Cognitive and optical illusions in San rock art research

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Cognitive and Optical Illusions in San Rock Art Research’
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A decade and a half ago Inskeep (1971:101) distinguished between "learning about" and "learning from" the San rock art of southern Africa.2 Pursuing the second of these two courses, writers claim to have detected artefacts such as fur-lined leg© 1986 by The Wenner-Gren Foundation for Anthropological Research, all rights reserved 0011-3204/86/2702-0007$1.00. I am grateful to colleagues who commented on earlier versions of this paper. It was first presented in 1984 at the Second Drakensberg Rock Art Colloquium. Denise Gelling and Pam Farrow typed successive drafts. The illustrations were prepared by Paul den Hoed. Aron Mazel kindly permitted reproduction of figure 3c. The research was funded by the University of the Witwatersrand and the Human Sciences Research Council.

2 The San (Bushman) hunter-gatherers formerly lived throughout southern Africa. The more southerly groups, such as the /Xam of the Cape Province and the Maluti San of what is now Lesotho, became extinct towards the end of the 19th century; only those, like the !Kung, who live in the Kalahari Desert of Namibia and Botswana have survived (Lewis-Williams 1982:fig. 1). Almost all the abundant rock art of southern Africa was produced by the San, but those surviving in the Kalahari have no tradition of painting. The Kalahari people nevertheless still hold many of the beliefs and perform many of the rituals that were part of the lives of the southern painters (Lewis-Williams 1981a, 1982; Lewis-Williams and Biesele 1978).

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None of these had been previously suspected, and there is little or no ethnographic evidence for them. This approach has for many years constituted a substantial portion of southern African rock art research. Inskoep, however, also made the point that, before we can learn from the art, we must first learn about it, and since he wrote we have done so. Numerical inventories have provided a more precise account of the subject matter (e.g., Pager 1971, Lewis-Williams 1974, Vinnicombe 1976); the age is better, though still not adequately, understood (Thackeray 1983); and we have some insight into the meaning of the art and its place in San society (e.g., Vinnicombe 1976, Lewis-Williams 1982).

Undoubtedly, there is still much more to be learned, but, taking up Inskoep's cautionary point, I argue that what we already know about art in general and San rock art in particular has placed constraints on what we may expect to learn from it. In the first place, the possibility of deriving from San art information of the kind I have exemplified is posited on the assumption that the paintings are an accurate record of Stone Age life and thought which affords glimpses of the lives lived by the people whose stone artefacts archaeologists dig up. No art, however, communicates as directly as this. Without a verbal commentary of some sort it is impossible to know the meaning intended by a painter or sculptor even in one's own culture; some explanatory accompaniment is essential for unambiguous interpretation (Gombrich 1982). One cannot, for
instance, infer the meaning of Rodin's Age of Bronze from the statue alone or guess that his Thinker surmounts the Gates of Hell and is contemplating that infernal region's horrors. It is, then, even less likely that we can discover the meaning of art from foreign cultures without some guidance from its makers. Finding it difficult to conceive of artistic conventions different from their own, some observers suffer from the cognitive illusion that alien works were created in terms of the conventions with which they are acquainted. One consequence of this illusion is that, in trying to learn about the San from southern African rock art, they reduce strange and otherwise inexplicable depictions to familiar objects. In the same way that Breuil reduced the "signs" of Palaeolithic art to traps, huts, and so forth, they infer literal explanations for enigmatic paintings. They believe, incorrectly, that this is the safest, simplest, and most reasonable course. In fairness, I must add that, given the literalist view, many of these supposed explanations appear persuasive, but the belief that art transcends language and culture in its capacity to communicate ideas or even the nature of unfamiliar objects is simply incorrect. Art may move us, but it does not communicate. In addition to problems with the communicative power of art in general, San art in particular is such as to diminish even further the possibility of extracting ethnographic data. San rock art portrays not only objects and practices from the "real" world but also metaphors, symbols, and hallucinations associated with or derived from the trance experience of San medicine men, or shamans (Huffman 1983; Lewis-Williams 1980, 1981a, b, 1983, 1984a; Maggs and Sealy 1983; Manhire, Parkington, and Yates n.d.). It is, indeed, essentially shamanic. Some painted hallucinations are iconic in that they depict real items such as animals and bows and arrows; others, phosphenes or form-constants, are "nonrealistic," being produced entirely by the human nervous system; yet others combine and associate iconic and noniconic forms in ways yet to be unravelled. Once the existence of at least some such depictions is allowed, it becomes impossible to infer artefacts and practices not already known from the ethnography, for we have no way of telling, apart from the ethnography, if puzzling paintings relate to the "real" world or to the hallucinatory one. We cannot be sure if the paintings of fur-lined leggings, eland-jumping, net hunting, and so on are indeed what they appear to be. What we know about San art restricts what we can learn from it. These problems with the interpretation of San rock art recall the well-known optical illusion which can be seen as either a rabbit or a duck. Once they have viewed the drawing as a rabbit, many people find it difficult to make it "about face" so that the rabbit's ears become a duck's bill. Similarly, some students have believed for so long and so unquestioningly that San rock art is an intelligible record of San daily life with a small admixture of "mythical" depictions that they cannot see it as principally symbolic and hallucinatory. However, once disabused of their preconceptions, viewers find that the art radically changes form; the leggings, eland-jumping, and so forth, disappear and something quite different appears in their place. Research should therefore be directed at ascertaining what
kinds of information can be extracted from the art and what kinds cannot. Such a
programme entails, amongst other things, testing the shamanic explanation
against a wide range of paintings which have been considered literal depictions. It
is insufficient simply to assert the shamanic explanation's comprehensiveness;
each type of painting must be explained, and each explanation must be supported
by verifiable San beliefs and practices. The value and power of the shamanic
explanation will be demonstrated, at least in part, by the number of persuasive
reinterpretations which can be sustained under these rigorous conditions. This
task, of course, depends largely on the availability and the reliability of San
ethnography. Fortunately, we need have qualms on neither of these point Some highly significant
remarks on specific paintings and an: trance performance were collected in 1873
from a Maluti Sar, informant (Orpen 1874). Also in the 1870s the Bleek family
compiled a much more extensive collection of /Xam folklore (e.g., Bleek 1935,
1936). In the 20th century numerous ar.thropologists have studied the Kalahari
San (e.g., Biesele 1975, Lee 1968, Marshall 1969). Comparison of these three
sources shows that, despite linguistic differences and wide separation in time and
space, many rituals, beliefs, symbols, and metaphors were common to all San
groups (Lewis-Williams and Biesele 1978; Lewis-Williams 1980, 1981a). It is on
these commonalities that my argument is based.

To show that even some very convincing examples of "learning from the art"
can, from a different viewpoint, change as the rabbit changes into a duck, I start
with a well-known painting from the Nnedema Gorge (fig. 1) which, as far as I
am aware, has been universally seen as evidence for the construction of bridges
(Pager 1971:225; 1975:63; Willcox 1984:197; Woodhouse 1979:70) and, one
must assume, their use by accomplished San funambulists. Though writers do not
cite it, there is only the most tenuous ethnographic evidence to support this view.
Orpen (1874:10) was told that the Maluti San "formerly knew how to make things
of stone over rivers, on which they crossed." His informant seems, however, to
have been referring to stepping stones rather than rope bridges. In contrast to this
literalist interpretation, I explore the possibility that the shamanic explanation
explains the painting and in doing so directs attention to and elucidates numerous
details which the literal view overlooks or ignores. Even if the San did construct
rope bridges, this painting is better explained in another way altogether.
The relevance of the shamanic explanation is suggested first by the clapping
figures to the left of and also below the "bridge." At a San trance dance, women
sing and clap the rhythm of "medicine songs" believed to be imbued with a
supernatural potency (for more detailed accounts of the trance dance, see Lee
also resides in the stomachs of the medicine men themselves, is activated by the
women's songs and the men's dancing. When it eventually "boils," the men enter
the altered state of consciousness we call trance. At this point southern San
medicine men frequently suffered a nasal haemorrhage and rubbed the blood on
their patients in the belief that its odour would keep evil and sickness at bay
(Arrousset 1846:247; Bleek 1935:12, 13, 19-20, 34; Orpen 1874:10). At least
three of the figures crossing the "bridge" are bleeding from the nose in the manner
of medicine men. Another feature associated with medicine dances is the flywhisk carried by four of the figures on the "bridge." Today the !Kung like to dance with these whisks, and Marshall (1969:358) had the impression that they were largely reserved for dances (see also Lee 1967:31). The apparently anomalous depiction of flywhisks along with bows is explained by the San belief that "medicine men of the game" were able to control and hunt animals while in trance (Bleek 1935:36-37, 39, 41, 44-46, 47; 1936:132). Dancing and hunting are, in this way, related activities; all too often the depiction, in one way or another, of hunting has been taken to preclude a hallucinatory interpretation. Indeed, all these features—clapping women, nasal bleeding, flywhisks, and bows—commonly appear in paintings of medicine dances and other trance compositions (e.g., Lewis-Williams 1981a:figs. 19, 20, 21, 23; 1981b:figs. 1, 2; 1983:figs. 16, 18, 19, 20, 21, 22, 64, 68).

The details to which I have so far drawn attention are observable by anyone at a trance dance. A second category of features is hallucinatory or conceptual and "observable" only by people in trance. For instance, when a man enters trance his spirit is "seen" to leave his body through a hole in the top of the head. The spirit then performs the various tasks undertaken by CURRENT ANTHROPOLOGI

FIG. 1. Rock painting of men apparently crossing a rope bridge, Natal Drakensberg. Scale in this and all other figures is in centimetres.

people in this condition: controlling antelope, curing the sick, visiting distant camps, and so forth. One of the bleeding figures on the "bridge" has two long lines emanating from the top of his head, as do trance figures in many other paintings (e.g., Lewis-Williams 1981a:figs. 22, 24, 30, 31, 38; 1982:fig. 3; 1983:figs. 20, 21). These lines probably depict the spirit leaving on extracorporeal travel.

Another visionary feature is represented below the "bridge," where there are at least four trance-buck. Woodhouse (1978:20), separating this group from the "bridge" paintings, has offered a Eurocentric interpretation: "Flying creatures, some with human characteristics, pay homage to a central figure." Pager (1971:344), on the other hand, notes the "uniformity of headgear" between the male figure in this group and those crossing the "bridge" and rightly concludes that they are all part of the same composition, a conclusion supported by the colour and condition of the paint. Though these "winged buck" have been interpreted as spirits of the dead (Pager 1971:343; Woodhouse 1979:98), the shamanic explanation accounts for more of their features by explicitly San, not Western, beliefs. When a medicine man enters trance he is believed sometimes to fuse with the animal potency he possesses. A Kung man, for instance, told Wiessner (personal communication; Wiessner and Larson 1979) that he saw himself as the antelope he had tried to kill when he first obtained potency. In the art, therianthropic figures combining antelope and human characteristics are often shown with other features, such as nasal bleeding, which link them to trance performance, and Orpen's (1874:2, 10) southern San informant stated that the paintings of men with antelope heads depicted medicine men (Lewis-Williams 1980). The type of "headgear" to which Pager draws attention (if it is indeed a
realistic portrayal) is shown on an unequivocal medicine man painted at another site (Pager 1975:41). This figure, surrounded by clapping women, holds two flywhisks and dances in a bending-forward posture said to be occasioned by painfully boiling potency in a trance dancer's stomach.

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Other therianthropes and trance-buck are drawn with their arms in a distinctive backward position which some medicine men adopt when they are asking God to put potency into their bodies. Some of the depictions in this category also have "streamers" emanating from the back of the neck or from between the shoulder blades, as do the trance-buck in figure 1. These "streamers" are occasionally difficult to distinguish from arms in the backward posture. It is from the nape of the neck that medicine men expel the sickness they remove from their patients. Expelled sickness can be "seen" only by people in trance, and this fact, together with other considerations, suggests that trance-buck and therianthropes depict hallucinations of men transformed by potency (Lewis-Williams 1981a:75100; 1984b:246).

The combination in figure 1 of observable features of the San trance dance (flywhisks, nasal bleeding, clapping women, and the arms-back posture) and ethnographically verifiable San hallucinations (the spirit leaving the body and trance-buck) therefore clearly indicates that, whatever the "bridge" may be, the painting has some connection with trance performance. Even if we could go no farther, we should already have good reason to doubt the depiction of a bridge. Fortunately, we are able to propose an alternative explanation.

This explanation starts with the transformation of medicine men in trance to which I have already referred. Evidence for the nature of some such transformations comes from Katz's (1982:235-37) work among the Kung San of the Kalahari. He asked medicine men and men who had never experienced trance to draw pictures of themselves. Those who had never entered trance produced simple stick figures like that in figure 2a. The trancers, in contrast, drew zigzags and spirals which seem to bear no resemblance to a human body. One informant said that the long zigzags in figure 2d were his spinal cord and the shorter, adjacent zigzags his body. Katz (p. 236) finds these forms "reminiscent of the description of rapidly boiling and rising num [potency]." People in trance experience a variety of bodily sensations which include pain or a sensation of heat which starts in the stomach and rises up the spine (Katz 1982:45). If the zigzags are, as Katz suggests, an attempt to portray this physical experience, we may call the drawings somatogenic depictions of medicine men.

Whilst Katz is probably right, an additional suggestion about the origin of the zigzags can be made. Neurological work conducted independently of rock art research has shown that, in an early stage of trance, subjects "see" a variety of
geometric forms including zigzags, grids, vortexes, and dots (Siegel 1977, Siegel and Jarvik 1975). These phosphenes (form-constants) are produced by certain stimulations of the central nervous system and are therefore, unlike many of the hallucinations experienced in later stages of trance, not culturally controlled (Lewis-Williams 1985). Similar phosphenes are reported from all over the world because the central nervous system is common to all men (e.g., Hedges 1983); some phosphenes are familiar to migraine sufferers, for that condition similarly affects the nervous system (Richards 1971). The close similarity between zigzag phosphenes and the drawings done by Katz’s medicine men suggests strongly that the men were identifying themselves with the phosphenes they "saw" in trance. For the San, trance is a profound experience which expresses itself not merely in the mind but also in and through the body. Medicine men emphasise "the central importance of fluid psychological processes and transitions that break out of the body's ordinary anatomical boundaries" (Katz 1982:235). As their statements and their drawings show, their self-image is determined more by this fluidity of inner states than by external anatomical criteria: as their potency "boils," their body becomes fluid, parts of it separate, and parts are transformed. Phosphenes too are fluid, constantly shimmering, moving, expanding, and contracting. It is therefore understandable that medicine men should discern an analogy between what they see and what they feel. In the end, they are what they see and what they feel, and their drawings are derived from both the visual and the somatic effects of trance.

A connection between these hallucinations and San rock art is demonstrated by paintings such as those in figure 3. The recorder (Rudner 1959) of figure 3a regarded it as enigmatic, but it has subsequently been interpreted as clouds, rain, and lightning (Woodhouse 1985:53). However, the zigzag line joining the human figures casts serious doubt on this view: neither clouds nor rain nor lightning behave in this way. It seems more likely that this phosphene represents potency and the way it flows from person to person. Furthermore, another zigzag attached to the figure on the left is probably a transformed arm. The large zigzag form above the human figures may, like figure 2d, be a man whose potency has "boiled" and whose body has transcended ordinary boundaries. The lines in figure 3b also been reduced to unconvincing literalism: Goo (1959:32) sees the painting as "a man handling snakes," unlikely circumstance indeed among the San. An intere aspect of this painting is that the figure appears to be grasping one of the lines. Human figures grasping nonrealistic lines in fact, not uncommon (e.g., Lewis-Williams 1981b:figs. 1a 2; Pager 1975:79, 80; Vinnicombe 1976:fig. 240). Contro manipulation of potency is part of San trance experience, a it is this ability that is probably depicted. I am indebted Aron Mazel for drawing my attention to an even clearer combination of phosphenes with the human body (fig. 3c). Her et neck and legs of the figure are phosphenic zigzags. The c similarity between paintings like these and the drawings m by Katz's informants suggests that they depict people as... ated in various ways with phosphenes rather than observa phenomena. Although such phosphenes are far more comi in the rock engravings, they appear
in the paintings more quaintly than has been supposed. Because writers reduce painted phosphenic zigzags, dots, grids, U shapes, and so, to readily comprehensible depictions of body paint, decussations on karosses, clouds, rain, and even doodles, they passed unnoticed. The recognition of these phosphenes associated transformations in the art allows us now to rein, pret the "bridge."

This new interpretation is suggested first by those trance buck which have elongated, backward-extended "arms" covered with long "hairs" (e.g., Pager 1971:381, nos. 5, 18, 35, 38, 40, 44, 45; 1975:57, 62, 64, 81, 85). The example in figure is on a large fallen stone some metres to the left of figure 1. It many trance-buck, it has blood falling from its nose, "hairs" on this and other hallucinatory forms are probably somatogenic; people who have experienced trance report a gling or prickling sensation on various parts of the body including the outside of the arms. Katz's (1982:46) informants s of this sensation along the spine, and Bleek's (1935:2, 23) informants claimed that "lion's hair" grew on the back of a ma trance-a feature often painted. Among the San, the ting sensation is interpreted as the growth of hair and transformation into an animal. More importantly, the "hairs" on trance-buck's arms are clearly similar to the "hairs" on "bridge." Indeed, comparison of the "arms" of hirsute trance-buck with the "ropes" of the "bridge" demonstrates reasonable doubt that they are two expressions of the concept. The "bridge" is in fact two transformed medicine with their hirsute arms extended towards each other and ir ing.

Further aspects of the painting also appear in a new I

The elongation of the "arms" is probably another somatol

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FIG. 3. Southern African rock paintings incorporating phosphenes. a, Western Province (after Rudner 1959); b, Zimbabwe (after Goodall 1959: fig. 13); c, Natal Drakensberg (after a photograph by A. Mazel).

feature; people in trance often experience attenuation of their limbs. Many San paintings depict markedly elongated human figures. Though this aspect of the art has been interpreted as stylistic or as an attempt on the part of a diminutive people to represent themselves as tall (Woodhouse 1979:114), it more probably depicts a somatic experience of trance. Figure 5, for example, shows markedly elongated figures in typical trancing Postures-arms back, bending forward, and hands placed on the chest. Furthermore, the "pegs" now become bodies without legs (cf. fig. 5) and with heads facing inwards. In any event, the heads face in the wrong direction to function usefully as the heads of pegs securing a rope bridge. Such a radical alteration of the human body is, as Katz's informants' drawings show, well within the bounds of San trance experience and, unlike a bridge, is concordant with the other visual and somatogenic hallucinations I have noted. Indeed, this view unites the apparently diverse features of the painting in a single
coherent explanation which is rooted in San ethnography. All the concepts this interpretation incorporates are related and verifiable San beliefs about trance. I shall therefore henceforth refer to the "bridge" and certain other visual and somatogenic hallucinations by the neologism "trance-formed" medicine men. Other paintings supposedly depicting rope bridges, ladders, nets, and so on, will eventually have to be examined in the light of this new understanding. For the present, I mention only two, both painted at a site known as "the bridge" near Harare, Zimbabwe. Because they are painted within a few centimetres of each other, they must be regarded as a single instance rather than two separate ones. Goodall (1959:44, pl. 21) sees each as "a humorous scene" and believes they show "people in comical attitudes trying to cross a river over rope bridges. The water is indicated by short dashes, and a snake with ears rises from the river." The dashes are, however, better interpreted as swarms of bees, especially as they are shown entering or leaving trees (Pager 1971:352; Huffman 1983; Woodhouse 1984:13-15). Bees are associated with the trance dance, and the modern !Kung like to dance at the time of year when the bees are swarming because they believe they can harness their potency for a particularly efficacious dance (Edwin Wilmsen, personal communication). This relationship is depicted in a painting in the northeastern Cape which shows a trance dance with bees swarming above (Lewis-Williams 1981b:fig. 1; 1983:fig. 16), though the relationship between the dancers and the bees should be seen as symbolic rather than in terms of Western perspective. The eared snake which Goodall mentions is likewise probably associated with trance; these fantastic serpents sometimes bleed from the nose as medicine men do (e.g., Lewis-Williams 1981a:fig. 23; Johnson and Maggs 1979:fig. 51; Lee and Woodhouse 1970:figs. D35, 208). In addition to the two features Goodall notes, there are others which confirm the view that this is a trance scene. These include the kneeling posture of many figures, lines emanating from the heads of some, and lines extending from the shoulders of six figures. A remaining problem is why human figures in these paintings appear to be running or crawling on the extended arms of medicine men. In trying to explain this feature we must again acknowledge that we still know little about San concepts of perspective and composition. It is, of course, wrong to assume that San artists entertained Western ideas of perspective. In fact, Western perspective is entirely unknown to most preliterate artists. San "scenes" were therefore probably composed according to conventions unknown in Western art. It is possible that no fixed relationships, as understood by Westerners, are intended in San "scenes": the "scenes" may portray figures individually and even in different temporal dimensions and therefore not capture an instant in the manner of a photograph, a peculiarly Western concept. Many of the relationships which Westerners see in San rock art may be no more than optical illusions. Though we are still far from a clear understanding of the relationship depicted in figure 1 and in the Zimbabwean painting, it is worth noting that these are not the
only depictions of men or animals apparently walking or running along "bridges" F. or lines (e.g., Pager 1975:57, 77, 79, 81, 84; Lewis-Williams 1981b:figs. 1, 2, 3). In some paintings the line is patently nonrealistic in one part, where it may be shown entering and leaving the bodies of antelope, while in another it may be held by a man as if it were a rope. I have argued that many of these lines represent the potency activated and harnessed by medicine men (Lewis-Williams 1981b), but they will have to be reexamined in the light of the new understanding given in this paper. If Katz is correct in thinking that the zigzags drawn by his informants are boiling potency and, at the same time, a medicine man's body, it is certainly possible that some of the painted lines are also men identifying themselves or others with potency. A more specific interpretation of the relationship in figure 1 may be that it expresses the San belief that men in trance pool their experience and protect one another with their potency: the more potency that is "boiling" and being transmitted from one man to another, the more efficacious the trance.

Medicine men hold and embrace one another to facilitate transmission of potency. The men apparently running on the arms of the trance-formed medicine men may therefore be deriving power from them, though not in any strict temporal or spatial sense. The real relationship is probably entirely conceptual and the one suggested by Western perspective an illusion, but we have a long way to go before we can be more precise.

In the meantime we can use the new interpretation of figure 1 to throw light on other curious paintings of which I briefly discuss one (fig. 6a). It is one of three similar paintings close to one another on a large fallen rock at Giant's Castle, Natal Drakensberg. It has been seen as two drums or pots connected, for unexplained reasons, by thongs. However, comparison of the supposed drums or pots with certain paintings of karossclad therianthropes (e.g., fig. 6b; see also Lewis-Williams 1983:pl. 76) suggests that they are in fact the lower parts of a pair of legs. In addition to general shape, the so-called drums or pots have three features in common with the legs of some therianthropes. First, both have white dots above the calves and at the ankles; secondly, both are frequently outlined on one side with white paint; and, lastly, both terminate in the same way at the lower extremity. This last feature may be intended to indicate hoofs rather than feet, because many such therianthropes have clear antelope hocks and hoofs. Until now it has been impossible to accept that the two forms are what they appear to be-the legs of therianthropes-but a drawing such as figure 2d shows that the absence of a normal body does not vitiate this identification: Katz's informant drew feet and legs and then indicated the rest of the body by phosphenes.

Support for this interpretation of figure 6a comes again from trance-buck. The two in figure 6c have "wings" or arms with pendant attachments which have been thought to represent feathers. The paintings may indeed depict a combination of antelope and avian forms, because flight is a San metaphor for trance experience. But the general form of the "wings" is very like the "thongs" in figure 6a. While some therianthropic medicine men have "hairs" on their arms which resemble the "hairs" of the "bridge" in figure 1, others have more substantial, hanging lines which resemble the lines hanging from the "thongs" in figure 6a. Figure 6a, therefore, is probably another trance-formed medicine man.
In this instance, the legs are fairly clear, but the rest of the body has been entirely tranceformed. Although they are at first glance very different, the
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FIG. 6. a, trance-formed medicine man, Giant's Castle, Natal Drakensberg; b, rock painting of a kaross-clad figure, Giant's Castle, Natal Drakensberg; c, two trance-buck (after Pager 1975:52).
"drums" and the "bridge" are cognate forms. This conclusion opens up a wide-ranging discussion of many other paintings the meanings of which have been considered self-evident.
The aim of this paper is not merely to show that the supposed depictions of bridges and drums are better interpreted as visual and somatogenic hallucinations of San medicine men but, by probing the essence of the art, to argue the more general point that expectations of learning about San material culture and beliefs from the art alone are too sanguine. If such diverse depictions as "bridges" and "drums" can be explained by San beliefs about trance performance, it is clearly wrong to suppose that the art speaks directly to Western viewers to reveal an intelligible panorama of Stone Age life. Before we err in reducing unfamiliar paintings to objects known to Westerners, we should see if they are adequately explained by San beliefs, concepts, and practices. When there is no ethnographic evidence for an artefact or practice, let alone a belief, over and above apparent depiction in the art, the hallucinatory and symbolic nature of many paintings precludes inference that such objects or practices existed. The art may, of course, direct archaeologists to examine unexplored ethnography or to seek confirmation in their excavations where this is possible. At best the art may be a source of hypotheses, certainly not confirmation of them. This conclusion may appear discouraging, even obscurantist, to those who use rock art as an ethnographic record. Yet it seems undeniable that, because they have misunderstood the very nature of the art, their approach often comprises little more than ad hoc inductions. Perhaps it was such work that caused Inskeep (1978:85), some years after distinguishing between "learning about" and "learning from" rock art, to call the southern African art "a rich and entrancing storehouse of information . . . that is not easily tapped." His despair can be allayed only by finding a key to the "storehouse." That key is San ethnography—though using it is no simple matter (LewisWilliams 1977, 1980, n.d.). As authentic San beliefs and practices are more carefully and extensively deployed in rock art research, many reinterpretations will probably result and more and more of the art will be seen to be associated with medicine men and their hallucinatory experiences. With such a change in perspective, many rabbits will turn out to be ducks. But in these cases, the ducks are the artists' real intention; the rabbits are merely illusions.
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In September 1983, the Wenner-Gren Foundation for Anthropological Research sponsored a week-long conference entitled "Cloth and the Organization of Human Experience." (Jane Schneider and Annette Weiner were its organizers; Ivan Karp, assisted by Jason Williams, served as rapporteur.) A major concern of the conference was to document the significance of cloth traditions in the historical development of the world's societies and to make the case that these traditions are as central as agricultural production to social and evolutionary theory. Another aim was to bring together areas of inquiry in the social sciences and the humanities that have grown apart, in particular, materialist and idealist modes of interpretation, museum collections and ethnographic research, aesthetics and the labor process. The participation of scholars from anthropology, art, art history, and history encouraged multiple views of cloth as an economic commodity, a critical object in social exchange, an objectification of ritual intent, a vehicle of symbolic meaning, and an instrument of political power.

From the conference papers and discussions, several themes emerged. First, participants dwelt on the varied properties of cloth—its aesthetics, the labor of its
production, the fact that it is malleable and can be shaped, tied, or cut. These properties, it was felt, add to the potency of cloth as a symbol, allowing it to "say" things that words cannot. Just as it reveals and documents, cloth can also mask. Above all, it is flexible, transmitting different, even contradictory messages all at once.

Cloth covers or clothes not only the body but beds, tables, walls, and altars. Yet its intimate association with the body is especially salient, putting it in a metonymic relationship to the self. Signifying rank, status, sexuality, power, ideals, it individuates the person. But it can also dissolve a person's social identity, as in uniforms and sackcloth. In the small-scale societies, as in earlier historical moments of the large-scale societies, cloth provides protection through ritual use, taking on qualities of sacredness and consecration. In the form of
shrouds, it encircles the dead, suggesting continuity. The sheer quantity of cloth exchanged in mourning rituals and in association with ancestors indicates its pervasiveness in transcending death through renewal and regeneration. Cloth is also among the most meaningful of exchange objects at births, puberty rites, and marriages and in transactions at the level of the polity, where it can serve as a currency or medium of exchange, as an instrument of diplomacy, as a means to earn foreign wealth, and as a source of enrichment to the treasury. Through these and other uses, it participates in the development of political hierarchy, contributing to the emergence of chiefly and state formations.

Given the overwhelming importance of cloth, conference participants were drawn to consider how it is produced. The question is the more interesting because this crafted object is among the most labor-intensive to manufacture. From harvesting or collecting the fibers through softening, cleaning, and spinning them to their reconstitution through weaving and their elaboration through dyeing, embroidery, and other transformations, endless hours of dedication and activity are congealed in every piece. Often the invested labor is of more than one kind, ranging from a rote task like spinning that requires patience but minimal skill to such precise operations as warping a loom for the execution of complex, multicolored designs.

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