

Reconsidering the Behavioral Basis for Style: A Case Study among the Kalahari San

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In this paper, it is proposed that there is a behavioral basis for much, but not all, of the formal variation in material culture that has been called style by archaeologists. This aspect of stylistic behavior is founded on the basic human cognitive process of identification via comparison. Such stylistic behavior is argued to be one means by which people negotiate their personal and social identities relative to that of surrounding others. Thus, the process of social, and corresponding stylistic, comparison is proposed as the mechanism underlying stylistic development and change. This behavioral basis for style is explicated in a case study among the Kalahari San, in which the role of style in beaded headbands in regional, areal, and personal identity relations, as well as exchange, is investigated. Finally, the proposed behavioral basis for style is discussed in terms of what it can contribute to interpretation of variability in material culture, current approaches to style, and its implications for the development of a theory of style.

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In our everyday lives we use style as a means of nonverbal communication. We say that somebody is "in style," "out of style," "stylish," and so on. We form preliminary impressions of persons or groups on the basis of their living styles, clothing styles, styles of the interiors of their houses, and style in other aspects of their lives. These impressions may be so strong that they either inhibit further interaction or create bonds which facilitate future communication. If incorrect, impressions derived from style may take a long time to overcome. Thus, we spend much time, energy, and resources on style in order to present a certain image to others, an image which may have a strong impact on subsequent interaction. In view of the role which style plays in our lives, it is surprising how little attention has been paid to the behavior underlying style.

In archaeology, the potential of style to provide valuable information beyond that of chronology has been recognized in the past two decades (Binford 1963; Deetz 1965; Hill 1970; Longacre 1970; Whallon 1968; and Wobst 1977, among many others). However, due to the lack of understanding of the behavior underlying style, it has been difficult for archaeologists to develop a cogent theory of style, and success in deriving

social information from style has thus been limited. In this paper I will propose that there is a behavioral basis for much of the variation in material culture that has been called style by archaeologists, explicate this behavioral basis with a case study from the Kalahari San, and discuss its implications for the development of a theory of style.

IDENTIFICATION AND SOCIAL COMPARISON

Here I will argue that much of the formal variation in material culture which has been called style by archaeologists has a behavioral basis in a fundamental human cognitive process, that is, personal and social identification through comparison. Before discussing stylistic behavior let us take a brief look at this process. There is a vast literature in social psychology on identification via comparison, and so much evidence has accumulated supporting the establishment of a self-image through comparison that it is assumed by many authors to be a basic cognitive process in man (Lemaine 1974; Tajfel 1978, 1982a; Turner 1975). However, the content of identity and dimensions chosen for comparison are recognized to be culturally and historically determined (Wetherell 1982). Self-concepts have been shown to have both personal and social components (Codol 1981; Lemaine, Kastersztein, and Personnaz 1978; Tajfel 1982a; Turner 1978). Following Tajfel, social identity is "the part of individuals' self-concepts which derive from their knowledge of their membership of a social group(s) together with the value and emotional significance attached to that membership" (Tajfel 1982a:2). Personal identity pertains to the part of individuals' self-concepts which are more personal in nature and usually denote specific attributes of the individual such as bodily attributes, psychological characteristics, feelings of competence, ways of relating to others, intellectual concerns, personal tastes, and so on (Gergen 1971). Both personal and social aspects of identity appear to play important roles in the formation of self-images. Tajfel (1982a) has found that persons are unable to form self-images in the absence of social identity derived from membership in one or more social groups. Conversely, an element of personal identity appears to be equally important and when put in situations of extreme conformity, individuals experience discomfort and strive to differentiate themselves from similar others (Fromkin 1972; Lemaine et al. 1978). Social and personal identity may be "switched on" by certain situations, social identity being the cognitive mechanism which makes group behavior possible (Turner 1982b). Individuals not only strive to create self-images, but to create positive ones and to be highly motivated to convey these to others to receive self-esteem and social recognition. Those who belong to negatively valued social groups develop

positive personal images through comparison with in-group members (Oken 1973; Zavalloni 1973, 1975).

The theory that social comparison is a central mechanism through which self-concepts are formed was put forward by Festinger (1954). He proposed that "there exists, in the human organism, a drive to evaluate his opinions and abilities . . . To the extent that objective, non-social means are not available, people evaluate their opinions and abilities by comparison respectively with the opinions and abilities of others" (Festinger 1954:117-118). Thirty years of research initiated by Festinger's ideas have confirmed the importance of social comparison as the key agent in the process of identity formation, despite a great deal of criticism leveled at other aspects of his theory. Let us take a look at three criticisms and results of subsequent research which have important implications for stylistic behavior.

First, is Tajfel's (1972) argument that the distinction between social and nonsocial means of evaluation is not a valid one, on the basis that non-social means only take on meaning in a social context which is appropriate to them. Thus, socially constructed reality is just as objective as nonsocial reality. Second is a critique of Festinger's notion that the function of social comparison is to obtain self-knowledge. Subsequent research has indicated that self-comparison takes place not so much for the purpose of knowing oneself as to gather information to make assessments to be used in formulating social strategies (Singer 1966; Jones and Regan 1974). Third is a criticism of Festinger's suggestion that similarity provides a basis for choosing subjects for comparison. It is generally recognized in social psychology that not all persons and groups in a society are equally subject to social comparison, but rather that they are chosen with respect to (1) the existing structure of a society, (2) a person or group's place in it, (3) the possibility of occupying a place similar to that of another, and (4) the social premiums set on various positions. The tendency for like to compare with like, as suggested by Festinger (1954), is logical in that those who are similar can provide the best information about position and abilities, information which is necessary for establishing a self-image and for designing social strategies. When differences become too pronounced, comparison ceases. However, there are situations in which similarity does not provide the basis for comparison, particularly those which involve changes in relations. Subsequent research (Tajfel 1974; Turner 1978) has revealed that comparison between dissimilar persons and groups does take place when differences are judged to have an illegitimate or insecure basis, in other words, when the position of another is perceived as not only desirable, but attainable. In such cases, actual or potential similarities are discovered, and comparison proceeds on the basis of these. Therefore, with the exception of a few sim-

ilarities which are defined by natural categories such as male/female, old/young, similarity will be stipulated culturally. Choices of persons and dimensions for comparison will be made according to existing cultural structures and perceived insecurity or illegitimacy of differences will arise with changes in these.

Crook (1981) has given an evolutionary explanation for the motivation of individuals to differentiate their identity from the perceived identity of others through comparison and the desire to project a representation of self-image to others to obtain self-esteem and self-recognition. He attributes the origin of the desire for self-esteem to the need to evaluate self through comparison with others who, at one level, are socially more effective and who, at another, often unconscious, level, behave with the potentialities of greater inclusive fitness (Crook 1981:105). He also suggests that the capacity for self- and other representation originated in the service of reciprocal altruism, in that individuals who could present a positive self-image to others would be more successful in such interaction.

STYLISTIC BEHAVIOR

If self-concepts are to be presented to others to obtain self-esteem and social recognition, then some means by which a person's self-image can be communicated to others is necessary. Style is one of many channels through which such a representation can be presented to others, either consciously or subconsciously. It is one means by which people, sometimes acting individually, sometimes within the context of group membership, can comment on other people, social groups, and institutions and their corresponding ideas, values, and practices. They do so by expressing their own positions and identities with respect to these factors and projecting them to others to obtain social recognition. Style has a number of properties which make it effective for doing so—to mention a few: (1) style can project several aspects of identity at one time, aspects which may modify one another; (2) style can make use of aesthetic experience to reinforce identity representations and create a bond between those who respond pleasurably to it (Eibl-Eibesfeldt 1983a); (3) style communicates without requiring a direct response, leaving others time to formulate their reactions. In certain circumstances style may also be an efficient means of transferring information, as suggested by Wobst (1977). However, there is little evidence in the anthropological literature that efficiency is an important consideration in identity displays. To the contrary, as can be seen in the ceremonial dress in many cultures (e.g., see Strathern and Strathern 1971) or in the amount we spend on fashion in our culture, such displays are often extravagant, the resources and effort expended in stylistic displays being an index of ability and worth.

If identification via comparison is the behavioral basis for style, then the mechanism underlying stylistic development and stylistic change would be expected to be stylistic comparison intertwined with social comparison. In stylistic and social comparison, people compare their ways of making and/or decorating artifacts with those of others and decide to imitate, differentiate, ignore, or in some way comment on how aspects of the maker or bearer relate to their own personal and social identities. Stylistic and social comparisons involve the structure and function of style, two aspects of style which are often treated separately (Conkey 1982; Hodder 1982a), in a single process. That is, persons or groups and certain aspects of their identities are selected for comparison according to the cultural institutions in a society that define them as comparable, not at random. Then comparisons are made, and the relative identities of those involved are worked out on the basis of present and past goals and concerns. In the outcome of comparison, the function of style is realized and information about the identity and positions of individuals and groups vis-à-vis one another is expressed, information which is used either in altering the existing nature and structure of relations or in creating new ones. The process of stylistic comparison mirrors that of social comparison. Stylistic features are chosen for comparison according to structural and symbolic principles operative in a society which define them as comparable in structure and content. When new patterns of social comparison are created, common dimensions in artifact styles will also be established if the artifacts are to play a role in these new relations. The stylistic comments resulting from comparison will be affected by aesthetic and structural concerns, as well as social ones, either reproducing existing styles, altering them, or creating new ones. Stylistic comparison is intertwined with social comparison, inciting social discussion and vice versa. Stylistic decisions influence and are influenced by social ones.

Finally, style is not just a means of transmitting information about identity, but an active tool used in social strategies, because in the process of presenting information about similarities and differences, it can reproduce, disrupt, alter, or create social relationships. For example, to copy the styles of others may mask differences, thus allowing for more unified group action; to borrow some elements of a certain style may express solidarity without treading on the toes of another's identity; or to differentiate may either sever bonds or create complementarity, allowing social exchange to proceed effectively.

If personal and social identification through comparison underlies stylistic behavior, then at least two lines of investigation are essential for understanding style. On one hand, because social and symbolic structures define persons and styles in artifacts as comparable, and because stylistic decisions are made relative to these, style can only be understood within

its appropriate cultural and historical context. On the other hand, if stylistic behavior is based on a fundamental human cognitive process as proposed here, then an understanding of this process is also essential for developing a theory of style.

Before turning to the San case study, it is necessary to point out that the behavioral basis for style outlined above will not apply to all formal variation in material culture that has traditionally been called style by archaeologists. Notably, it will have little import for variation in items of material culture that are not used as tools in social strategies, for what has been called unconscious drift style (Sackett 1982:96; Binford 1963), or for isochrestic variation, which Sackett (1982:104) has described as "the ethnic idiom imparted to form as the result of the cultural and historical context in which it [the artefact] is designed and used." In an ethnographic context, what I have called style here and isochrestic variation were separable in many instances. San were happy to discuss style and the corresponding relations which it created, as will be seen later, but when questioned about apparent isochrestic differences identified during the study, they were often mildly irritated, saying that they made things in a certain way because everything must be made in some way and that was how their parents did it. Since style, as I have presented it here, and isochrestic variation are generated by different social action—the negotiation of identity relationships in the case of the former and the rote passing on of ways of doing things in the latter—and have very different goals—to create relative identity relations as opposed to replicate a way of doing things—each needs to be investigated in its own right. In working toward a theory of style, it will be important to determine under which conditions artifacts are used in social strategies, under which ones they are not, and the implications of this for variation in material culture.

ETHNOGRAPHIC BACKGROUND

The data used in this paper are taken from a study on style and social organization which I carried out during 20 months of fieldwork between 1973 and 1977. The Kalahari San groups included in the study, the !Kung, the Nharo, and G/wi, and the !Xo, inhabit eastern Botswana and North-western Namibia. They come from three mutually unintelligible language groups, with the Nharo and G/wi speaking different dialects of the Tshu-Khwe language. All Kalahari San supplement their hunting and gathering subsistence for at least part of the year with income from wage labor, subsistence labor, sale of crafts, or occasionally small-scale agriculture. The way of making a living may differ from camp to camp as well as from

area to area. The Kalahari San share about 90% of each other's material cultures (Wiessner 1983) and have common traditions of music, dance, and folklore. They also have similar social and political structures, with five levels of organization: the nuclear family, the band or camp, the nexus or band cluster, the dialect group, and the language group. These social units are most pronounced among the !Xo and generally become looser in membership as one moves north, due to ecological and historical factors (Barnard 1979; Silberbauer 1981; Heinz 1979). There is considerable short-term turnover in the membership of bands and band clusters, as well as visiting between members of different language groups. However, there is also evidence (Silberbauer 1981; Wiessner 1977, 1981) that long-term group membership is more stable. Excellent current ethnographies are available for all groups studied (Barnard 1979; Heinz 1972, 1979; Lee 1979; Marshall 1976; Silberbauer 1981; Tanaka 1980), and a brief discussion of Kalahari San organization in relation to that of other hunter-gatherers can be found in Wiessner (1983).

Research on San intragroup and intergroup relations and corresponding stylistic variation in artifacts was carried out in depth among the !Kung and more superficially among other groups. First, an inventory of the material possessions of each group was made, and then photographic records and more extensive interview data were collected on projectile points (Wiessner 1983) and various items of glass beadwork. Interviews about style conducted via an interpreter were unsuccessful in obtaining more than the most rudimentary facts, and so opinions and ideas about style could only be obtained from the !Kung with whom I could speak directly. Sufficient samples of beadwork were obtainable from six different areas which will be described below, with only a few items of sewn beadwork found in G/wi areas. In defining the study areas, I tried to encompass a population of allied bands who had close kinship ties with one another, dense ties of reciprocity and visiting, and who had jointly worked out a pattern of land use through time. This was easier to do in the southern areas where such groups correspond to the band cluster or nexus (Barnard 1979; Cashdan 1983; Heinz 1979) and more difficult among the !Kung, where the band cluster is loosely defined. However, an intensive study of patterns of exchange, kinship, and visiting in !Kung areas (Wiessner 1981) made it possible to identify such band clusters, except at Tsumkwe, where bands from three or more areas have recently been resettled. As can be seen in Fig. 1, many other groups of San were visited, but only a few items of beadwork were found at most sites, due to lack of glass beads and/or acculturation. Areas in which beadworking flourishes are usually relatively wealthy ones and/or ones in which the proportion of San to agriculturalists is high.

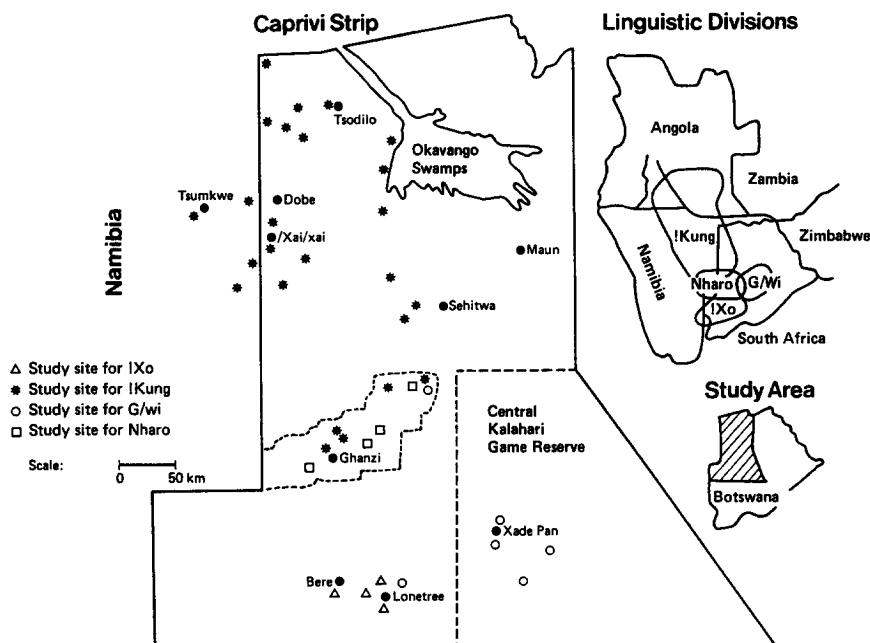


FIG. 1. Map of study area showing San linguistic groups included in the study (right) and sites at which beadwork was recorded.

1. The Tsumkwe !Kung

Tsumkwe is the center for the homeland of Bushmanland, which was set up in the early 1960s by the South African government, isolating the San from agriculturalists after hundreds of years of contact (Denbow 1983). Many of the men are employed in jobs which pay ample rations for a family as well as the standard low cash salary for southern Africa. They support relatives for months or years on their own salaries and rations and then quit work to rest and let others support them. Women only periodically gather to collect preferred foods, thus assuming a secondary economic position to that of men. Social problems at Tsumkwe are considerable, change is rapid, and many San feel disoriented (Lee and Hurlich 1982). Materially, the Tsumkwe San are well off, and have three to four times as many possessions as their neighbors in Botswana (Wiessner 1982). Spiritually, they are not so well off, and the social environment is filled with tension, due to the fact that so many San are settled in one place with no formal means of resolving conflict. Bouts of heavy drinking often end in violence, and many traditional values such as modesty and discretion are being abandoned. Traditional exchange ties (*hxaro*—Wiessner 1981, 1982) have been intensified to help assure alliances in serious conflicts, to obtain portions of the salaries of those who

are employed, and to maintain alternate residences in Botswana and on farms in Namibia to be able to "take a rest" from Tsumkwe. The women, anxious about their dwindling economic roles, make up for this by producing elaborate items for exchange, particularly beadwork, to keep up their traditional ties which assure their social and economic support in the face of change. These incentives, in combination with the availability of beads at the store, allow beadworking to flourish.

2. *The Dobe-Mahopa !Kung*

The Dobe-Mahopa !Kung consist of a closely related group of San inhabiting villages within about 7 km of Dobe, some of whom live side by side with Herero. They still live a relatively traditional life of hunting and gathering supplemented by subsistence labor for nearby Herero, occasional wage labor, small-scale agriculture, and crafts sales. Change at Dobe has been accelerated by the influx of anthropologists in the 1960s and by development promoted by them (see Lee 1979). Nonetheless, the Dobe !Kung, although frequent visitors to Tsumkwe, do not accept the value changes which have been occurring there. Beads are widely available at Dobe from exchange with Tsumkwe and from anthropologists who appreciate and encourage beadworking. In the early seventies, Marjorie Shostak commissioned a number of women to make beadwork, a project which, however, did not result in beadwork entering the handicraft market on a large scale.

3. *The /Xai/xai !Kung*

/Xai/xai !Kung have a similar economic base and hold relatively traditional values, similar to those of the Dobe !Kung. They enjoy visiting their relatives at Tsumkwe, to be "where the action is," but after stays of varying lengths are happy to return to /Xai/xai. The /Xai/xai !Kung, like the Dobe !Kung, live near agriculturalists from whom they obtain domestic foods and assistance in conflict resolution. At the time of the study, /Xai/xai had been less influenced by anthropologists than Dobe, and fewer beads were available. Nonetheless, beadworking was widespread.

4. *The Ghanzi !Kung*

The Ghanzi !Kung include !Kung from Ghanzi and from two farms 20 km northeast of Ghanzi who have frequent contact with one another. They make their living from subsistence or wage employment and gathering. They visit other San on the Ghanzi farms regularly and use tradi-

tional *hxaro* relationships to keep up ties with /Xai/xai and Tsumkwe for seasonal visiting. The Ghanzi San are ambivalent about their desired lifestyle, at times wanting to become assimilated with surrounding agriculturalists, but reluctant to abandon their own traditions and values (Guenther 1976), particularly those related to mobility and sharing. Their status as squatters on what was once their own land makes it impossible to revert to traditional life or to become assimilated into Tswana culture. The ambivalence in their lifestyle is reflected in their dress, which consists of Western clothing with San beaded headbands often worn under scarfs and beaded pubic aprons worn under dresses. Beads are available in the Ghanzi store but are not a first priority for spending their low wages.

5. *The Ghanzi Nharo*

The Ghanzi Nharo in this study inhabit three neighboring farms about 40 km north east of Ghanzi. They live under economic and social conditions similar to those of the Ghanzi !Kung, except that they are not as well paid. Their ties outside the farm area are largely to the east or south.

6. *The Bere !Xo*

The Bere !Xo are settled about 100 km south of Ghanzi, on a settlement scheme set up by the anthropologist H. J. Heinz in 1972. Bere was designed to introduce cattle husbandry to previously cattleless !Xo, as well as to introduce other activities to supplement their hunting and gathering income, such as the sale of crafts and the tanning of skins. By 1974, Heinz had left, and residents had largely reverted to their former lifestyle of hunting and gathering daily and periodically moving to the bush. Heinz had brought beads, which he made available at the small Bere store, and encouraged traditional handicrafts of very high quality.

7. *The Xadi G/wi*

The G/wi of the Xade Pan area of the Central Kalahari Game Reserve live a much more traditional life than do other San in the study. As livestock are forbidden in the reserve, the G/wi only occasionally possess goats or donkeys and live almost exclusively by hunting and gathering. Excellent descriptions of the Xadi G/wi are given by Silberbauer (1981) and Tanaka (1980). Beadworking is known to the G/wi but is not commonly done because the G/wi do not have a strong tradition for beadworking and live far from primary sources of glass beads. While only three headbands were found in all G/wi areas visited, an average of 0.2

headbands per woman was found among the Bere !Xo and Ghanzi Nharo, 0.3 among the Ghanzi !Kung, 0.9 among the /Xai/xai !Kung, 1.1 among the Dobe !Kung, and 3.5 among the Tsumkwe !Kung.

San in the /Xai/xai, Dobe, and Tsumkwe areas have regular interaction with one another. /Xai/xai and Tsumkwe !Kung have *hxaro* (exchange) partners among the Ghanzi !Kung whom they visit approximately every 3 to 5 years. The Ghanzi !Kung and Nharo in this study visit each other regularly and both have some ties with the Xadi G/wi, although only weak ones. They have no direct contact with the Bere !Xo, but have indirect ties with them via Nharo in the Ghanzi farm area and via the Xadi G/wi. The Xadi G/wi move south to !Xo areas in times of drought and visit !Xo at Lonetree, where they occasionally meet San from Bere. Thus, all San in this study are either directly or indirectly associated with one another.

SAN BEADED HEADBANDS

Beaded headbands are one of several types of headwear currently worn by San. They are made and primarily worn by women, although occasionally worn by men. Headbands are made by sewing glass beads into patterns with thread of either sinew or plastic. They are approximately 4 cm wide and 50 cm long and fit snugly around the San's head. Although headbands can be completed in about 15 hr of concentrated work, they are never made in one go, but are made slowly over a period of weeks while the women sit around and talk. During the manufacturing process, they are frequently stretched out and shown to others while such topics as patterns, to whom they will eventually be given, and how beautiful they will look are discussed again and again.

Beads for headbands are expensive and thus are usually obtained through exchange or as gifts from agriculturalists, San wage laborers, border police, or anthropologists. They may be purchased at Tsumkwe and Ghanzi, but are rarely available at other stores in Botswana. Headbands are among the San's most prized possessions, and prior to the availability of glass beads, they were made of ostrich eggshell beads. Headbands are associated with happiness, festivity, plenty, and beauty, or, as the San say, "headbands are worn when one's heart soars." On an average day at /Xai/xai, one out of every five to eight women may wear a headband; at a trance dance, one out of two or three; and at a puberty ceremony, almost all women. Headbands are very personal items, like our most valued pieces of jewelry. Nonetheless, like most San possessions, they are given to exchange partners after they have been kept for 2 months to 2 years. After the headbands have changed hands two to three times, some of the threads break, and they are unraveled and re sewn into new patterns.

Many San were pleased to discuss how they classified and identified designs and what meaning they attached to various designs. There was general agreement that the ideal headband layout consists of one major design which stretches along the length of the headband and either a plain background or one or more background designs. Beadworkers stress that the major design should not cover the entire headband, but should wander amid the background like "a person who walks softly through the bush back to camp." The major design can be either regular and symmetrical or irregular, wending its way through a changing background. A number of older San pointed out that the ideal form for glass-beaded headbands had its origin in ostrich eggshell headbands, in which two or more rows of beads were set off from the others to form a center line. The concept of "walking softly" was frequently mentioned to me in connection with headband designs and has wide application in San life. It evokes the modesty of a hunter who brings home a large kill, quietly leaves it in the bush behind his camp, and sits down at his fire without a word. It evokes the discretion generally used in traditional San social life which helps to preserve harmony. The paradox of a message associated with quiet and modesty being sent through a beautiful, visible, and colorful item which is worn in times of joy, fertility, and plenty gives headbands powerful impact.

Headband Designs

Nine major and five background designs are found in the entire assemblage recorded. Of major designs (Fig. 2), only three, A, B, and C, are considered to be specific to headbands, and, of these, C was not considered ideal, as it fills the entire headband. The remaining designs are used only occasionally on headbands. They are considered to be appropriate designs for the belts of pubic aprons (Figs. 2D, E, and F), or for pubic aprons themselves (Figs. 2G, H, I, and J). Headbands with these designs are made either by San who claim not to be able to make other, more complex designs (as in the case of E) or are made "for a change." The San have descriptive names for all designs, although these may vary from informant to informant (but not by region). For instance, design A is more frequently described as puff adder and design B as various kinds of snakes or as the tracks of a urinating bull.

The repertory of background designs used by the San is limited to five basic alternatives (Fig. 3), but beadworkers skillfully use them in such ways as to add much life to headband designs and to make most headbands unique in some way. While the major design is decided upon before beginning work, the background design is often made up as the beadworker goes along.

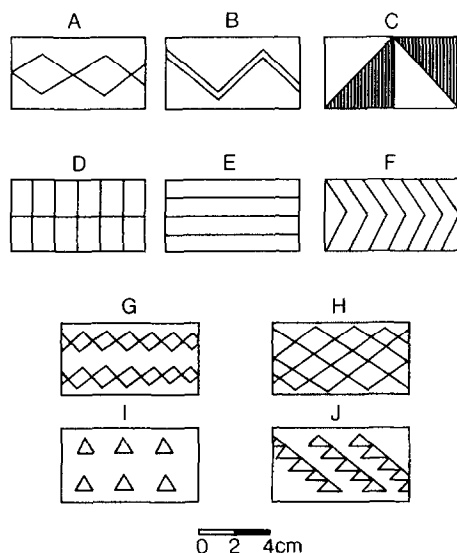


FIG. 2. Major designs used for headbands.

Attributes Recorded

Five features were recorded to describe each headband: (1) major design(s), (2) background design(s), (3) number of major and background designs used, (4) regularity and symmetry of major and background designs, and (5) design structure. Four categories are used to describe design structure, categories which are recognized by the San: (1) headbands with basic headband-specific designs (Figs. 2A, B, and C), (2) headbands with pubic apron or pubic apron belt designs (Figs. 2D–J), (3) headbands with developed major designs (Figs. 4C, D), and (4) headbands with complex design format (Figs. 4E, F, and G). Headbands with developed major designs are those in which the major design was executed in such a way as to make it internally more complex without altering the basic design

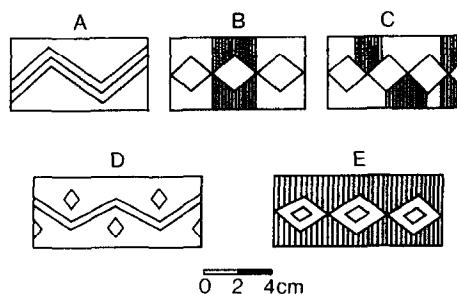


FIG. 3. Background designs used for headbands. A—plain, B—regularly changing colors, C—irregularly changing colors, D—diamonds and triangles, E—stripes.

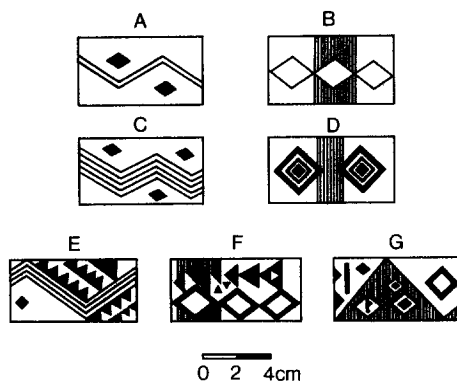


FIG. 4. Variants in design structure. A and B—basic design structure, C and D—developed major designs, and E, F, and G—complex combinations of designs which break with traditional format.

format. The San recognize that such headbands require more creativity and skill, that they are more striking, but give them the same names as their more basic corresponding forms and do not see them as being different designs. Headbands with complex design formats are those in which two or more major designs are combined to fill the entire headband, or in which the background design is accentuated to the point that it plays the role of a second major design. San recognize designs with complex formats as being different from other designs, as departing from the ideal format, and have no standard names for such designs.

Headbands recorded among the Bere !Xo, Ghanzi Nharo, Xadi G/wi, Ghanzi !Kung, and Tsumkwe !Kung were collected and photographed during a single visit. The Bere, Xadi, and Tsumkwe samples were supplemented with photographs of headbands taken by members of the Max Planck Institute for Human Ethology in 1973–1975. Headbands of Dobe residents were photographed and recorded during two visits, one in 1974 and one in 1975, and headbands at /Xai/xai were recorded continuously in 1974 and 1975.

STYLE AND SOCIAL COMPARISON AMONG THE SAN

At the time of the study I was concerned with why the San put stylistic effort into headbands, how San chose designs and who influenced their choices, how San classified and identified designs, and what meaning they attached to them. Direct questioning yielded poor results, and most information was obtained by listening to ongoing conversations about beadwork or by initiating conversations by mentioning certain qualities of a specific artifact. Although these questions were not specifically

aimed at the topic of identification via comparison, information of relevance for this emerged.

First, the vast majority of !Kung said that they made artifacts beautifully in order to project a positive image of themselves to others. In doing so, they specified others whom they wanted to impress and elaborated on their expectations of return for this effort either in terms of reciprocity or in attracting members of the opposite sex. For instance, of 48 women who gave a reason for investing stylistic effort in beadwork, 42 (88%) mentioned a desire to impress the opposite sex, 37 (77%) to promote reciprocal relations, 23 (48%) to gain self-satisfaction, and 17 (35%) to impress Bantu agriculturalists. Responses given by 29 hunters in interviews about arrow making followed a similar pattern except that 12 hunters (41%) also mentioned "because others do" as a reason for putting stylistic effort into arrows and 12 (41%) gave as a reason to enhance good luck and/or function. There were few discussions of style in headbands that did not lapse into pantomime of how, when they saw the beautifully made artifacts, others would be aware of how diligent, creative, caring, and hardworking the maker was, and of what generous gift exchange would ensue. For beadwork received in exchange, San mentioned that the fact that they had received a beautiful item would make others realize just how much their partner cared about them and consider the qualities which might make them worthy of such a gift. Just as San were aware of the positive relationships which could be reinforced by style, they were also aware of negative aspects of relationships which could be brought out through manipulating items bearing style in social relationships, particularly through arousing jealousy.

In discussions of stylistic effort and social relations, conversations usually lapsed into comparison of various styles and then into comparison of the attributes of various beadworkers, or vice versa. From these comparisons, the following information was extracted: kin relations, residence of person chosen for comparison, and topics or dimensions of comparison. This information gives a good illustration of some of the points made above about social comparison. The first is that choices of persons, groups, and dimensions for comparison are guided by the cultural and symbolic structures operative in a society that define persons and groups as being comparable along certain dimensions. As can be seen in Table 1, among the !Kung San it is kindred membership, and to a lesser degree affinal ties, which guide the choice of persons for positive comparison in discussions about beadwork. Kindred members make up 54% of all persons chosen for comparison and 70% of all subjects chosen for positive comparison. In six cases, kinsmen chosen for comparison were either full or half Nharo San, an aspect of identity not mentioned by the San, but which I knew from genealogy. In only two cases were compar-

TABLE 1
SOCIAL COMPARISONS MADE WITH OTHERS DURING CONVERSATIONS ABOUT BEADWORK AT /Xai/Xai

Location of person	Distance (km)	Interaction ^a (%)	Positive comparison				Negative comparison			
			Kindred members	Affinal kin	General	Total No.	Kindred members	Affinal kin	General	Total No.
Same camp	0	18	12	2	0	14	0	3	0	3
Same area	5-25	24	14	4	4	22	3	1	3	7
Dobe-Qangwa area	30-40	16	4	1	1	6	1	1	1	3
Tsumkwe area	75	21	12	1	2	15	1	2	10	13
Selhitwa area	150+	5	2	1	2	5	0	1	1	2
Total		84	44	9	9	62	5	8	15	28
			70%	15%	15%		18%	29%	53%	

^a Interaction is measured by percentage of /Xai/xai *lxaro* exchange partnerships ($n = 510$) that occur with persons in a given area (Wiessner 1982).

isons made with surrounding agriculturalists, although such comparisons were very common in other conversations. The finding that kindred ties and close affinal ties (but not ties of fictive kinship) define those who are comparable is not surprising among the !Kung, where kindred membership and affinal ties structure living arrangements (Lee 1979; Marshall 1976), locate people within the matrix of social relations to land (Wilmsen 1983), and form the basis on which most reciprocal relations proceed (Wiessner 1982). It might be added that comparisons made during conversations about other items of material culture, particularly store-bought ones, involved a much wider range of people, including agriculturalists.

Within the sphere of those defined as comparable through kinship, frequency of interaction has a marked effect on which individuals are chosen for comparison, as individuals tend to establish their identity vis-à-vis those with whom they interact most frequently. For instance, positive comparisons occur more frequently with fellow camp members and those living in the same area than with those living in distant areas. There is also a close correspondence between patterns of *hxaro* exchange and patterns of comparison, as shown in Table 1. *Hxaro* is reciprocal, obligatory exchange, in which the !Kung stipulate certain kindred members with whom they wish to keep reciprocal relations active, persons they "hold" or for whom they feel responsible. They maintain these relations by engaging in a delayed exchange of gifts, which gives information about the underlying relationship of reciprocity, one which structures interaction in that it allows one partner to obtain access to the resources and assistance of the other and vice versa (Wiessner 1977, 1981, 1982).

Negative comparisons took quite a different course from positive ones. Negative comparison with specific kindred members was avoided, and 53% of all negative comparisons, as opposed to 15% of all positive ones, were aimed at persons living in a particular group or area in general. Nonetheless, negative comparison was indirectly affected by kinship in that even negative comparisons took place most frequently with areas where San had the most active kinship ties (Table 1).

The dimensions along which persons were compared were generally related to the theme of "to walk softly." Positive comparisons were made along the following dimensions, which are listed according to their frequency of occurrence. Many comparisons included more than one of these topics: (1) kin relationships, (2) physical attributes, (3) discretion in conflict avoidance and conflict, and (4) lifestyle and way of making a living. The physical attributes mentioned referred to either age or lifestyle, i.e., manner of dress, fatness, way of moving and walking, and so on. Speakers usually included pantomime to conjure up the desired image. In contrast, negative comparison centered on: (1) manner of speaking and discretion in conflict avoidance, (2) physical attributes, as

above, (3) lifestyle and way of making a living, and (4) reciprocity. The content of comparisons made during conversations about beadwork differed markedly from that of conversations in everyday life. Positive comparison was more common than negative comparison, something which is not true in everyday life, where compliments are few and complaints many. Generosity, a topic that dominated everyday conversation, played a minor role in discussions about beadwork styles. Since style is a form of communication that involves commitment and cannot be easily altered with changing situations, it conveys the more stable aspects of identity relations, not the transitory relations that exist during fleeting quarrels about reciprocity.

The high frequency of negative comparisons with Tsumkwe San and the concern with topics such as discretion, manner of speaking, physical attributes, and lifestyle can be attributed to the rapid change occurring in the Tsumkwe area. These changes were of particular concern to /Xai/xai !Kung who were both attracted to the easier way of life at Tsumkwe and the possibility of having more possessions and repelled by the social problems which accompanied change.

In the above discussion, I have tried to demonstrate that San beaded headbands to play a role in the negotiation of personal and social identity relations via social comparison. Now I will explicate what an understanding of this behavioral basis for style can contribute to interpretation of variability in material culture on both local and regional scales.

STYLE AND SOCIAL IDENTIFICATION BETWEEN LANGUAGE GROUPS

San beaded headbands provide an excellent opportunity to look at stylistic variation over a broad region of approximately 150,000 km² because headbands carry similar associations for all San in the study, were worn on similar occasions, "when the heart soars," and were used by all San as important gifts in interpersonal gift exchange between kin in near and distant areas. The data in Tables 2, 3, and 4 give the frequencies of major designs, background designs, and headbands with the four types of design structures. Number of major and minor designs found on a headband and regularity and symmetry of design are not given, as there were no statistically significant differences in frequencies of these between areas, with the exception of Tsumkwe, which differed from other areas in every attribute measured, as will be discussed below. Three results stand out: (1) that headbands are virtually absent in G/wi areas even though an extensive effort was made to visit G/wi women who were said to be beadworkers, (2) that for all other areas the basic design repertory is similar despite the vast distances between areas and linguistic group

boundaries, and (3) that differences in design frequencies between adjacent areas in the northern !Kung region are much greater than those between areas 400 km apart, such as Dobe and Bere. These results are contrary to what generally would be expected by archaeologists, who generally assume that stylistic variation over space should give some indication of either the existence of group boundaries or the amount of interaction over them.

Let us now look at these results within the framework of identification via comparison, concentrating first on choice of persons and groups for comparison. Ethnographic data equal to that collected for /Xai/xai could not be obtained for San in all groups visited. However, at each study site (Fig. 1), San were asked to give general opinions about other people, starting with San in other bands and expanding outwardly to San in other areas, other linguistic groups, and on to surrounding agriculturalists. From 104 interviews with San conducted at the various study sites shown in Fig. 1, a general picture of relations among linguistic groups emerged. (It might be cautioned that conditions in the Ghanzi area and in neighboring areas are very different from farm to farm or village to village, and, at many sites not visited, relations may differ from those described here.)

Above all, the vast majority of San said that they felt completely at ease only with their own kindred members living in near and distant areas and with some affinal kin. Interest in San from other linguistic groups depended very much on location of the informant, with those living near the center of a linguistic group showing very little interest in other San, and vice versa. Most San shared a similar view of a loosely structured San hierarchy based on economic differences (see Barnard 1979; Cashdan 1983; Heinz 1972) and legitimized by beliefs about the magical power of trance healers in different groups. The !Kung were at the top of this hierarchy and were respected and feared by most for their powerful trance healers. Next came the Nharo who were followed by the !Xo and the G/wi, except in some of the southern study areas where the distinction between the !Xo and the G/wi broke down. The G//ana San who were mixed G/wi-Kalagadi (agriculturalists) and who lived side by side with the G/wi at Xadi Pan fell outside this hierarchy because of their affiliation with agriculturalists. Interviews with farm owners and government workers gave support to the above views about the relative positions of different groups of San. In addition, the inferior status of the G/wi is reflected in Silberbauer's observations that, "The G/wi consider themselves inferior to all other peoples in the extent of the progress they have made in discovering the means and techniques of overcoming problems besetting man as one of N!adima's creatures" (Silberbauer 1981:61).

Relations between adjacent groups in the San hierarchy were in most

cases good, and at points where the !Kung-Nharo, Nharo-!Xo, and !Xo-G/wi linguistic groups meet, there is much interaction and intermarriage, and relations are often ones of mutual support. San separated by one or more positions in the hierarchy, however, were either only vaguely known to one another, as with the !Kung and !Xo, or felt socially distant, with one group looking down on the other, as in the case of !Kung and G/wi or Nharo and G/wi. Thus, opinions expressed by Kalahari San indicate that, as proposed earlier, social structure guides the choice of people for comparison. Those in adjacent positions generally saw themselves as similar and comparable, but those separated by two or more steps, much less so.

Style in material culture was one of a number of means used by San to define themselves as comparable or incomparable in certain realms. For instance, the !Kung, !Xo, and Nharo made an effort to obtain expensive beads and engage in the time-consuming work of headband sewing in order to establish a comparable position vis-à-vis one another. Despite their knowledge of beadworking and their potential to obtain beads, the G/wi rarely engaged in the sewing of headbands, a craft which was strongly associated with the !Kung and Nharo, (although they did sew other items such as beaded aprons for children). They thereby avoided stating their position relative to other Kalahari San along dimensions associated with joy, plenty, and festive occasions in which trance healers played a role. Rather, they invested their meager resources in purchasing store-bought clothing and other "modern" goods to establish their identity as "farm workers" in the Ghanzi area, or, in the Xadi area, in adopting G//ana style clothing of carefully worked skins to emulate the G//ana who enjoyed a slightly higher standard of living based on part-time agriculture.

This lack of comparability along certain dimensions between !Kung and G/wi, as opposed to the comparability between G/wi and !Xo, can be seen in a number of other items of material culture. For instance, in metal-tipped arrows, size differences are so great between the !Kung and the G/wi that it is difficult to compare them on the basis of other attributes (Wiessner 1983). In contrast, G/wi and !Xo arrows are similar in size, but distinguishable by more subtle dimensions relating to shape, particularly tip shape. Styles in pubic aprons and in carving or polishing the handles of wooden tools are also incomparable between the !Kung and the G/wi, but not between the G/wi and the !Xo.

Among the !Kung, Nharo, and !Xo, who consider themselves as similar and who use headbands in negotiating identity relations, whether consciously or unconsciously, stylistic variation over space gives information about the nature of Kalahari San relationships. The data from comparisons made at /Xai/xai suggest that headbands participate in two kinds of

identity relationships. These are: (1) in strengthening relationships of loose but generally positive affiliation with kindred members and affinal kin, and (2) in negotiating individual identities and carving out individual niches. I found no evidence among any groups visited that headbands were regularly used in other social strategies, such as boundary maintenance or demonstrating conformity to norms, as were San projectile points (Wiessner 1983).

The stylistic result of expressing affiliation with kin on the one hand and individual differentiation on the other is the existence of a common repertory of shared design elements and structural variants throughout the study area, coupled with the use of specific design elements in such ways as to make most headbands unique. For instance, all major designs found in the three northern areas are also found at Bere, 400 km away, except for designs I and J (Fig. 2). Designs I and J form a special case in that they are borrowed from the pubic apron designs of the Mbukushu, agriculturalists who live along the western side of the Okavango Swamps (Fig. 1). Most San identified them as general Bantu designs, not specifically Mbukushu ones. At /Xai/xai, where Saa lived side by side with Bantu, five out of seven headbands found with I and J designs were made and owned by San women married to Bantu and thus less reluctant to express their identity in relation to Bantu. At Tsumkwe, a strictly San community, these designs were detached from their referents and ascribed to the invention of one of their leading beadworkers. They were used on 20% of all headbands, usually in combination with other San design elements and in the structural context of Kalahari San design.

Background designs were also widely shared among the Kalahari San, with all background designs found in the three northern areas also found at Bere, with the exception of stripes. Since there is no clear line between changing background colors and stripes, stripes might more appropriately be seen as the development of an existing design element rather than as a new one. San in southern areas who were shown headbands with striped backgrounds did not regard them as unfamiliar or foreign. All variants of design structure that were found in northern areas were also found at Bere, although headbands with complex combinations of major designs that broke with ideal structure were uncommon and regarded as atypical by San in the three southern areas. Thus, with a few exceptions, a common design repertory was shared by all groups in the study.

This shared design repertory appears to play an important role in expressing affiliation between kin in nearby and distant areas and most San are reluctant to make designs which fall outside of this repertory, if the headbands are to remain within the San community. For example, when presented with beadwork designs from other cultures, San found them beautiful but were not willing to incorporate elements of these designs in

their own work, saying "we do not want to copy these designs as we do not know the people who made them." The resistance of the design repertory to change, presumably because of its role in binding kin, is further illustrated by the fact that the repertory of design elements used in the northern !Kung areas today is the same as that used in the early fifties despite a great increase in the availability of beads (as can be seen by comparing current styles with those in photographs taken by the Marshalls in the early 1950s).

It was shown above with data from comparisons made at /Xai/xai (Table 1) that, among those who consider themselves comparable, choice of subjects for comparison was guided by frequency of interaction. Data on rates of exchange and interaction within and between areas indicate that interaction within areas is much greater than that between areas and that beyond a radius of 75–100 km, interaction drops off with distance (Wiessner 1977, 1981). It is surprising then that the frequencies of major and minor designs do not also drop off with distance. To the contrary, differences in design frequencies between neighboring areas are often greater than those between distant ones (see Tables 2 and 3). In terms of major designs, Tsumkwe stands out from /Xai/xai for the infrequent use of B designs ($\chi^2 = 8.46$, $df = 2$, $p < .025$), leaving /Xai/xai more similar to Bere which is 400 km away than to its neighboring community. Even more striking results can be seen in the use of background designs. Dobe stands out from /Xai/xai for its frequent use of small triangles and diamonds as background designs ($\chi^2 = 15.64$, $df = 3$, $p < .01$), even though /Xai/xai is only 30 km away and lifestyles in both areas are similar. Tsumkwe has significantly more headbands with changing background colors than does Dobe ($\chi^2 = 8.38$, $df = 2$, $p < .01$). Such differences are not found between southern areas. For example, no significant differences between frequencies of major designs ($\chi^2 = 3.29$, $df = 2$, $p > .10$) or background designs ($\chi^2 = 2.31$, $df = 2$, $p > .10$) were found between the Ghanzi !Kung and Bere !Xo, areas which are separated by approximately 200 km and whose residents have no direct contact. Frequencies of headbands with different structural variants also vary significantly from area to area in the north (Table 4), but not in the three southern areas, a finding which will be discussed below in the context of personal identity relations.

The fact that differences in the frequencies of major and background designs exist between areas with high rates of beadworking but not in areas with low rates can be attributed to the influence of the frequency of comparison on the social information contained in style. That is, in areas such as Tsumkwe, Dobe, and /Xai/xai where frequency of beadworking is high (the average woman had 0.9–3.5 headbands in northern areas as opposed to 0.2–0.3 in southern areas), women have more op-

TABLE 2
NUMBER AND FREQUENCY OF MAJOR DESIGNS BY AREA

Number of headbands	B		A		C		Belt designs D-F		Apron designs				Total ^a		
									G-H		I-J				
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Tsumkwe !Kung	22	4	11	15	43	4	11	3	9	2	6	7	20	35	100
Dobe !Kung	29	10	31	11	34	4	13	2	6	5	16	0	0	32	100
/Xai /xai !Kung	81	36	42	22	26	6	7	9	10	6	7	7	8	86	100
Ghanzi !Kung	13	2	15	6	46	2	16	3	23	0	0	0	0	13	100
Ghanzi Nharo	16	6	37	7	44	0	0	3	19	0	0	0	0	16	100
Bere !Xo	19	6	30	8	40	4	20	1	5	1	5	0	0	20	100
Total	180	64	32	69	34	20	10	21	10	14	7	14	7	202	100

^a A headband could have more than one major design.

TABLE 3
NUMBER AND FREQUENCY OF BACKGROUND DESIGNS BY AREA

Number of headbands	Plain		Changing colors		Stripes		Diamonds or triangles		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Tsumkwe !Kung	2	7	19	71	3	11	3	11	27	100
Dobe !Kung	5	14	14	37	3	8	15	41	37	100
/Xai /xai !Kung	29	29	43	42	17	17	12	12	101	100
Ghanzi !Kung	7	50	6	43	0	0	1	7	14	100
Ghanzi Nharo	7	37	8	42	0	0	4	21	19	100
Bere !Xo	9	47	9	47	0	0	1	6	19	100
Total	59	27	99	45	23	11	36	17	217	100

TABLE 4
NUMBER AND FREQUENCY OF HEADBANDS WITH DIFFERENT DESIGN STRUCTURES BY AREA

Number of headbands	Basic headband designs		Basic apron/belt design		Developed major design		Complex design format		Total		
	No.	%	No.	%	No.	%	No.	%	No.	%	
Tsumkwe !Kung	22	3	14	1	5	6	26	12	55	22	100
Dobe !Kung	29	7	24	4	14	13	45	5	17	29	100
/Xai/xai !Kung	81	35	43	16	20	22	27	8	10	81	100
Ghanzi !Kung	13	7	54	3	23	3	23	0	0	13	100
Ghanzi Nharo	16	11	68	3	19	2	13	0	0	16	100
Bere !Xo	19	14	73	2	11	2	11	1	5	19	100
Total	180	77	43	29	16	48	27	26	14	180	100

portunity to sit together, sew beads, and compare designs, both during manufacture and in daily life. Thus, they are able to develop common associations for certain styles, associations which will relate to collective aspects of life. In future stylistic choices, women will then use these common associations as referents in statements of personal and social identity. As a result, area-specific trends in design can develop. In northern areas, where opportunities for comparison are frequent, common areal associations for designs do develop, as we will see below. In the southern areas, however, comparison occurs too infrequently for this to happen. Consequently, although style participates in identity relations in both the northern and the southern areas, stylistic variation over space provides information on social groupings which would be available to archaeologists only in the northern areas where comparison is frequent.

STYLE AND SOCIAL IDENTIFICATION BETWEEN AREAS

Let us now take a closer look at stylistic variation in headbands in the northern !Kung areas, Tsumkwe, Dobe, and /Xai/xai, areas which are linked by dense networks of kinship, exchange, and visiting. In all three of these areas, rates of beadworking are high, and there are therefore frequent opportunities for women to engage in stylistic comparison. Interviews with San in the Dobe and /Xai/xai areas indicated that these opportunities for comparison allow certain styles to become associated with specific areas. For instance, of 10 women questioned at /Xai/xai, who were regular visitors to Tsumkwe, 3 saw no difference between /Xai/xai and Tsumkwe designs, but 7 said that Tsumkwe styles were more gaudy and complex than /Xai/xai designs. The complexity of Tsumkwe designs was also mentioned by both men and women in conversations about beadwork styles. In contrast, no woman interviewed could describe the differences between /Xai/xai and Dobe designs, although most felt that some differences did exist. When shown line drawings of possible design choices, 8 out of 10 /Xai/xai women questioned who had relatives at Dobe selected headbands with detailed background designs of triangles, diamonds, or stripes as being reminiscent of what they had seen on their visits to Dobe. Six out of 10 /Xai/xai women picked out B designs with plain backgrounds or backgrounds with regularly changing colors as being typical for /Xai/xai, as did 8 out of 10 women interviewed at Dobe who were regular visitors to /Xai/xai. Seven out of 9 Dobe women interviewed associated headbands with detailed background designs with their own area. Both Dobe and /Xai/xai women were unable to pick out designs which they associated with Tsumkwe, stating only that they were often

more cluttered and complex. I did not interview Tsumkwe women about designs at Dobe and /Xai/xai.

The stylistic differences recognized by the San can best be seen by dividing headbands into types. A type was defined as one major design or specific combination of major designs, with either a simple or a detailed background. Background designs were combined into two categories to avoid forming too many different types: (1) plain backgrounds or backgrounds with changing colors, and (2) detailed backgrounds—those with diamonds, triangles, or stripes. Thus, type A-d would consist of major design A with a detailed background and type B + J-s would consist of major designs B and J used in combination with a simple background. Headbands with basic forms of a given major design (Figs. 4A, B) and those with more developed forms of the same design (Figs. 4C, D) were included in the same type, as the San consider them to be the same design. The basic design repertory thus allows for 17 types (since designs such as Fig. 1D, E, and F fill the entire headband and cannot have detailed backgrounds). The number of possible types can be greatly expanded when the ideal format is broken and two or more major designs are used on one headband (Fig. 4E-G).

As can be seen in Table 5, there is no difference among the southern areas in the two most commonly used types, A-s and B-s. In contrast, in the northern areas the most commonly used types vary from area to area. At /Xai/xai, 27 headbands (33%) were of type B-s, and another 18 headbands (22%) were of type A-s. No other type included more than 6% of all /Xai/xai headbands. At Dobe, 9 headbands (31%) were of type B-d and another 4 headbands (14%) of type A-d. No other type included more than 10% of all headbands. I would suggest that these stylistic differences

TABLE 5
FREQUENCIES OF THE TWO MOST COMMON HEADBAND TYPES BY AREA

Area	No. of headbands recorded	Most common type ^a	First most common type		Second most common type		Total of these two types			
			No.	%	No.	%	No.	%	No.	%
Tsumkwe !Kung	22	A-s	7	32	I-s ^b	2	9	9	41	
Dobe !Kung	29	B-d	9	31	A-d	4	14	13	45	
/Xai/xai !Kung	81	B-s	27	33	A-s	18	22	45	56	
Ghanzi !Kung	13	A-s	6	46	B-s	2	15	8	62	
Ghanzi Nharo	16	A-s	6	38	B-s	4	25	10	63	
Bere !Xo	19	A-s	8	42	B-s	5	26	13	68	

^a Type designation: D-s, major design D with a simple background; A-d, major design A with a detailed background.

^b At Tsumkwe type D + M-s also included two headbands (9%).

between Dobe and /Xai/xai, which were recognized by the San, can largely be attributed to the higher rate of interaction within these areas than between them, interaction which appears to have some historical basis. Although !Kung memories are short, ethnographic evidence suggests that !Kung kinship systems, exchange networks, and systems of land tenure are structured in such a way as to promote continuity of personnel in an area through time (Wiessner 1981; Wilmsen 1983). There is no evidence that the stylistic differences found between Dobe and /Xai/xai are enhanced by inter-areal competition or desire for differentiation; to the contrary, San minimize inter-areal differences to facilitate mutual access to resources.

At Tsumkwe, as at Dobe and /Xai/xai, one type, A-s, includes 7 headbands (32%), another 2 types 2 headbands each (9%), and the remaining types 1 headband each (6%). Unlike Dobe and /Xai/xai, however, where only 5 and 8 headbands, respectively (17 and 10%), have complex combinations of major designs which depart from traditional format (Table 4), at Tsumkwe 12 headbands (55%) do. Interestingly, no woman interviewed associated the dominant type, A-s, with Tsumkwe. Rather, most women had trouble choosing a typical Tsumkwe design, stating only that Tsumkwe headbands were more complex than those at /Xai/xai and Dobe. Clearly, the 55% of Tsumkwe headbands which depart from traditional structure make a greater impression on !kung women than the single type which includes 32% of all headbands. Analysis of photographs taken in the early 1950s by the Marshalls indicates that current Tsumkwe design combinations are relatively new, as headbands with complex combinations of designs were very infrequently worn in the Tsumkwe-Nyae Nyae areas in the 1950s.

Unlike the stylistic differences found between /Xai/xai and Dobe, which were attributed to frequency of interaction, the stylistic developments which separate Tsumkwe from other areas appear to be due to change taking place within the Tsumkwe community, change which stems from economic developments and the settlement of San from several areas in one exclusively San community. Attitudes on the part of Dobe and /Xai/xai San toward developments in headband design at Tsumkwe were mixed, as were those about life at Tsumkwe in general. This ambivalence can be seen in the nearly equal number of positive and negative comparisons made with Tsumkwe San (Table 1). They considered Tsumkwe headbands to be beautiful and creative on one hand, and, on the other, gaudy and overdone, and reminiscent of the loud and indiscreet relations at Tsumkwe. Several informants mentioned that Tsumkwe headband designs were like "many people talking at once" as opposed to "to walk softly," thereby representing a change in the nature of social relations.

The departure of over half of the headbands found at Tsumkwe from traditional design structure raises some interesting questions. First, if, as argued earlier, sharing a common design repertory is a means of creating the social affiliation necessary to maintain interpersonal relations with those in other areas, how can Tsumkwe headbands regularly depart from this repertory and still be used to maintain such relations? Second, if style is a means of negotiating identity relations, then it must mediate between the identities of the giver and receiver. How can this be done by residents of an area like Tsumkwe, in which intra-areal developments bring about stylistic change which has important implications for identity relations, but whose patterns of exchange with other areas remain the same.

In answer to the first question, the stylistic innovations occurring in Tsumkwe headbands caused no problem when these were worn by Tsumkwe residents. Rather, they participated in redefining relations between Tsumkwe San and their neighbors in Botswana, notably in helping Botswana San to accept that social and economic relations at Tsumkwe were different. This was particularly important in *hxaro* exchange, in which it was necessary for Dobe and /Xai/xai San to realize that Tsumkwe San had, and thus needed, more possessions and, therefore, should not be leveled to economic standards at Dobe and Tsumkwe (Wiessner 1982).

However, in *hxaro* exchange these innovations and their corresponding connotations of changing norms and relations were not so easily accepted, particularly since headbands were preferred gifts to be given to the host upon arrival. Visitors to Botswana from Tsumkwe who were loud, immodest, and loaded with possessions often did arouse friction and jealousy which endangered camp stability. As a result, in selecting *hxaro* gifts, Tsumkwe San chose headbands with designs which would show knowledge and respect to the values and norms governing relations at Dobe and /Xai/xai; in other words, designs resembling those worn in Botswana. These choices can be seen in Table 6, which compares major designs and the design structure of headbands made at /Xai/xai with those made or originating at Tsumkwe, but given as gifts to /Xai/xai residents. Headbands owned by Tsumkwe residents and those owned by /Xai/xai residents differ significantly in frequencies of major designs used ($\chi^2 = 8.46$, $df = 2$, $p < .025$; Table 2) and in frequencies of headbands with complex design formats ($\chi^2 = 21.6$, $df = 1$, $p < .01$; Table 4) while no such significant differences were found either in major designs or design structure between headbands made at /Xai/xai and those received as gifts from Tsumkwe residents. Thus, in the case of gift exchange, which symbolizes an underlying relationship of mutual access to resources between persons of equal social standing, styles are chosen to conform to those

TABLE 6
COMPARISON OF DESIGNS AND DESIGN STRUCTURE ON HEADBANDS MADE AT /Xai/xai WITH HEADBANDS RECEIVED IN *htaro* EXCHANGE FROM
Tsumkwe VISITORS

	<i>N</i> ^a	Major Designs					Total				
		A	B		I–J	Others	Total				
/Xai/xai headbands Tsumkwe gifts	54	15	27%	22	39%	4	7%	15	27%	56	100%
	19	8	33%	9	37%	3	13%	4	17%	24	100%
		Structural Variations									
<i>N</i>		Basic headband designs	Basic apron/ belt design		Developed major design		Complex design format		Total		
/Xai/xai headbands Tsumkwe gifts	54	26	49%	11	20%	13	24%	4	7%	54	100%
	19	7	37%	4	21%	5	26%	3	16%	19	100%

^a *N* = number of headbands; one headband may have two or more major designs.

of the host area, thereby demonstrating both knowledge and respect of the rights, values, and practices of persons in the area visited.

STYLE AND PERSONAL IDENTIFICATION

Having obtained a regional and an areal view of how headband styles are used in social identity relationships, it is now possible to see how style in San headbands operates in personal identity relationships. Here, I will try to show that the amount of personal conformity or differentiation expressed in style can be a valuable indicator of both the nature of interpersonal relations and of the balance between personal and group interests.

As mentioned above, in interpersonal relations San place a high value on respect of individuality and put substantial effort into differentiating themselves from similar others. The individual autonomy desired by the San has a sound basis in traditional San life. First, the requirements of the hunting and gathering way of life are such that individuals and families often must carry out activities alone and make decisions autonomously (Lee 1982; Silberbauer 1981). Second, a high degree of individual differentiation allows San to occupy different niches, thereby avoiding competition and fostering mutual dependence. Third, the San social security network, which is based on giving and sharing (Weissner 1981, 1982), causes a conflict in most individuals between the desire to possess and the necessity to give away (Lee 1982; Marshall 1976; Wiessner 1982). This conflict is accentuated as San are increasingly attracted by the lifestyles of surrounding agriculturalists which allow for greater accumulation of private property. The social obligation to conform to norms and share is masked by the recognition and respect allotted to the individual—even if San must share, they feel in control of decisions concerning what they will produce and with whom they will share it.

Material culture and other outlets for self-expression such as dance, music, and storytelling are widely used by San to gain individual respect and recognition. In the past, such recognition was easy to obtain, because bands were made up of experts who complemented each other in various skills. In selecting artifacts for self-expression, San would compare their skills and artifacts with those of surrounding others and choose to invest effort into decorating or shaping artifacts in which others invested little effort (Wiessner 1983). For beadwork, this was still the case in the southern groups visited, where approximately one out of three women knew the craft of beadworking.

Today, it is increasingly difficult for San to obtain individual recognition because they spend much of the year in larger communities at permanent waters where there are numerous San with similar skills. As the need to

express individual identity increases, traditional items of material culture through which San can do so are rapidly being replaced with store-bought items. In addition, rapid change, which has markedly different effects from area to area, increases the need for some common currency through which San identity relations can be worked out. In the northern parts of the study area, among the !Kung, one currency is beadwork, and three out of four women interviewed knew the craft of beadworking. The choice of beadwork as a means of expressing intra-San relations among the !Kung can be attributed to: (1) the strong !Kung tradition of beadworking, (2) the widespread availability of beads, (3) the admiration for beadwork expressed by surrounding agriculturalists, and (4) an attempt on the part of women to maintain their influence in social networks as San become more integrated in dominant male-oriented agricultural societies.

With the increasing use of beadwork in personal and social identification, the repertory of designs shown in Figs. 2 and 3 does not leave much leeway for personal expression. It allows for a maximum of 17 types, only 6 of which are made up of the preferred headband designs A, B, and C. Thus, women must seek new ways of expressing individuality, particularly those who pride themselves in being "experts" in beadworking. Two separate measures will be used to describe the increasing diversity achieved in headband styles. The first gives the overall diversity of the design repertory used in terms of number of different types found in an area relative to number of headbands recorded in that area. This measure is further broken down into number of types formed by combining several basic major designs to create new types with complex formats (Figs. 4E, F, and G) and number of types formed by basic designs. Since 41 to 81% of all headbands, depending on the area, fall within four types, A-simple, B-simple, A-detailed, and B-detailed, a second measure is used to describe amount of diversity within these types, that is, the percentage of headbands within these four major types that have developed major designs, elaborated from their more basic counterparts (Figs. 4C, D). As can be seen by comparing the figures in Tables 4 and 7, it is very unusual for designs other than A and B to have developed major designs.

The data in Table 7 indicate that as the frequency of beadworking increases, so does the diversity and complexity of the design repertory. This is achieved by both expanding the number of types used and developing the internal structure of the four basic major designs. Five to seven types are used in the three southern areas, while at /Xai/xai, 19 types are used, within 5 of these (26%) achieved by combining one or more major designs into complex combinations. Despite this expansion of the design repertory, the number of headbands per type remains much lower in the southern areas than at /Xai/xai, 2.7 headbands per type as

TABLE 7
MEASURES OF HEADBAND DIVERSITY IN THE SIX STUDY AREAS

	N	No. of types	No. of types/N	No. types with complex formats		Headbands with basic A and B designs		Headbands with developed A or B designs	
				No.	%	No.	%	No.	%
Tsumkwe !Kung	22	14	1.6	8	57	9	41	6	67
Dobe !Kung	29	13	2.3	4	31	17	59	13	76
/Xai/xai !Kung	81	19	4.3	5	26	55	68	22	40
Ghanzi !Kung	13	5	2.6	0	0	8	62	3	37
Ghanzi Nharo	16	6	2.7	0	0	13	81	2	15
Bere !Xo	19	7	2.7	1	14	13	68	2	15

opposed to 4.3, and so equal diversity of the design repertory is not achieved. I would suggest that this is due to the fact that at the time of the study, both Wilmsen and I periodically gave beads to /Xai/xai women, creating a temporary surge in beadworking, with innovations for maintaining differentiation lagging behind this surge. For the 55 headbands at /Xai/xai (68%) which used A or B types, 22 (40%) of these had developed major designs as opposed to 15% of headbands using A or B types in the Nharo and !Xo areas, a difference which is not, however, statistically significant ($\chi^2 = 2.54$, $df = 2$, $p > .10$). The Ghanzi !Kung had about the same percentage (37%) of A- and B-type headbands with developed major designs as did the !Kung at /Xai/xai. This might be due to the fact that Ghanzi !Kung women periodically visit relatives at Tsumkwe and /Xai/xai and are influenced by developments taking place in these areas.

At Dobe, the number of types found, 13, is twice that of southern areas and slightly less than that of /Xai/xai. Four of these 13 types (31%) are achieved by combining two or more major designs to form complex combinations that depart from traditional format. The number of headbands per type falls sharply from 4.3 at /Xai/xai to 2.3 at Dobe, a level similar to that of the southern areas. The percentage of headbands with A or B types having developed major designs increases from 40 at /Xai/xai to 76 at Dobe, but this is not a statistically significant difference ($\chi^2 = 2.15$, $df = 1$, $p > .10$). Thus, Dobe headbands can be said to be somewhat more diverse than those at /Xai/xai. Although a similar impetus for beadworking was provided by anthropologists at Dobe, this occurred 7 to 10 years prior to this study, and so the diversity of styles created undoubtedly had had time to adjust to the increased frequency in beadworking.

Dobe headbands appear to have reached the limits of complexity which traditional format can contain. There is some evidence that pressures to conform to social standards keep Dobe beadworkers within these limits when making headbands to be used in San communities, despite a growing interest on the part of many beadworkers in experimenting with design. For instance, when beadworkers were commissioned by Marjorie Shostak to make beadwork to be sold back to her, eight of nine headbands made involved very unusual, complex combinations of designs, and only one a basic, traditional design which remained within the ideal headband format. In contrast, of seven headbands purchased by Shostak which were not commissioned, only two broke with traditional format. It would be interesting to see if, in the absence of further culture change at Dobe, the process of comparison and differentiation would eventually lead back to more simple headband designs, creating a typical fashion swing as described by Kroeber and Richardson (1940) and Lowe and Lowe (1982).

At Tsumkwe, where pressures toward individual differentiation are even higher, the diversity in headband styles increases sharply. The

number of types found remains similar to that at Dobe, but the number of types formed by combining major designs into complex combinations increases from four (31%) at Dobe to eight (57%) at Tsumkwe. The average number of headbands per type drops from 2.3 at Dobe to 1.6 at Tsumkwe. Of the nine (41%) headbands with types A and B designs, six (67%) have developed major designs. Unlike the changes in headband styles at Dobe, which consist largely of developing major designs A and B, diversity at Tsumkwe is achieved by creating new combinations of designs which share no direction in their development other than a trend towards increasing complexity. As mentioned before, these designs are described by some San as being reminiscent of "many people talking at once," and express the disorientation in social identity occurring at Tsumkwe.

The stylistic disorientation of design at Tsumkwe exhibited in the 55% of all headbands which depart from traditional design raises the interesting question of why structural change in design is occurring at Tsumkwe, when culture change is altering the norms and values in all of the study areas, particularly at Ghanzi. I think that at least part of the answer to this question can be found in the fact that the stylistic developments occurring at Tsumkwe are due to accentuated individual differentiation, in combination with the disappearance of social norms which contain individual interest and regulate social relations. At Tsumkwe, the norms and values expressed by "to walk softly" had not yet been replaced. In all other study areas, change is leading San toward increasing integration with dominant agricultural societies who provide means of regulating social relations which cannot be provided by the San themselves. This change has been going on throughout the period in which glass beadworking developed (Denbow 1983; Schrire 1980; Wilmsen 1982). Only at Tsumkwe, an area artificially restricted to San, were appointed San leaders not able to provide new group orientation in the face of rapid change (Lee and Hurlich 1982).

The structural changes found in San beadwork designs at Tsumkwe provide one of the few examples of such which can be seen in San material culture. In most cases, when San come into contact with surrounding agriculturalists, traditional San artifacts are gradually abandoned and replaced by store-bought ones as new dimensions for comparison are established. This is first done by more progressive individuals and eventually by most. The exceptional conditions which lead San to continue to use beadwork in negotiating identity relations in the face of change have been discussed above. Glass-beaded headband structure, an expression of social norms and constraints developed during a period in which surrounding cultures had an increasing impact on San life, was found to be very robust. In only one set of conditions was differentiation

expressed by departure from traditional structure. These conditions occurred at Tsumkwe, where pressures toward increased individual differentiation occurred in combination with a waning of social norms which had previously guided social interaction. In the absence of new leadership and social orientation, these norms had not yet been replaced by others which might restrain individual interest for group benefit. Thus, individuals felt free to create new styles according to their needs to differentiate themselves from surrounding others, without feeling the restrictions of common structural limits.

It should be evident from the above discussion of identity and comparison that the Tsumkwe situation is only one of several situations which could lead to differentiation via departure from traditional structure. Others could occur as a result of changes in leadership which provide new social direction, group differentiation in which one group makes itself incomparable with certain others, and so on. Structural changes in design presumably would follow different courses and not exhibit the same disorientation in such cases.

DISCUSSION AND ARCHAEOLOGICAL IMPLICATIONS

Levels of Stylistic Variability

Personal and social identification via comparison as a behavioral basis for style implies that people will negotiate two aspects of identity, personal and social, through style, and thus that style has the potential to contain information on harmony and tensions in a society caused by balance or imbalance between these two aspects of identity as well as relative changes in this balance through time. Since both aspects appear to be necessary for identity formation, states of extreme stylistic conformity or extreme stylistic disorientation might provide information on the contradictions between personal and social aspects of identity. This information would make a valuable contribution to our understanding of past social systems, particularly in view of current discussions of the conflict between individual and group interests in both sociobiology and archaeology (Hodder 1982c; Tilley 1982).

The variety of dimensions and levels along which such comparisons take place raises an interesting point regarding the social information contained in style that could be available to archaeologists. Even though identity relations have been argued to have personal and social components, under most circumstances daily comparison will occur at the level of the individual, not at that of a group acting as a whole. Under these circumstances, individuals may associate different referents with different stylistic attributes. For instance, among the !Kung, a given design might

evoke comparison on the basis of physical attributes, which are elements of personal identity, kin relatedness, which is an aspect of social identity, or on the basis of lifestyle, a dimension which is associated with place and the social identity of persons living there. When there is no unity of association of specific designs or elements of design structure with social dimensions of identity, even though people may use style to negotiate certain aspects of their social identity, stylistic variation over space will not yield information about group boundaries. However, a number of conditions may reduce the number of associations evoked by a given stylistic feature: (1) The frequency with which an artifact occurs in a population and thus is subject to comparison—in the absence of regular comparison, a given style might not be used frequently enough in any given context to develop common associations for all group members; (2) a specific functional or symbolic role of an artifact which would limit possible referents; (3) stress and competition between persons or groups which enhance comparison along certain dimensions—comparison in the face of competition allows participants to obtain a better idea of their position and to formulate appropriate strategies for social interaction; and (4) a stable history between people over time, which allows specific styles to become associated with certain referents.

Style within a Cultural Context

Choices of subjects for social and stylistic comparison are guided by existing cultural structures, and, thus, information concerning these structures and changes taking place within them can be obtained by looking at patterns of comparability, as expressed in variation in material culture both over space and between social groups. Lack of stylistic comparability can stem from a number of sources: (1) lack of knowledge of another group and its material culture, (2) desire to avoid comparison and statement of identity relative to that of certain other persons or groups, or (3) a conscious attempt on the part of individuals or groups to make themselves incomparable with certain others; in other words, to disrupt similarity.

Only under certain conditions, which promote the frequency and/or intensity of comparison, will style take on collective associations and thus have the potential to delimit the boundaries of social groups. In the Kalahari San data, the influence of frequency of beadworking was so strong that, had the high rate of beadworking in northern areas and low rate in southern ones not been taken into consideration, the loosely knit band clusters of the northern areas would have appeared as coherent social units, and the tightly knit ones of the southern areas would not have shown up as social units at all.

Personal and social identification via comparison as a behavioral basis for style suggests that style should be able to be used to negotiate a wide variety of relationships, those of affiliation, solidarity, complementarity, emulation, coercion, rejection, interruption, differentiation, and so on. Since stylistic strategies used to achieve these goals should also differ, it should be possible to derive some information on the nature of various identity relationships from style. The recent trend toward viewing style as an active means of information transfer (Conkey 1978, 1980; Hodder 1982a; Wobst 1977) has opened the door for exploring the wide variety of relationships negotiated by style. However, in hunter-gatherer studies, because of the predominantly ecologically oriented questions which have been asked, style has been regarded as a means of either creating the social solidarity or maintaining the social boundaries necessary to redistribute people over social and natural resources (Conkey 1978, 1980; Gamble 1983; Hayden 1982; Lewis-Williams 1981; Wiessner 1983; Wobst 1976). Although these studies have yielded insights into present and past social geography, they have neglected the fact that many different kinds of relationships can exist along these two opposing dimensions of affiliation and differentiation. For instance, headband styles among the San foster one type of affiliation and arrow styles another. Headband styles help create social solidarity through expressing complementarity of roles and thereby promoting mutual dependencies. In contrast, arrow styles participate in strengthening relations of social solidarity within language groups by expressing conformity to norms and playing down individual and areal differences. In the former case, the stylistic strategy used is a high degree of interindividual differentiation, which remains within the bounds of a shared design repertory, and in the latter, the strategy is conformity to a very narrow range of variation in specific attributes, which makes arrows from an entire linguistic group appear similar in many respects (Wiessner 1983).

The departure from a model which stipulates that stylistic similarity promotes affiliation and stylistic dissimilarity differentiation raises the problem of how to interpret the nature of relationships created by certain stylistic strategies, particularly since a single strategy can be used to create not one, but several, kinds of identity relationships. For instance, stylistic differentiation can either create complementarity, which fosters affiliation, or it can create differentiation, which inhibits interaction. In such cases, context and history will be critical in stylistic interpretation, as has been recently stressed in contextual archaeology (Hodder 1982a, 1982c). However, I would also argue that there is a possibility that the range of relationships created by certain stylistic strategies is not infinite, but will follow basic procedures of human etiquette which are currently being identified in human ethology (Eibl-Eibesfeldt 1979; Heeschen,

Schiefenhövel, and Eibl-Eibesfeldt 1980). For instance, copying, a strategy which involves a transgression of personal space, would be likely to be used in relationships of extreme closeness between individuals, relations of dominance, or in relationships where individual expression is willingly made subservient to group interest, and not used in relationships in which personal space is respected. Defining the general rules which govern the use of certain stylistic strategies in achieving social goals should provide important guidelines for stylistic interpretation.

Regional Aspects of Style

We have noted above that, where frequency of beadworking is high (i.e., our northern areas) and, therefore, opportunities for comparison many, style does provide some measure of interaction within the realm of those who are comparable (e.g., among San). However, frequent comparison alone does not appear to be a sufficient condition for stylistic variation over space to provide information on differential rates of interaction. Rather, nature of interaction also plays an important role. For example, in the northern San areas, both arrows and beadwork occurred frequently enough for San to develop common associations with certain styles, but stylistic variation in headband styles over space provided information on rates of interaction within and between areas, while that in arrows did not (Wiessner 1983). I suggest that this is because the two artifacts participated in creating very different relationships of affiliation, headband designs stressing individuality and fostering complementary relationships, and arrow styles conforming to norms and facilitating inter-areal interaction by playing down differences. This conformity still left some room for individual and social expression, but apparently not enough for area-specific styles to develop on the basis of differential rates of interaction alone (Wiessner 1983).

Identification via comparison as a behavioral basis for style gives a theoretical basis from which to address also the issue of the effect of exchange on style. That is, if style is seen as a means of identification, then in exchange it must mediate between the identity of the giver and that of the receiver. If information on the origins of artifacts exchanged is available, then analysis of styles in items exchanged should provide some information on the nature of the identity relationships mediated by style. In the context of !Kung San *hxaro* exchange, the giver expresses knowledge of, and respect for, the receiver (who in most cases is also his host) stylistically as part of a strategy to gain access to resources. Interestingly, this use of style follows a strategy for requesting found to exist in many contexts in a wide variety of societies (Eibl-Eibesfeldt 1983b); that is, first an acknowledgment of possession and respect of possession

and only then a request. Certainly, in other kinds of exchange stylistic strategies will differ. In relationships involving dominance, one person or group might be expected to impose its style on another. In other relationships, style might be used to identify the donor and recipient and to substantiate the relationship between them (Eibl-Eibesfeldt 1983a; Graves 1982). As suggested earlier, for relationships of different natures, it is unlikely that any given stylistic strategy will be used in an infinite variety of exchange relationships, and identifying the range of relationships which can be negotiated by a single strategy will provide guidelines for interpreting the nature of exchange relationships.

TOWARD A GENERAL THEORY OF STYLE

In this paper I have tried to outline a behavioral basis for style from which a theory of style can be developed. It should be cautioned that this behavioral basis will not lie at the root of all formal variation in material culture which has been called style by archaeologists. However, I suggest that it will be the basis for a large part of the variation in material culture which is designed for use in social strategies, whether consciously or unconsciously. The recent emphasis on the active role of material culture in social relations (Conkey 1978, 1980; Hodder 1982a, 1982b; Plog 1980; Wobst 1977) has neglected the fact that not all material culture functions in such a way, and, thus, not all variation which has been labeled "style" can be understood in this light.

Recognizing that personal and social identification via comparison forms the primary behavioral basis for style provides some insights into the strengths and weaknesses of other theories of style. It supports the view of style as playing an active role in negotiating social relations as proposed by the information theory approach to style (Wobst 1977; Conkey 1978, 1980; Plog 1980; and others). However, it provides no basis upon which to predict that efficiency per se should be a major concern in choosing style as a means of communication. To the contrary, extravagance is often an effective strategy in identity displays. Without the assumption that efficiency guides the use of style as a form of communication, information theory as it now stands has little predictive or interpretive value for style.

The behavioral basis for style proposed here should clarify two points regarding the social interaction, or learning, theory of style (Plog 1980). First, the social interaction theory of style has been used to account for at least two very different types of variation, that in artifacts which are used in negotiating social relationships and that in artifacts which are not. Second, for items of material culture which do play an active role in social relationships, identification through comparison provides a basis for the

assumption commonly made by archaeologists that style can provide a measure of interaction. However, it suggests that style can only do so within the realm of those who are defined as comparable, under certain conditions, and in the context of certain types of relationships. The contexts in which stylistic variation over space can be used as a measure of interaction need to be further explored.

Identification via comparison as a behavioral basis for style shares the emphasis which contextual archaeologists place on the active role of material culture in social relations and on the importance of cultural and historical context in stylistic interpretation. Context cannot be ignored in identification via comparison since cultural and symbolic structures define persons and styles as comparable, and identity is negotiated in relation to these, not in any absolute sense. However, it departs from a contextual approach in that style is argued to have its roots in a basic human cognitive process and, thus, that a theory of style can only be developed if this process is understood. In addition, some suggestions were made concerning the possibility that certain stylistic strategies participate in creating a limited number of relationships. If such general links between stylistic strategies and resulting social goals can be identified, they should greatly facilitate stylistic interpretation.

In conclusion, providing a behavioral basis for style is only a first step in the development of a theory of style. Understanding the behavioral basis for style, however, clarifies a number of questions which must be investigated in developing such a theory. Among these are: (1) Which conditions favor the use of style as a means of negotiating personal and social identity relations? (2) How can formal variation in material culture which is generated through the process of identification via comparison be distinguished from variation stemming from other sources? (3) Under what conditions will style provide information on social identity which will be available to archaeologists? (4) What is the range of possible relationships which can be created by certain stylistic strategies? (5) Can information on tensions and harmony within a society be obtained by looking at changes in the balance between expressions of personal and social identity through time and, if so, under what conditions is personal differentiation accentuated? In other words, a theory of style must specify how style is used as a means of communication in the process of personal and social identification via comparison and how much information about these identity relationships can be derived from style by archaeologists.

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REFERENCES CITED

- Barnard, A.
1979 Kalahari Bushman settlement patterns. In *Social and ecological systems*, edited by R. Burnham and R. F. Ellen, pp. 131–144. Academic Press, New York.
- Binford, L. R.
1963 "Red ochre" caches from the Michigan area: a possible case of cultural drift. *Southwestern Journal of Anthropology* 14:89–108.
- Cashdan, E.
1983 Territoriality among human foragers: Ecological models and an application to four Bushman groups. *Current Anthropology* 24:47–66.
- Codol, J. P.
1981 Une approche cognitive du sentiment d'identité. *Social Science Information* 20:111–136.
- Conkey, M. W.
1978 Style and information in cultural evolution: toward a predictive model for the Paleolithic. In *Social archaeology*, edited by Charles L. Redman et al., pp. 61–85. Academic Press, New York.
1980 Context, structure, and efficacy in Paleolithic art and design. In *Symbol as sense*, edited by M. L. Foster and S. Brandes, pp. 225–248. Academic Press, New York.
1982 Boundedness in art and society. In *Symbolic and contextual archaeology*, edited by I. Hodder, pp. 115–128. Cambridge Univ. Press, Cambridge.
- Crook, J. H.
1981 The evolutionary ethology of social processes in man. In *Group cohesion*, edited by H. Kellerman, pp. 86–108. Grune & Stratton, New York.
- Deetz, J. F.
1965 *The dynamics of stylistic change in Arikara ceramics*. Illinois Studies in Anthropology 4. Univ. of Illinois Press, Urbana.
- Denbow, J. R.
1983 *Prehistoric herders and foragers of the Kalahari: the evidence for 1500 years of interaction*. Paper presented for The Reimer's Foundation Third International Conference on Hunting and Gathering Societies, Bad Homburg, West Germany.
- Eibl-Eibesfeldt, I.
1979 Human ethology: concepts and implications for the sciences of man. *The Behavioral and Brain Sciences* 2:1–57.
1983a *The biological foundation of aesthetics*. Paper presented at The Reimer's Foundation symposium on The Biological Basis of Aesthetics, Bad Homburg, West Germany.
1983b *The four roots of possession*. Paper presented at The Reimer's Foundation Third International Conference on Hunting and Gathering Societies, Bad Homburg, West Germany.

- Festinger, L.
1954 A theory of social comparison processes. *Human Relations* 7:117–140.
- Fromkin, H. L.
1972 Feelings of interpersonal undistinctiveness: an unpleasant affective state. *Journal of Experimental Research in Personality* 6:178–185.
- Gamble, C.
1983 Culture and society in the Upper Paleolithic of Europe. In *Hunter-gatherer economy in prehistory: A european perspective*, edited by G. Bailey, pp. 201–211. Cambridge Univ. Press, Cambridge.
- Gergen, K. J.
1971 *The concept of self*. Holt, Rinehart & Winston, New York.
- Graves, M. W.
1982 Breaking down ceramic variation: testing models of White Mountain Redware design style development. *Journal of Anthropological Archaeology* 1:305–354.
- Guenther, M.
1976 From hunters to squatters. In *Kalahari hunter-gatherers*, edited by R. B. Lee and I. DeVore, pp. 120–133. Harvard Univ. Press, Cambridge, Mass.
- Hayden, B.
1982 Interaction parameters and the demise of paleo-Indian craftsmanship. *Plains Anthropology* 27:109–122.
- Heeschen, V., W. Schiefenhövel, and I. Eibl-Eibesfeldt
1980 Requesting, giving and taking: the relationship between verbal and nonverbal behavior in the speech community of the Eipo, Irian Jaya. In *Verbal and non-verbal communication*, edited by R. M. Key, pp. 139–166. Mouton, The Hague.
- Heinz, H. J.
1972 Territoriality among the Bushmen in general and the !Ko in particular. *Anthropos* 67:405–416.
1979 The nexus complex among the !Xô Bushmen of Botswana. *Anthropos* 74:465–480.
- Hill, J. N.
1970 Prehistoric social organization in the American Southwest: theory and method. In *Reconstructing prehistoric pueblo social organization*, edited by W. A. Longacre, pp. 11–58. Univ. of New Mexico Press, Albuquerque.
- Hodder, I.
1982a *Symbols in action*. Cambridge Univ. Press, Cambridge.
1982b. (editor) *Symbolic and contextual archaeology*. Cambridge Univ. Press, Cambridge.
1982c Theoretical archaeology: a reactionary view. In *Symbolic and contextual archaeology*, edited by I. Hodder, pp. 1–16. Cambridge Univ. Press, Cambridge.
- Jones, S. C., and D. T. Regan
1974 Ability evaluation through social comparison. *Journal of Experimental Social Psychology* 10:133–146.
- Kroeber, A., and J. Richardson
1940 Three centuries of women's dress fashions: a quantitative analysis. *University of California Anthropological Records* 5:111–154.
- Lee, R. B.
1979 *The !Kung San: men, women and work in a foraging society*. Cambridge Univ. Press, Cambridge.
1982 Politics, sexual and non-sexual, in an egalitarian society. In *Politics and history in band societies*, edited by E. Leacock and R. B. Lee, pp. 37–60. Cambridge Univ. Press, Cambridge.

- Lee, R. B., and S. Hurlich
 1982 From foragers to fighters: South Africa's militarization of the Namibian San. In *Politics and history in band societies*, edited by E. Leacock and R. Lee, pp. 327-346. Cambridge Univ. Press, Cambridge.
- Lemaine, G.
 1974 Social differentiation and social originality. *European Journal of Social Psychology* 4:17-52.
- Lemaine, G., J. Kastersztein, and B. Personnaz
 1978 Social differentiation. In *Differentiation between social groups*, edited by H. Tajfel, pp. 269-299. Academic Press, London.
- Lewis-Williams, J. D.
 1981 *Believing and seeing: symbolic meanings in southern San rock paintings*. Academic Press, New York.
- Longacre, W. A.
 1970 Archaeology as anthropology: a case study. *University of Arizona, Anthropological Papers* 17.
- Lowe, J. W. G., and E. D. Lowe
 1982 Cultural pattern and process: a study of stylistic change in women's dress. *American Anthropologist* 84:521-544.
- Marshall, L.
 1976 *The !Kung of Nyae Nyae*. Harvard Univ. Press, Cambridge, Mass.
- Oken, D.
 1973 Alienation and identity: some comments on adolescence, the counter culture and contemporary adaptations. In *Alienation: concept, term and meanings*, edited by F. Johnson, pp. 83-110. Seminar Press, New York.
- Plog, S.
 1980 *Stylistic variation in prehistoric ceramics: design analysis in the American Southwest*. Cambridge Univ. Press, Cambridge.
- Sackett, J. R.
 1982 Approaches to style in lithic archaeology. *Journal of Anthropological Archaeology* 1:59-112.
- Schrire, C.
 1980 An inquiry into the evolutionary status and apparent identity of San hunter-gatherers. *Human Ecology* 8:9-31.
- Silberbauer, G. B.
 1981 *Hunter and habitat in the Central Kalahari Desert*. Cambridge Univ. Press, Cambridge.
- Singer, J. E.
 1966 Social comparison: progress and issues. *Journal of Experimental Social Psychology*, Supplement 1:103-110.
- Strathern, A., and M. Strathern
 1971 *Self decoration in Mount Hagen*. Gerald Duckworth, London.
- Tajfel, H.
 1972 La catégorisation sociale. In *Introduction à la psychologie sociale*, Vol. 1, edited by S. Moscovici, pp. 272-302.
 1974 Social identity and intergroup behavior. *Social Science Information* 13:65-93.
 1978 (editor) *Differentiation between social groups*. Academic Press, New York.
 1982a Introduction. In *Social identity and intergroup relations*, edited by H. Tajfel, pp. 1-11. Academic Press, New York.
 1982b (editor) *Social identity and intergroup relations*. Cambridge Univ. Press, Cambridge.

- Tanaka, G.
1980 *The San, hunter-gatherers of the Kalahari: a study in ecological anthropology*. Translated by D. Hughes. Univ. of Tokyo Press, Tokyo.
- Tilley, C.
1982 Social formation, social structure and social change. In *Symbolic and contextual archaeology*, edited by I. Hodder, pp. 26–38. Cambridge Univ. Press, Cambridge.
- Turner, J.
1975 Social comparison and social identity: some prospects for intergroup behavior. *European Journal of Social Psychology* 5:5–34.
1978 Social categorization and social group discrimination in the minimal group paradigm. In *Differentiation between social groups*, edited by H. J. Tajfel, pp. 101–140. Academic Press, London.
1982 Towards a redefinition of the social group. In *Social identity and intergroup relations*, edited by H. Tajfel, pp. 15–39. Cambridge Univ. Press, Cambridge.
- Wetherell, N.
1982 Cross cultural studies of minimal groups: implications for the social identity theory of intergroup relations. In *Social identity and intergroup relations*, edited by H. Tajfel, pp. 207–240. Cambridge Univ. Press, Cambridge.
- Whallon, R.
1968 Investigations of late prehistoric social organization in New York State. In *New perspectives in archaeology*, edited by S. R. Binford and L. R. Binford, pp. 223–244. Aldine, Chicago.
- Wiessner, P.
1977 *Hxaro: A regional system of reciprocity for reducing risk among the !Kung San*. Ph.D. dissertation, Department of Anthropology, University of Michigan. University Microfilms, Ann Arbor.
1981 Measuring the impact of social ties on nutritional status among the !Kung San. *Social Science Information* 20:641–678.
1982 Risk, reciprocity and social influences on !Kung San economics. In *Politics and history in band societies*, edited by E. R. Leacock and R. B. Lee, pp. 61–84. Cambridge Univ. Press, Cambridge.
1983 Style and social information in Kalahari San projectile points. *American Antiquity* 48:253–276.
- Wilmsen, E. N.
1982 Exchange, interaction and settlement in northwestern Botswana: past and present perspectives. In *Proceedings of the symposium on settlement in Botswana*, edited by R. Hitchcock and M. Smith, pp. 98–109. Heinemann, Johannesburg.
1983 *Those who have each other: land tenure of Kalahari foragers*. Paper presented for The Reimer's Foundation Third International Conference on Hunting and Gathering Societies, Bad Homburg, West Germany.
- Wobst, H. M.
1976 Locational relationships in Paleolithic society. *Journal of Human Evolution* 5:49–58.
1977 Stylistic behavior and information exchange. In *For the director: research essays in honor of James B. Griffin*, edited by Charles E. Cleland, pp. 317–342. University of Michigan Museum of Anthropology, *Anthropological Papers* 61.
- Zavalloni, M.
1973 L'identité psychosociale, un concept à la recherche d'une science. In *Introduction à la psychologie sociale*, Vol. 2, edited by S. Moscovici, pp. 245–265. Larousse, Paris.
1975 Social identity and the recoding of reality: its relevance for cross-cultural psychology. *International Journal of Psychology* 10:197–217.