ORIGINS OF PICTURES

KLAUS SACHS-HOMBACH / JÖRG R. J. SCHIRRA (EDS.)

HERBERT VON HALEM VERLAG

ANTHROPOLOGICAL DISCOURSES IN IMAGE SCIENCE
Origins of Pictures

Anthropological Discourses in Image Science

Herbert von Halem Verlag
Klaus Sachs-Hombach / Jörg R. J. Schirra (Eds.)

Origins of Pictures.
Anthropological Discourses in Image Science
Köln: Halem, 2013

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ISBN 978-3-86962-057-2

http://www.halem-verlag.de
E-Mail: info@halem-verlag.de

TYPESETTING: Herbert von Halem Verlag
PRINT: docupoint, Magdeburg
COVER DESIGN: Claudia Ott Grafischer Entwurf, Düsseldorf
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Anyone talking about pictures by necessity refers to those using pictures. It is therefore essentially the competence of using pictures that has to be considered. Such competence is not common among higher developed mammals, at least as far as we know today. This fact raises the question whether and to what extent that ability has to be conceived as a strictly anthropological one. In an interdisciplinary approach, the first international conference of the Society for Interdisciplinary Image Science (GiB) titled *Origins of Pictures* has taken a closer look at the role of pictures for the conditio humana.

The primary goal of the conference was to present empirical findings of the origins of picture uses, considering in particular research in paleo-anthropology, archeology, cultural anthropology, and developmental psychology. Furthermore, those findings were to be related to philosophical considerations concerning the conditions of the conceptual formation of picture competence.
One of the earliest perceptions of prehistoric art was to reject it completely. When in 1874 close to the border of Switzerland with Germany, in the Kess­lerloch near Thayngen, reindeer bones with carved pictures of animals came to light, leading experts would not believe the great age of the im­agery. The best-known picture shows a reindeer with mighty antlers; the engraving is of exceptional precision (Fig. 1).

The animal has its head lowered, as if it were about to graze, and the limbs show depth in perspective, i.e. the legs in the background are graphically set off from the belly. The fact that the fossilized bones were of a reindeer that had already died out in Central Europe and also that this piece of art
was found at a depth of one metre below ground level left excavators in no doubt about its age. The picture on the bone, like the bone itself, had to be from the Ice Age! This caused a considerable sensation when the find was published in 1875, first of all in Germany, a year later in England.

The opposition was also considerable, especially as the publication contained two animal pictures that in fact turned out to be fakes: copies from a contemporary children’s book published in 1868 (Fig. 2). Both images are today kept in the British Museum in London as a corpus delicti of the history of science. The Ice Age original on the other hand, the bone with the reindeer engraving, can still be seen in the Rosgarten Museum in Constance, conserved in the same museum display as in 1875.

![Fig. 2: Fox and bear from Thayngen, falsifications from a children’s book (ALM 2009: 23)](image)

In 1877 the leading anthropologists from Germany gathered for a Congress in Constance in order to dispute about the authenticity or the falsification of Ice Age art. Rudolf Virchow from Berlin was in the chair. His problem was the paradox with which all advanced scholars of his time had to contend. They had just managed to accept Darwin’s new theory of evolution, i.e. to recognize »primitive« pre-forms of the human being, so cultural evolution could also only be conceived of in stages of development. Those who did not assume the sudden creation of humankind by God could make no sense of skills in art that were perfect from the outset. Or to put it the other way round: If the humans of the Old Stone Age (Palaeolithic) had left us childish scrawls, people would have been more inclined to accept them rather than these artifacts of artistic perfection.

At the end of the fierce controversy not only Rudolf Virchow was convinced that the reindeer picture dated back to the Ice Age. The new thinking in this prehistoric dimension had been accepted, and on 27th September 1877 the Konstanzer Zeitung reported the »complete victory of the Authen-
ticity Party« (Bandi 1984: 161). Thus, for the first time, Ice Age art had become conceivable in Germany. All the other discoveries of mobile art, the numerous perforated batons and spear-throwers, excavated since 1860 in the French »Paradise of Prehistory«, could be assigned to art of this period (cf. Larret/Christy 1864). In France they had come to the conclusion even earlier that the bone and ivory carvings were the legacy of Ice Age people. The key discovery for dating these images was the line drawing of a mammoth, which itself was engraved in the ivory of the long extinct mammoth (Bandi 1952: 18f.; ALM 2009: 386). In this case, too, the first publication of the discoveries did not remove all doubts. The scepticism was all too great that »art« could have been possible so long before Ancient Greece.

With the discovery of the paintings a scientific controversy flared up for a second time in France, and this time it was much more heated – about 20 years were needed before, in 1902, the »Authenticity Party« prevailed. The allegation of falsification went as far as a conspiracy theory. According to this, clerical powers of the counter-enlightenment were responsible for the cave pictures, their aim being to refute Darwin’s theory of evolution. (The dispute about Altamira is further dealt with in Section 2 below.)

Once the art of the »primitive« game hunters was recognized as a pre-historic achievement, the next question arose immediately: For what purpose? Why did the hunters of the Ice Age spend their valuable time creating works of art? What subjective benefit did they expect from it? And what objective function did the creation of art fulfill?

Let’s be honest: Could we answer these questions for present-day art in one sentence? Does art exist in the sense of one uniform category? And if the question about the function of contemporary art is not easy to answer, the question about the function of the first art is much more problematic because the tools and the works of art are the only relics of our Ice Age ancestors (apart from their bones). There are no other sources that could provide information about their way of thinking and their emotional world. But where there is no context to provide an explanation, the door is opened wide to speculation. It surprises no one that extremely differing interpretations were proposed on this subject. It is also no wonder that the zeitgeist, the spirit of the time, fills the gaps in their knowledge, thus promoting one interpretational approach and hindering another.

The reduction of the hypotheses to keywords made in this essay merely aims to assist mnemonic classification. Admittedly, the names of those who are considered to be the leading authors are assigned to the hypotheses.
However, the scientists named are not responsible for the subheadings that are so boldly and simply formulated here. In reality, behind every «approach» there is a whole edifice of ideas full of differentiated arguments. The various positions have been sharply formulated and separated from one another in order to enable a pointed debate.

Some of these attempts at interpretation – especially in this reduction – may appear to us today to be naive or even ridiculous. Looking back, you always know everything better and tend to dismiss the earlier thinking as «outdated». But we shouldn’t make matters so easy when dealing with our scientific forerunners. Only when we take their attempts at explanation seriously, i.e. also understand them in the spirit of the age, only then can we discover remarkable and stimulating aspects that are valuable for the present discourse.

1. The Decoration Hypothesis: Art embellishes everyday life

As we have seen, from 1877 on there were hardly any doubts in Germany either: Hunters of the Ice Age had «adorned» their tools and weapons with ornaments and animal pictures – partly like a relief and fully three-dimensional, i.e. they were even more perfect in form than the reindeer engraving mentioned above (Fig. 3), «applied art» if you want to call it that. The more abstract the embellishments became towards the end of the Palaeolithic, the easier it was to perceive this as decoration. Just as a shepherd carves his shepherd’s crook or a rambler his walking stick to suit his purposes, the rounded ivory batons also seemed to be merely the result of a playful mood of early Homo sapiens in Europe (Fig. 4).

By the way, the idea of playful pure art, which is free of any purpose, formulaically known as «l’art pour l’art», was only too consistent with the contemporary practice of art at the end of the 19th and the beginning of the 20th centuries. What was more obvious than to see the oldest art from the viewpoint of the most modern art? Whether «Art Nouveau» in France or «Jugendstil» in Germany, both had set themselves the task of embellishing the everyday world: no Underground station and no residential façade, no piece of furniture and no tableware without an ornamental embellishment. Why shouldn’t prehistoric man have already succumbed to such an instinct for playfulness and adornment? From this point of view the drive
for all artistic creativity would have been »Working More Beautifully« and »Living More Beautifully« from the very beginning.

Once the age of the portable artwork was recognized (in France from approx. 1860 on), it tended to be assigned to the sphere of everyday handicrafts rather than to fine art. This at least is how the founder of modern palaeontology Édouard Lartet saw it (cf. Lartet/Christy 1864). We owe to him the dating of the oldest cultural stratum of Homo sapiens in Europe (the Aurignacien) through the discovery of the Aurignac Cave. Lartet also did pioneering work in the Madeleine Cave where he uncovered »perforated batons« and other items from the late Upper Palaeolithic (the Magdalénien). Whilst Édouard Lartet excavated mainly in the Périgord, the notary Édouard
Piette started digging near the Pyrenees; the »command batons« found there, some with abstract patterns, some of them adorned with animal figures, supported the decoration hypothesis for a long time (cf. PIETTE 1907).

2. The Magic Hypothesis:
   Art acts as a medium in hunting magic

However, the rock paintings that had been discovered in 1895 (La Mouthe) and 1901 (Combarelles) in the caves of France could no longer be explained merely as »beautiful wallpaper« (cf. ROUSSET 2002: 19 ff.). Actually, everything began in 1879 in Altamira. There a Spanish nobleman and amateur archaeologist (Marcelino Sanz de Sautuola) discovered the first immobile images of the Old Stone Age. To be more precise, his nine-year-old daughter discovered the cave paintings. For while her father, in search of fragments of bones and stone blades, had his eyes fixed on the ground, little Maria also had eyes for the projecting rocks on the ceiling. Her cry of surprise »Papa, look: Bulls!« has now become part of art history (BELTRÁN etc. 1998: 21). But at that time the experts did not believe them. The imagery was too perfect to credit the primitive Ice Age hunters with the representation of the animals. It took around two decades before the very last accusation of forgery fell silent. In 1902 the most disputatious opponent, Emile Cartailhac, called his reconciliatory epilogue »Mea Culpa« (BELTRÁN etc. 1998: 7). In the meantime further cave pictures had been discovered in France. These showed a comparable arsenal of animal pictures and mysterious signs. It was a catholic priest of all people whose spiritual competence now opened up a new point of view: Abbé Henri Breuil, pupil and friend of Édouard Piette.

The most important suggestions for the »magic« interpretation of Ice Age art came from Salomon Reinach, a French universal genius in the fields of archaeology and art history. Reinach was the first scholar to broach the subject of the connection between art and magic (cf. REINACH 1903) at a time when the history of art was still completely oriented towards the ancient civilizations and detached from ethnology with its everyday hand-crafted artifacts. Above all, Reinach’s studies of »Cults, Myths and Religions« are noteworthy. This was the title of his five-volume work which appeared consecutively from 1905 to 1912 and which Sigmund Freud also made use of in »Totem and Taboo« (1913). In 1912 Salomon Reinach caused a furore when he presented his hypothesis concerning magic at the International
Anthropologists’ Congress in Geneva. His point of departure was a so-called »command baton« with three small animal-human hybrid beings, which up till then were considered to be masked dancers or »little devils« (Fig. 5). Reinach, however, drew parallels to the beliefs of Australian Aborigines. He interpreted the figures as personified »embryos«, i.e. as fertility spirits with the appearance of animals (cf. Giedion 1964: 385f.).

Fig. 5: Three chamois bucks on a command baton from the Dordogne (Giedion 1964: 382)

Ethnological field observations from the colonial era supported the hypothesis of prehistoric imagery magic. If I want to take possession of a being or harm it, I make an image of it and deal with it by proxy. We also know the belief in long-distance effects from Voodoo magic, which crossed with the slaves from West Africa to the Americas. With reference to hunting: If I anticipate the success of the hunt mimetically and can simulate the killing of my prey by rehearsing it, the animal will not escape me so easily in reality (Fig. 6). Modifying the term »psychological warfare«, one could speak of »psychological hunting«. In both cases it is a question of moving people to the utmost, i.e. of mobilizing their powers and overcoming their fears. Those who go into battle – whether to defeat human enemies or to bring down animal prey – take a high risk. Inhibitions have to be overcome, also intra-species inhibitions about killing. This applies both in tribal warfare and in game hunting, because in the hunters’ worldview animals were considered to be creatures with a soul, frequently seen as ancestors or brothers.
The function of war dances and hunting dances is to get you in the right frame of mind for a joint venture. And if the opponent or the prey can be killed in advance in an image, this gives courage for the real battle to come. Finally, fixing the animals in the image does not just restrain their spirit. The drawing of the arrows and the cutting of notches for the holes are also indicative of a kind of paramilitary training with an educational purpose. After all, you have to know exactly what to aim at (Fig. 7).
3. The Totem Hypothesis:  
Art tells of power and tribal conflicts

Max Raphael is the least well known of the participants in the discourse named here – wrongly, because he was the first to genuinely combine *art history* considerations with those of cultural anthropology. Unfortunately Raphael was not able to complete his research project on Palaeolithic art; he died in 1952. His little book on »Prehistoric Cave Painting« did appear in 1945, but only in America and in English. His equally important manuscript on »The Interpretation of Palaeolithic Art« was only published posthumously in France. However, this text in particular was to have after-effects. Shortly before his death, Raphael had sent it to a number of experts in Europe. Thus, in addition, he became the inspirer of the following »structure« hypothesis, without this always being clearly indicated in the appropriate way (cf. Section 4). For reasons of chronology and the logic of the functions we here dedicate to the outsider Raphael a hypothesis of his own, although in his day (in the 1940s) he remained unnoticed by the public.

Fig. 8: Compositional sketch of the ceiling painting in the Altamira Cave (Raphael 1993: Figure 24)

Very belatedly, since 1993, all Raphael’s writings on prehistory have also been available in German, so that we can now finally form a picture of the enormous creativity of this long unrecognized »interpreter«. Max Raphael’s eye, which was trained in *art history*, helps us to see anew the accumulation of individual animal figures as an overall composition (Raphael 1993: 71ff.). All of a sudden, a large tableau gains structure, and Raphael
helped out with the red pen in order to make clear to us the slanting levels and the vertical vanishing lines (Fig. 8). It is breathtaking how he analysed the ceiling paintings of Altamira image for image and finally in the confusion of details made out three areas with differing scenarios: a magic area on the left, which is identified above all by the prominent, confronting hind; a battle scene in the centre, in which a bitter battle is raging between the animals; and a rest area on the right, in which the dead bison are positioned in an artificial way (Fig. 9) as if the aim was to find reconciliation with them (RAFAEL 1993: 80).

Possibly Raphael himself would not have noticed this compositional structure if he had not had in his mind’s eye totem animals from an ethnological point of view. So, for him, the animals are »just« representatives of tribal groups. And finally his Marxist world-view also emerges which – according to the state of knowledge at that time – saw primitive society in a state of dissolution and therefore characterized by disputes over power and influence. Raphael leaves the question unanswered of whether here two clans are warring against each other or two groups within a clan (RAFAEL 1993: 77). However, it seems indisputable to him that the battle panorama of Altamira is an expression of early class conflicts (RAFAEL 1993: 91).

Only very few are willing to follow him so far in his interpretation. Raphael’s breezy interpretation of the outer boundary line, of an upwardly open triangle, as a female triangular pubic area, also seems to be far-fetched (RAFAEL 1993: 80). However, on the whole it is thanks to Raphael’s posi-
tion, with his sophisticated sense of art and social instinct in equal measure, that new layers of interpretation in Ice Age art were uncovered.

4. The Structure Hypothesis:
Art shows the gender duality

What in Max Raphael still appeared to be a journalistic metaphor – the juxtaposition of the hind and bison as an opposition of »femininity and masculinity« (RAPHAEL 1993: 74) – became a firmly structured certainty in the 1960s. The whole of cave art, including the »abstract« signs, from then on documented the gender duality. The zeitgeist is also unmistakable in this hypothesis: structuralism as the method and gender research as a new theme of sociology. Maybe the popularization of Freud’s psychoanalysis had its share in opening eyes for sexual symbolism.

In 1965 André Leroi-Gourhan wrote his magnum opus, which was to become the standard work for decades: »Prehistoric Art« (1975 in German). The author expressly refers to Annette Laming-Emperaire because she was the first to undertake the allocation of certain types of animals – which before her had »remained completely unnoticed« (quoted in RAPEL 1993: 256). Not a single word about Max Raphael! This is especially remarkable because there is mention of an exchange of letters between Leroi-Gourhan and Raphael (cf. RAPEL 1993: 290, Note 408). Also in the German translation of his main work with his aim of recognizing »an intentional arrangement of the rock pictures«, of reconstructing the »mythographic framework«, Leroi-Gourhan comes very close to Max Raphael’s ideas (LEROI-GOURHAN 1975). Yet the originator of this idea does not even appear in the bibliography.

Annette Laming-Emperaire dealt with her sources more clearly. In a 1962 essay she summarized the ideas from Max Raphael’s unpublished manuscript of 1951. Amongst the »interesting suggestions« that she took from Raphael’s text, she included the »predominance of a certain species of animal and also that of gender« – and she notes that »apparently no one has taken this important fact [...] into consideration up till now« (quoted in RAPEL 1993: 257f.).

However that may be, Laming-Emperaire and Leroi-Gourhan developed their research explicitly in opposition to the ethnological »magic« hypothesis associated with Abbé Breuil. Both worked in great detail but using different methods. Leroi-Gourhan made a meticulous statistical
survey above all of the frequency and distribution of the various species of animals and forms of signs, in order finally to devise an »ideal cave« in which the bison and horse take centre stage (Fig. 10). Laming-Emperaire examined more closely the arrangement of the individual pictures and their inter-relationship. Both came to the conclusion that the opposing pair of most frequently occurring animals – bison and horse – had a gender meaning. However, in the attribution of this »little difference« they were in opposition to one another. For Leroi-Gourhan the horse represented the man and the bison the woman. For Laming-Emperaire the exact opposite was true. She saw the woman in the horse and the man in the bison. This discrepancy of detail has not made the hypothesis more plausible as a whole.

![Idealized diagram of a »sacred cave«. Percentages of types of animals acc. to frequency (Leroi-Gourhan 1975: 563)](image)

To be fair, it should be mentioned that Leroi-Gourhan refrained from absolute dualism in his last works (Clottes/Lewis-Williams 1997: 111). The horse and bison could definitely represent more than just unambiguous sexual symbols. They could also have different meanings – comparable, for example, with the heraldic significance of a lion or of a bull. These animals too may have differing meanings in different contexts (desirable power, or fearsome violence, or divine protection, or overwhelming sexuality).

Finally, it is the achievement of André Leroi-Gourhan to include the signs – up till then little attention had been paid to them – in the analysis of Ice Age art (Fig. 11). Even if his stylistic deductions about certain stages of development (from abstraction to figurative art) were not able to withstand later discoveries, he was the first to document all the detectable signs
and to interpret them in conjunction with the images (LEROI-GOURHAN 1975: 170ff.). Some signs were earmarked for gender polarity that could also have had a completely different meaning, and this once again shows the limits of making the gender approach into an absolute.

Fig. 11: Simplified summary of male signs (left) and female signs (right) acc. to Leroi-Gourhan (Kuckenburg 1999: 267)

Empirically, Leroi-Gourhan’s research should by no means be shelved. In the middle of the 1990s there was a further re-count after the number of known painted caves had almost doubled in four decades (CLOTTES/LEWIS-WILLIAMS 1997: 64). 3558 animal pictures had by then been identified in caves. And lo and behold! The horse and bison still led (with 27% and 21%) amongst the animals, followed by the ibex (9%), mammoth (8%), aurochs (6%), stag (5%) and reindeer (4%). The lion, rhinoceros and bear came to approx. 2%, and all the other animals accounted for less than 1% (CLOTTES/LEWIS-WILLIAMS 1997: 114) – even if the statistics have changed once again as a result of the discovery of the Chauvet Cave (cf. CHAUVE 1995). The introduction of quantitative methods to the discussion of the origin of art contributed considerably to reducing emotions in the discourse, and we owe this new research perspective to Leroi-Gourhan.
5. The Information Hypothesis:
Art stores data in calendars and maps

After the sexual structure approach had degenerated into arbitrariness, the energy for speculating about further hypotheses seemed to have been used up. At first no one really dared to throw new theses about meaning into the ring. The prehistorians of Europe retreated into positivistic research and contented themselves with perfecting their excavation and dating methods.

Fig. 12: Dotted bone plaque from the Dordogne in France, 69 notches traced as phases of the moon [S.N. 1999: 73; Conkey 1999: 340]

However, new suggestions for interpretation arrived from the USA, completely impartially, in full conformity with the spirit of the »information society«. (In 1973 the sociologist Daniel Bell had coined this term to characterize the special nature of postindustrial developments.) Above all, the signs, which were so difficult to decipher, now appeared in a new light. The initial spark came from Alexander Marshack, a career-changer who had begun as a journalist and spaceflight expert. In the 1960s he said farewell to his future-oriented career in order to change into an expert in Ice Age art (Marshack 1964). In doing so, Marshack to all intents and purposes remained loyal to space and its celestial bodies, but he saw them from a
different point of view. We owe it to him that on a bone plaque from the Dordogne, already known for many years (Abri Blanchard), we no longer see just decorative dots or counting marks but discover *phases of the moon* (Fig. 12). For in Marshack’s interpretation the 69 notches that are scored here in a snake-like path, represent 69 moonlit nights – with white circles for the full moon and black circles for the new moon. The idea of a calendar was born or, to be more precise, it was conceded that not only the early ancient civilizations could have developed such an idea.

Also the anthropomorphous relief on a small ivory plaque excavated in 1979 from the Swabian Alb – called »Adorant« because of the uplifted arms – received a new interpretation (Fig. 13): Up to 13 points were notched on the rear side in four vertical rows, and the Tübingen archaeologist Hansjürgen Müller-Beck associated them with the phases of the moon of a solar year (cf. Müller-Beck 2005: 107f.). Assuming this is correct, here too we would have a calendar in front of us. Accordingly, the Ice Age hunters had recorded their observations of the heavens – intellectual accomplishments that up till then had only been considered possible in the bureaucracies of the Ancient Orient.

Fig. 13: The Worshipper (»Adorant«) from the Swabian Alb, with calendar notches on the reverse side (Müller-Beck 2005: 108)

In the meantime, attempts at astronomic interpretations also reached the topography of the prehistoric sanctuaries. The Neolithic Stonehenge
had long been viewed with regard to the position of the sun and moon. Now they also searched in the Palaeolithic Lascaux cave for light and optical axes between celestial bodies and images.

Fig. 14: Carved map on the tusk of a mammoth in Pavlov, Moravia (Oliva 2005: 74)

But back to the abstract signs: They could record not only changes in time but also distinctive features in space. Like the Mesopotamians on clay, the Ice Age humans had already recorded the outlines of their surroundings on bones. Maps were also data storage units because they recorded vital information about their environment over time and space. Here we have a change of perspective that could hardly be more extreme. The humans beamed themselves up to the bird’s eye view so as to observe their environment from up above in a completely new way. At least this is how a picture pattern is interpreted that was carved on a 25,000-year-old ivory tine found in 1962 in Pavlov (Moravia) (Fig. 14). This is possibly the oldest known map in the world, if it shows us the meandering course of a river with deep ravines at the side (on the left) and mountain scenery with erosion channels (on the right) – and in the middle of it the artist’s settlement, here indicated by a double ring (cf. KUCKENBURG 2010: 112). Of course, the bundles of lines and curves may also record completely different topographic data, e.g. the ground plan of a cave with a maze of passageways and bays. At any rate, it was a question of recording data of enormous relevance that was vital for orientation in everyday life in the Ice Age.

6. The Trance Hypothesis: Art provides insight into shamanistic visions

In the 1980s a new hypothesis made the rounds, starting in South Africa. At first sight it appeared far-fetched, somewhat exotic, not to say esoteric.
We are referring here to the shaman hypothesis. In the meantime it has become so much a part of scientific research as a result of conference discourses and scientific publications that even Jean Clottes, the French cave art expert, has embraced it. Together with the »inventor« of the hypothesis, David Lewis Williams, he has devoted a comprehensive monograph to this approach (Clottes/Lewis-Williams 1997).

Fig. 15: Eurasian shaman with crown of horns and bird-baton (Drößler 1980: 173)

The authors combine two methodologically different approaches: that of neuropsychology and that of ethnology (Fig. 15). The first is the spectacular one and focuses directly on the central feature of shamanism – the trance. That is why it is described here first of all. Wherever people enter into a trance – whether with the help of drugs or by rhythmic dancing – they see, as it were in their mind’s eye, certain patterns and images that do not exist like that in reality. This begins with so-called »entoptic phenomena«: signals that occur as reflexes, but only in the eye or in the brain and without any equivalent in the outside world. These phenomena are comparable with the stars that appear to us in a flash when someone hits us in the eye: »We see stars,« we say, even though there aren’t any. In tests, persons in a trance see moving dots and circles, lattices and bundles of lines,
zigzag and snake patterns: abstract, geometric signs such as are also to be found in a similar form on the walls of Palaeolithic painted caves (Fig. 16).

The analogy goes even further. For, in a second phase of rapture, test persons in a trance connect the geometric patterns with meaningful contents. They endeavour to rediscover the strange ornaments in picture motifs that correspond to their familiar everyday life – an extremely creative, morphological combination of »inner« chance patterns and actual objects. In a third phase, finally, there is a complete coalescence of »imagination« and »imagery«. After the participants are immersed in a different world as it were through a maelstrom (tunnel experience! moving through caves?), they see themselves surrounded by fantasy creatures: unreal in their appearance and yet »likely« in their depiction. Obviously we connect these imagined figures with those hybrid beings – half human, half animal – that we are also confronted with in Ice Age art.

Accordingly, the prehistoric shamans achieved such a state of ecstasy with their »creativity techniques« that they were able to go on an »inner journey«, in an expanded state of consciousness. Speaking profanely, after their return from the »other« world, they recorded their impressions of the journey for posterity. Expressed in a less disrespectful way, they »described« their visions, perhaps in narratives, about which we no longer know any-
thing, but also in pictures that have been preserved for us. According to this approach, the rock pictures are not representations of reality but representations of imagination, which would explain a number of surrealistic exaggerations and curious features. Even more than that, for the shaman the picture world of the caves was not only the result of the journey of his soul but also a pre-requisite for it. Perhaps in this way we can unravel the mystery of why some picture compositions are located in places that are difficult of access, i.e. where there was no room at all for an audience. Here in the seclusion and darkness, in view of all the demons and spirits, the shaman would have put himself in the right mood for his soul journey. The rock walls in the light of the flares, with their shadows flitting back and forth, could have dissolved like a transparent screen, to create behind it a three-dimensional »experience space«, in which you could immerse yourself deeply – even if it was only in thoughts. (A pleasant illusion by the way, in which we indulge – even today, evening after evening, in front of the cinema screen or other large-format screens.)

In a second approach the shamanism hypothesis makes use of ethnological tradition. It is a happy coincidence that in South Africa there are written records from the 19th century (by Wilhelm Bleek) that document how the »Bushmen« or »San« interacted with their rock pictures – which are still preserved and have been painted over again and again – even if at that time the concept of »shamanism« did not yet exist (cf. Porr 2002 with reference to Eliade 1951). With this aid to interpretation it is possible to decipher the meaning of individual pictures. In the following example
four human figures appear behind an eland-antelope (Fig. 17). The ruffled hair on the neck and belly, as well as the crossed hind legs of the mighty animal, indicate that it has collapsed. The man with the baton, just behind the animal, is establishing direct contact with it, holding its tail.

Let’s look at the head and the feet more closely. The man has already assumed the skull form of an antelope and the corresponding horned feet; its legs are also crossed like those of a dying antelope. The other three figures, dancing in an eccentric manner, show various stages of the same process of transformation. The human has become an animal, the animal has become a human: a shamanistic vision – an image out of the inner depths of a moved soul, which in its turn, magically fixed on a rock-wall, served the purpose of unfolding power and influencing the outside world. Anyone who is aware of this interpretation of tribal art can no longer perceive the prehistoric art of the Ice Age hunters without discovering analogies. Just one example should be sufficient: the dancing figure from the Les Trois Frères Cave in southern France was called the »flute player« when it was discovered (Fig. 18). Henri Breuil recognized in it a »magician«, in full accordance with the ideas of hunting magic. Today, after our excursion into the world of South Africa’s shamans, we are inclined to discover in the »bison-man« a shaman who is dancing himself into a trance. Blood is running out of his nose, perhaps the lines also indicate power. In any case, he seems to be transforming himself into precisely the animal with which he has, actually or telepathically, established contact.

![Fig. 18: Prehistoric bison-human dancing behind a bison-reindeer hybrid creature (Drößler 1980: 79)](image)

Finally, it should be mentioned that initial and scattered reflections on the connection between shamanism and the invention of art already
appeared in Germany half a century ago, i.e. going back to the fifties and sixties of the 20th century (cf. Kirchner 1952; Findeisen 1956; Findeisen/Gehrts 1983; also Narr 1966, 1973 and 1983). Special attention should be paid to the German ethnologist Andreas Lommel, who in 1968 described the significance of the »artistic productivity« of shamans. Lommel took the view »that probably a large number of arts and techniques, for example dramatic art, the mask arts, dance and recitation, have their roots in shamanism« (Lommel 1968: 19). At that time Lommel’s hypothesis was not taken seriously; nowadays the resistance to the trance approach seems to be broken. The accusation of esoteric speculation has been dropped, and scholars no longer close their minds to the subject of »shamanism« (cf. Findeisen/Gehrts 1983; Müller 1997). Analogies and also differences are meticulously ascertained between ethnological field studies on the one hand and archaeological discoveries on the other (Porr 2001, 2002). On the whole, shamanism has become an integral part of the explanation of early creative artwork, though rendering it as an absolute once again provokes criticism (Lorblanchet et al. 2006; cf. also Bosinski 2009: 72).

7. The Identity Hypothesis:
Art creates self- and group esteem

The Tübingen prehistorians Nicholas J. Conard and Harald Floss took the view that the excavations on the Swabian Alb produced very distinctive results. Around 50 figures and fragments of figures have been discovered in the Lonetal and the Achtal caves over the last eight decades. Other than in French and Spanish cave painting, here the humans or human-animal hybrid beings comprise almost a fifth of the figures (Floss 2004: 14). Self-examination was thus evidently a relevant subject for the Homo sapiens who had migrated to Europe. Moreover, most of the small ivory figures were not found in separate depositories but scattered under the bony remains of food and stone instruments. So, art seems to have been something very commonplace, not something especially sacred. Finally, the images vary greatly in their stylistic devices, even if they represented the same kind of animal (e.g. a mammoth or lion). This variability suggests the conclusion that the figures were perhaps individually assigned to various persons (Floss 2004: 17).
Art is thus not a matter for the shaman alone. It is reintegrated in the social context, i. e. demystified, deritualized in comparison with the previous hypotheses. Art is now a phenomenon that embraces the entire life, affecting all the human senses, including touch (Floss 2004: 16f.). It fits in with the concept of the prehistoric »total work of art« that the oldest musical instruments in the world were found on the Swabian Alb (cf. KERIG 2005): flutes from the wing-bones of a wild swan and griffon vulture (Fig. 19), a small stringed instrument from an antler tine, a bone drumstick from a reindeer antler (cf. also ALM 2009: 317–329).

Since we have known about these instruments, we also see some of the familiar figures in a new light. What had previously simply been described as »standing« now gains new life and momentum. With the Ice Age music in our ears, let us look at the strange position of the legs or feet once again and more closely. The little »Adorant« with the uplifted arms, already discussed as a »calendar man« (Fig. 13), raising his right leg, doing a dance as it were. And the standing bear, also from the Geissenklösterle, with outstretched arms, eyes and mouth raised to the heavens: Might it not be a »dancing bear« (Fig. 20)? The similarity of this prehistoric bear with a dancing and drumming bear of the modern Inuit is unmistakable (Clottes/Lewis-Williams 1997: 14; ALM 2009: 252). Finally, one last image that might conceivably be a
dance picture: It shows the »lion-man« from the Hohlenstein-Stadel, about 30 cm tall, the largest of all ivory figures from the Aurignacien. The powerful animal body stands on human, strangely angled feet, more or less on tiptoe, as if it wanted to defy gravity (Fig. 21). Does this strangely smiling lion also want to »set off on a spirit journey«, in trance and dance?

Fig. 20: Bear figure from the Geissenklösterle, possibly dancing (Hahn 1986: 252)

Fig. 21: Lion-man on tiptoe, from the Hohlenstein-Stadel (Conard/Floss 2001: 19)
The Tübingen archaeologists on the Swabian Alb have not only brought to light the oldest artworks in the world, they have also taken into account the latest results of genetic research. Since 2010 it has been genetically demonstrated that there was ultimately a merging of Neanderthals and Homo sapiens after all. Scientists have been preoccupied for quite some time with the coexistence of the two species, which lasted for more than 5000 years. If during this time there occurred a sudden development of creativity, it cannot have been a coincidence. Possibly the encounter with the long-established Neanderthals led to a kind of identity crisis in the immigrant Homo sapiens. The customary »assumed« uniqueness was perhaps called into question by the encounter with the alien alter ego. New rites and new media were needed to win back self-assurance. If one also takes into account the density of settlement in the tributary valleys of the Ancient Danube, this would also be a reason to invent new social rules and to anchor them in the consciousness in the form of a cult. Nicholas J. Conard has listed a whole series of criteria that now comprise »cultural modernity«: for approx. 40,000 years jewellery, music and art have been some of the most important pre-requisites in the behavioural repertoire of the »modern« human being (Conard in ALM 2009: 83). And Harald Floss, who surmises a Europe-wide communication system and awareness of traditions behind the culture of the Aurignacien, comes to the conclusion: »At that time expressions of art also served as a visible sign of a person’s identity« (Floss in ALM 2009: 257).

This is the last hypothesis for the time being – so highly topical that it can’t have been thought through scientifically yet. An attempt has already been made in the form of literature (Conard/Wertheimer 2010). In a sort of prehistoric »mentality story« two hostile groups of Ice Age hunters come up against each other. Their potential for action ranges from distrustful stalking to an internecine struggle for survival. A woman strays unintentionally between the fronts; under constraint to adapt to the alien customs, she suffers a crisis. The magic of music reconciles her with her world once again, and a little ivory »Venus« helps the »border-crosser« to a new feeling of self-esteem... So much for the literary depiction of life in the Ice Age.

In this connection it would be good to investigate whether the concept of the »image« could not be helpful in sharpening the profile of the identity hypothesis. »Image« is not meant here in the everyday understanding of the word in marketing techniques, rather in the serious context of social psychology terminology. Here »image« is the construct of attitude that brings the image of the »other« and the self-image into emotional
harmony. Throughout history, works of art have accomplished this again and again, above all in times of major social change, when an old identity became of dubious value and a new one had to be invented or discovered. Why should this creative contribution to the formation of consciousness – to social integration and distinction in equal measure – not have been a motivating factor at the very beginning of all art history?

8. In Conclusion: Multifunctionality »ab origine«

In conclusion, all the hypotheses dealt with here are summarized once again in a synopsis (Fig. 22). This is new in this brevity, and especially the »keywords« in the second column of the table still need to be discussed. But without such pithy simplification we run the risk of losing our way in the maze of interpretations of the last 150 years. There have been attempts to summarize the various interpretations before this essay, beginning with Rudolf Drößler (1980), then by Denis Vialou (1992) and most recently by Gerhard Bosinski (2009). Joachim Hahn (1986), Margaret W. Conkey (1999) and David Lewis-Williams (2002/2009) dealt with the interpretation of prehistoric art in a highly differentiated and detailed way. All these authors warn against turning any one of the interpretational approaches into a universal pattern of explanation. And Ice Age art is not so homogeneous that nothing could have changed over a period of 20,000 years and in such a huge area stretching from Siberia to Portugal.

<table>
<thead>
<tr>
<th>Approx.</th>
<th>Hypothesis</th>
<th>Function</th>
<th>Authors</th>
</tr>
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<tbody>
<tr>
<td>1860 ff.</td>
<td>»Decoration«</td>
<td>Jewellery &amp; Embellishment</td>
<td>Édouard Lartet</td>
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<td></td>
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<td></td>
<td>Édouard Piette</td>
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<tr>
<td>1900 ff.</td>
<td>»Medium«</td>
<td>Invoking Power</td>
<td>Salomon Reinach</td>
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<td></td>
<td>Henri Breuil</td>
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<tr>
<td>1940 ff.</td>
<td>»Totem«</td>
<td>Narrating Myths</td>
<td>Max Raphael</td>
</tr>
<tr>
<td>1960 ff.</td>
<td>»Symbol«</td>
<td>Gender Imagery</td>
<td>Anette Laming-Emperaire</td>
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<td>André Leroi-Gourhan</td>
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<tr>
<td>1970 ff.</td>
<td>»Information«</td>
<td>Storing Knowledge</td>
<td>Alexander Marshack</td>
</tr>
<tr>
<td>1980 ff.</td>
<td>»Vision«</td>
<td>Appearing in Dreams</td>
<td>David Lewis-Williams</td>
</tr>
<tr>
<td>2000 ff.</td>
<td>»Self-Image«</td>
<td>Establishing Identity</td>
<td>Nicholas J. Conard</td>
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<td>Harald Floss</td>
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Fig. 22: Simplified overview of functional hypotheses on prehistoric art [© Jürgens]
So, universal validity cannot be the aim of our hypotheses, but generalization can be! Every hypothesis has the right to be verified for this purpose, even if it arose from a limited zeitgeist. In order to permit such a discussion of the pros and cons, the specific attempts at interpretation have been reformulated as generalized attributions of functions. The aim of this systematization is to stimulate and facilitate the discourse; it cannot replace it. It will be necessary to investigate elsewhere which hypotheses have the greatest scope, or more precisely: which of the functions named here still play a role today in the creation of art and its reception. Some hypotheses may not withstand such verification. Others that have not yet been thought of would have to be introduced into the discussion. In any case, there will not be just one single allocation of functions.

Every message – however simple it may be – has at least two dimensions: the aspect of information, concerning the content, and also the relational aspect, which is aimed at the communication partner. What is true of simple signs applies even more so for complex symbols. It is the polysemy, the diversity of meanings, which makes a picture into art. A work of art differs from any other random image because it cannot be reduced to a single statement, because it contains multilayered messages, which are not only obvious but also concealed. This makes up its originality, which is only aroused to a life of its own in the process of reception. Thus different viewers – depending on their experience and mood – can perceive completely different dimensions in one and the same work of art.

If then the individual work of art has a number of meanings, why shouldn’t art as a whole have more than one function? Art was never good if it was merely commissioned to serve one single function (e.g. »art as a weapon«, »art as a monument«, »art as a wall decoration«). Generally, the very opposite gives it its particular appeal: when art – contrary to the expectations of the originator – »serves« interests that are quite different from those that were planned. New needs may be aroused and unintended perspectives opened up. Art therefore goes beyond what is »commonplace«. And it is precisely this aspect of unpredictable innovation that lends various masterpieces a value in art history that transcends time (the most beautiful example: Michelangelo’s Sistine Chapel). We owe this deeper meaning of the images to the waywardness of the artists. And obviously this was true right from the very beginning.
References

**ALM** = **ARCHÄOLOGISCHES LANDESMUSEUM BADEN-WÜRTTEMBERG** et al.  


**CONARD N. J.; J. WERTHEIMER**: Die Venus aus dem Eis. *Wie vor 40.000 Jahren unsere Kultur entstand*. München [Albrecht Knaus Verlag] 2010

**CONARD, N. J.; S. WOLF**: Die Venus vom Hohle Fels. Fundstücke 1, Museumsheft 9, Urgeschichtliches Museum Blaubeuren, 2010


 Pictures – What For? Seven Hypotheses on the Origin of Art


S. N.: Die Anfänge der Menschheit (Meilensteine der Weltgeschichte – Urgeschichte bis 3000 v.Chr.). Augsburg [Weltbild] 1999

Liberating the concept of immersion from the technical and digitally-oriented rubrics under which it is often thought, What does a Chameleon Look Like? indicates the concept’s applicability throughout the humanities. It assembles recent interdisciplinary work on immersion as technique and cultural topos: While the human-machine relationship has long been one of fascination and utopian positivism, the advent of visual technologies such as television in the 1960s created a certain uneasiness towards immersion, or indeed an outright fear of it. As our societies become increasingly technologically determined immersion has become a pervasive phenomenon. In the 1990s the notion of immersion merged with discussions on artificiality and the aestheticization of everyday life. Not technology per se, but rather the consumer worlds that it constructs were the focus of this critique of the spectacle and a ›society of immersion‹. Likewise, technology has become conceptualized as a second nature, albeit one that is both internal and external. Subsequently, debates around human-computer-relationships (HCI) returned – although this time with a focus on immersion as a basic human capability.

What does a Chameleon Look Like? explores the concept of immersion as extending far beyond the remit of virtual reality. This volume provides enquiries into the historical and contemporary significance of immersion and offers new perspectives on aesthetics, technology and ethics.
Enacting Images is devoted to images as they can mobilize cognition and theorizing. Though we can speak of a pictorial turn now that images have become a distinct and full-fledged topic of investigation, some may continue to cling to the impression that images should still be considered within a fundamentally representationalist framework.

As an alternative, the enactive approach provides a conceptual setup within which images, beyond their informational, immersive, and aesthetical power, can be considered as being the manifestations of a new epistemic access to the world. The present volume is a collection of essays that reflectively investigate the theoretical prerequisites, scope, and limits of enactive approach.