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# THE PALEOLITHIC ART OF ASIA

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n the area of prehistoric art I have found Asia to be the least known continent, and also the one from which I would most expect finds of major significance in the years ahead. This applies most particularly to Pleistocene art. At present, the Asian evidence pertaining to Paleolithic art is restricted to a few countries. Much of it has been inadequately described, or has only been examined by a few investigators who were usually specializing in the region in question. A first-hand comparative study of pan-Asian Pleistocene art has not been attempted so far — nor is mine complete. It has implications of considerable importance to questions of early art evolution in the Americas (Bednarik 1987a, 1987b, 1988a, 1988b, 1989a) and Australia (Bednarik 1988c). This paper considers the evidence only very briefly, but it is reasonably comprehensive.

### INDIA

There have been several claims for Upper Paleolithic art in India, championed especially by V. S. Wakankar and some of his students. The evidence they pertain to consists of engraved and other non-utilitarian objects of ostrich eggshell, pigment finds from archaeological deposits, rock art of specific styles and colors, and one bone sculpture. Having examined all of the known evidence, and contributed some new evidence, I will try to discuss the merits of each respective claim as objectively as possible.

Some of the best-dated evidence consists of fragments of ostrich eggshell which bear linear patterns, nearly always on their convex surfaces. These are, in most cases, random arrangements forming irregular or noniconic patterns of meandering lines. There are also small, roughly circular, discs with a central perforation, and two supposed fragments of larger discs that lack decoration. Radiocarbon dating places this material roughly between 25,000 and 40,000 years B.P. at four sites: Patne, Nagda, Ramnagar and Chandresal (Kumar et al. 1988). I have microscopically examined 46 such marked objects, as well as some dozens of undecorated ostrich eggshell pieces, including a number at two sites, Ramnagar (near Bhanpura, Madhya Pradesh) and Chandresal (near Kota, Rajasthan). These objects are distributed over several collections (Bednarik, in prep.).

I regard the vast majority of the apparent engravings as the result of selective natural solution of the superficial zone of ostrich eggshell (Sahni et al. 1990), and I attribute this process to the activity of vegetation, as explained below. Only one of the decorated eggshell pieces, from Patne (Sali 1980), bears indisputable artwork, and morphologically, its markings differ significantly from those on all remaining 'engraved' specimens (Figure 1). The four perforated discs from Patne and Bhimbetka, however, are without doubt authentic. The conical perforations in them were drilled with stone points, as indicated by rotation striations, usually from both sides of the disc; there is one apparently incomplete specimen which provides insight into the manufacturing process. Kumar (1990, and personal communication) has conducted experiments in manufacturing such beads using stone tools, and he produced matching replicas in less than 15 minutes from weathered Pleistocene eggshell. My replication work with hard, recent ostrich eggshell showed that the most effective tool material for drilling holes is coarse quartzite and quartz (Bednarik 1991a). The identification as ostrich eggshell, too, has been validated beyond any doubt by a detailed SEM study (Sahni et al. 1990). The perforated disc-beads are similar to those of southern Africa, some of which also date from the Pleistocene (Wendt 1974), and to the Capsian ostrich eggshell beads from the Sahara

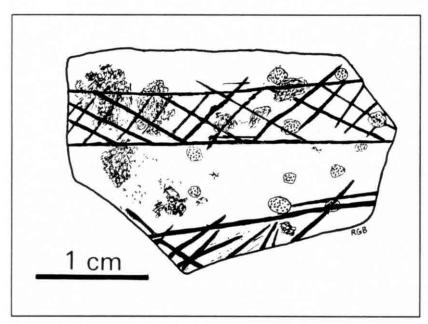


Figure 1: Engraved ostrich shell fragment from the Upper Paleolithic of Patne, Maharashtra, India; approximately 25,000 years old.

(Camps-Fabrer 1966). Similar beads made from other materials occur in large numbers in the Upper Paleolithic of Siberia, at sites such as Mal'ta and Afontova (Abramova 1962:Pls. 55, 56, 60), and in Russia, where, for example, thousands were recovered from three human burials at Sungir' (Bader 1978).

The carved and polished bone object found at Lohanda Nala, Belan valley, has been described as a 'mother goddess' (Misra 1977:49; Sankalia 1978:8; Sharma 1975:4). It is from a distinctive geological deposit which has produced radiocarbon dates of about 19,000 to 26,000 years B.P. (Misra 1977:63). This corresponds to the age postulated for the Gravettian of Europe, to which many of the Upper Paleolithic figurines have been attributed (although few of them are actually dated). Could the Paleolithic tradition of producing female statuettes have extended to India?

Not only is a matching gravettoid lithic industry lacking in the Upper Paleolithic of India, but furthermore, my examination of the Belan specimen has conclusively shown that it is a damaged bone harpoon (Bednarik 1991a). I found seven areas of fracture on the object, and these postdepositional changes have altered its appearance so much that its original form is no longer readily apparent. The

harpoon originally had four symmetrically arranged barbs. My findings confirm a suspicion Wakankar had expressed earlier (G. Kumar, personal communication). The object thus provides no evidence for an artistic significance, but it does bear witness to an advanced bone working tradition during the first half of India's Upper Paleolithic. Moreover, this is by far the oldest harpoon known in the world, being over twice the age of the earliest known Siberian harpoons, and considerably older than the first Magdalenian ones in Europe (but cf. the controversial harpoon from the Ngandong deposit in Java; Bednarik 1992a).

Turning next to the proposed Paleolithic antiquity of rock art in India, we find that Wakankar's (1983) claim for the universal superimposition precedence of the green dynamic paintings in central India, which he considered to be of Upper Paleolithic age, has recently been negated by Tyagi (1988). Wakankar's reasoning is based on his belief that the green figures, painted in copper mineral pigments, are earlier than all other rock art; he had excavated what he thought to be green pigment traces in an apparently Upper Paleolithic deposit at Bhimbetka (Wakankar 1987). Having examined many instances where the green figures were placed over red motifs, generally of Tyagi's 'intricate pattern' style, I agree with the view of most contemporary rock art specialists in India that at this stage none of the rock paintings of their country can be demonstrated to be of Paleolithic age. It is worth noting that the apparently earliest style, the intricate patterns, as well as much of the geometric decoration in Indian paintings, could be considered to resemble the engraving on the Chandravati chert core (Sonavane 1988), which is a bipolar, fluted Mesolithic core. I have examined this artefact (as well as other Mesolithic art objects in India) and can see no reason to accept

the argument that the core was engraved long before it was 'reused' in the Mesolithic.

Nevertheless, the possibility of an Indian Pleistocene rock art tradition cannot be excluded. Until 1990, when I discovered the first petroglyphs in Madhya Pradesh, petroglyphs had only been reported from the country's far north (Mathpal, in press) and south (where they appear to be comparatively recent; N. Chandramouli and E. Neumayer, personal communication, and own observations). The Raisen petroglyphs, for instance (Bednarik et al. 1991), are of unknown age, but are as patinated and silica-coated as the adjacent surface, and resemble the most archaic petroglyphs in other continents. I have never observed a silica skin over a rock painting in India. Moreover, I found a circular depression with a groove parallel to its edge on a large boulder at the base of an excavation at Bhimbetka. This mark appears to be artificial, is located at about two metres depth, and was covered by Paleolithic strata. It is only about 6 m from a vertical surface above ground with an arrangement of seven cupules, clearly very old (cupules occur also in comparatively recent Indian rock art). Further petroglyphs of very archaic appearance (deeply patinated or weathered, covered by mineral accretion, or predating geomorphological traces on the same surface) have since been found in central India by G. Kumar (personal communication). Without favoring any interpretation, I would like to note that there is no a priori reason why some Indian petroglyphs could not be of the Pleistocene, and this question certainly warrants further investigation.

Of interest are also a few very early clues. In 1988, J. N. Pal (personal communication) excavated a flat sandstone disc from the Acheulian of Maihar, Satna district. The object bears centripetal flaking around the periphery and is of about 70 mm diameter. It is far too soft to have been a tool, and no utilitarian interpretation has been found. A similar disc, made of chalcedony, had earlier been found by Wakankar in an Acheulian layer at Bhimbetka (Kumar 1990). More direct evidence comes from Hunsgi, an Acheulian site in southern India. When examining one of many haematite pebbles from the location I noted a striated facet on one specimen. I have proposed that the pebble may have been used in the fashion of a crayon, and rubbed on a rough, crystalline or granular rock (Bednarik 1990a). Ochre use

has been well documented from the Acheulian in Europe and the Middle Stone Age in Africa, but its use in the form of a ground powder is not necessarily evidence for non-utilitarian activity (Bednarik 1988d). Pre-Upper Paleolithic haematite with striations is known from only three other sites, in France, Czechoslovakia, and Australia.

#### SIBERIA

The earliest art objects of Siberia have been attributed to a pan-Eurasian tradition stretching from the Atlantic to Lake Baikal, centred perhaps in southern Russia, and dating from a period spanning from the Szeletian to the Magdalenian. However, this subject tends to be oversimplified in the literature and I point out once again that the human figurines of the Upper Paleolithic do not belong to one single tradition (Bednarik 1989b): several distinct types can be identified among the female statuettes, and their differentiation is greater than most commentators perceive. Particularly the 31 anthropomorphous figurines from the Siberian sites Mal'ta and Buret' share many similarities while differing from the two basic types occurring at the Russian sites: they are mostly slim (Fig. 2) and lack abdominal enlargement, they often lack breasts, frequently possess facial features and/or a coiffure, and three even seem to be clothed from head to toe. None are made of limestone, as are many of those from Kostenki, Avdeevo, and further west, and there is only one that is not of ivory, the smallest of the five Buret' figurines (Abramova 1962; for recent discussion, see Bednarik 1990b).

Other sculptures from Mal'ta, such as the various types of pendants, also lack clear counterparts in Russia, and the utilitarian material culture has few clear parallels there. The main characteristic shared by the Siberian and Russian assemblages is the paucity of two-dimensional Paleolithic art: the Mal'ta and Bereliokh mammoth engravings are the only Siberian examples (Fig. 3), and since I reject Marshack's iconic identification of three elements on the mammoth tusk tip from Kirillovskaya (Marshack 1989: Fig. 3), there remain from Russia only the apparent anthropomorph from Molodova V and that from Kostenki I, which are really bas-reliefs, and the rabbit-like engraving from the second site.

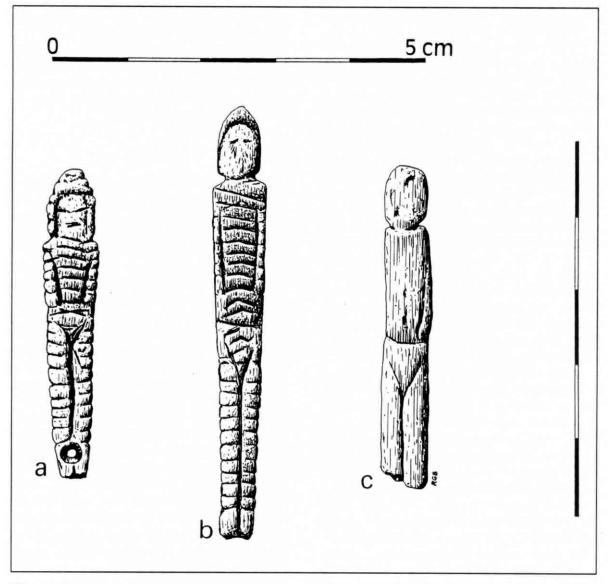


Figure 2: Paleolithic figurines from Siberian sites: a) Mal'ta No. 13; b) Mal'ta No. 27; c) Buret' No. 5. a) and b) are of ivory, c) is of greenish steatite.

Several of the ivory objects from Mal'ta (such as the anthropomorphs Nos. 6, 7, 9, and 10) and Buret' (Nos. 3, 4, and the solitary 'flying bird' pendant) bear filiform networks of surface solution grooves, which are about 1-2 mm wide and of rounded section. They are indisputably a natural phenomenon, and match the patterns on most of the Indian ostrich eggshell pieces in every conceivable detail. I propose that they result from microsolution along the rootlets of vegetation. The carbon dioxide

produced by the respiration of the micro-organisms living on the rootlets dissolved the calcium carbonate of the dentine upon reacting with moisture to form carbonic acid. The resulting patterns occur also on very much younger ivory; the most extensive ones I have ever studied are on three Bronze Age objects from Ust-uda, also in Siberia. Precisely the same process accounts for the patterns on Indian ostrich eggshell described above: the eggshell con-

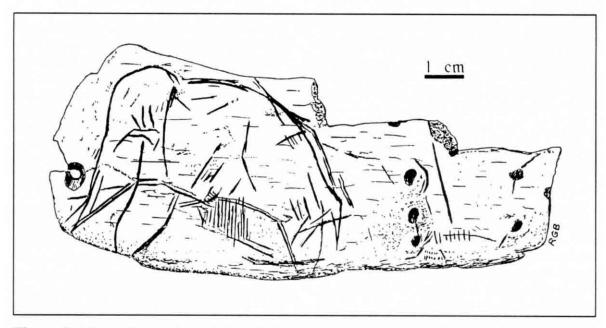


Figure 3: Mammoth engraving on Paleolithic ivory plaquette. Mal'ta, near Irkutsk, Siberia.

tains calcium carbonate, and like dentine, is an organically derived mineralized substance.

Of particular importance in the present review is Okladnikov's (e.g. 1977) claim that a few rock murals at two Siberian sites are of Upper Paleolithic age. In particular, he singles out a few paintings among the approximately 2,730 recognizable motifs at Shishkino (on the upper Lena), and one from Tal'ma (on a tributary of the Lena) (Okladnikov and Saporoshskaya 1959). Both sites consist largely of rock art from the Historic period, and while it is true that earlier art traditions are probably also represented there, and at hundreds of other Siberian rock art sites, I see his claim as being based on intuitive stylistic reasoning. In the absence even of superimposition or stylistic correlation, let alone direct dating (Bednarik 1992b), it is not adequate to select the one tenth of a per cent of a site's motifs which 'look most Paleolithic', and postulate that these few paintings, fully exposed to the weather on vertical cliffs, are of the Pleistocene. The only supposed depiction of an animal species which did not exist there during the Historic period is that of a rhinoceros at Tal'ma. The figure does not remotely resemble that animal in Okladnikov's own publications, yet the actual rock marking differs significantly even from his recording. This applies also to

many of his other recordings from the upper Lena sites, where much rock art consists of very vague, shallowly abraded areas which may be the result of dry application of hard pigment rather than true petroglyphs (Bednarik and Devlet 1991). Moreover, the destructive efforts of many successive recorders of the major sites (Bednarik 1990c, 1990d) and centuries of re-engraving, outlining, rubbing and chalking render many identifications of motifs suspect.

One factor favoring the existence of Paleolithic rock art in the region is the wealth of occupation remains from that period. It is to be noted, however, that no Paleolithic rock art has been suggested to exist on the upper Angara, where portable art of a Magdalenian-like industry does occur; on the other hand, there is no portable art in the many Paleolithic deposits of the upper Lena, of which I have studied six, and whose lithic and other utilitarian typology differs significantly from that of Mal'ta, Buret' or Krasnyi Yar.

In summary, none of the rich Siberian rock art has been shown to be of the Paleolithic. This does not prove that there is no such art, only that it has yet to be demonstrated. Only one site of the Soviet Union, Kapovaya Cave, includes undoubtedly Paleolithic rock art, but it lies in Europe, being west of the Ural

watershed. The existence of Pleistocene paintings in Ignatiev Cave, also in the southern Urals, remains unconfirmed. Portable Pleistocene art, in contrast, is well represented in Siberia, having been found at no less than 18 sites, mostly on the Angara and upper Yenisey Rivers (Abramova 1990).

## OTHER PARTS OF ASIA

Further afield in Asia, we should briefly note that various perforated objects (including deer and fox teeth, pebbles, bird bones, shells, fish vertebra) have been excavated in the Upper Cave of Zhoukoudian, China (Bednarik and You Yuzhu 1991). The authenticity of several supposed portable engravings at sites in China and Korea remains very doubtful, as does the Paleolithic age of certain percussion petroglyphs in Korea (cf. Bahn and Vertut 1988:28 for references). However, several small, engraved pebbles from the cave of Kamikuroiwa, Japan, seem to be safely dated to the Pleistocene, at 12,165 years B.P. (Aikens and Higuchi 1982), and some of them seem to depict female torsos.

The most recent relevant Asian evidence comes from China, with the report of the first Paleolithic art object found in that country (Bednarik and You Yuzhu 1991). It consists of an antler fragment, bearing three intricately engraved patterns. The object was coated with red ocher, which is locally covered by calcium carbonate encrustation. The dating of the occupation deposit it was found in agrees with an AMS date obtained from the object's spongy interior, indicating an age of over 13,000 years. The same report also describes a much older, drilled stone object from another site. However, the non-utilitarian status of numerous other markings on Pleistocene objects from China has been rejected by the same study.

Some of the most tantalizing evidence in the form of very early non-utilitarian objects comes from the Acheulian of Israel. At Berekhat Ram, a scoria pebble of 35 mm length has been excavated in a sealed occupation horizon sandwiched between two basalt flows that date to 233,000 and 800,000 years respectively. The pebble has some natural resemblance to a human female torso and head, and it bears several grooves emphasizing the neck and the arms which are suggested to be artificial (Goren-Inbar 1986). The artificiality of the lines has been

disputed (Davidson 1990) and is a point which probably cannot be resolved decisively, due to the coarse surface condition of the object. However, I regard this question as being of secondary significance, and am more interested in whether such pebbles occur at the site naturally (Bednarik 1989b). If they do not, I would regard the Berekhat Ram figure as a proto-sculpture (Gallus 1977), and as evidence that Middle Pleistocene Acheulians of Israel were not only capable of recognizing three-dimensional iconicity, but also of emphasizing it intentionally. This would provide strong support for Davis's (1986) model of the discovery of iconicity.

The Berekhat Ram pebble is not the only Acheulian find from Israel which cannot be readily attributed to utilitarian activities. The polished wooden plank found at Gesher Benot Ya'aqov falls into the same category. Non-utilitarian objects of the Mousterian have also been found, but they, too, have not been published and I refrain from discussing any of the unpublished Israeli finds here.

#### CONCLUSIONS

It should be evident from the aforesaid that the very earliest art traditions of Asia remain most inadequately explored, and that in most cases we possess no more than extremely fragmentary evidence. However, I hope that I have provided a basis for a more realistic assessment of what we really know about the Paleolithic art of Asia, and for more integrated approaches in future research.

The Paleolithic art traditions of Asia are of considerable significance for prehistoric art students in the Americas and in Australia. Both the New World and Australia appear to have been initially settled by people from eastern Asia, presumably at a time when certain archaic marking traditions already existed in Eurasia. The present evidence of very early mark production suggests that marks in colored pigment were made by Acheulian hominids in Europe and India; the capacity of recognizing iconic and referential qualities of an object may have been present in the same hominids; and late representatives of Homo erectus may have produced linear engravings on portable objects at around the same time, perhaps 300,000 years ago (Bednarik 1988c, 1992c). The earliest currently available evidence for human presence in Australia is only

about 60,000 years old (Roberts et al. 1990), while the question of the first colonization of the Americas remains unresolved, although current evidence seems to favor a similar order of magnitude (Bednarik 1989a). On that basis it is not impossible that the earliest art of these continents would have had its origins in the Middle Paleolithic traditions of Asia. However, our knowledge of these remains so meagre that it is quite impossible at the present time to formulate even working hypotheses. This state of affairs is largely attributable to the incompatibility of research designs in different regions, and the lack of integrated approaches generally. Indeed, before we can hope to consider the 'archaeology of ideology' in a quasi-scientific fashion it might be useful to gain a much better understanding of 'ideologies in archaeology'. They and the mythologies they spawn differ significantly in various parts of the world, and to extract from them the tiny portion that might reasonably be seen as scientific knowledge claims is not an easy task.

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