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THE GALGENBERG FIGURINE FROM KREMS, AUSTRIA

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Abstract. The discovery of a female figurine near Krems, Austria, is reported. Carved from serpentine or schist and coming from a dated occupation deposit, this find is among the earliest sculptures known. The figure is briefly described, its early Upper Palaeolithic cultural context is considered and other representatives of this early tradition of sculpted art are discussed in order to establish their common characteristics. The new find provides further evidence that an 'advanced' art tradition existed in central Europe well before the Gravettian, and before the appearance of iconic art in western Europe.

Introduction

On 23 September 1988, two fragments of green stone (serpentine or schist, perhaps chlorite-schist) were located at the base of an 'Aurignacian' occupation layer near Krems, Austria. Bearing engraved marks, the pieces were clearly fashioned by human hand. A thorough search produced a further five large and many small fragments of the same, obviously extraneous stone on the following day. When fitted together, the large fragments formed a complete, 72 mm long and 7 mm thick, flattish figurine depicting a woman in an animated pose, weighing 10.8 g. Six charcoal samples from the same occupation horizon yielded radiocarbon dates of about 30 000 years BP, suggesting that the carving is perhaps 5000 years older than the 'Venus of Willendorf', found 80 years earlier, almost exactly to the day, and just 20 km away. The new find is among the oldest sculptures known in the world. In contrast to some of the other art finds from the early Upper Palaeolithic (such as the first of the Willendorf figures) this sculpture was recovered under immaculate conditions of stratigraphic documentation, by the excavation director herself, from apparently undisturbed deposits.

The 'Venus of the Galgenberg', as it has already come to be known, provides an important link in reconstructing the circumstances surrounding the beginnings of Upper Palaeolithic art. Perhaps more significantly, the artistic sophistication of the new Austrian find raises once again the subject of pre-Upper Palaeolithic art production. I shall briefly describe the Galgenberg figurine and its context, and then discuss its significance.

Geographical and Archaeological Setting

In spite of Austria's central location in Europe and the proximity of the important concentrations

of Palaeolithic sites in neighbouring countries, the Palaeolithic period is only poorly represented in Austria. Much of the country is mountainous and would have been inhospitable during long periods of the Pleistocene (see Schmid 1963 for snow limits during cryoclastic peaks). Nevertheless, interglacials provided optimal climatic and bioenvironmental conditions (Šegota 1967), and the almost complete lack of Lower and Middle Palaeolithic remains in Austria is conspicuous. It must be at least partly attributable to the destruction of occupation deposits by various agents (for instance inundation, no doubt often caused by solifluction, has destroyed many sites in valleys).

The Galgenberg is located 3.2 km due north of Krems, Lower Austria, a picturesque small town on the northern shore of the Danube (Fig. 1). The hill offers sweeping views over the surrounding country, rising to 374 m above sea level, i.e. about 180 m above the river. Immediately upstream of Krems the Danube has had to cut its way through the southern fringes of the metamorphic rock Bohemian massif, thus separating the Dunkelsteiner Wald from the Waldviertel. The 35 km long, narrow valley from Krems to Melk is the Wachau (Fig. 2), which forms a natural gateway that may well have influenced the movements of migratory herds in the Pleistocene. Several castles or ruins on the valley's steep hills suggest its strategic role in the more recent past, and include Dürnstein, where Richard the Lionheart was held to ransom in A.D. 1192-93. Geomorphologically the Wachau is characterised by remnants of loess deposits nestled among the steep slopes that are now covered by terraced vineyards. The loesses of the Wachau and of the surrounding part of Lower Austria have provided the geochronological basis of the European Würm glaciation (Brandtner 1950, 1954, 1956; Fink 1954,

1956, 1961; Zeuner 1954; Woldstedt 1956; Felgenhauer, Fink and De Vries 1959; H. Gross 1960a). This region also produced the only readily definable cluster of Palaeolithic sites found in Austria. They are usually attributed to just two lithic industries, the Aurignacian and the Gravettian (East Gravettian, Klima's 'Pavlovian'), but it has been argued that these few dozen sites have been lumped together primarily because they occur in Würmian loess and share a 'cold' fauna, often dominated by mammoth, horse and/or reindeer (e.g. Prüfer 1958).

Most of the Palaeolithic occupation evidence of the Krems region is traditionally thought to derive from Würm II loesses, some (e.g. the lower four levels of Willendorf II, or Senftenberg) frequently ascribed to the Götterzeit interstadial. However, many aspects of the published reports and of the remaining evidence, in collections and in the field, prompt one's scepticism. The chronological placement of almost every Austrian Palaeolithic site remains controversial, and most typological designations are open to debate. The situation is not helped by the tendencies of local archaeologists on the one hand to emulate the western European sequence, and on the other to perpetuate Penck's error of confusing Götterzeit deposits with those of the last interglacial (and hence Rissian with Y.L. I loesses; see Soergel 1919; Lais 1941; Brandtner 1950; Zeuner 1954). Pittioni's (1938, 1954) Palaeolithic chronology of Austria, which is erroneous in almost every detail (Zotz 1956; Prüfer 1958; Narr 1966: 451; Bednarik in prep.), continues to serve as a standard reference (e.g. Neugebauer and Simperl 1979), although the placement of the alpine cave stations (Olschewian) into the Eem (e.g. Ehrenberg 1958) has been refuted time and again (for example by Bayer 1928; J. C. Gross 1929; Soergel 1940; Zotz 1944: 21, 1951; H. Gross 1959; Schmid 1957: 54, 1963). Yet this outdated model continues to be followed with the 'sectarian zealotry' H. Gross (1960b: 379) has already noted.

It is also evident that most of the Lower Austrian loess sites have been incorrectly identified (Pittioni 1954: 94). For instance some of the Wachau sites earlier thought to be of the Würm II cannot possibly predate the Paudorf oscillation, while at least one (Senftenberg) is Götterzeit, if not final Würm I (Felgenhauer et al. 1959). Aggsbach cannot be from a Y.L. II, at $22\,450 \pm 100$ or $25\,600 \pm 100$ (depending on whether we accept Schmid's [1963] or Movius's [1960] date of the same sample, GRO 1327). The Paudorf *Bodenbildung* most certainly underlies the Gravettian of Stillfried (cf. Franz 1925; and Bayer's 1927 reprint), for which we have a series of radiocarbon dates centring on $\pm 26\,000$ to $27\,000$ years BP (Felgenhauer 1980). It is clear that some or many of the open air loess sites belong to Paudorf or Y.L. III (cf. Bayer's 1927 and 1928 comments; and Felgenhauer 1951). Prüfer (1958) noted that a younger, overlying loess is often lacking at the Lower Austrian sites, and it has even been suggested that some of these loess sites are Magdalenian (e.g. Gobelsburg, by Obermaier 1908).

Magdalenoid industries do occur in a few cave sites of the region, notably the Gudenus Cave (Hacker 1884) and others near the confluence of

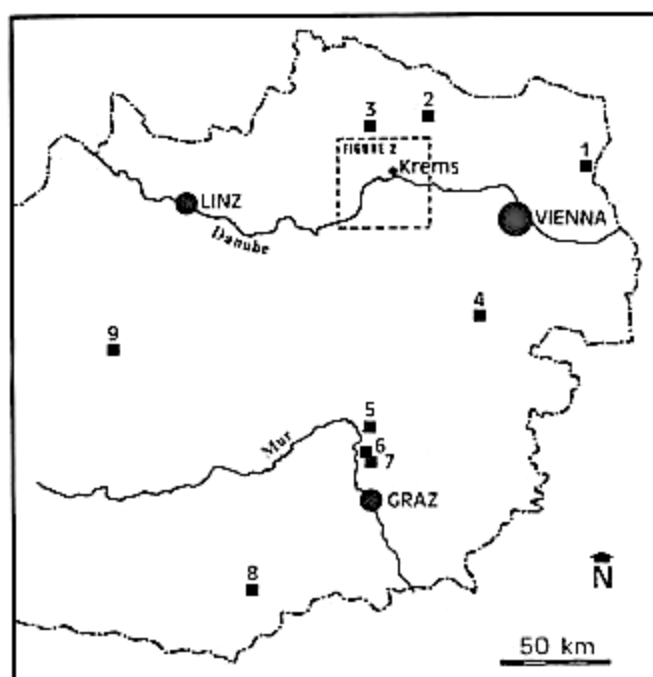


Figure 1.
Map of eastern Austria, showing locations of Palaeolithic sites mentioned in the text. They are:

- | | |
|--------------------------|--------------------|
| 1 - Stillfried | 6 - Repolust Cave |
| 2 - Teufelslucken | 7 - Badl Cave |
| 3 - Frauenlucken | 8 - Griffener Cave |
| 4 - Promenadensteig Cave | 9 - Salzofen Cave |
| 5 - Drachen Cave | |

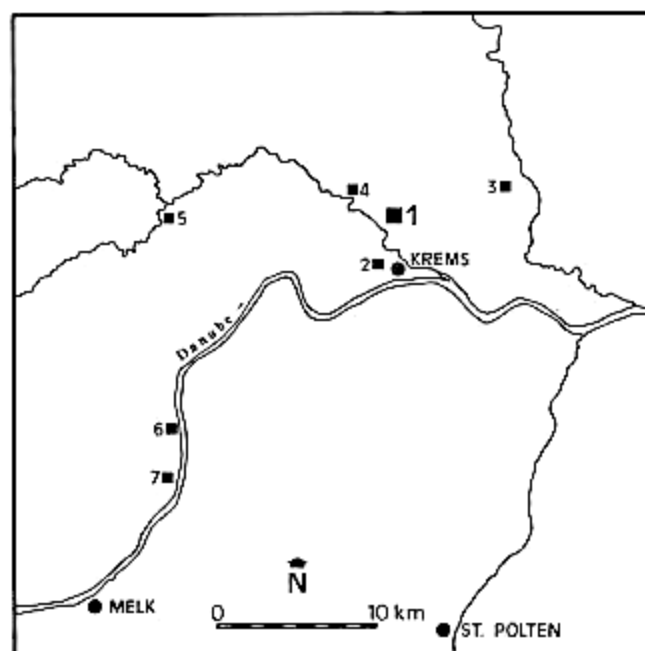


Figure 2.
Map of Wachau and Krems region, Lower Austria. Palaeolithic sites mentioned in the text are:

- | | |
|---------------------|------------------|
| 1 - GALGENBERG | 5 - Gudenus Cave |
| 2 - Krems-Hundsteig | 6 - Willendorf |
| 3 - Gobelsburg | 7 - Aggsbach |
| 4 - Senftenberg | |

the Grosse and Kleine Krems rivers; the Frauenlucken (Wichmann and Bayer 1924); and 80 km to the south-east, in the Promenadensteig Cave (Bednarik 1970). At the other end of the chronological spectrum, the Gudenus Cave—within two hours' walk of the Wachau valley—also contains Austria's only indisputable pre-Upper Palaeolithic strata. This small cave in the Kleine Krems valley yielded Mousterian levels (Breuil and Obermaier 1908; Bayer 1924), and well below them an acheuloid handaxe assemblage (Bednarik in prep.).

Only one of the loess stations near Krems has been generally accepted as typologically comparable to a stage of the French sequence: there is an Aurignacian level at Krems-Hundsteig, but the site was destroyed before it could be studied (Pittoni 1954: 67) and may have comprised more than one occupation phase (perhaps this is why Pittoni describes the site as Aurignacian, but lists it in his table [p. 121] as Gravettian!). During the Götting, the Upper Palaeolithic industries of the region from southern Germany to Hungary differed significantly from the typologically better-understood sequence west of the Rhine and Alps. It may therefore be sensible to clarify the 'cultural' affiliations that the loess sites may have with the roughly contemporary or slightly earlier central European cave site industries of the Szeletian (Kadic 1916) and Olshewian (Bayer 1929), and those of Swabia, southern Germany.

The first Palaeolithic finds reported from the Galgenberg at Krems were made in the spring and summer of 1941. Emil Weinfurter collected remains of Pleistocene mammals, including mammoth and reindeer, recorded ample charcoal in the Würmian loess, and collected numerous silica flakes, mostly *débitage*. Among the implement types he records a cone scraper and other forms associated with the early Upper Palaeolithic (Weinfurter 1950).

Since the construction of the Krems water supply facilities on the Galgenberg, i.e. since 1985, the Österreichisches Bundesdenkmalamt has been excavating in a nearby vineyard owned by a cloister, Kremsmünster. The project is directed by Dr Christine Neugebauer-Maresch. It resulted in the recovery of the female figurine just before the end of last year's field season.

The Galgenberg Figurine

In contrast to most of the Gravettian statuettes, which are sculpted in the round, the Galgenberg figurine is flat, and of fairly uniform thickness. This may have been influenced by the original shape of the stone it was fashioned from: the mineral has been alternatively described as serpentine and schist, both of which occur frequently in tabular or shaly form. Neither has been recorded before in Palaeolithic art, although it is to be noted that the 'Venus of Savignano' has been alternatively described as steatite (by Graziosi and Aloisi) and serpentine (by Antonielli and Millosevich) (Bahn, pers. comm.). Serpentine and steatite are petrographically and chemically similar.

Besides the pieces forming the figurine itself, a number of small fragments of the same green stone were found in close vicinity. They are not part of the sculpture, and may well represent

parings or carving residue from manufacture. While it is of course possible that they originate from the production of another object, it seems more likely that the figurine was found in the location of its manufacture; perhaps it was discarded after it fractured during production.

The Galgenberg figurine bears several cut marks, especially dorsally, which need to be subjected to detailed 'internal analysis' (Marshack 1972, 1985; cf. D'Errico 1988). Carbonate encrustation, tool and erosion marks cover its surface, producing a mottled effect. At least some of the carbonate precipitate has been removed by the researchers; it could have been subjected to radiocarbon, uranium-series and/or oxygen isotope analysis, thus providing valuable data for other projects. Technologically the production of the sculpture is significantly more advanced than that of any Gravettian (and thus more recent) figurine. The soft stone can be readily fashioned with flint tools but in this case the object is rather brittle and delicate. While the limestone of the larger and considerably more robust Willendorf I figurine (Szombathy 1910) may have been a demanding medium (Eppel 1950), a greater technological capability is manifested in the Galgenberg figurine. The several salient parts (left arm and breast, head) could all easily fracture at their base, and to carve or bore the two openings (between torso and right arm, and between legs) involved a very delicate production process.

The stone's physical properties would not permit the fashioning of a free-standing limb, especially an arm. To overcome this limitation the artist utilised two different conventions still being used by contemporary sculptors: the right arm and the legs are structurally supported (and thus braced) at both ends, while the left arm is shortened to half the anatomical length by being depicted in a folded-back position. This alone shows that the artist was well versed in the techniques of producing human figures with 'free' limbs, an art that was apparently not mastered by the Gravettian artists. Such advanced skills demand an accumulated store of artisan's know-how and cannot be explained as anything but the product of a lengthy tradition in which people had experimented for thousands, and probably tens of thousands, of years (perhaps with perishable media?).

The extraordinary skill of the Galgenberg artist is also shown by his or her ability to maintain a definite and vivid visualisation of the intended form throughout manufacture, despite the various technological challenges involved in producing the figurine. This is evident from the internally coherent attitude of the figure: the posture of all body parts is correctly balanced with the whole. The body's weight is depicted as being supported mostly on the left leg; the right leg is angled and resting on a slightly higher support than the left. This facilitates the casual placement of the right hand on the upper thigh. The upper torso is therefore turned to the left, a position also demanded by the steeply raised left arm. This attitude brings the left breast almost into profile, showing it to be large and consistent with that of a young woman. The second breast is in low relief, due to the stone's flatness. Facial detail is lacking, and while the wide upper

part of the head appears to be so shaped intentionally, we cannot know whether it represents a coiffure or is merely incidental. The vulva is depicted naturalistically, and the figurine lacks any suggestion of obesity, steatopygia or emphasis of female characteristics. With the exception of the limbs, which are rendered only as thin as the artist dared to, the figure is of anatomically correct dimensions and features an apparently young woman standing on a pedestal-like support.

The torso, head and left arm survived in a single piece, while the two legs and the support were found in three separate sections. The right arm had suffered the most damage; it was recovered broken in three. The various fragments come from the same occupation horizon as a series of white-patinated lithic implements, including burins and broad scrapers. Silica nodules and cobbles occur in the highest part of the Galgenberg, which consists of Tertiary gravels that may have provided some of the raw material. The pelvic bone of a woolly rhinoceros (*Coelodonta antiquitatis*), a typical Würm species (Kurtén 1968: 144), was also recovered. Six radiocarbon samples from the occupation stratum have provided dates clustered around a mean of slightly more than 30 000 years BP. This places the site at the onset of the second Würm stadial. Charcoal sample GRO 16135 was collected from the immediate vicinity and the same layer as the figurine's fragments, and produced a date of $31\,790 \pm 280$ years BP.

Discussion

The full significance of the Galgenberg find does not, however, rest upon the figurine itself, but on how it fits into what is known about very early art, and how it can affect our concepts about cultural evolution around the beginning of the Upper Palaeolithic and during the preceding period. Rather than being another 'Venus figurine', this find adds considerable weight to the hypothesis that the sculpted art preceding the Gravettian figurines, which are characterised by varying degrees of stylisation, was one of sophisticated realism. What the few 'Aurignacian' sculptures of central Europe have in common seems adequate to differentiate between them and the more recent Gravettian figures, which occur from western Europe to the U.S.S.R. The latter, while maintaining much of the earlier naturalism, nevertheless are typically static and stylised, although such treatment takes various forms.

Perhaps the best-known series of Upper Palaeolithic sculptures is that of the so-called 'Venuses': made of ivory, bone, steatite, burnt clay or limestone, they may be characteristically corpulent (e.g. Willendorf I, Gagarino, Balzi Rossi-Grimaldi; cf. bas-reliefs of Laussel, probably late Gravettian) or somewhat steatopygous (e.g. Savignano, Dolní Věstonice, Sireuil, Tursac, Lespugue), or they may be slender (Mal'ta, Buret, Laugerie-Haute, two of the Brassempouy figures). Some of the statuettes included in this series are only vaguely anthropomorphic (e.g. Willendorf II, which offers little more detail than the Vogelherd anthropomorph), and to be consistent with the tendency to apply the term 'Venus' we would have to name any

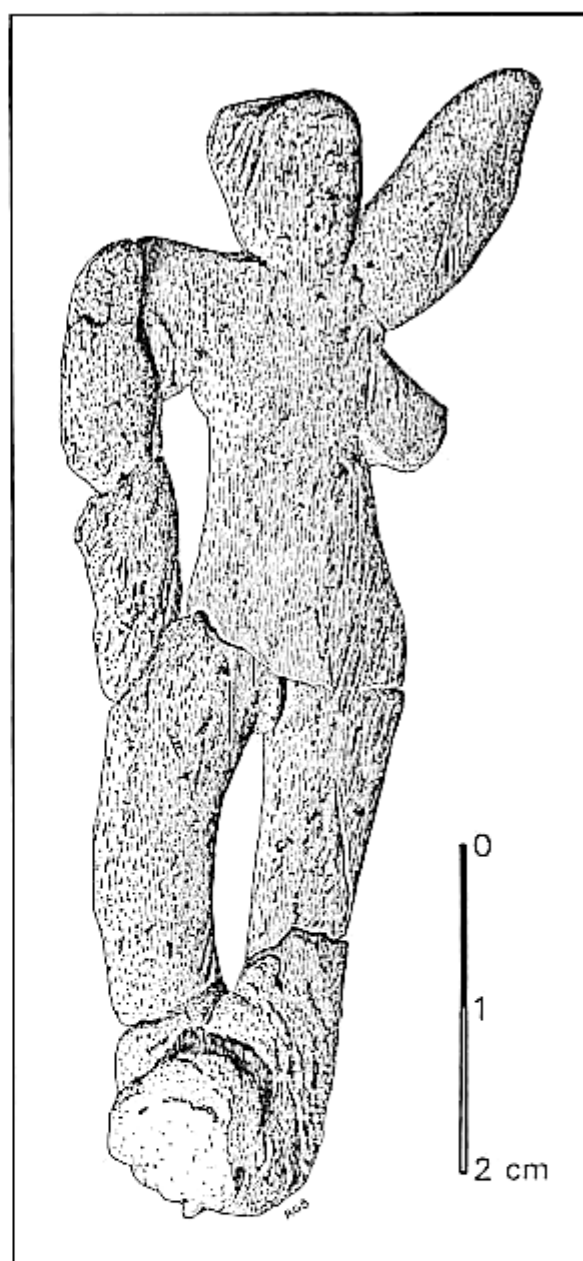


Figure 3.
The Galgenberg figurine from Krems, Austria.

apparently female sculpture so, irrespective of its provenance within the world.

The more 'typical' 'Venus' statuettes appear in the Gravettian (late Gravettian or Gravetto-Solutrean in western Europe), and the tradition seems to continue in the figurines of some Magdalenian sites (e.g. Pekarna Cave, Petersfels) and the later Upper Palaeolithic sites of the U.S.S.R. The Galgenberg-Krems figurine has also been designated a 'Venus', while clearly predating the series by a considerable margin and sharing none of its stylistic traits. Boring techniques were not employed in the manufacture of 'Venus' sculptures, and their compact overall form may well account for some of their stylistic aspects: the usually stunted arms (in about a quarter of all specimens these are altogether missing; Duhard 1989) may have less to do with stylistic conventions and more with technolo-

gical aspects or conventions of production. This is suggested by several of the bas-relief figures on rock which are shown holding their arms in very 'natural' poses, clearly extending away from the body: the four Laussel specimens (Lalanne 1912; Leroi-Gourhan 1971; Duhard 1988; Huyge 1988) and the two 'reclining Venuses' of La Magdelaine (Breuil 1954; Duhard 1989: Figs 7 and 8).

Another fundamental difference between the Krems find and the 'Venus' statuettes is that the latter are generally symmetrical, the exceptions being minor variations, such as the position of an arm or hand. The Galgenberg image is totally asymmetrical; not one body part is in a bilaterally corresponding position relative to the mediansagittal plane—which is itself slightly distorted because the upper torso is turned to the left. Such a proficient method of sculpting reappears in the late Magdalenian, but even then it does not quite match the simple harmony exemplified in this tiny figurine—which is, after all, at least twice as old.

However, the most fundamental difference between the Galgenberg discovery and 'Venus' figurines is that the latter are without exception static figures, lacking even the slightest hint of motion. Their inertia provides a stark contrast to the animation and vivacity of the Galgenberg specimen.

The 'Aurignacian' figurines from the Vogelherd Cave (near Stetten, Swabian Alb, south-western Germany) come from Layers 4 and 5 of that site (Riek 1934), the lithics of which differ from those of the French Aurignacian (de Sonneville-Bordes 1965). The lack of other sculptures from the Göttweig encouraged Müller-Beck (1957a, b, 1965) to question Riek's dating and to attribute the site to the Stillfried (Paudorf). The figures are no longer unique, however: the therianthrope figure from the Stadel im Hohlen Stein, north of Ulm (Hahn 1971; Marshack in press) is also 'Aurignacian'. It is of mammoth ivory, 281 mm long, and depicts a naturalistically proportioned human with a lion's head. This is one of the most sophisticated images known from any Palaeolithic period, in expressiveness, level of craftsmanship and the cosmological constructs it implies; yet it is also one of the oldest Palaeolithic images known. There are five parallel notches on its upper left arm, and Marshack (in press) has noted that a similar pattern occurs on the tiny anthropomorphic relief carving from the Geissenklösterle near Blaubeuren, 20 km west of Ulm. This roughly rectangular ivory plaque measures only 38 mm. One side bears a crudely fashioned, but realistically proportioned, human figure with raised arms, while the other has been decorated with over 50 marks arranged in four distinct rows. Twelve more notches have been cut into one longitudinal side of this object, which has also been attributed to the Aurignacian.

Vogelherd, Hohlenstein-Stadel and Geissenklösterle are all located in the Swabian Alb, within a hundred kilometres of each other, and they appear to be roughly contemporary. The sculptures are associated with lithic assemblages of a very early Upper Palaeolithic typology looking like early Aurignacian, and they share certain traits with the Galgenberg find. The subjects are depicted in distinctive and highly expressive attitudes. For in-

stance the Hohlenstein therianthrope, while simply standing upright, seems to have something menacing about its stance; perhaps it is the slightly forward-flexed torso, the posture of the lion head, or the backward-bent, anticipatory attitude of the arm. The latter is modelled separated from the body and may well represent the foreleg of a lion rather than an arm—the ambiguity seems almost intentional. However, legs, feet (which are almost never detailed in Gravettian figures) and torso, especially the shoulders, are unmistakably human. The legs are fully separated—another feature that is not found in Gravettian or other 'Venus' figurines. Conversely, the posture of the head, the location of the lion's ears in relation to the back of the head, and the lack of space between the head and the lion's face all indicate that the figure does not depict a human with an animal mask, but a true therianthrope.

The expressive potency of this figure's pose is reflected in some of the finds from the Vogelherd Cave: the horse figure, again very tiny (Marshack 1976, 1985), is particularly sophisticated, as Marshack observes. It communicates much more than mere form; it captures elegant movement and liveliness, especially the graceful way a horse moves its head. The Vogelherd feline (Marshack 1985, in press) 'was carved with the same skill and sophistication as the horse, catching the characteristic species posture of watchful attention, with the head low and far forward' (Marshack 1985: 96).

With the Krems-Galgenberg statuette we can add another anthropomorphic image to this series, sharing its characteristics. This art object belongs to a highly evolved tradition of producing such works, a tradition contemporary with the early Aurignacian of western Europe, such as the Aurignacian I of La Quina (30 760±490 and 31 170±350 BP; Movius 1960), which is apparently devoid of iconic art. The earliest figurative motifs there appear in the next millennia in the form of a very few incomplete and very crude animal figures, together with motifs considered to depict vulvae (Delluc and Delluc 1978; but cf. Bahn 1986 on the 'vulvae'): at La Ferrassie, Abri Cellier, Abri Blanchard and Abri du Renne. (It is to be noted, however, that Breuil, who visited Piette's dig in 1897, maintained that the Brassempouy figurines came from the early Aurignacian, perhaps even from the Châtelperronian; cf. Bahn and Vertut 1988.) These rudimentary beginnings were preceded by a sophisticated central European tradition from which, also, only a few objects have so far come to light. It follows that the long-standing status of western Europe as the 'cradle of art' can no longer be upheld—especially in view of recent evidence from several countries (Bednarik 1988). As I noted above, the early central European figurines can only be explained as the product of a long antecedent art tradition. Cognitive or art-historical speculation has, I must emphasise, no bearing on this postulate; I refer to purely technological aspects. We have no reason whatsoever to assume that nonutilitarian technologies could have evolved faster than utilitarian ones did during the Middle Palaeolithic. In their speculations about art origins, cultural archaeologists need to distinguish between the 'cogni-

tive' aspects of early 'art evolution', and the technological ones: while one may reasonably argue for a comparatively sudden development, a kind of quantum jump, in the former, that would be unacceptable for the latter.

Conclusions

It was probably the animated pose of the Galgenberg figurine that prompted the Austrian archaeologists to name their find 'Fanny, the dancing Venus of the Galgenberg', under which name it has been introduced to the local mass media (Melchart 1988; the name Fanny derives from an Austrian ballerina of the 19th century, Fanny Elssler). To interpret the figure's attitude as 'dancing' is obviously subjective and lacks any supporting evidence. No human depictions of the Upper Palaeolithic can be shown to be dancing, yet apparently dancing anthropomorphs (depicted in frequently repeated, distinctively dynamic postures) have been reported from all continents. Moreover, contemporary Western observers tend to interpret the attitudes of prehistoric (and ethnographic) human figures quite subjectively, as 'praying', 'adoring', 'flying', 'worshipping' etc., when in fact we usually lack any knowledge of the cultural or semantic content of the relevant iconographies, or of the artistic or communicative processes governing their depictive processes. By applying contemporary standards, gestural intent or body language we could—more convincingly, I dare say—attribute to the Galgenberg figure a deliberate and provocative pose (Kurtén 1986). Certainly, if a well-endowed young female were depicted in an identical pose in contemporary imagery, some of the semantic connotations could be said to be unequivocal, but it does not follow that a similar interpretation can be postulated for a carving that is apparently thirty millennia old (cf. Bahn 1986).

The elated Austrian archaeologists have also claimed that their Galgenberg sculpture is the oldest female figurine in the world. This, too, needs to be qualified, and placed in a global perspective. According to Goren-Inbar (1986), the scoria pebble from Berekhat Ram bears artificial grooves around the neck and arms (Goren-Inbar intends to submit a detailed description of this and a second object to *RAR*). It comes from a levallois Acheulian horizon that was sealed under a basalt flow about 233 000 years ago. I have myself (Bednarik 1988) called for independent authentication of the claimed modification traces on this figurine (they have also been questioned by Davidson, at the First AURA Congress in Darwin), but on reflection this is not the crucial aspect of the Israeli find. The object does have the shape of a woman, and whether this is its natural form or has been emphasised by modification is not the central issue from the cognitive epistemologist's point of view—for whom the change from proto-sculpture (Gallus 1977) to sculpture is far from fundamental. For him the capacity to recognise iconicity (Davis 1986) is more important than the ability to emphasise, and eventually create, iconicity. The mere stratigraphical provenance of the Berekhat Ram object suggests that those responsible for its deposition were aware of its iconic properties (assuming that the pebble

is indeed extraneous), and those questioning its relevance will need to address this aspect rather than the subject of artificiality.

What are the circumstances that precipitated the profound cultural and technological developments in central Europe during the Göttweig interstadial, and where are the precursors of the figurines from the Swabian Alb and the Kremser Galgenberg? It seems that a most sophisticated tradition of producing sculpted art was well established as the interstadial drew to a close. If the Willendorf II radiocarbon dates (De Vries 1958) were reliable, the lowest of the nine occupation levels might be roughly contemporaneous with the Galgenberg horizon. They are not, judging by the inversions (the Willendorf samples were collected in 1908). Level 4 (Felgenhauer 1959) is thought to be of Middle Aurignacian age (Kromer 1950: 76) and is followed by five Gravettian layers (the 'Venus' is reputed to belong to the uppermost of them). Distinctive central European industries such as the Šipkian, Szeletian and Olshewian provide typological links between the mousteroid and the Upper Palaeolithic occupations, and occur from the early Würm glacial through to the end of Göttweig. Some of these sites have been described as Proto-Aurignacian, some as Proto-Solutrean; they provide ample proof that there is no clear typological division between the Middle and Upper Palaeolithic in central Europe. Rather, mousteroid stone tool-making techniques survive (e.g. in Salzofen, Repolust and Griffener Caves, Teufelslucken) in these early blade and bone artefact industries (cf. Drachen, Badl, Potočka, Špehovka, Lovke, Mladeč and Istállóskő Caves). The Olshewian is often compared to the Aurignacian II, and is of about the same antiquity as Galgenberg (e.g. at Istállóskő Cave), or some millennia earlier. Perhaps it is among these 'cultures' that we should expect to find the contemporaries or predecessors of the Galgenberg artist.

One final comment: in rock art we often distinguish between dynamic and static art. The former tends to be regarded as artistically the more sophisticated, yet oddly it is often seen among the earliest forms of a regional sequence, as shown by superimposition patterns (e.g. the 'Dynamic Figures' of Arnhem Land, Australia - Chaloupka 1984; the green dynamic paintings of Mirzapur, India - Wakankar 1983). If we were to classify Upper Palaeolithic sculptures by the same criterion, those of the Gravettian would be static, those of the preceding central European period described here, dynamic. While this does not indicate a universal trend, it does confirm that art development does not conform to the biological concept of evolution: it evolves, it develops, but not necessarily in a direction of what we might view as increasing sophistication. Art works communicate world views and it would be self-contradictory to pronounce any art as more developed than any other (leaving aside purely technological aspects) because all world views are anthropocentric by definition and cannot be expected to correctly define reality (Bednarik 1985). Therefore it would be more correct to say that contemporary art works, for instance, are an aggravation of anthropocentricity, than to say that

they are more developed than the art of the Neanderthals.

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Résumé. Cet article concerne la découverte d'une figurine féminine près de Krems en Autriche. Cet objet, taillé en serpentine ou schiste, provient d'une couche d'habitation datée, et est parmi les plus vieilles sculptures connues. L'auteur présente une brève description de la figure, considère son contexte culturel dans la partie ancienne du Paléolithique Supérieur, et discute d'autres objets qui représentent cette ancienne tradition d'art sculpté afin d'établir leurs communs caractères. Cette nouvelle trouvaille fournit une preuve supplémentaire qu'une tradition artistique 'avancée' a existé en Europe centrale bien avant le Gravettien, et avant la parution d'un art iconique en Europe occidentale.

Zusammenfassung. Die Entdeckung einer weiblichen Statuette nahe Krems, Österreich, wird berichtet. Dieser aus Serpentin oder Schiefer hergestellte und aus einer datierten Siedlungsablagerung stammende Fund ist eine der ältesten Plastiken der Welt. Der Verfasser legt eine kurze Beschreibung der Figur vor, erörtert ihre früh-jungpaläolithischen kulturellen Zusammenhänge, und bespricht andere Vertreter dieser frühen Erscheinungsform plastischer Kunst, um ihre gemeinsamen Merkmale festzulegen. Der neue Fund bringt weitere Beweise, dass eine fortgeschrittene Kunstform in Mitteleuropa bereits lange vor dem Gravettien existierte, und vor dem Erscheinen bildlicher Kunst in Westeuropa.

REFERENCES

- BAHN, P. G. 1986. No sex, please, we're Aurignacians. *Rock Art Research* 3: 99-120.
- BAHN, P. G. and J. VERTUT 1988. *Images of the Ice Age*. Windward, London.
- BAYER, J. 1924. Abschliessende Grabungen in der Gudenushöhle. *Die Eiszeit* 1: 164.
- BAYER, J. 1927. Das angebliche 'Lössmagdalenien' von Stillfried in Niederösterreich. *Die Eiszeit* 4: 128.
- BAYER, J. 1928. Das zeitliche und kulturelle Verhältnis zwischen den Kulturen des Schmalkingenkulturbereiches während des Diluviums in Europa. *Eiszeit und Urgeschichte* 5: 9-23.
- BAYER, J. 1929. Die Oltschewakultur. *Eiszeit und Urgeschichte* 6: 83-100.
- BEDNARIK, R. G. 1970. Die Grabungen in der Promenadensteighöhle (1961-1964). *Die Höhle* 21: 117-26.
- BEDNARIK, R. G. 1985. Editor's response. *Rock Art Research* 2: 90-1.
- BEDNARIK, R. G. 1988. Art Origins. Paper presented in Symposium K of the First AURA Congress, Darwin, 2 September 1988.
- BEDNARIK, R. G. in prep. Über die sedimentologischen und paläoklimatischen Verhältnisse in der Gudenushöhle, Niederösterreich.
- BRANDTNER, F. 1950. Über die relative Chronologie des jüngeren Pleistozäns Niederösterreichs. *Archaeologia Austriaca* 5: 101-13.
- BRANDTNER, F. 1954. Jungpleistozäner Löss und fossile Böden in Niederösterreich. *Eiszeitalter und Gegenwart* 4/5: 49-82.
- BRANDTNER, F. 1956. Lösstratigraphie und paläolithische Kulturabfolge in Niederösterreich und in den angrenzenden Gebieten. *Eiszeitalter und Gegenwart* 7: 127-75.
- BREUIL, H. 1954. Bas-reliefs féminins de La Magdelaine (Penne, Tarn) près Montauban (Tarn-et-Garonne). *Quaternaria* 1: 49-53.
- BREUIL, H. and H. OBERMAIER 1908. Die Gudenushöhle in Niederösterreich. *Mitteilungen der Anthropologischen Gesellschaft in Wien* 38: 277-94.
- CHALOUPEK, G. 1984. From Palaeoart to casual Paintings: the chronological Sequence of Arnhem Land Plateau Rock Art. Northern Territory Museum of Arts and Sciences Monograph Series No. 1, Darwin.
- DAVIS, W. 1986. The origins of image making. *Current Anthropology* 27: 193-215.
- DELLUC, B. and G. DELLUC 1978. Les manifestations graphiques aurignaciennes sur support rocheux des environs des Eyzies (Dordogne). *Gallia Préhistoire* 21: 213-438.
- D'ERRICO, F. 1988. Lecture technologique de l'art mobilier grave nouvelles méthodes et premiers résultats sur les galets graves Rochedane. *L'Anthropologie* 92: 101-26.
- DE VRIES, H. 1958. Radiocarbon dates for upper Eem and Würm interstadial samples. *Eiszeitalter und Gegenwart* 9: 10-7.
- DUHARD, J.-P. 1988. Le calendrier obstétrical de la femme à la corne de Laussel. *Bulletin de la Société Historique et Archéologique du Périgord* 115: 23-39.
- DUHARD, J.-P. 1989. La gestuelle du membre supérieur dans les figurations féminines sculptées paléolithiques. *Rock Art Research* 6: 105-17.
- EHRENBERG, K. 1958. Vom dermaligen Forschungsstand in der Höhle am Salzofen. *Quartär* 10: 237-51.
- EPPEL, F. 1950. Die Herkunft der Venus I von Willendorf. *Archaeologia Austriaca* 5: 114-45.
- FELGENHAUER, F. 1951. Aggsbach, ein Fundplatz des späten Paläolithikums in Niederösterreich. *Mitteilungen der Prähistorischen Kommission der Österreichischen Akademie der Wissenschaften* 5(6): 160-266.
- FELGENHAUER, F. 1959. Willendorf in der Wachau. Monographie der Paläolith-Fundstellen I-VII. *Mitteilungen der Prähistorischen Kommission der Österreichischen Akademie der Wissenschaften* No. 8/9, parts 1-3, Vienna.
- FELGENHAUER, F. 1980. Ein jungpaläolithisches Steinschlagatelier aus Stillfried an der March, Niederösterreich. Zur Herstellungstechnik von Mikrogravettespitzen. *Forschungen in Stillfried*, Vol. 4, pp. 7-40. Veröffentlichungen der Österreichischen Arbeitsgemeinschaft für Ur- und Frühgeschichte, XIII/XIV, Vienna.
- FELGENHAUER, F., J. FINK and H. DE VRIES 1959. Studien zur absoluten und relativen Chronologie der fossilen Böden in Österreich. *Archaeologia Austriaca* 25: 35-73.
- FINK, J. 1954. Die fossilen Böden im österreichischen Löss. *Quartär* 6: 85-107.
- FINK, J. 1956. Zur Korrelation der Terrassen und Löss in Österreich. *Eiszeitalter und Gegenwart* 7: 49-77.
- FINK, J. 1961. Die Gliederung des Jungpleistozäns in Österreich. *Mitteilungen der Geologischen Gesellschaft Wien* 54: 1-25.
- FRANZ, L. 1925. Die paläolithischen Funde von Stillfried an der March. *Studien zur vorgeschichtlichen Archäologie, Götze-festschrift*, pp. 19-23.
- GALLUS, A. 1977. Schematisation and symboling. In P. J. Ucko (ed.), *Form in Indigenous Art*, pp. 370-86. Australian Institute of Aboriginal Studies, Canberra.
- GOREN-INBAR, N. 1986. A figurine from the Acheulian site of Berekhat Ram. *Mi'Tekufat Ha'Ezer* 19: 7-12.

- GROSS, H. 1959. Noch einmal: Riss oder Würm? *Eiszeitalter und Gegenwart* 10: 65-76.
- GROSS, H. 1960a. Die Bedeutung des Götterweiger Interstadials im Ablauf der Würm-Eiszeit. *Eiszeitalter und Gegenwart* 11: 99-106.
- GROSS, H. 1960b. Comment on H. L. Movius, 'Radiocarbon dates and Upper Palaeolithic archaeology in central and western Europe'. *Current Anthropology* 1: 377-80.
- GROSS, J. C. 1929. Die paläolithische Jägerstation in der Potočnikhöhle auf der Uschowa in den Karawanken. *Zentralblatt für Mineralogie, Abt. B*, No. 11.
- HACKER, P. L. 1884. Die Gudenus-Höhle, eine Renntierstation im niederösterreichischen Kremstale. *Mitteilungen der Anthropologischen Gesellschaft in Wien* 14: 145-53.
- HAHN, J. 1971. Eine jungpaläolithische Elfenbeinplastik aus dem Hohlenstein-Stadel. *Fundberichte aus Schwaben*, 19(n.s.): 11-23.
- HUYGE, D. 1988. The 'Venus of Laussel' in the Light of Ethnomusicology. Paper presented in Symposium A of the First AURA Congress, Darwin, 30 August 1988.
- KADIC, O. 1916. Ergebnisse der Erforschung der Szeletahöhle. *Mitteilungen aus dem Jahrbuch der Königlichen Ungarischen Geologischen Anstalt* 23: 160-296.
- KROMER, K. 1950. J. Bayers 'Willendorf II'-Grabung im Jahre 1913. *Archaeologia Austriaca* 5: 63-79.
- KURTÉN, B. 1968. *Pleistocene Mammals of Europe*. Weidenfeld and Nicolson, London.
- KURTÉN, B. 1986. *How to deep-freeze a Mammoth*. Columbia University Press, New York.
- LAIS, R. 1941. Über Höhlensedimente. *Quartär* 3: 56-108.
- LALANNE, G. 1912. Bas-reliefs à représentation humaine de l'Abri sous-roche de 'Laussel' (Dordogne). *L'Anthropologie* 23: 129-40.
- LEROI-GOURHAN, A. 1971. *Préhistoire de l'Art Occidental*. Éditions d'art Lucien Mazenod, Paris.
- MARSHACK, A. 1972. Cognitive aspects of Upper Paleolithic engraving. *Current Anthropology* 13: 445-77.
- MARSHACK, A. 1976. Some implications of the Paleolithic symbolic evidence for the origin of language. *Current Anthropology* 17: 274-82.
- MARSHACK, A. 1985. Theoretical concepts that lead to new analytic methods, modes of enquiry and classes of data. *Rock Art Research* 2: 95-111.
- MARSHACK, A. in press. The evolution and transformation of 'decoration': early Aurignacian to the terminal Magdalenian. In J. Clottes (ed.), *Proceedings of the Colloque International d'Art Mobilier Paléolithique*, Foix 1987.
- MELCHART, E. 1988. Sie tanzte 30.000 Jahre! *Kronen-Zeitung* 8-12-1988, pp. 26-7.
- MOVIUS, H. L. 1960. Radiocarbon dates and Upper Palaeolithic archaeology in central and western Europe. *Current Anthropology* 1: 355-91.
- MÜLLER-BECK, H. 1957a. Paläolithische Kulturen und pleistozäne Stratigraphie in Süddeutschland. *Eiszeitalter und Gegenwart* 8: 116-40.
- MÜLLER-BECK, H. 1957b. Das obere Altpaläolithikum in Süddeutschland I. Habelt, Bonn.
- MÜLLER-BECK, H. 1966. Eine 'Wurzel-Industrie' des Vogelherd-Aurignaciens. *Fundberichte aus Schwaben n.s. I* (Festschrift für G. Riek), 7: 43-51.
- NARR, K. J. 1966. *Handbuch der Urgeschichte. Ältere und Mittlere Steinzeit*. Francke Verlag, Berne and Munich.
- NEUGEBAUER, J.-W. and K. SIMPERL 1979. *Als Europa erwachte*. Verlag das Bergland-Buch, Salzburg.
- OBERMAIER, H. 1908. Die am Wagramdurchbruch des Kamp gelegenen niederösterreichischen Quartärfundplätze. *Jahrbuch der Anthropologie*, Vol. II, Vienna.
- PITTIONI, R. 1938. Österreichs Urzeit im Bilde. Vienna.
- PITTIONI, R. 1954. *Urgeschichte des österreichischen Raumes*. F. Deuticke, Vienna.
- PRÜFER, O. H. 1958. The Upper Palaeolithic cultures of the Lower Austrian loess region. *Quartär* 10: 79-114.
- RIEK, G. 1934. Die Eiszeitjägerstation am Vogelherd. Leipzig.
- SCHMID, E. 1957. Von den Sedimenten der Salzofenhöhle. *Sitzungsberichte der Österreichischen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Klasse. Abt. I*, Vol. 166: 43-55.
- SCHMID, E. 1963. Zur alpinen Schneegrenze und Waldgrenze während des Würmglazials. *Eiszeitalter und Gegenwart* 14: 107-10.
- ŠEGOTA, T. 1967. Paleotemperature changes in the Upper and Middle Pleistocene. *Eiszeitalter und Gegenwart* 18: 127-41.
- SOERGEL, W. 1919. *Löss, Eiszeiten und paläolithische Kulturen*. Eine Gliederung und Altersbestimmung der Löss. G. Fischer, Jena.
- SOERGEL, W. 1940. Die Massenvorkommen des Höhlenbären. Ihre biologische und stratigraphische Deutung. G. Fischer, Jena.
- SONNEVILLE-BORDES, D. DE 1965. Observations statistiques sur l'Aurignacien du Vogelherd, Lonetal (Württemberg), fouilles G. Riek. *Fundberichte aus Schwaben n.s. I* (Festschrift für G. Riek), 7: 69-75.
- SZOMBATHY, J. 1910. Die diluvialen Kulturschichten von Willendorf. *Mitteilungen der Anthropologischen Gesellschaft in Wien* 40: 4-24.
- WAKANKAR, V. S. 1983. The oldest works of art? *Science Today* 20: 43-8.
- WEINFURTER, E. 1950. Zwei neue Aurignacien-Fundstellen aus Niederösterreich. *Archaeologia Austriaca* 5: 97-100.
- WICHMANN, H. E. and J. BAYER 1924. Die 'Frauenlucken' bei Schmerbach im oberen Kampale, eine Höhlenstation des Magdalénien in Nieder-Österreich. *Die Eiszeit* 1: 65-7.
- WOLDSTEDT, P. 1956. Über die Gliederung der Würm-Eiszeit und die Stellung der Löss in ihr. *Eiszeitalter und Gegenwart* 7: 78-85.
- ZEUNER, F. E. 1954. Riss or Würm? *Eiszeitalter und Gegenwart* 4: 98-105.
- ZOTZ, L. F. 1944. *Altsteinzeitkunde der Südostalpenländer*. Weimar.
- ZOTZ, L. F. 1951. *Altsteinzeitkunde Mitteleuropas*. F. Enke, Stuttgart.
- ZOTZ, L. F. 1956. Book review of R. Pittioni, 'Urgeschichte des österreichischen Raumes' (1954). *Quartär* 8: 255-7.

Robert G. Bednarik 1989. The Galgenberg figurine from Krems, Austria.
Rock Art Research 6(2): 118-125.