NEW YORK UNIVERSITY
Proceedings of the International Symposium
April 08-10 2013, New York (USA)

AURIGNACIAN GENIUS
Art, Technology and Society
of the First Modern Humans in Europe

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THE OLDEST PORTABLE ART:
the Aurignacian Ivory Figurines from the Swabian Jura (Southwest Germany)

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Abstract
Four cave sites in the Swabian Jura have yielded a spectacular array of portable art: Hohle Fels, Geißenklösterle, Vogelherd, and Hohlenstein-Stadel. Some of these ivory figurines are well known, and others less so. In all, about fifty such objects or fragments of objects are known from the region. They occur in the same archeological levels where have been found musical instruments (flutes) and early examples of painting. Drawing on recent research as well as archival records from earlier excavations, this contribution chose a simple question-and-answer format in order to revisit issues of the interpretation of Aurignacian portable art objects, which constitute some of the earliest known representational artifacts in Europe, and perhaps the world. Subjects addressed include informations about raw materials, iconography, dating, context and the possible social foundations underlying the production and use of these objects.

Keywords
Aurignacian, ivory figurines, Swabian jura.

Introduction
Since the first discovery of Aurignacian ivory figurines by Gustav Riek at Vogelherd cave in 1931, there had been a lot said and written about these marvelous tiny sculptures. Since Gustav Riek (1934), many researchers have been or are still involved in the recovery, the study, and the enhancement of these objects, such as Karl Dietrich Adam, Reiner Blumentritt, Michael Bolus, Gerhard Bosinski, Nicholas J. Conard, Harald Floss, Joachim Hahn, Wulf Hein, Claus-Joachim Kind, Stefanie Köbl, Maria Malina, Sam Mallin, Hansjürgen Müller-Beck, Martin Porr, Anne Scheer, Elisabeth Schmid, Otto Völzing, Eberhard Wagner, Kurt Wehrberger and Robert Wetzel (listing not imperatively exhaustive).

Studies by these and other researchers have produced a considerable body of data. Here, we have chosen a simplified question-and-answer format to present the basics of this subject and the current state of our knowledge about these remarkable objects to an international public.

1 - How many sites are involved?
There are four cave sites of the Swabian Jura yielding Aurignacian ivory figurines. These caves are situated in valleys of tributaries of the Danube crossing the Jurassic plateau: The Lone valley with Vogelherd cave and Hohlenstein-Stadel and the Ach valley with Geißenklösterle cave and Hohle Fels near Schelklingen (figure 1). But beware! These four sites are by far not the only caves...
in the region yielding Aurignacian levels. And – in a region dominated by caves, some have been recently discovered for the first time. Surveys and excavations are also being undertaken at two presumed Aurignacian open air sites, Königsbach-Stein near the city of Pforzheim (Floss, Poenicke, 2006) and Börslingen, on the Alb plateau near the Lone valley (Floss et al., 2012).

2 - How many sculptures have been found?

In recent years, ongoing investigations have increased the number of figurines (Conard, 2003, 2009; Conard, Floss, 2013; Conard et al., 2009; Floss, 2007, 2009; Floss, Conard 2010; Floss, Rouquerol, 2007). Today, about 50 objects, including figurine fragments, are known. But it is not always certain if these fragments belong to new or to already-known figurines. In at least two cases, spectacular refits of fragments have proved that they belong to the torso of an animal. This is the case for an animal without a head found by Gustav Riek in 1931, which had been interpreted as a bear or a young rhino (Hahn, 1986). The stunning refit of a head, recently discovered in the course of field operations directed by Nicholas J. Conard, shows that this animal might be a bear or even a lion (figure 2). Still, by far the majority of the figurines come from Vogelherd, followed by Geißenklösterle and Hohle Fels (with four figurines each) and finally Hohlenstein-Stadel with its recently newly refitted and completed lion man (figure 3; Ulmer Museum, 2013).
Figure 2 - The newly refitted ivory figurine of a torso of an animal (found by Gustav Riek in 1931 in Vogelherd cave) and its newly discovered head by investigations directed by Nicholas J. Conard (photo: Hilde Jensen, University of Tübingen).

Figure 3 - The Lion-man from Hohlenstein-Stadel in his newly refitted shape (photo: Y. Mühleis © Landesamt für Denkmalpflege im RP Stuttgart).
3 - What is depicted?

Animals, humans and hybrid beings! The topics of Aurignacian art differ from those of the evolved Upper Paleolithic. The taxonomically assignable Swabian animal figurines represent mostly mammoth and lion (figure 4) and also horse (figure 5), bison, and maybe rhino. This observation led to the hypothesis “Kraft und Aggression” by Joachim Hahn (1986) according to which powerful and aggressive animals are the commanding topics. Nevertheless, the Aurignacian animals of the Swabian Jura are mostly represented in a static and not really aggressive manner (Serangeli, 2004). Furthermore, depictions of small and peaceful animals, such as waterfowl (figure 6), fish and small mammals have recently been discovered, which to some extent modify the traditional view. The most fascinating theme of the Swabian Aurignacian is that of therianthropes, mixed beings, half man, half beast. By far the most renowned example is the lion-man from Hohlenstein-Stadel (figure 3), which at 30 cm tall is much bigger than the other figurines (Wehrberger, 1994). Additionally, there is a miniature version of the lion-man from Hohle Fels cave and the so-called worshipper from Geißenklösterle, a human relief with raised arms and a strange long appendix between the legs, which resembles more a draped hide with a tail than a male sexual organ. Finally, there is an anthropomorphic figurine from Vogelherd which has some formal similarities with a figurine from Trou Magrite (Belgium) and a phallus sculpture from Abri Blanchard (Dordogne) and, of course, the fabulous “Venus” figurine from Hohle Fels cave (figure 7; Conard, 2009).

4 - Which raw materials?

Commonly, the Swabian depictions are called “ivory figurines”. Ivory working, for the production of tools (Hahn, 1988), personal ornaments (Wolf, 2013) and mobile art (Hahn, 1986), is an essential factor of the Swabian Aurignacian technology. The mammoth ivory originates partly from hunted animals but predominantly from tusks and fragments which had been collected by the Aurignacian hunter-gatherers (Niven, 2006). Beyond ivory, other materials were also used for portable art. A mammoth relief from Vogelherd cave is carved on a bone pendant (figure 8), and another admittedly questionable mammoth depiction from the same site is made of sandstone (Floss, 2007).

5 - How old are the figurines?

The Aurignacian figurines from the Swabian Jura were faced for a long time with the same unjustified criticism of their antiquity leveled against Grotte Chauvet-Pont d’Arc today. Our discipline has for too long been influenced by ideas that art production is bound by a strict and linear evolution in which only simple and archaic achievements could possibly be Aurignacian (Leroi-Gourhan, 1965). The Vogelherd discoveries might have been considered to be supposedly biased by the old excavations of the 1930s, but the precise excavation techniques of Joachim Hahn at Geißenklösterle cave (Hahn, 1988), supported by a detailed radiocarbon record, proved the early Aurignacian age of the Swabian figurines. Nevertheless, we are astonished to find in some recent papers, particularly by certain Neanderthal enthusiasts, claims that the Swabian art production did not start before the evolved Aurignacian. This view is wrong. The new female figurine from Hohle Fels has been discovered in the lowermost Aurignacian level (Conard, 2009). In Geißenklösterle, too, some of the art objects originate from the lowest Aurignacian level. The radiocarbon record (Higham et al., 2012) leaves nothing to be desired and indicates that the Swabian early Aurignacian has an age around 42 000 cal BP (figure 9), older, by the way, than some Châtelperronian and Protoaurignacian sites of Southwestern Europe.
Figure 4 - Ivory figurine of a lion, Vogelherd cave, excavations Riek 1931.

Figure 5 - The Vogelherd horse, excavations Riek 1931.

Figure 6 - Water fowl ivory figurine, Hohle Fels near Schelklingen, excavations Nicholas J. Conard.

Figure 7 - The Hohle Fels Venus, excavations Nicholas J. Conard.

Figure 8 - Relief of a mammoth on a bone pendant, excavations Riek 1931.

(photos: Hilde Jensen, University of Tübingen; figure 7 after Conard, 2009).
Figure 9 - Bayesian model for the Geißenklösterle ¹⁴C-sequence using OxCal 4.1 (after Higham et al., 2012: figure 5).
I would like to make here a supplementary statement for those scholars who might take issue with the Aurignacian age of the Vogelherd figurines due to the fact that they come from the old Riek excavations or from recent excavations of backdirt, and therefore might be Gravettian (due to similarities with Moravia) or even not datable at all: There is no doubt that the age of the Vogelherd figurines is Aurignacian. First of all, the stratigraphic observations of the 1930s excavations are quite convincing (Riek, 1934). Furthermore, the lithic and bone technology as well as the radiocarbon record of objects belonging to the Aurignacian levels is unambiguous. And finally, I would like to give a very important new argument: In his excavations, Gustav Riek didn’t pay much attention to small objects. In the new excavations of his backdirt, due to careful water-screening of the sediments, several hundreds of elements of personal ornamentation, such as beads and pendants have been found. The meticulous study of these very reliable cultural and chronological markers (Wolf, 2013) showed that these items (particularly the double perforated beads) match perfectly with stratified Aurignacian objects from the region (such as Hohle Fels), whereas Gravettian or other types of beads are totally lacking.

6 - Why is the Swabian Jura a paleolithic melting pot?

In historical times and even into the present day, the Swabian Jura is one of the most isolated areas of Central Europe. Until the 19th century, the region was characterized by one of the highest rates of infant mortality in Europe. The harsh climatic conditions and poverty affiliated with religious piety made the indigenous people of the “Alb” suspicious and bitter. Nevertheless, once you won their confidence, you’d find great friends. And - likely no other part of central Europe is characterized by such an accumulation of enterprises with international reputation that make Swabia one of the most innovative regions of the world.

In Paleolithic times the situation was similar, but of course due to completely different reasons. The Paleolithic hunter-gatherers found everything they could need in this open highland, crossed by copious valleys. The Swabian Jura was visibly rich in game, shelter and diverse raw materials, particularly Jurassic chert for stone tool production. It may be, though, that the most decisive factor was the proximity of the Danube, which certainly played a major role as an orientation axis for animal and human migrations. It may even be that the dispersal of anatomically modern humans took place along these major river systems.

7 - Beyond the ivory sculptures, are there other indications of a Swabian Aurignacian genius?

Yes, indeed. The Swabian Aurignacian yields several musical instruments. Three sites, Geißenklösterle, Vogelherd and Hohle Fels, provide at least eight examples of flutes that were made of bird bones (swan and vulture) (figure 10) and, particularly astonishing, of ivory (Conard et al., 2009). Furthermore, there is one example of painting. At Geißenklösterle, a small limestone block bears a series of painted stripes, from black to red and light ochre back to red and black (Floss, Conard, 2001, 2009) (figure 11). This stone indicates the knowledge of pigment processing and painting in the Swabian Jura. As the small block is painted all around, it’s not an example of parietal art, but of early Aurignacian portable art. Finally, the Swabian Jura yields an amazing record of very rich and various objects of personal ornaments (Wolf, 2013) which were obviously an integral part of the Aurignacian society.
Figure 10 - Flute from a vulture bone. Hohle Fels cave, excavations Nicholas J. Conard (photo: H. Jensen, University of Tübingen).
8 - What makes the Swabian figurines so unique?

Beyond their great antiquity, the Swabian figurines are fascinating for several reasons. First, yes, they are beautiful. The carvings have harmonious and rounded shapes and smooth surfaces, providing not only a visual appeal, but a tactile interest as well (figure 5) (Floss, 2000, 2007). The figurines have a very individual character, as if they belonged to and/or had been created by distinct persons. Furthermore, some of the figurines were pendants (figures 8, 12). Most of them were small and could be carried around in everyday life. That is to say, mobile objects in a mobile world. Finally, the figurines are covered with marks and engravings, dots, lines, hooks, criss-crossed motifs, etc. (figure 13). The message behind these signs remains mysterious. The figurines depict animals from every possible living sphere: earth, water and air. And even more: The hybrid beings evidence mythological beliefs.
9 - What about the contextual information of the figurines?

At Vogelherd, Gustav Riek in course of his 1931 excavations paid more attention to stratigraphy and unfortunately much contextual information is lacking. Vogelherd has a y-shaped floor plan with three galleries meeting in the centre. There, at the central point of the cave, at least some of the objects have been recorded (Riek, 1934) (figure 14). In Geißenklösterle cave, the sculptures were discovered in the midst of ordinary lithic and faunal waste (Hahn, 1988). In contrast, at Hohlenstein-Stadel, the circumstances of recovery are particularly interesting. The ivory fragments that were refit much later to the lion-man figurine, were found deep in the cave, where ordinary lithic and osseous remains became scarce, and near a niche in the cave wall, as if the lion-man...
had been placed or deposited in a special place (Ulmer Museum, 2013). Finally, Hohle Fels also demonstrates unique contexts of deposition of the most outstanding objects. Even if it’s true that the ivory figurines have been recorded in the middle of the ordinary occupation debris, the female figurine and the vulture-bone flute were found in the same sub-layer only a few centimeters from each other (Conard, 2009). This observation could indicate that these two outstanding objects had been involved in the same (possibly ritual) use.

10 - Aurignacian art in Europe

A second centre with Aurignacian art is located in the Dordogne, southwestern France (Delluc, Delluc, 1991). It comprises at least seven rock shelters which yield engraved and painted prototypical limestone blocks, forming the so-called archaic art of the Périgord: La Ferrassie, Abri Blanchard, Abri Castanet, Abri Cellier, Abri Pataud, Abri Belcayre and Fongal. It is probable that in Aurignacian times some of these rock shelters were completely decorated. Others have only single decorated blocks. It is also very probable that some caves of the region were already decorated at that time (Les Bernous; La Cavaille; Pair-non-Pair; La Croze à Gontran; Les Fieux, Lot).

All in all, we consider the original vibrancy and the role of Aurignacian art in the Dordogne to have been much more significant than their appearance nowadays suggests, for they have been heavily affected by erosion, premature excavations and the dispersal of decorated artifacts into numerous collections. This vision of an “artified” Aurignacian landscape, in the centre of the Dordogne, underlines, in our view, the artistic take-off which took place at that time; it replies to some recent approaches which tend to minimize the significance of Aurignacian art (Combier, Jouve, 2012). Furthermore, new series of radiocarbon dates confirm its old age. In Castanet, recently discovered paintings and engravings belong to deposits dated to at least 37,000 years BP (Mensan et al., 2012).

Grotte Aldène (Hérault), La Baume-Latrone (Gard) and, of course, Grotte Chauvet at Vallon-Pont d’Arc (Ardèche, France) (see different contributions in this volume) yield further evidence for Aurignacian cave art. South of the Alps, the very important cave site of Fumane, located in Northern Italy near to the city of Verona, yields at least six fragments and blocks of limestone painted with red colour (Broglio et al., 2007). They represent enigmatic animals, symbols and particularly a bull headed creature which reminiscent of the hybrid beings at other Aurignacian sites, e.g. Grotte Chauvet and Hohenstein-Stadel.

Finally, we want to stress a very important discovery which had recently been conducted in Rumania. Peștera Coliboia is a cave in Transylvania, located in the Bihor area (Western Carpathian Mountains). In this partly flooded cave were recorded paintings of animals (rhino, etc.) which show stylistically striking similarities to depictions of Grotte Chauvet and which recently have been dated to about 32,000 BP (Clottes et al., 2011).

All in all, at least 30 European places, caves, rock shelters and open air sites, yield early Upper Paleolithic and in particular Aurignacian art. From the Iberian Peninsula in the west to Rumania and the Russian plains in the east, from Belgium (Trou Magrite) in the north to Austria (Stratzing) and Italy in the south, Aurignacian art was present all over the European continent. If we take into account that only parts of the former reality are preserved and part of the archeological heritage, it is evident that the production and use of mobile and parietal art were common features of the early upper Paleolithic cultures and societies.
11 - What about the role of the Swabian figurines for the history of mankind?

This new awareness of a generalized presence of a multifaceted Aurignacian art all over the continent initializes a withdrawal from outdated beliefs by which art production supposed to be bound by a strict and linear evolution in which only simple and archaic realizations “had the right” to be Aurignacian. The ivory sculptures from the Swabian Jura support in an impressive way the claim of “Aurignacian genius” such as it has been defined for our common project, especially in terms of symbolic behavior. Never before in the prehistory of mankind, neither in the Neanderthal world, nor in the African MSA, has an archeological record been observed that could compete in variety and excellence with that of the Aurignacian. Its numerous innovations (figurative and complex parietal art, musical instruments, mythical imagery, sculpted personal ornaments etc.) could be linked with a new social order or at least with new religious or social customs. There are arguments that these new elements are linked with the first anatomically modern humans emerging in Eurasia. Neanderthals did neither paint Grotte Chauvet, nor carve the Swabian figurines. They were not inferior, but certainly different!

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