The Upper Palaeolithic differs even more from that of Europe, and there is very little that resembles a typical India, there are Lower Palaeolithic assemblages that seem to resemble those of Europe and Africa, but the Poort industry of southern Africa). Even where the northern and western European cultural sequence is being (Hernandez Pérez et al. 1988), and microliths occur from about 80,000 years onwards (e.g. in the Howieson’s Australia), while the advent of domestication and sedentariness are either uncertain, or did not coincide with these grinding, pottery, sedentariness, domestication) actually coincide with that period everywhere. We have They would in effect have resulted in a different archaeology today. To give some examples: the term Neolithic is with different personalities or temperaments, and in different parts of the world or under different world-views, developments. If archaeological discoveries had been made in a totally different order, by different individuals any value in the concept of history as other humans may perceive it. This is simply an ‘accidental’ result of the extant human cultures have no concept of time such as mine (e.g. the Hopi), of future and past, and would not see ‘Truth’, in science, is so frustratingly elusive; it is much more likely to be ‘found’ in belief systems. What follows is partake in academia and the mediocrity it often entails. My ambition is to pursue veracity for its own sake. I have nothing to gain from being right, or from prevailing in academic debate, as I do not propositions falsifiable where possible and that I lack any vested personal interests in the discipline. In contrast to these are not just the divisions between individual human concepts of the world, or between the collective models held by specific schools of thought, nations or cultures. A concept can be scientific only if it is valid in any alternative reality, including one held by non-human intelligent beings. Whether they exist in the universe or is not to rule out research, but the challenge is to find whether they exist, we would not be able to assess our perceptions from, and they would create a reality very different from our anthropomorphic model of the world. That in itself demonstrates that alternative paradigms of reality are possible. Real science, in contrast to pseudoscientific, magical or Western science has to make allowances for all possibilities; it must be valid in any intelligent system of thought, or human or other. This is a very rigorous requirement indeed, and it is essential to separate science from pseudo-science, science fiction and scientific quackery. It is almost impossible for mere human beings to preserve their scientific integrity at all times, we can only hope that someone can point it out to us when we stray from the straight and terribly fiction and scientific quackery. It is almost impossible for mere human beings to preserve their scientific integrity at any value in the concept of history as other humans may perceive it. This is simply an ‘accidental’ result of the human cognition, symbolism or art. The textbook models are practically worthless, and they are certainly not the presentation of a true picture, but its worth should be measured by how close it may one day be unconnected regions. Such graphic conventions are more likely related to universals of human cognition than to reconstructions the distribution of x-ray depiction, or any other perceived stylistic trait or subject, through geographically unconnected regions. Such graphic conventions are more likely related to universals of human cognition than to connectedness. bednarik 1991 (3) 7–11; the current methodology and how Indian specialists can avail themselves of it most profitably (Chakravarty 1991; Bednarik 1991; Chakravarty and Bednarik 1997), or the questions of rock art conservation, protection and site management, and how the Indian experience fits into that of the rest of the specialist community (e.g. Tyagi 1991). These are fascinating subjects, and to explore them would assist both Indian and other scholars. Then in discussing the context of Indian palaeoart, including rock art and portable art of very early periods in human what I say is received critically, and is carefully checked by my peers before anyone accepts it as valid. Nevertheless, I am at times shown with good conscience that I do try to follow a sound epistemology, that I keep my philosophical argument. I have nothing to gain from being right, or from prevailing in academic debate, as I do not philosophers would find it quite appropriate. The construct of extant human cultures have no concept of time such as mine (e.g. the Hopi), of future and past, and would not see. Writing may appear crucial to some societies of intelligent organisms in the universe, but not to others, so it is not Eurocentricism: archaeology. Its concept of a ‘prehistory’ is itself based on the opinion that written records of history are more reliable than oral ones, which is not a falsifiable proposition and hence unscientific and irrelevant.
Danish Neolithics. But one imagines that at the time archaeological research commenced in India, the colonial masters of the day would not have had a great deal of sympathy for anyone voicing a preference for a locally more appropriate archaeological taxonomy. Unfortunately India remains saddled with this colonial model of archaeology. It is interesting that in China, the existence of a Middle Palaeolithic is now rejected by some scholars (Xing Gao and Norton 2002).

To fully appreciate the haphazard progress of archaeology, let us consider a hypothetical scenario: the French had discovered the authenticity and age of their Picasso scull carving and portable art long before any Palaeolithic tools. They would then not have divided the Palaeolithic period by the perceived styles of tools assemblages, as indeed they have done (and this absurd approach has been copied widely in the world), but by the perceived styles of art. When subsequently discovering the tools that supposedly go with these cultures, the French would have no doubt returned their historical taxonomy based on art. Hence it is obvious that the designations we have inherited are entirely random, they are simply the result of the historical sequence in which certain ‘knowledge’ was acquired. Moreover, it is obvious that a cultural taxonomy derived from art is vastly superior to one derived from tools. After all, tools do not designate cultures; art does (among other things, which are generally not recoverable from these times).

This will suffice to show that we have no reason to meekly accept every model in archaeology, simply because it has been held for a long time and most practitioners adhere to it. Archaeology is generally based on non-refutable propositions; i.e. it is not scientific. It is largely confirmation derived: models are proposed, confirming evidence is avidly sought, and the models are defended with great tenacity against any attacks. In terms of good science, this is not an appropriate way to practice a discipline. This is not to say that archaeology does not use scientific methods; on the contrary, it does so eagerly. For instance, dating work would be unthinkable without the support of several of the hard sciences. However, archaeologists are quick to misinterpret the data provided to them by scientists, and to misuse them in constructing elaborate interpretations that are often not warranted by the hard data themselves. This has become evident recently with rock art dating results (Bednarik 1994a, 1994b, 1999a, 2000).

Another problem with archaeology will bring us to the topic of this essay. Many archaeologists who have written about very early art, evidence of symbolism and various related subjects with great authority, in prestigious scientific journals, have demonstrated a surprisingly poor knowledge of these topics. There are a number of instances of this but I will cite just a few. Chase and Dibble (1987) discussed a handful of finds from the Lower and Middle Palaeolithic periods, and concluded that they were not of an adequate number to think that symbolic traditions existed before the Upper Palaeolithic. Davidson and Noble (1989) followed this pattern, listing some thirteen examples of pre-Upper Palaeolithic ‘symbolic evidence’ the only ones they were aware of. They proposed that language was contingent upon figurative depiction, and since we lack depictive art prior to the Aurignacian they postulated that this marked the beginning of human language. They went one step further a year later, proposing that humans perceived by them as having been without language, such as the Neandertals, should be considered as closer to the apes than to humans (Davidson and Noble 1990). In a paper presented in 1988 (Bednarik 1994c), I had listed hundreds of finds that could suggest symboling by pre-Upper Palaeolithic hominids. In 1992 I challenged both Chase and Dibble and Davidson and Noble to an open debate, in the course of which the former conceded various points. But they maintained that their ignorance of most of the evidence did not convince them to change their overall view (Bednarik 1992a, 1992b; Chase and Dibble 1992). Davidson described himself as ‘angry’ but failed to cite one argument or reason as to why we should take his hypothesis seriously (Davidson 1992). Noble (1992) however, conceded that the first matter of Australia, which occurred at least 30,000 years before the demise or the Neandertals, does constitute evidence of the use of language and symbolism. Hence language must be at least twice as old as figurative graphic depiction, and cannot be preceded by their whole hypothesis began to disintegrate. But to make matters worse, sealing, perforating by Noble and Davidson as solid evidence of language, did not begin 60,000 years ago, as they had thought, but about one million years ago (Sindual et al. 1994. Bednarik 1995b, 1997a, 1997b. Bednarik and Kuckenburg 1999). Since this has been known for decades (although published only in German until 1984; Mortier and Vethoorn 1987) cf. Koering and Gisick 1977), the ignorance of Davidson and Noble on the subject, and on world archaeology generally, is of concern.

In a set of authoritative papers on the question of the beginnings of body decoration, White takes the position that such evidence of human self-awareness is first found in perforated small objects that were presumably used as jewellery. He claims quite categorically, on several occasions (White 1992, 1993a, 1993b), that the first such perforated finds are two teeth from the Aurignacian of Bicho Karo, a cave in Bulgaria. They are over 43,000 years old, clearly beyond the accepted duration of the Aurignacian, and generally regarded as belonging to a Middle Palaeolithic tradition. But this is only an unimportant point: we have in fact quite a number of perforated small objects, presumably used as beads or pendants, from much earlier occupation deposits. The earliest are two items, drilled with stone tools, from the Repolust Cave, Austria (Bednarik 1992a: 34). They are thought to be almost 300,000 years old, ten times as old as the Aurignacian (Figure 1). They are followed by three ostrich eggshell pieces from the Repolust Cave, Austria.

But more importantly still, it is not plausible that the first form of body decoration must have been by beads or pendants, and even if that were so, then these must not necessarily have been made of non-perishable materials. We know from recent hunting societies that they made most of their beads from such perishable items as plant seeds, and we know that even shell, bone or ivory ornaments can only survive in favourable high pH soil conditions. Moreover, beads and pendants need not necessarily be artificially perforated materials, in many cases naturally perforated objects were used. We also know that most body decoration was by such means as body painting, tattooing, scarification, intaglio, engravings, depressions, decorations based on impression of materials that never survive in the archaeological record. In short, it is simply unrealistic to expect the archaeological record to reveal the earliest uses of body decoration.

But in addition to that, White is not even adequately familiar with the evidence he cites, beads and pendants, omitting in fact all the known early examples. The oldest specimens known, for instance, were first published almost half a century ago (Mottl 1950, 1951; Murban and Mottl 1955). They were on exhibit since then and have been seen by tens of thousands of people — but not by White, who is considered to be a world authority on flaked bone point and wolf incisor, both perforated. Early or Middle Palaeolithic, Repolust Cave, Austria.

Figure 2. Three fragments of ostrich eggshell beads from the Late Acheulian of El Groila E, Libya, similar to beads found at two Upper Palaeolithic sites in India.
early beads and pendants (Figure 1). They were reported in English only much later (Bednarik 1992a), and therein lies one fundamental problem. Most English-speaking archaeologists are mono-lingual, but a great deal of the relevant evidence has been published in other languages, so they often have no knowledge of any finds that have not been disseminated in English. By contrast, most Russian, Chinese, Scandinavian, German, Italian, Spanish, Indian, African and Latin American archaeologists are bilingual or multi-lingual, so collectively these research traditions are likely to be aware of a much greater diversity of data.

The role of taphonomic logic in palaeoart studies

We have seen from these introductory comments that, if we wish to examine the role of Indian palaeoart studies in the global context, we must first determine what that context is. In doing so we would be well advised to be sceptical of any categorical claims in the field of palaeoart studies, and we should be aware that most existing paradigms of early art development are problematic, if not false. Far by the greatest single problem of palaeoart studies, and one it shares with general archaeology, is that we have until now failed to fully understand the massive effects of taphonomy, and we have not designed our methods of addressing these effects effectively (Bednarik 1994d). All archaeological interpretation is in some way based on qualitative and quantitative information about the types and distribution of material evidence. This information is then used statistically to ‘demonstrate’ all sorts of things (ranging from technologies to ethnic entities, homogenous cultures or social systems, even religions and language groups), and it is a fundamental tenet of taphonomic logic that all of this information is statistically irrelevant. It merely describes what still exists, has been found and recognised, and has been reported effectively enough ‘to be known’. Empiricist archaeology cannot consider what has not been preserved, what has not been found, what has not been recognised, and what has not been reported, or not been reported in the researcher’s own language. It is clear to anyone that the probabilities for archaeological material evidence to survive to the present time vary enormously depending on the nature of that evidence. The necessarily garbled statistics of the surviving remains are uniquely distorted by spatially differing conditions of preservation (e.g. due to soil climate or climate in different parts of the world), so a phenomenon may survive in one region, but not in another. A further factor is time: so older the remains, so more severe are the effects of the distorting variables (Figure 3).

But there are still many other factors which select what is reported, among them modes of deposition (e.g. grave goods are more likely to be found than items deposited randomly); preoccupations and methods of archaeologists, as well as the limitations of their knowledge and resources; these factors are most severe in all parts of the world; and comprehensiveness of research; selectively in what is actually reported, which is itself an extraordinarily complex problem. All of these factors distort already distorted evidence further, and they do so in systematic ways, not in a random fashion. No archaeological sample can ever be even remotely representative, and it can therefore never be known where it is located within the whole, how it relates to the whole — the being which really happened in the past.

But the most serious limitation of this ‘archaeological record’ has not been mentioned yet: with few exceptions, it is generally interpreted with artificial analogies, artificial schemes of styles, types, cultural templates, classes and categories of information. All material evidence is taxonomised on the basis of modern perceptions, by people who have little idea of what it was like to have lived in the time in question. These subjective taxonomies are rock art motifs and so forth are represented as the ‘archaeological record’ as if they were objective data. They cannot reasonably be expected to be so. In fact it would be very naive to even expect them to be objective. They merely reflect the limited comprehension of reality possessed by the helpless ‘analyst’. These ‘records’ are much better suited to study the world the archaeologist exists in, than the world of the pre-Historic people he or she seeks to illuminate.

Lower and Middle Palaehoetic symbolic evidence

In the absence of systematic application of taphonomic logic to archaeological data and hypotheses we need to consider the available record of the earliest evidence of non-utilitarian activities as a very minimal information source. The earliest evidence we have of non-utilitarian behaviour in hominids is of two types: in the form of manuports of novel or exotic objects, such as crystals, fossils, and unusually coloured or shaped pebbles. Secondly, the occurrence of colouring matter in occupation sites has long been observed, even in surface and sub-surface contexts which lie in close temporal and spatial proximity to the find sites. India provides some of the earliest such evidence in the world. Six complete quartz crystal prisms were found at the base of the lower Acheulian site Singi Talav, Rajasthan (d’Errico et al. 1989). They are clearly not in a random fashion. No archaeological sample can ever be even remotely representative, and it can therefore never be known where it is located within the whole, how it relates to the whole — the being which really happened in the past.

By contrast, they are often reported effectively enough ‘to be known’. Empiricist archaeology cannot consider what has not been preserved, what has not been found, what has not been recognised, and what has not been reported, or not been reported in the researcher’s own language. It is clear to anyone that the probabilities for archaeological material evidence to survive to the present time vary enormously depending on the nature of that evidence. The necessarily garbled statistics of the surviving remains are uniquely distorted by spatially differing conditions of preservation (e.g. due to soil climate or climate in different parts of the world), so a phenomenon may survive in one region, but not in another. A further factor is time: so older the remains, so more severe are the effects of the distorting variables (Figure 3).

This information is then used statistically to ‘demonstrate’ all sorts of things (ranging from technologies to ethnic entities, homogenous cultures or social systems, even religions and language groups), and it is a fundamental tenet of taphonomic logic that all of this information is statistically irrelevant. It merely describes what still exists, has been found and recognised, and has been reported effectively enough ‘to be known’. Empiricist archaeology cannot consider what has not been preserved, what has not been found, what has not been recognised, and what has not been reported, or not been reported in the researcher’s own language. It is clear to anyone that the probabilities for archaeological material evidence to survive to the present time vary enormously depending on the nature of that evidence. The necessarily garbled statistics of the surviving remains are uniquely distorted by spatially differing conditions of preservation (e.g. due to soil climate or climate in different parts of the world), so a phenomenon may survive in one region, but not in another. A further factor is time: so older the remains, so more severe are the effects of the distorting variables (Figure 3).
of the Gudenus Cave in Austria (Bednarik 1992a; Fig. 2), and about twenty more at the classical Home erectus site Zhokhovkian I, China (Pei 1931: 120). Rock crystals found in the Acheulian deposit of Gesher Benet Ya'qov, Israel, are so small that it is not even certain that humans brought them to the site (Goren-Inbar et al. 1991). Pyrite crystals have been found at two French Neanderthal sites (Bednarik 1995c), and various types of fossil cast manuports occur at many occupation sites, from the Acheulian through to the Chitipennitian (Oakley 1981; Marshack 1991).

Figure 5. The Makapansgat manuport, a natural jasperite cobble, is the oldest known palaeoart object in the world.

The oldest reported apparent manuport, and possible oldest palaeoart object in the world is again from South Africa. The Makapansgat cobble, bearing two or three faces, is from an auriferous-bearing fissiliferous breccia of the late Pliocene, between 2.5 and 3 million years old (Figure 5). It was collected many kilometres from the cave it was found in, and carried back to the homebase of either Homo erectus or Australopithecus africanus or a very early hominid, presumably because of its startling natural markings and its red colour (Bednarik 1998, 1999b). Other very early palaeoart specimens are the human proto-figurines of Berekhat Ram (Bednarik 1993a). They include ten cupules (or cup marks) and a long, meandering line. Nine of the cupules occur in a most conspicuous location above present floor level (Bednarik 1996), the much larger tenth cupule together with the line marking were uncovered in the course of an archaeological excavation. All nine motifs are extremely corroded, particularly those found below ground. The latter figures occur on a massive boulder below a substantial Middle Palaeolithic occupation layer that is solidly cemented by carbonate precipitation, which excludes the possibility of stratigraphic disturbance. They occur contiguous with two Acheulian strata, with bifaces, cleavers and scrapers, which overlie a pebble tool industry of choppers and scrapers (Wakankar 1975; V. N. Misra 1977). These Acheulian petroglyphs are the oldest rock art currently known in the world (Figure 6).

Figure 6. Acheulian petroglyphs in Auditorium Cave, Bhimbetka, the oldest known rock art in the world.

There is no dating available from Auditorium Cave itself, but the Indian Acheulian is generally thought to be of the same antiquity as that of Africa and Europe. Most attempts of thorium-uranium dating have shown this tradition in India to be beyond the limit of the method, 350 000 years (S. Mishra 1992). Exceptions are two dates of about 290 000 BP from animal molars (at Tegganahl and Saidpur). Recently, Kumar (1996) has reported the discovery of 498 cupules in the cave of Daraki-Chattan, in the Chambal valley region. He has suggested that this rock art dates from the Acheulian or Middle Palaeolithic periods, essentially because the stone tools of these periods occur on the floor deposit within the cave. In view of the petroglyphs in Auditorium Cave these claims need to be carefully examined, and the International Federation of Rock Art Organisations has assembled a commission to investigate the extraordinary evidence from Bhimbetka, Daraki-Chattan and more such sites in India (Bednarik 2001b; Kumar et al. 2002).

A set of eighteen similar cupules has also been found on a large rock slab placed intentionally over the grave of a Neanderthal child in La Ferrassie, France (Figure 7), apparently belonging to the Mousterian (Pyrmyn 1934). Elsewhere, too, cupules are thought to be among the oldest forms of rock art, especially in North America, where they are widely regarded to be earliest (Parkman 1992), and in Australia (Bednarik 1993b) where they may be up to 55 000 old. However, before we draw from this the hasty conclusion that this means cupules were indeed the first rock art, we would be well advised to remember that this is taphonomically unlikely. Petroglyphs or rock carvings are generally of greater longevity than rock paintings, and among non-utilitarian behaviour match that from elsewhere, some of the earliest such finds are actually from Africa. The Olorgesailie Manuport (Bednarik 1994a, 1995c). Even other portable markings from Europe have been largely ignored, although it is generally agreed that...
several are indisputably non-utilitarian. The Tata (Hungary) mummiune has engraved lines on each face, forming a perfect cross with a natural fracture line (Bednarik 1992a: Fig. 4), and like the polished and ochred plaque made from a mammoth molar from the same site belongs to the Mousterian (Vértes 1964; Marshack 1976). So does the bone fragment from Bacho Kiro (Bulgaria), with its several engraved zigzag patterns, or the bone with numerous parallel lines found in another Neanderthal grave in La Ferrassie (Capitan and Peyrony 1921). The question why the rock art of 3% of the area of Eurasia should have ever served as a universal model in these skewed endeavours with their pre-emptive ideology, because archaeologists certainly have no idea of what the faculties of hominids were; it is therefore grossly negligent to trust the data as if they did.

Upper Palaeolithic symbolic evidence

While the Indian evidence from these earliest periods matches that from elsewhere so well, by the time we reach the Upper Palaeolithic we note a significant divergence. There is nothing to correspond with the western European ‘cave art’ in India, which is not an important point because that art is itself obviously a taphonomic remnant (Bednarik 1986, 1994d). We could thus easily explain its absence in India by a lack of limestone caves with suitable speleoclimates and geology. The absence of an industry of portable art is more conspicuous, although even here, taphonomic arguments could be valid. However, I believe that the real explanation lies primarily in the pattern of artistic comparisons within Eurasia. It is often perceived by European archaeologists that aspects of the Franco-Cantabrian art can be recognised as far east as the Irkutsk area in Siberia, which begs the question why they are not apparent in regions such as India. However, the proposition is itself misleading. The western European rock art traditions with their frequently figurative content are entirely absent east of the Rhine and Italy. The only possible exceptions are two caves in the Ural mountains (Kapova and Ignatiev; the Pleistocene age of their art still needs to be demonstrated and is questionable, cf. Steelman et al. 2002) and two claimed Palaeolithic sites in the Balkan region (Badanj and Cuciulat, also unconfirmed). The only Pleistocene rock art reported in central Europe is non-iconic (Hahn 1990) and has been rejected (Bednarik 2002c), and even the portable art (other than sculptures) the east is almost without exception non-iconic (meaning that we cannot recognise any depicted objects). There are only two or three graphic (two-dimensional) depictions in Russia, and two in Siberia. Apart from that, all Pleistocene rock art and portable art in about 97% of Eurasia, where such art occurs, is totally non-iconic (Bednarik 1993c).

The question why the rock art of 3% of the area of Eurasia should have ever served as a universal model in this discipline can only be plausibly answered in a political sense. If the Franco-Cantabrian art had been discovered in South-east Asia, it would have attracted very little interest, if indeed any. Even more importantly, the same pattern, generally speaking, seems to apply to the rest of the world then occupied by humans, most particularly in Australia, but probably also in the Americas. Only in southern Africa do we have iconic depiction from the Pleistocene, but only from one single site (Apollo 11 Cave, Namibia). Therefore it is reasonable to assume Palaeolithic sites in the Balkan region (Badanj and Cuciulat, also unconfirmed). The only Pleistocene rock art reported in central Europe is non-iconic (Hahn 1990) and has been rejected (Bednarik 2002c), and even the portable art (other than sculptures) the east is almost without exception non-iconic (meaning that we cannot recognise any depicted objects). There are only two or three graphic (two-dimensional) depictions in Russia, and two in Siberia. Apart from that, all Pleistocene rock art and portable art in about 97% of Eurasia, where such art occurs, is totally non-iconic (Bednarik 1993c).

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The situation is not significantly better elsewhere in Asia and Africa, and it is clear that we need to explain this pronounced paucity of evidence. This is particularly so as the combined surviving art production of the Middle Stone Age of Africa, and the Middle Palaeolithic cultures (or those based on their technological traditions) of Europe, Asia and Australia is vastly greater than the combined surviving art production of typically Upper Palaeolithic and Late Stone Age traditions.

There are essentially three possibilities to explain the paucity of Upper Palaeolithic evidence of art traditions, almost anywhere in the world then settled:

(a) That art was not produced: this is unlikely, particularly if some art is in hand from a region, as is the case in India;
(b) That it has not survived in sufficient numbers;
(c) Or that it has not been found yet, either because of inadequate research or taphonomy, or because research has been guided by incorrect notions of the types of such art one would expect to find.

The last-mentioned possibility does sound particularly plausible to me, and in most regions so affected I suspect that the true explanation is a variable combination of this factor with inadequate research and poor preservation. Indian researchers have tried to locate material resembling that of European Upper Palaeolithic types, for example by interpreting the bone harpoon from Lohanda Nala, Uttar Pradesh (Figure 10), as a female figurine (‘mother goddess’, V. D. Misra 1977).

Some have considered the early dynamic anthropomorphous rock paintings in central India as belonging to the Upper Palaeolithic (Wakankar 1983). It was subsequently shown by superimposition that these animated figures were preceded by a style called ‘intricate patterns’ (Tyagi 1988), which are entirely geometric and non-iconic (Figure 11).

Conversely, on the basis of my microscopic examinations I reject Neumayer’s (1993: 33) notion that the
Indian ostrich eggshell objects were made from already fossilised material. The Patne specimen has been radiocarbon dated to about 25 000 years BP and I have described its markings in detail (Bednarik 1993d). I have rejected the anthropic origins of markings on forty-five other ostrich eggshell fragments from several Indian sites and have concluded that the general pattern of the surviving art is consistent with the idea that the petroglyphs resemble those of an Upper Palaeolithic find in Israel, which is perhaps pure coincidence but is nevertheless worth mentioning. The engraved limestone cobbles from Utkan-R is between c. 19 000 and 14 500 years old (Figure 13). The boundaries evident on the Patne specimen occur also on the Chinese find mentioned above, and in other early palaeoart.

Figure 13. Epipalaeolithic engravings on both faces of the limestone cobbles from Utkan-e-R, Israel.

There are a few other Palaeolithic finds from India which may have non-utilitarian significance, such as the circular stone discs reported by Wakankar from the Acheulian of Bhimbetka III-F-2-1 and by J. M. Pal from Mahur. Murty has excavated bovid teeth in the Upper Palaeolithic and Neolithic deposits of the uppermost of the Kumool Caves (Andra Pradesh) which bear grooves that facilitated the attachment of strings (Murty and Reddy 1975). Such finds of various types of pendants (teeth, bones, ivory, fossil shell) that were not perforated, but pierced around one end, occur widely in various Upper Palaeolithic traditions from Spain to Siberia, including even the Neandertal’s Châtelperronian of France (White 1990b). Once again the evidence is consistent, but the small number of Upper Palaeolithic finds from India (perforated or grooved), occurring at only three sites in total (including perforated ostrich eggshell beads at Patne and Bhimbetka III-A-28), indicates once again that we are dealing with a savagely truncated record. Quite clearly, there is far too much that we do not know, or do not yet know, to permit ourselves any definitive statement concerning any aspect of the palaeoart of the Indian Palaeolithic periods.

In Siberia, supposed Upper Palaeolithic portable art has been reported from eighteen sites, several of which have been described as engraved items (Bednarik 1995c). However, more recent finds from the area certainly are in Russia and the Ukraine. Claims for Middle Palaeolithic portable art and Upper Palaeolithic rock art in South Korea lack any authentication, and the only non-utilitarian objects from the Japanese Palaeolithic are a perforated stone disc, a polished stone object and some engraved pebbles (for all Asian references, see Bednarik 1995d). The scarcity of demonstrably Upper Palaeolithic rock art in India is not unique, it applies to all countries of Asia. Although it is quite likely that such objects do exist in China, none has been shown to be of such age so far, but this is not surprising. Chinese rock art of China, remains largely ignored (Bednarik and Li 1991). In Siberia, a few motifs at the sites Shushkino and Tal’ma have been attributed to the Upper Palaeolithic, but this has been rejected (Bednarik and Devlet 1992). The only possible exceptions in all of Asia are some linear petroglyphs in caves of Mt Carmel, Israel, which have been suggested to be of Palaeolithic age (Rosen and Barton 1981). Bearing in mind the enormous size of Asia, it is evident that there has to be a valid explanation for this profound paucity of finds.

However, there are now a number of petroglyphs sites known from central India, which appear to be of very great age. Whether they could be of the Palaeolithic has not been ascertained so far, except in one case (Auditorium Cave), but I should not fail to mention them here. The few petroglyphs in one of the many painted shelters at Rasen (near Bhilpura) are conceivably a silica skin that prevents exfoliation or weathering; they could therefore be of extreme antiquity. G. Kumar has discovered extensive cupule patterns and pounded grooves at two sites near Kota (Kanyadeh II and IIA; Bednarik et al. 1991) which are deeply patinated and covered by a silica skin. He has also found complex cupule patterns at Chatanabewar in the northern Chamki region, which precede a sequence of exfoliation events and are also deeply patinated. It must be cautioned that petroglyphic cupule patterns, occur widely in the north and south of India as well, but since these traditions seem to be very significantly younger. The petroglyphs are often unpatinated or only partly patinated. There does not therefore appear to be a connection with the older tradition in central India.

Holocene evidence of Indian art

It is only with the advent of the glorious surviving rock painting traditions, especially in the central regions of India (the Bhilpur region, Chamki valley, Mahadeo hills, northern Vindhya hills and southern Deccan are the major concentrations), that Indian rock art comes into its own (Chakravarty 1984; Broeks and Wakankar 1976; Gupta 1980; Mathpal 1985; Neumayer 1983, 1993; Sankalia 1978; Tewari 1990; Chakravarty and Bednarik 1997). By that time, however, quite distinctive styles had been developed, and the more recent the art is, the more it becomes irrelevant to attempt simplistic comparisons with art traditions elsewhere. The time of commencement of the traditions that produced this vast corpus of surviving rock paintings remains unknown. As already mentioned, none of this art is dated, and it seems to commence with non-impact, intricate patterns. One is tempted to suggest that these might be of the final Upper Palaeolithic, but this is pure speculation. The geometric patterns are followed by the dynamic and animated figures, often painted in copper minerals (notably in the southern Chamki valley), but I should not fail to mention them here. The few petroglyphs in one of the many painted shelters at Rasen (near Bhilpura) are concealed by a silica skin that prevents exfoliation or weathering; they could therefore be of extreme antiquity. The petroglyphs are often unpatinated or only partly patinated. There does not therefore appear to be a connection with the older tradition in central India.
is in most circumstances irrelevant what archaeologists think is depicted in an ancient rock art. The only exception would be if one wanted to study the cognitive perception of archaeologists. Other than that, real scientists are not interested in anyone’s pronouncements about the iconographic content of very early rock art (i.e. what it depicts). This does not mean that I am asking Indian rock art connoisseurs to discontinue the practice of telling themselves or anyone else what they think is depicted in rock art, if this is what they feel inclined to do. If they cannot resist this urge, perhaps this is how they should engage their creative talents. The only request I have is that they do not posit their intuitions as scientific propositions; an academic role does not entitle one to mislead the public. The simple fact of the matter is that we, all of us, do not know what is depicted in rock art with the degree of certainty we demand of science.

The present chronology of Indian rock art may well be correct, in a broad sense, but we should not rely on this too much. We know that the Saharan and eastern Spanish Levantine rock art traditions (and others) were badly misunderstood on the basis of similar arguments about style, content and superimposition, and on simplistic preconceptions of what determines arts of hunters and arts of agriculturalists. These naive assumptions are based on inaccurate reasoning. We know that many Neolithic rock arts are dominated by apparent hunting motifs (e.g. Scandinavia, Karelia, Saharan), while the arts of true hunting and foraging peoples may lack any depictions of hunting scenes, animals, weapons and so forth (e.g. the Bradshaw traditions of the Kimberley, Australia; see Figure 15). We need to be careful not to become trapped in our own chronological and interpretative constructs, so until scientific dating of Indian rock art has commenced we would be well advised to reserve our judgment. And once scientific data do become available, let us not misinterpret them in the naive fashion of some Western researchers (Bednarik 1994b, 2002a), but remember that these results always have serious limitations.

Portrayal of the Indian Mesolithic would help us considerably, but as in the preceding Upper Palaeolithic, there is almost no evidence of it available. The only instances I know of are the classical Chandravati chalcedony core with its delicate geometric engraving (Sonawane 1991), an engraved human tooth (Bednarik 1993a) and a few engraved bone objects described by Wakankar (1975) from Bhimbetka III A-28. In view of the enormous number of rock paintings credited to the Mesolithic, the almost complete lack of evidence of Mesolithic portable art is conspicuous. In fact, the Chandravati core (Figure 16), which is a key exhibit in the current chronological model, is not even archaeologically dated. It is merely assumed to be Mesolithic because of its context and artefact typology.

**Figure 16.** Probably Mesolithic bipolar micro-core of chalcedony, with engraved geometric pattern, from Chandravati (after Sonawane 1991).

Subsequent to the presumed Mesolithic art traditions, there is a great deal of proto-Historic and Historic rock art in India. The chronological resolution then becomes progressively sharper with time, especially with the introduction of Brahmi script. Much the same applies in China, where epigraphic styles become reliable chronological markers with the advent of writing. In India, ‘proto-Historic’ usually refers to the period preceding the Mauryan empire; i.e. to more than 4000 years ago. In parts of the country it is synonymous with the Harappan civilisation, whose script remains undeciphered, or with the Chalcolithic period. The latter term refers to the Eneolithic, and there is no distinctive Neolithic period in India. A common difficulty is that, at many rock art sites that were used in Historic periods, there are often preceding pre-Historic traditions present. They are frequently ignored, being poorly preserved, patinated, simpler, less photogenic, less ‘interesting’ and often concealed by the more recent art, even modified by it at times. This does not help greatly in finding and recognising earlier art motifs, most particularly at densely decorated panels. There should be no doubt that the greatest unrecognised potential in the exploration of Indian rock arts relates to the almost total neglect, up to now, of the ‘less picturesque’ and the less conspicuous component of these arts. One of the greatest assets of Indian rock art, its immense wealth of figurative, colourful and visually exciting pictorial art, is perhaps also its greatest disadvantage. It has completely eclipsed the scientifically more important components and aspects of these arts, and among them are no doubt its earliest components.

![hunting peoples but is free of hunting motifs and weapons, its primary concern being the elaborate headdresses and other apparently ceremonial paraphernalia on anthropomorphs (after Welch 1993). These paintings are thought to be 4000 to 10 000 years old, but remain inadequately dated.](image)

**Figure 15.** Typical Bradshaw rock paintings from Kimberley region, Australia. This art was produced by painting.
The study of Indian rock art began in the 1860s, with Archibald Carllyle’s explorations in the northern Vindhya Ranges, in the Mirzapur district of Uttar Pradesh (Carllyle 1883, 1888, 1894). Actually, the earliest reference we seem to have is Cockburn’s in the late 1800s (Cockburn 1883, 1888, 1894). Anyhow, the earliest reference we seem to have is that of the earliest European explorers in the region, such as Archibald Carllyle (1883, 1888, 1894). One of the most important figures in the study of Indian rock art is the British archaeologist and ethnographer, Sir Archibald Carllyle, who conducted extensive surveys in the northern Vindhya Ranges and the Mirzapur district of Uttar Pradesh. His work was followed by that of Gordon (1935, 1951; Gordon and Gordon 1939, 1941; Gordon and Allin 1955) in the study of rock art sites throughout India.

During the early and mid-1980s, regional surveys were conducted in most major rock art regions of the country. Various major syntheses appeared in print, in particular the major volume edited by K. K Chakravarty (1984), containing a collection of the works of many Indian rock art specialists, who could be described as the new-look rock art specialists. For instance, in terms of the earliest rock art sites in India, some of the most important figures were Archibald Carllyle (1883, 1888, 1894), who conducted extensive surveys in the northern Vindhya Ranges and the Mirzapur district of Uttar Pradesh. His work was followed by that of Gordon (1935, 1951; Gordon and Gordon 1939, 1941; Gordon and Allin 1955) in the study of rock art sites throughout India.

One of the most important figures in the study of Indian rock art is the British archaeologist and ethnographer, Sir Archibald Carllyle, who conducted extensive surveys in the northern Vindhya Ranges and the Mirzapur district of Uttar Pradesh. His work was followed by that of Gordon (1935, 1951; Gordon and Gordon 1939, 1941; Gordon and Allin 1955) in the study of rock art sites throughout India. It is particularly important to note that the objective record of palaeoart and related phenomena provides no justification at all for distinct cognitive differentiation between human ‘subspecies’ we perceive in the Pleistocene. The problem, therefore, is one of not only describing the objective record of palaeoart and related phenomena, but also of understanding the cognitive processes that underlie these phenomena.
The taxonomic separation of the distant human past into taxonomic groups is quite arbitrary. These phases are a-scientific because they encourage the collection, interpretation and reporting of all evidence to be conducted in such a way as to ensure that such divisions are always relevant to today’s world of humans and peoples, and then confirmed ad infinitum as if these conceptual artefacts were real divisions. Ultimately they lead to grotesque explanations such as those I have mentioned here. There are numerous other forms of conceptual plateaus introduced into the archaeological mythologies about the past, through methods of dating (e.g. radiometric dating) that has created additional artificial plateau structures. A simple understanding of taphonomic processes (estastic oscillations, geormorphological processes or events etc.) The epistemologically naive interpretation of the kind of ‘archaeological record’ we can reasonably expect from this poppy of ‘evidence’ is that it demonstrates more than any other thing the inherent ambiguity of the past. This is not science, it is a mythology, and it does no justice to the peoples of the past.

In the global context of a more sophisticated approach to the past — one that is predicated on a comprehensive knowledge of the data and lacks dogmatic adherence to superseded models — Indian palaeoart is of outstanding importance. Even the extremely patchy information currently at our disposal is adequate to show us that Indian finds are among the oldest evidence we have of non-utilitarian hominid behaviour. It is also clear that all of the early record is profoundly incomplete: we have almost no confirmed art of the Upper Palaeolithic as well as of other art forms from other times. Art, in other words, even though we may believe that there is a larger record of non-utilitarian behaviour and art, has never been found at these very early times of years that had no chance of survival. Taphonomic logic demands that this is by far the most likely explanation of the evidence patterns we perceive, in fact it is almost certainly valid. It means that we have no direct access to the art forms that have been lost, and that it would be to waste any proportions of cognitive or intellectual status on this secondhand evidence. In other words, it seems that the most certain way of detecting the presence of hominid faculties in question, is but not typically ‘evidence’ or an accurate basis of evaluation. In the same way as we have almost no direct evidence whatsoever of any strings or ropes from the Pleistocene but have evidence, such as their depiction on female figurines from Pavlov and Kostenki 1, we have no evidence of any physical evidence of anything as such, with well developed ocean navigation, simply because they cannot think of another way to explain the presence of hominids on the many islands they did colonise, not to mention Australia some 60 000 years ago. If it is reasonable to extrapolate in such cases it is equally reasonable to extrapolate in similar circumstances, including in the interpretations of the evidence. It seems that the very originality of early hominid non-utilitarian art forms is to be expected, and we even have limited evidence for it — including in India. But perhaps most importantly, taphonomic logic decrees irrefutably that the first frequent occurrence of evidence of an ephemeral phenomenon — such as symbolic, prehistoric, prehistoric rock art — varying proportions of time with time cannot possibly mark the time of that phenomenon’s first occurrence. It can only mark a very much later in time (Bednarik 1994a).

Archaeology cannot be scientifically comprehended without appreciating this principle, since the most eloquent evidence for Indian palaeoart lies in the capabilities of making symbols andorning the surfaces. The implications of the effects of cumulative taphonomic reduction on early samples of symbolic evidence. This can be best studied in those regions of the world where the continuous use of symbolism seems to reach back further. In my view, and beyond, the symbolic trace is not just an indication of a cultural or religious change but also of a much larger, and a major,钛 bit of symbolism which might be a unique opportunity to probe the most difficult subject in science: the origins of the human mind. Seen in an all-embracing morphological context, this could be India’s finest contribution to the study of palaeoart.

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