methuen.
- Cleyet-Merle, J-J. & Madelaine, S.  
1995: Inland evidence of human sea coast exploitation in Palaeolithic France, in A. Fischer (ed): *Man and Sea in the Mesolithic*. Oxbow Brooks, Oxford, S., (303-308)

- Clottes, J.  
 1989: The identification of human and animal figures in European Palaeolithic art. In H. Morphy (ed): *Animals into Art*. London: Unwih Hyman. (21-56)
- Clottes, J. & Courtin, J.  
 1995: *Grotte Cosquer bei Marseille. Eine im Meew versunkene Bilderhöhle*. Jan Thorbecke Verlag.
- Coles, B.J.  
 1998: Doggerland: a speculative survey. *Proceedings of the Prehistoric Society* 64. (45-81)
- Conkey, M. W.  
 1980: The identification of prehistoric hunter-gatherer aggregation sites: The case of Altamira. *Current Anthropology*. Vol. 21, No. 5. (609-630).  
 1985: Ritual communication, social elaboration, and the variable trajectories of Palaeolithic material culture. In T. D. Price & J. A. Brown (eds): *Prehistoric Hunter-Gatherers: The Emergence of Cultural Complexity*. Academic press. (299- 323)
- Conkey, M.W, Soffer, O., Stratmann, D. & Jablonski, N.  
 1997: *Beyond Art. Pleistocene Image and Symbol*. Wattis Symposium Series in Anthropology. Memoirs of the California Academy of Scioences. Nr. 23.
- Damm, C.  
 2005: Archaeology, ethno-history and oral traditions: Approaches to the indigenous past. *Norwegian Archaeological Review*. Vol. 38, No 2. (73-87)
- Davidson, I.  
 1989: Freedom of information: aspects of art and society in western Europe during the last Ice Age. In H. Morphy (ed): *Animals into Art*. Unwin Hyman, London, UK. (440-456)  
 1997: The power of pictures. In M. W. Conkey & O. Soffer: *Beyond Art. Pleistocene Image and Symbol*. Wattis Symposium Series in Anthropology. Memoirs of the California Academy of Scioences. Nr. 23. (125-159)
- Dawson, T.A. & Porr, M.  
 2001: Special objects- special creatures: Shamanistic imagery and the Aurignacian art of south-west Germany. In N. Price (ed): *The Archaeology of Shamanism*,. New York, Routledge. (165-177)
- Eickhoff, S.  
 1989: Zur Analyse der latenten Strukturen und der Siedlungsdynamik der Konzentration II von Gönnersdorf. *Jahrbuch des Römisch-Germanischen Zentralmuseums* 36. (117-158)
- Fischer, G.  
 1979: Eine "Jagdscene" aus Gånnersdorf. *Archäologisches Korrespondenzblatt* 9. (243- 249)
- Franken, E. & Veil, S.  
 1983: *Die Steinartefakte von Gönnersdorf. Der Magdalénien- Fundplatz Gönnersdorf*. Band 7. Wiesbaden.
- Gamble, C.  
 1982: Interaction and alliance in Palaeolithic society. *Man*, New Series, Vol 17, No. 1. (92-107).  
 1983: Culture and society in the Upper Palaeolithic of Europe. In G. N. Bailey (ed): *Hunter.Gatherer Economy in Prehistory*. Cambridge University Press, Cambridge.

- Hahn, J. and Münzel, S.  
 1995: Knochenflöten aus dem Aurignacien des Geissenklösterle bei Blaubeuren, Alb-Donau-Kreis. *Fundberichte aus Baden-Württemberg*, 20, 1-12.
- Halverson, J.  
 1987: Art for art's sake in the Palaeolithic. *Current Anthropology*. Vol 28. No 1. (63-87)
- Housley, R. *et al*  
 1997: Radiocarbon evidence for the Lateglacial Human Recolonisation of Northern Europe. *Proceedings of the Prehistoric Society* 63 (25-54).
- Hylland- Eriksen  
 1993: *Små steder- store spørsmål: innføring i sosialantropologi*. Oslo: Universitetsforlaget.
- Jochim, M. A.  
 1983: Palaeolithic cave art in ecological perspective. In g. Bailey (ed): *Hunter-Gatherer Economy in Prehistory. A European Perspective*. (212-219)  
 1998: *A Hunter-Gatherer Landscape: Southwest Germany in the Late Palaeolithic and Mesolithic*. Plenum Press, New York
- Kelly, R.L.  
 1995: *The Foraging Spectrum: Diversity in Hunter-Gatherer Lifeways*. Smithsonian Institution Press, Washington.
- Klausen, A. M.  
 1981: *Antropologiens historie*. Oslo: Gyldendal
- Kroeber, A. L.  
 1899: Animal tales of the Eskimo. *The Journal of American Folklore*. Vol 12, No. 44. (17-23)
- Laming-Emperaire, A.  
 1962: *La Signification de l'Art Rupestre Paléolithique*. Picard: Paris.
- Leroi-Gourhan, A.  
 1965: *Préhistoire de l'art occidental*. Paris.  
 1967: *Treasures of Prehistoric Art*. New York : H. N. Abrams  
 1971: *Prähistorische Kunst : die Ursprünge der Kunst in Europa*. Freiburg im Breisgau : Herder
- Leroi-Gourhan, Arl.  
 1978: Analyse pollinique. In: *Geowissenschaftliche Untersuchungen in Gönnersdorf. Der Magdalénien –Fundplatz Gönnersdorf 4*. Wiesbaden
- Luquet, G. H.  
 1930: *The Art and Religion of Fossil Man*. New Haven & London 1977
- Marshack, A.  
 1970: Le Baton de commandement de Montgaudier (Charente). Réexamen au microscope et interprétation nouvelle. *L'Anthropologie*. Vol 74. No 5-6. (321-352)
- Mithen, S. J.  
 1988: Looking and learning: Upper Palaeolithic art and information gathering. *World Archaeology* Vol. 19, No. 3. (297-326)  
 1991: Ecological interpretations of Palaeolithic art. *Proceedings of the Prehistoric Society* 57, part I. (103-114)

- Nordqvist, B.  
2000: I spåren efter de sista mammutjägarna. Den arkeologiska undersökningen vid Skatmossen år 2000. Unpublished report.
- Post, K.  
1999: Een Laat Pleistocene zandrob en ringrob van de Noordzee. *Cranium* 16. 2. (71-75)
- Rappaport, R.  
1971: The sacred in human evolution. *Annual Review of Ecology and Systematics* 2. (23-44)
- Rensink, E.  
1993: Moving into the North Magdalenian Occupation and Exploitation of the Loess Landscapes of Northwestern Europe. Unpublished Dr. Art. University of Leiden  
1995: On Magdalenian mobility and land use in north-West Europe. *Archaeological Dialogues*. Vol 2. No 2. (85-119)
- Rensink, E. Kolen, J. & Spiekma, A.  
1991: Patterns of raw material distribution in the Upper Pleistocene of Northwestern and Central Europe. In A. Montet-White & S. Holen (eds): *Raw Material Economics among Prehistoric Hunter-Gatherers*. University of Kansas Publications in Anthropology. 19. Lawrence KS. (141-159)
- Roveland, B. E.  
1990: Ritual as action: The production and use of art at the Magdalenian site, Goennersdorf. Unpublished M.A. thesis, University of Massachusetts.
- Semb-Johansson, A.  
1990: *Verdens Dyr. Havets Pattedyr*. J.W. Cappelens Forlag As.
- Serangeli, J.  
2001: La zona de costa en Europa durante la última glaciación. Consideraciones al análisis de restos y representaciones de foca, cetáceos y alcas gigantes. *Cypsela* 13. (123-136)
- Soffer, O.  
1997: The mutuality of Upper Palaeolithic art in Central and Eastern Europe: Patterning and significance. In M. Conkey, O. Soffer, D. Stratmann & N. Jablonski (eds): *Beyond Art. Pleistocene Image and Symbol*. Watis Symposium Series in Anthropology. Memoirs of the California Academy of Sciences. Nr. 23. (239-262)
- Soffer O., & Conkey, M.  
1997: Studying ancient visual cultures. In M. Conkey, O. Soffer, D. Stratmann & N. Jablonski (eds): *Beyond Art. Pleistocene Image and Symbol*. Watis Symposium Series in Anthropology. Memoirs of the California Academy of Sciences. Nr. 23. (1-17)
- de Sonneville-Bordes, D. & Laurent P.  
1983: Le phoque a la fin des teps glaciaires. In F. Poplin (ed): *La faune et l'homme préhistoriques, Mémoires de la société préhistorique française*, (69-80)
- Stapert, D. & Terberger, T.  
1989: Gönnersdorf concentration III: investigating the possibility of multiple occupations. *Palaeohistoria* 31. (59-95)
- Street, M.  
1988: The archaeology of the Pleistocene-Holocene transition in the northern Rhineland, Germany. *Quaternary International*. Vol. 49/50 (45-67)

- Street, M., Baales, M. & Weninger, B.  
 1994: Absolute Chronologie des späten Paläolithikums und des Frühmesolithikums im nördlichen Rheinland. *Archäologisches Korrespondenzblatt* 24. (1-28)
- Terberger  
 1988: Ein Zeltringbefunde des Magdalénien-Fundplatzes Gönnersdorf; Neuwieder Becken. *Jahrbuch des Römisch-Germanischen Zentralmuseums* 37. (137-159)  
 1992: Die Siedlungsbefunde des Magdalénien-Fundplatzes Gönnersdorf : Konzentration III und IV / Thomas Terberger. Unpublished P.hD thesis. Köln Universität.  
 2001: Zur Rekonstruktion eines Zeltes mit Trapezförmigem Grundriss am Magdalénien-Fundplatz Gönnersdorf/Mittelrhein- Eine "Quadratur des Kreises"? *Archäologisches Korrespondenzblatt* 31. Heft 2. (163-172)
- Thiault, M.-H., & Roy, J-B.  
 1996: *L'art préhistorique des Pyrénées*. Musée des Antiquités nationales-château de Saint-Germain-en Laye. Paris (Réunion des musées nationaux, Paris)
- Thomas, J.  
 1996: *Time, Culture and Identity. An Interpretive Archaeology*. Routledge: London and New York.
- Tomášková, S.  
 1997: Places of art: Art and archaeology in context. In M. Conkey, O. Soffer, D. Stratmann & N. Jablonski (eds): *Beyond Art. Pleistocene Image and Symbol*. Watis Symposium Series in Anthropology. Memoirs of the California Academy of Sciences. Nr. 23. (265-288)
- Trigger, B.  
 1989: *A History of Archaeological Thought*. Cambridge : Cambridge University Press.
- Ucko, P. J. & Rosenfeld, A.  
 1967: *Palaeolithic Cave Art*. McGraw-Hill Book Company. NY & Toronto.
- Verworn, M.  
 1909: *Die Anfänge der Kunst*. Jena: Fischer.
- Weniger  
 1987: Magdalenian settlement pattern and subsistence in Central Europe. The Southwestern and Central German cases. In O. Soffer (ed): *The Pleistocene Old World. Regional Perspectives*. New York. (201-215)  
 1989: The Magdalenian in Western Central Europe: Settlement pattern and regionality. *Journal of World Prehistory* Vol. 3, No. 3. (323-372)  
 1991: Überlegungen zur Mobiltät jägerischer Gruppen im Jungpaläolithikum. *Saeculum. Jahrbuch Universalgeschichte*. Band 42, Hefte 1. (82-103)
- Whallon, R.  
 2006: Social networks and information: Non-"utilitarian" mobility among hunter-gatherers. *Journal of Anthropological Archaeology* 25. (259-270)
- White, R.  
 1992: Beyond art: Toward an understanding of the origins of material representation in Europe. *Annual Review of Anthropology*. Vol. 21. (537-564)

1997: Substantial acts: From materials to meaning in Upper Palaeolithic Representation. In M. Conkey, O. Soffer, D. Stratmann & N. Jablonski (eds): *Beyond Art. Pleistocene Image and Symbol*. Watis Symposium Series in Anthropology. Memoirs of the California Academy of Sciences. Nr. 23. (93-122)

Wobst, H. M.

1977: Stylistic behaviour and information-exchange. In: C.E. Cleland (ed): *Papers for the Director: Research Essays in the Honour of James B. Griffin*. Anthropological Papers 61 (317-342)

Yellen,

1971: *Archaeological approaches to the present*. New York: Academic Press

**Internet sources:**

<http://www.culture.gouv.fr/culture/archeosm/archeosom/en/co-ping.h>

<http://www.turismoderonda.es/excursiones/eng/pileta.htm>

<http://www.photolib.noaa.gov/animals/images/big/anim0219.jpg>

<http://www.transboreal.fr/galleries/regions/spitzberg/spitzbergimages/spitzbergphoto7.jpg>

[http://www.mammalogy.org/mil\\_images/images/mid/135.jpg](http://www.mammalogy.org/mil_images/images/mid/135.jpg)

<http://www.pinnipeds.fsnet.co.uk/species/ringed.htm>

<http://www.pinnipeds.fsnet.co.uk/species/harbour.htm>

**Personal communication:**

Michael Baales, Forschungsbereich Altsteinzeit- RGZM, Germany

Olaf Jöris, Forschungsbereich Altsteinzeit- RGZM, Germany

Bengt Nordqvist, Riksantikvarisämbetet- Sweden

Jordi Serangeli, University of Tübingen, Germany

Thomas Terberger, University of Greifswald, Germany