

ETHNOGRAPHIC ANALOGY IN ROCK ART INTERPRETATION

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This paper refutes the validity of ethnographic analogy as a tool to assist in the interpretation of rock art. It also rejects the ability of the modern observer of ancient rock art to determine with scientific veracity what is depicted in rock art, or what its meaning is. It even challenges the reliability of ethnographic explanations, pointing out their deficiencies. The nature of objective links between unrelated arts via universals is explained.

Keywords: Rock art – Interpretation – Ethnography – Science – Universals.

Introduction

In India, rock art has traditionally been the preserve of one of two disciplines, archaeology or ethnography. This distinction usually refers to palaeoart, or rock art made in the distant past, and that which is called tribal art in some parts of the world, indigenous, native or ethnic art in others. The differentiation between the two is clearly related to time. Palaeoart defines that which is old, too old to be accessible ethnographically. There are no reliable informants who might be able to tell us the meaning of palaeoart.

For ethnographic art, at least some levels of meaning remain accessible, and entitle us to speculate about the function of such arts in the societies that produced them. In some cases, one may be able to interview a producer or consumer of the art, in others there are established cultural traditions maintaining a level of knowledge about the art that permits us some access to its meaning. In India, rare examples of valid ethnographic rock art interpretation have been documented. The country offering the most comprehensive record of emic rock art interpretation is Australia.

Here an Australian rock art researcher will examine several aspects of these two broadly defined art forms: the limits of scientific study of palaeoarts, the shortcomings of interpretational hypotheses about them, the influence of the observer's own cognition in examining such ancient arts, the fallibility of ethnographic constructs, the problems of reconciling the indigenous and 'scientific' (alien) conceptualizations of meaning, and the significant question of whether ethnographic (etic) interpretations of meaning can be relevant in the 'text-free' record of the distant past. While we can readily accept that there are some parallels, that indeed all graphic arts are ultimately related to some all-embracing whole, we find it hard to define that whole scientifically, and we remain profoundly uncertain

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about the nature of the relationship between rock art and tribal art. Can ethnographic arts be used, by way of ethnographic analogy, in elucidating any of the information that may be encoded in palaeoarts? This has certainly been attempted by many archaeologists and in all parts of the world, but it is fair to say that such attempts have, on the whole, provided no reliable information. So our first question should really be: why have we consistently failed to obtain *reliable* analogic interpretations of ancient art in this fashion, and does this mean that this approach is futile, or does it mean that we have not conducted such theory building in the right way? If so, is there a better way, and if not, how does one study ancient arts scientifically?

I should confess, from the outset, that I am most pessimistic about our prospects in most of these areas, and in particular, I perceive very little scientific benefit in most traditional approaches to rock arts. It is not the role of true science to create, reinforce and perpetuate mythologies about the way the world is. I think this is a point we can all agree on. Hence science must proceed very carefully, constantly on the look-out for weaknesses introduced by the human propensity for anthropocentrism, ethnocentrism and egocentrism. This applies especially in areas of knowledge that offer little opportunity for refutationist dialectic, such as archaeology or rock art research. There are ways of conducting archaeology scientifically, but they are not just the scientific (rather than scientistic) ways of archaeometry, they are the methods of sound epistemology. Unfortunately, it is only too clear that practitioners around the world have a distinctive preference for 'soft options,' and for the greater part try to keep clear of epistemological issues or philosophical rigour, of anything that looks troublesome, intellectually challenging, or that seems to threaten the security of established belief systems. Overwhelmingly, science is predicated on models of reality as they evolved in Western thought, as if that were some benchmark of objectivity. We understand today the very serious deficiencies of the worldview based on a Newtonian and Euclidean world, and yet we do not seem to have learned the lesson from its rejection by modern theoretical physics. None of these systems of knowledge represent some ultimate stage of validity. The belief systems based on their ideology are still belief systems, and for truths to be absolutely objective, claims of knowledge must be acceptable in any possible conceptual system, not just that of humans. That is the property of being scientifically valid. But without a determined effort, humans are only capable of thinking within an anthropocentric frame of reference, and whether that frame is derived from the concept of cosmic reality as held by Europeans, or that of some other human group, is in principle irrelevant.

Palaeoart and Tribal Art: Archaeology versus Ethnography

Having thus expressed my pessimism concerning the ability of humans to think outside of their severely limited intellectual and cognitive universe, I address the question of ethnographic analogy. Some attention has been given to this question

by innovative archaeologists. Huchet (1991, 1992), for instance, has examined large numbers of expressed or implied ethnographic analogies in archaeological specialist literature, and has found that there are hardly any instances of rigorous logic in the examples he considered. This, admittedly, refers to inadequate rigour, and does not negate the principle itself. However, at the more fundamental level, one can question the entire underlying logic. Relational analogy involves a demonstration of causal mechanisms or other factors in the similarities between source and subject that determine the presence and interrelationships of perceived properties (Wylie 1985). In practice, this is hardly possible, and analogic propositions must not be based on a simplistic acceptance of inferred properties in both the source and subject data, as we shall see. That record is itself never totally reliable, it has been filtered by a variety of cultural and cognitive biases.

Archaeologists have tried in a number of ways to deal with the problems of using ethnographic analogy, but there is no consensus of how it would be achieved scientifically. The leading protagonist of the so-called New Archaeology, Binford (1967), suggests that documented analogies should form a basis for postulates as to the relationship between 'archaeological forms' and their behavioural context in the past. Deductive hypotheses drawn from such postulates would then be used to test the postulates. But there are numerous pitfalls in this kind of procedure.

First, there is the nature of the archaeological raw data itself. When we consider the amount of reliable dating we have for rock art currently, it seems quite inappropriate to pretend that we can speak of specific rock art traditions and relate them to archaeological entities. Secure age estimates are unavailable for nearly all rock art of the world. For instance, there is no credible dating available for any one motif of pre-Historic rock art in India. We hear a lot about 'Mesolithic art,' 'Chalcolithic art' etc., but the simple fact is that these age attributions are both stylistic and unproven. They are unproven because not a single rock art motif has been conclusively shown to be, say, Mesolithic, and there exists simply a degree of consensus that a certain perceived stylistic latitude within an art corpus refers to a particular technological pigeonhole in archaeological time. This does not constitute evidence, it is an opinion. Perceived styles are not real styles (Conkey and Hastorf 1991), they are merely what we would like to lump together for the sake of creating order in disorder, in accordance with our conditioned way of experiencing reality. Styles perceived by archaeologists, be they of rock paintings or stone artefacts, are nothing more than styles perceived by archaeologists. They may well be valid, I am not denying that possibility, but to prove this in a scientific fashion would be extremely difficult, would require a great deal more work than we are likely to invest in the near future, and in the meanwhile we must conduct any studies without assuming that which has not yet been demonstrated to be true (Bednarik 1991a).

But there are greater problems still with archaeological information. Not having been qualified taphonomically, such data greatly distort reality, and while the

archaeologist has always made some allowance for these distortions by simple common sense, without systematic correction one must expect that any interpretation of the record will inevitably be distorted (Bednarik 1992a, 1993a, 1994a). To illustrate with an example: there is significantly less evidence of wooden implements from the Palaeolithic period than there is of stone tools. Common sense tells the archaeologist that this does not mean that there were so few wooden implements, but that the distortion is the result of preservational bias. But the methods of obtaining this 'archaeological record' contribute themselves to the bias in the record (Bednarik 1994a). Some types of sediments preserve the wood much better, but the archaeologist is more likely to search where more abundant, more permanent finds are possible. In taphonomic terms, the sampling method is itself biased, it cannot be assumed to be reliable. Thus a number of systematic factors are likely to distort the record, and they relate not just to preservation, but also to geology, climate, preferences and knowledge of practitioners, priorities of research traditions, etc. In short, what is so often described as the 'archaeological record' is itself only a biased interpretation.

The Ethnographic Record: What is it?

Now let us look at the other part of the 'equation,' the ethnographic record. Much of it has not been collected under ideal conditions, but, just for the sake of the argument, we shall assume that it was all secured under the best of conditions possible. So we assume that alien researchers, who interviewed indigenous people, recorded the information so obtained accurately. It would seem that this record, then, should be objective. But is it really?

The communication between the informants and the recorder is always by means of translation. Even where the interviewer speaks the language of the people being studied, he or she is usually not very proficient in their language. He certainly has little or no linguistic access to those aspects of the culture that are avoided, or indeed taboo. Because he has an inadequate understanding of these limitations, his interpretation of what he does have access to will be affected by these complications. In many cases he uses a third party, an interpreter, and what he obtains is quite literally an interpretation, and not fact. He then interprets this interpretation in a way that makes sense in his own linguistic and cognitive framework. Moreover, it is well known today that extant traditional cultures do not permit outsiders access to all aspects of their metaphysical world. For instance, students of the oldest surviving culture on earth, that of the Australian Aborigines, have found to their surprise that the knowledge bestowed on them is intentionally limited in several directions. Not only in the sexual sense, because of the strict gender divisions in cultural knowledge (there are restrictions according to the gender of both informant and interviewer), but also that there are explanations within explanations, in the fashion of Russian dolls: upon opening one, there is always another one inside.

Thus interviewers have found that the same informant used a different, more elaborate explanation for a phenomenon many years after he had given a simpler one to the same interviewer.

The explanations given to ethnographers are commensurate with a researcher's perceived competence. For instance, a rock art motif may have many meanings, beginning from a very simple level. This is rather like an explanation a contemporary urban father in India would give to his child. Once it had grown up, a more advanced explanation is considered appropriate, and so on. In indigenous or tribal societies, a great deal of knowledge is of restricted access, it may be of a secret or a sacred nature, and there may be levels of severity. In societies such as the Australian Aboriginal people, serious breaches of sacred matters are traditionally punishable by death, and are often considered to be more serious crimes than murder, for instance. It is therefore inconceivable that information at the level of sacred knowledge would be passed on to uninitiated alien researchers, simply to satisfy their strange curiosity. Hence we can be certain that all the published ethnographic evidence of such metaphysical knowledge of any tribal people is of the type given to people of poor understanding of the society in question. It should be obvious that this mechanism would have contributed to a simplification of ethnographic accounts: not only did the informants regularly observe the restrictions of tribal laws, they would have often felt obliged to simplify interpretations for untutored outsiders. At times they may have been forced to deceive their questioners, in order to protect sacred knowledge. Ethnographers, naively unaware of these factors, base their professional reputation and standing on their findings, and they may not be willing to admit these severe limitations of their accounts. But that is understandable and we have to make proper allowances for such protestations. The simple fact is that, in indigenous societies the separation of religious and profane matters is not remotely as clear as it is in urban societies. Since these indigenous societies possess various levels of restrictions on metaphysical knowledge, we must accept that these restrictions also affect the nature of the information that *can* be provided to uninitiated outsiders, such as researchers. One cannot explain to the interviewer every aspect of what appears to be, on the face of it, an economic and thus presumably profane aspect of the culture, because some of the meanings involved in a comprehensive explanation involve information of a secret nature. Hence even under the best possible conditions, the researcher will only obtain fragmentary explanations.

But as we have seen, even this fragmentary information will be translated and interpreted, perhaps re-interpreted into the researcher's own concepts, so as to make sense to him and the readers of his reports. To say, in these circumstances, that one can have unlimited confidence in an ethnographic record so concocted is highly optimistic.

Now we come to the main problem. In analogical interpretations of rock art we rely on two types of record: the source of the analogy (ethnographically determined 'meanings') and the subject of the analogy (the empirical data acquired about a corpus of rock art). We have seen that archaeological data are severely distorted by many taphonomic processes. We also know that most rock art is undated, or has been attributed to some archaeological pigeonhole on the basis of inadequate assessment. Now we are trying to relate this biased data to the patently incomplete ethnographic interpretations that may be no more appropriate than children's stories! Surely this cannot be a scientific procedure by any standards, and surely such a procedure cannot be proposed or supported by anyone who has seriously considered the issues I have examined above.

As I indicated earlier, I am very pessimistic about the prospects of achieving a form of comparative analytical study of palaeoart and indigenous art, in a scientifically valid form. Such comparison would be on the basis of analogy: because we believe that certain practices in the production or use of ethnographic art have certain meanings, rock arts that exhibit some apparently similar characteristics should relate to similar meanings. This is complete nonsense, I perceive no logical, scientific or epistemic justification for this assumption, and hence reject it entirely as a worthless, pointless waste of effort. It can lead us nowhere, except into the realm of fantasy and myth.

Objective Links between Art Corpora

In the above critique of ethnographic constructs — the ideas ethnographers form about indigenous peoples — I have hardly even considered the enormous differences we must expect to exist between the respective conceptualizations of meaning, reality and significance, of both the informant and the interviewer. The latter, with the arrogance of Western science, assumes of course that his framework of reality, his metaphysical model of the world, is superior. Admittedly, in recent years it has become fashionable to treat alternative models of reality with less condescension than in the past, and this trend may lead to a better quality in the information from such sources. However, it will not be easy to purge the biased data from the discipline, particularly as so much of them are unique. There are two reasons for this recent trend: the gradual global improvement in the recognition of 'tribal' culture, and developments in ethology, particularly primate ethology, which have resulted in a general blurring of the humanistic divisions (Plotkin 2002). The effect may be a better appreciation of the full complexity of tribal cultures, but this does not help us in its actual understanding; it merely helps us to understand how difficult proper appreciation of all its complexities might be. A step in the right direction, most certainly, but no help yet in interpreting palaeoarts. Nor do I expect that such help will ever be forthcoming. Ultimately, all forms of art are in some way connected, and it would serve no purpose to select two not historically related arts

and to use one to interpret the other on the basis of one's own perceptions. If there is a historical connection possible, this is of course a different matter, there is no reason to assume that one form of art should not have developed into another, just as each cultural tradition has its origins in another.

There is a second connection that may link the arts of a particular geographical region. Rock art has the unusual ability of surviving for a long time, and it frequently occurs in very prominent places. Hence it is clear that rock arts of previous peoples were seen, interpreted and reacted to by later peoples occupying the same locality. Thus rock art has the outstanding ability of acting as a cultural determinant (Bednarik 1991/92). Tribal people often believed that the art of earlier people was not made by other humans, but was part of the original landscape, having been placed by spirits, deities or creation heroes. Therefore the rock art played a central role in the spiritual world of such tribes: it proved and confirmed, for all to see, the existence and power of the religious forces a group believed in — whatever those forces may have been. Naturally, such groups would then adopt aspects of the art's motif range into their own art, or they would adapt them to fit into their own interpretations. In this way the older art served as a determinant of artistic expression, and we know that there are rock art traditions that survived for more than 45,000 years without significant change (Bednarik 1992b). This is not because the region was occupied by just one ethnic group all this time, but because the successive occupiers adopted the earlier art into their cosmology, and this led to an artistic conservatism of enormous durability. Other forms of art may have been developed alongside, but the most ancient form continued to exert its artistic influence *through its relative permanence*.

This, however, is not the only reaction we can perceive in the evidence. One of several other forms of documented evidence we have of responses to rock art suggests vandalism, and rock art vandalism is almost as old as rock art itself. In Cosquer Cave, France, two phases of rock art are believed to exist: the first occupation may have been from about 28,000 to 26,000 years BP, the second from 19,000 to 15,000 BP (Clottes *et al.* 1992). The more recent, Solutrean or Magdalenian people destroyed or damaged much of the art of the earlier, presumably Gravettian people. Many of the hand stencils of the earlier occupiers were over-marked or tampered with, or the stalactites bearing them were smashed. Graffiti or vandalism occur right through the periods of pre-History and History, and of particular interest are those of modern religions. Christian missionaries are notorious for over-marking or disfiguring early rock art (for examples from Bolivia and Russia, see Bednarik 1991b), and the rock art vandalism of Moslems in western China was massive. In short, different peoples have responded to rock arts in different ways (I have only cited two such ways, but there are several others), which tell us much about cultural dynamics. This type of information is *much* more reliable than vacuous speculations about the meaning of individual motifs,

or about ethnocentrically perceived 'styles' — and it is much more useful. For instance, it may provide an opportunity for historical correlation, as in the case of documented Spanish policies in Andean regions in the 16th century (Querejazu-Lewis 1991/92).

Universals in Arts

So far, I have defined two ways of studying relationships between different corpora of rock art. The first, development through cultural continuity, obviously requires such continuity, which is the factor providing the necessary link. In the second case, in which there are reactions to alien rock arts recorded, the link is not cultural, but spatial: it is provided simply by the location, through the permanence of the rock art at the site of its occurrence. There is a third way of linking different bodies of rock art, which is neither cultural nor spatial. One can compare with it rock art corpora that occur in different continents, are from different periods and lack any cultural connection. This link is the human brain and system of perception, and the connection is made by universals in art. This approach is concerned with neural processes, motor actions and hominid endeavours of creating realities through art. I should emphasize that cognitive universals in art are a ferociously complex subject, and this is not the place to examine these complexities in any detail (Bednarik 1990/91). This is not about simplistic applications of universals, as in the claims of shamanism, fertility imagery etc., but there is no doubt that all forms of graphic art (rock art, portable two-dimensional art, tribal arts, body decoration, children's art, graffiti, subconscious doodling, fine arts etc.) are tied together by certain forms of universals. This type of correlation, then, does involve rock arts and tribal arts, but not exclusively. Nor is it a way of providing simplistic interpretations of meaning.

By far the most common interpretation of meaning in rock art is the iconographic interpretation of motifs by the observer. We are told what the beholder of the art thinks it depicts. In many cases, the motif has such outstanding diagnostic features that such identifications do sound very convincing, but as we all know, in many more cases the picture is not at all clear-cut. Moreover, many researchers define various aspects of the motif in an entirely subjective fashion: they tell us that the subject is running, falling, pregnant, praying, dead or whatever else they perceive in the art. Provided that all these fascinating interpretations are offered for the purpose of creating a new folklore about the art, a new mythology, one could not possibly object to them. Indeed, such interpretations may be quite useful to the scientist, because from them he can learn about the perception of the person interpreting the art. If the person speaks our language and is capable of analyzing his own responses to the art (to tell us, for instance, very precisely why he thinks the animal figure is of a dying animal), then we have a good example of an ethnographic reaction to an alien art. The person whose perception is so analyzed may be a 'tribal' person from Orissa, or a suburban person living in London, the

analysis of his perceptive processes is in both cases ethnographic work. The idea that ethnography in some way only applies to people of certain races is very odd, indeed unscientific, and it is clearly racist. Similarly, the idea that an ethnographer must be a university-educated urban person who holds more or less Western concepts of reality is entirely invalid, and an expression of a severe bias.

It seems to me that the ethnographer's idea of the meaning of an 'ethnographic' art, while telling us so much about his perception of the world, still tells us absolutely nothing about the meaning of the art itself. And this brings us to the crux of the whole matter. If it is not possible to use the conscious interpretation of a contemporary person from our own culture, using our own means of relating to physical reality to obtain any form of interpretational access to the picture of a pre-Historic artist, why should we expect that the highly suspect interpretation recorded by an ethnographer among tribal artists should have any bearing on the meaning of a pre-Historic picture by an artist who had no cultural connection with the former? Once again, it is entirely obvious that this approach is scientifically ludicrous, and totally worthless.

The Futility of Creating Iconographic Meanings

This last argument also raises another matter, the shortcomings of our interpretational hypotheses of iconographic meaning. Many theories about rock art are based entirely on the identification of motifs in rock art. There can be no doubt that these identifications are essentially subjective and etic, and that they cannot be confirmed or refuted by any form of scientifically acceptable procedure (1991a, 1991c). Such identifications are themselves hypotheses, but non-refutable hypotheses. We simply do not know what is depicted in a pre-Historic art, in an emic sense, and those 'researchers' who think they can confidently identify objects depicted in rock art will need to demonstrate their self-proclaimed abilities by presenting independent confirmation of them. This is not possible, and we know in fact that in the few cases where the identifications of a researcher could be checked against the emic definitions of the artists themselves, or the traditional custodians of the art, the 'scientific' interpreter of the art had failed abysmally (e.g. Macintosh 1977). To take a bunch of such hypotheses of iconographic interpretation and arrange them as the basis of another hypothesis is again certainly not a scientific procedure. They are all based on iconographic decisions of an observer who has no access to the iconographic conventions of the pre-Historic culture in question, and who is simply making up interpretations because they cannot be refuted anyway, and because he thinks that his own cognitive processes of identifying and classifying iconicity are identical to those of the artists. Perhaps they are, but how would we demonstrate this? Obviously we cannot, hence the identifications are tentative, unless the art is indeed highly elaborate and naturalistic. But even then we must not invent meanings and intentions from the motif simply

because they make sense to us, because they suit our cultural, cognitive and intellectual model of the world. We have no idea what the model of the world the long-gone artists possessed could have looked like.

Palaeoarts can be studied scientifically, but to do so we must ask ourselves first: what is the purpose of a scientific analysis? Could it be to determine a quality that cannot be determined, such as meaning? Or is it simply to determine what aspects of the art can be examined systematically and analytically? The obvious answer is that it would be nice to know the meaning of the art, but if science cannot provide it we can either find out what else science can do for us, and can do properly — or we can abandon the long and stony path of science and take the shortcut to ‘meaning,’ creating and projecting our own favoured interpretation of the art. Provided we do so without touching the art, without interfering with it in any way, it is a perfectly harmless pastime, and there can be no objection to it. Rock art interpretation is highly stimulating, it enriches our experience and it can enrich our own art and culture. It can help us create more myths about the past, we can invent our own favoured story of what happened in that past. Provided that in the process we do not belittle any other culture, there can be no objection to such quests.

The obvious qualification, however, is that such mythologies are not created in the name of science. It is not the business of science to create myths about the past (Bednarik 1992c). Science does have a role to play in palaeoart studies, most certainly, and although the application of scientific practice in rock art studies is a very recent development, great strides have been made in the last few years (Bednarik 2001). Indeed, this discipline has progressed much more in the last fifteen years than in the previous two hundred years! And yet, progress seems to be still accelerating. For instance, one only has to consider what a proliferation in serious dating work the last fifteen years have seen. Among the specialized subjects being developed now are various technological studies and physico-chemical analyses; the identification of various types of residues (for instance, binders, proteins, lipids, extenders etc. in rock paints, or organic inclusions in mineral accretions over petroglyphs) (Clottes et al. 1990; Cole and Watchman 1992); computerized programs of image analysis and manipulation (Bednarik and Seshadri 1995); nano-stratigraphy of paints (Watchman 1992); microscopic study and ‘internal analysis’ of tool marks in rock art and portable art (Marshack 1985); discrimination of anthropic and non-anthropic marks on rock and portable objects (Bednarik 1994b) and relevant ethology (Bednarik 1991d, 1993b); replication studies (d’Errico 1991); erosion and micro-erosion studies (Bednarik 1992d); relationships between phylogenic and ontogenic development of logic and symbolism; the psychology of iconicity and its decipherment; concepts of type and typicalness in pre-Historic art, symbolism and psychology; distinction between mental and artistic representations; the application of taphonomic logic at both technical and epistemic levels (Bednarik 1994a); epistemology in the formulation of theories and in the

interpretation of palaeoart (Bednarik 1990/91); valid applications of statistics in the discipline; sound utilization of universals in palaeoart studies (Bednarik 1990/91); and other experimental approaches.

None of this sounds as easy as deciding what we might think a picture depicts. It all sounds like a promise of a great deal of hard work. But science was not meant to be easy. This approach may never tell us what palaeoart meant, certainly not in the short term. Tribal or indigenous arts may play some role in such future work, I am sure, but not at the level of naive analogic deduction.

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