

A MODAL BASED CLASSIFICATION SYSTEM FOR ROCK ART RESEARCH,

Overcoming Stylistic Methodological Problems

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There is no property of objects which may not be taken, if desired, as the foundation of a classification.
F. W. Westaway, The Scientific Method 1924.

INTRODUCTION

The widespread acceptance of style as the exclusive classification methodology for rock art analysis has had an adverse and limiting effect on research. The inability of many potential researchers, especially avocationalists, to understand and apply the concept of style as an analytical scheme, and to work within and perceive the limitations imposed by the style classification concept and methodology, has frustrated and largely paralyzed their participation and activity. This frustration has frequently occurred without their realizing the fundamental cause for their difficulties or how they may be understood and avoided. It is the objective of this paper to explain the deficiencies of the style classification approach and propose an alternative classification methodology.

PROBLEMS WITH THE STYLE CONCEPT

The hindrance to research caused by the current style classification methodology appears to exist throughout the United States, perhaps even the world, but it seems more formidable within Utah. This appears due principally to two factors. The first is the volume of work done with Utah rock art by art historian Polly Schaafsma (1971, 1980, 1986; Schaafsma and Young 1983). Schaafsma, and to a lesser influential extent, Klaus Wellmann are the protagonists, and zealous advocates of the style classification approach (Schaafsma 1985; Wellmann 1979:16-17). They have, unfortunately, had a pervasive and enduring influence on rock art research within Utah. The second is the existence of an organization of rock art enthusiasts who have wholly adopted style methodologies. This acceptance appears to have occurred unknowingly and unintentionally, and with little perception of the consequences.

Some of the difficulties and confusions resulting from studying rock art exclusively by stylistic classification are well exemplified by the author's personal experiences. On innumerable occasions many hours have been spent debating with diverse individuals over the stylistic identification of rock art panels. Once the debate is resolved (when possible) and a certain style designation thus attached to the panel (carrying along with it the styles accepted cultural affiliation, distribution, and chronology), discussion shifts briefly to hypothetical meanings for individual images or their

distribution. The presence of specific images within a variety of defined styles and their change or consistency over time, space, and culture is ignored entirely.

Lacking also is a discussion of how, or why, or even if, there are variations in the style as a whole, and what may have been responsible for those variations when they do occur. Even the topic of how the style came to be defined is not discussed. Absent also is a discussion of whether the definition or classification of the particular style is accurate or valid. Perhaps the most consequential omission is whether the style classification methodology itself is a justifiable method of analysis: does it, will it, provide answers to the questions we are asking?

Another common and related problem with style classification is the inability of many potential researchers to place newly located panels of rock art in previously defined stylistic categories. The reason for this inability appears to be that current style classifications are so ambiguous that many people have difficulty understanding how to identify (categorize) newly discovered panels. They do not have a clear understanding of the criteria and the processes used previously to define rock art styles. These problems and omissions are an indication that serious deficiencies exist within the current style classification methodologies.

Complexity of Style

Many people view style as being too complex. There are too many variables in subject matter, figure types, individual artistic ability, techniques relating to meaning, etc. to take them all into account when defining styles. Too many panels have been discovered, that were not known and used when the currently defined styles were originated, which now defy classification. There are too many panels where the characteristics of more than one style are present, sometimes even in equal degrees, so that classification in one distinct style is difficult, if not impossible. There are too many panels where it appears as though the entity that determines the style is, not the particular manner in which something is done, but the purpose for which the panel was created. There are too many images that cannot be classified into any style category; what style is a circle, or a snake, or a sun symbol?. Analysis by style appears to be a technique which is difficult to work with, and thus has proven to be an unsatisfactory and confusing method.

The problems that have emerged because of the application of style concepts to rock art can be divided into two broad areas. The first is the way that researchers have applied the concepts of style to rock art studies, and the second is the limitations of the concept of style itself. These broad areas are broken down into specific problems and each is discussed below.

Typologically Distinct Images and Whole Panels have been Combined Into One Style Category

A practice that has resulted in much confusion to rock art researchers in Utah has been the combining of typologically distinct images, and even whole panels, into one of only a few stylistic categories. This practice, which I call broad stylistic grouping, was performed so that all known panels would fit into one of only a few stylistic categories. The purpose of this grouping was to conform the rock art to criteria defined principally by art historians such as Schapiro (1953) (see also Schaafsma 1971:2-3, 1985; Heizer and Baumhoff 1962:197). Schapiro basically stated that art styles do not crosscut cultural boundaries. In other words, each rock art style, or a limited range of styles, is associated with only one culture, or cultural period.

Accepting this premise as fact, rock art panels were forced into broad classes that correspond to the cultural, temporal, and spatial definitions for cultures that have been created by archaeologists. This has apparently been done without consideration of the fact that contemporary definitions of cultures in Utah are based solely upon limited studies of exclusively material remains. Other cultures, complexes, phases, ethnic groups, or other divisions, may exist which have not yet been defined from the material remains due to lack of data and study. To assume that no other cultures or divisions exist except those that have been currently defined by archaeologists, and then to force rock art images into matching categories is inappropriate, and the procedure is definitely not science.

Studies combining typologically distinct images of Utah rock art into a single style category have been done most often by Schaafsma (1971, 1980). For example Schaafsma has combined what appear to be dissimilar 'styles', or obviously distinct panels containing separate and typologically unique images, into her Southern San Rafael Style (Schaafsma 1980:163-171, compare her figures 122, 124, and 125). As another example, Schaafsma combined two categories of painted figures in nearby panels in Thompson Wash (Sego Canyon), which were earlier distinguished as separate types by archaeologist Noel Morss (1931). Schaafsma combined them under the category, Barrier Canyon Style (see also Manning 1990:45). Thus Schaafsma's practice of combining distinctly different images into one style category, so that they correlate with previously defined local cultures, has led to a great deal of confusion among potential researchers. The confusion is so great that some avocationalists have yet to understand that this has even happened.

Classification Problems With Stylistic Grouping

As discussed above, style classifications were created to solve the problem of grouping a "bewildering array" (Schaafsma 1985:247) of images into a limited number of categories so that

the problems of cultural affiliation, distribution, and chronologies could be solved. When a statistically small sample of panels is considered, broad stylistic grouping appears to work, but as more and more panels are discovered there becomes an increasingly significant number of panels that do not fit into the previously defined stylistic categories. I have found hundreds of panels that do not fit into defined stylistic categories because they contain characteristics unlike any of the previously defined styles (for one example see Manning 1988). Another problem encountered is that panels exist which have the combined characteristics of two or more styles. The same problems occur with individual images. Images constantly are being discovered that are completely different from any before known, or that have the combined characteristics of two or more styles. I have found this to be true with all the styles that have been defined in Utah.

To solve these problems I have attempted two approaches. The first option was to group as many panels and images as possible under defined style categories. However, when too many panels and images are lumped into a single style classification the result is confusion. What follows is that a point is eventually reached where panels are found that have exactly half the characteristics of two different styles. The same thing happens when individual images are classified. Lumping then was not found to be an acceptable solution. The second possibility was to define new styles. That however soon lead to the necessity of defining individual images as an entire style. The net result of either approach was an unworkable system, and even if either of the two choices are accomplished, we still are no closer to understanding the meaning of the images and panels.

One Unit of Classification Dominates Analysis

A formidable limitation on rock art study imposed by current style methodologies is the tendency to allow this one unit of classification to dominate analysis. In studies of Utah rock art this is more than a tendency, it is the rule! Those who have challenged the style concept, or have found it unworkable have been swiftly rebuked, for example Wellmann states:

While most modern authors of rock art openly embrace, or at least tacitly accept the concept of style, some have found it less useful than others. Swauger (1974b:107), for instance, thought that style analysis was, "of no help in terms of understanding the meaning of petroglyph sites" in the upper Ohio Valley; but perhaps this conclusion merely reflects the basic homogeneity of the style prevailing in the region and thus reaffirms, rather than negates the values of this concept. Adopting an extreme position, Martineau (1969) categorically asserts that "style does not exist as such" and, adhering to this premise treats both historic and Jornada style pictographs, the latter hundreds

of years older than the former, at a Huego Tanks site in Texas as if they has been painted together in 1839 (Martineau 1973:70-83), an obvious implausibility (one among several) directly attributable to his disdain for and neglect of stylistic criteria [Wellmann 1979:16].

Schaafsma echoed Wellmann's criticism.

Swauger (1974:107), for example, claimed that style analysis was of no help in his work on the upper Ohio Valley petroglyphs. This however seems to suggest that Swauger failed to recognize this rock art as a part of a widespread style that manifests a basic homogeneity over a large region (Wellmann 1979:16-17) [Schaafsma 1985:252, italics added]

These criticisms are unfortunate for two reasons. One, because they are incorrect, and two, because they have stymied the development of a classification system, or systems, that would have the potential to solve Swauger's problems of understanding the meaning of petroglyphs, and other problems as well. These statements also indicate the failure of Schaafsma and Wellmann to fully understand the concepts and limitations of style.

Analysis of rock art by style classification has become, not just an acceptable method to analyze rock art, but the only correct or even possible method. Schaafsma, following a review of the approaches to rock art analysis states:

The several classification systems discussed above have little to do with style as traditionally defined. Furthermore, these schemes lack relevance to the various research strategies with which rock art can fruitfully be approached. A more meaningful approach to the formal dimension of art is a stylistic one with all of its theoretical implications [Schaafsma 1985:246].

Style classification methodology has thus become a conceptual paradigm - a paradigm that perverts our way of thinking. I call this the style paradigm.

The problems with rock art classifications are similar to the problems with the classification of artifacts. The debate over classification of artifacts by archaeologists is not new. It has been progressing for several decades (Brew 1946, 1968; Clarke 1968; Steward 1954; Whallon and Brown 1982; Dunnell 1971, 1986; Sackett 1977, 1982; Binford 1962, 1983; Binford and Binford 1968; Klejn 1982, to name but a few). J. N. Hill noted, "The reason for this [debate] is that traditional theories and methods have failed to solve many of the problems for which they were intended, namely those involving the adequate description of prehistoric behavior, and explanation of variability and change in this behavior" (Hill 1972:61). Hill and Evans have shown that

the authors of archaeological classification schemes view them, as the classification, "as if there were no other equally good types or class divisions he could make with his material" (Hill and Evans 1972:235). John O. Brew noted, "The force of the [classification] scheme produces a new type of archaeological conservatism, the conservatism of false reality" (Brew 1946:61). No where is this more true than in rock art research. Hill and Evans (1972) argue, "that archaeological materials can be typed in many different ways, and have many different kinds of meanings." This suggests that many classification schemes may be applied to rock art that will produce significant advances. This fact seems to have escaped Schaafsma and Wellmann. The classification polemic among archaeologists has not, until now, been applied to rock art. It is now being applied here to rock art for similar reasons that it has been applied to archaeology in the past, i.e. broad stylistic classification of rock art has not provided answers to the questions that are being asked.

John O. Brew's famous statement concerning classification in archaeology is appropriate to apply to classification in rock art:

We must classify our material in all ways that will produce for us useful information... . We need more rather than fewer classifications, different classifications, always new classifications, to meet new needs. We must not be satisfied with a single classification of a group of artifacts or of a cultural development, for that way lies dogma and defeat... Even in simple things, no single analysis will bring out all that evidence [Brew 1946:65].

For rock art research to achieve new, and accurate, and credible conclusions, the rock art must be classified and analyzed in ways that will provide useful information. There should be no restraints on classification systems.

Reluctance on the Part of Some Researchers to Accept Data Contrary to Accepted Theories.

Another factor that confuses potential researchers, and one that is directly related to the above discussion, is the apparent reluctance of some researchers to accept known data - data which would prove detrimental to their cherished theories. For example Schaafsma, in discussing Turner's distribution of Glen Canyon Style 5 rock art, states:

As a final example of a problematical treatment of the style concept, one is referred to Turner's (1963:30-38) geographic extension of Glen Canyon rock art styles to include rock art in much of the western United States. Turner's five well thought out and valid Glen Canyon styles, which are located within specific cultural-temporal frameworks within the Glen Canyon region, lose their identity as well as meaningful cultural and temporal

associations once they are projected much beyond the canyon system, and especially outside of the Anasazi area. The stylistic breakdown one observes is consistent with the observation that if style as a diagnostic tool is to have any usefulness, it could not possibly have such general applicability [Schaafsma 1985:252, italics added].

It is an inescapable fact that Glen Canyon Style 5 rock art images occur outside the area indicated by Schaafsma (1980:73, map 3) (and even outside the area indicated by Cole 1990: map 3). Yet, Schaafsma rejects the presence of Glen Canyon Style 5 and its cultural association outside of the Glen Canyon region. Her reluctance to accept this appears to be because accepting this as fact would negate the validity of the art historians (i.e., Schapiro's) conclusions concerning art style. Again, this is molding the facts to fit the opinion, and it is neither justifiable nor valid.

The distribution of Glen Canyon Style 5 (Turner 1963:30-38) indicates that specific cultural and temporal associations do project beyond the canyon system. Glen Canyon Style 5 images exist outside of Glen Canyon, whether contrary to currently accepted rock art theory or not, and their presence cannot be ignored. The distribution of Glen Canyon Style 5 indicates that either Glen Canyon Style 5 crosscuts currently defined cultural boundaries, or the people responsible for creating the images traveled outside the Glen Canyon region. The latter appears the most correct since Glen Canyon Style 5 dates to the Archaic period (Turner 1971), and the early Archaic people apparently traversed most, if not all, of Utah. Glen Canyon Style 5 therefore, appears to have not lost its identity, as well as meaningful cultural and temporal associations beyond Glen Canyon, as stated by Schaafsma.

It will also be noted that the above two quotations by Schaafsma are contradictory. The concept of a, "widespread style that manifests a basic homogeneity over a large region" is apparently acceptable to apply in one region, especially when trying to argue that classification by style produces the only acceptable method of analysis, but unacceptable when applied in another region where a style extends outside the boundaries of the culture supposedly responsible for the rock art. This conflict indicates a weakness of the style classification argument, or a misunderstanding of the concepts of style. Also, here again, data is forced to fit into the perceived style classification criteria.

The Definition of a Style Typically has Been an End in Itself

Another stylistic practice limiting the study of rock art is that the definition of a style typically has been an end in itself. The designation of a particular rock art panel as a specific style, and associating the style to a specific culture,

period, and distribution, has been the goal of many researchers. For example Turner (1963:1) states, "Attempts to define the styles, chronologies, distribution and relationships of petrographs... constituted the main endeavors of research and study." Once these goals have been met, or have been believed to have been met, the tendency is for no further research to occur.

In part this attitude is a carry-over from the "old" goal of archaeology, which was to classify objects of antiquity for the purpose of determining cultural associations and temporal limits (Krieger 1944; Ford and Willey 1941, 1949; Wheat et. al. 1958). However, the goals and interests of archaeology have become widened and undergone modification in the recent past (Renfrew and Bahn 1991:34-37; Martin 1972). Simply stated, the orientation of archaeology today is to explain what happened in the past and why it happened, as well as to describe it. For rock art this can be extrapolated to include determining the meaning and function of the images that comprise the panels. The objectives of rock art research need to be updated to include more than just cultural affiliation, distribution, and chronology.

Absence of a Formal and Scientific Method for Style Determination and Classification

The problems discussed above are in part the result of the absence of a formal and scientific basis for style determinations, and thus the failure of style methodology to provide a definitive and absolute method for classifying all rock art panels. Style definitions in Utah rock art have principally resulted from intuition, rather than from a scientifically devised procedure. The general absence of a scientific basis for style determinations is well illustrated by Schaafsma who states, "Traditionally, the identification of style in rock art has proceeded on the basis of visual inspection of the material" (1985:247) and, "In the organization of data into style categories, a number of different methods have been used, the simplest being based on mere inspection of the material (1980:7)."

Most style definitions of Utah rock art have come from little more than a sorting of photographs. In the sorting process panels of images resembling each other are grouped together and then assigned a name. This intuitive process has been glorified and paid lip service to by stating that the style definition or classification process is based upon such characteristics (some more esoteric than others) as: subject matter, figure designs, design content, statistical probabilities, subject abstraction, formal attributes, locations, themes, relationships between elements, pattern recognition, figure types, manufacturing techniques, design components, spatial relationships as they contribute to the general ascetic mode, content, organization, frequency of occurrence of elements,

total esthetic impact, etc. (Cole 1990; Heizer and Baumhoff 1962; Noxon and Marcus 1985; Schaafsma 1963, 1971, 1980, 1985, 1986). However, the fact that the majority of these attributes have in reality received only superficial attention (and definition) is obvious, as detailed discussions of these aspects of style definition and classification are lacking. Even the simple process of producing an element list of the images in a defined style has never been accomplished.

This is not to imply that discussions of these attributes are totally absent. Heizer and Baumhoff (1962) defined five styles in the Great Basin by means of a statistical inventory of elements. Schaafsma (1963:26-28) defined four anthropomorphic image types from the Navaho Reservoir District in New Mexico. She was however unable to differentiate them into specific time periods and therefore classified them together into the Rosa Representational Style (Schaafsma 1980:128). (These same figures occur extensively in southeastern Utah.) Turner (1973) defined five style horizons from the Glen Canyon area based upon similarity of images and associations with material remains. Schaafsma (1971:14) discussed the subject of frequency of occurrence of major element categories within styles to show differences between styles. These conclusions however provide only a broad superficial analysis because they were developed from a small data base. 1

The lack of a scientific method for style definition and analysis is in part due to the nature of style. Klejn (1982:193) noted, "style normally does not appear as a form [image], but as a more abstract configuration - a pattern." This abstractness or intuitiveness of style leads to confusion of definition and use among researchers. Schapiro also acknowledged that there are problems with the style concept, "Styles are not usually defined in a strictly logical way." And, "The characteristics of styles vary continuously and resist a systematic classification into perfectly distinct groups" (Schapiro 1953:288).

These inadequacies suggest that a different classification system needs to be developed. Such a system needs to be less confusing, and it should allow a more easy identification of rock art classes and attributes by researchers.

Broad Stylistic Grouping Obscures the Causes of Change and the Courses of Development

Style methodologies have also proven deficient in determining why changes (over time, space, and culture) occurred in the rock art. Style methodologies thus have failed to answer questions related to prehistoric behavior, and explanation of variability and change in this behavior. These deficiencies are due principally to the way the basic concepts of style have been applied to Utah rock art - specifically broad stylistic grouping. The currently defined series of styles takes one through history

by leaps instead of by steps 2, and it is the periods of transition that are skipped because they are often short when compared with periods of stability in cultural evolution. Hence the panels (or images) that represent transitions are not only few in number, but are difficult to classify. They suggest aberrant examples or extremes in the variation range of the defined style. The tendency is to ignore them.

A hundred panels may be designated as the same style, which is then affiliated with one culture, but the panels likely contain a variety of images that changed subtly in form and context through time, as well as space. The areal and temporal variations of these images are not readily seen because they are classified (grouped) as one stylistic entity. Schaafsma's "Barrier Canyon Style" and "Classic Vernal Style" are good examples of defined styles that appear to the person who has seen only a few panels to be discrete entities, yet there are many of these panels where supposedly unique characteristics of images in these styles appear in other styles, and supposedly unique characteristics of other styles appear in these styles. This intermingling of characteristics with other styles that preceded and followed them suggests that transitions occurred over time. Yet current style definitions would lead one to surmise that, in almost all instances, one style disappeared almost completely before another reappeared, and that all rock art styles changed at precisely the same time as the material evidences used to define the associated entities of culture changed. Current style definitions also would lead one to believe that there are only a few styles. This view is not consistent with the evidence. Broad stylistic grouping has the tendency then, to overshadow or obscure the causes of change and the courses of development.

Broad Stylistic Classification Has Not Provided a Means of Determining Meaning for Rock Art Images

Perhaps the most significant reason that style is not acceptable as the exclusive methodology for rock art research is that it does not provide, nor does it contain, a mechanism for determining the meaning of rock art images. This apparently is misunderstood by most researchers. That style does not provide the information necessary to determine meaning is evident because no definitive meanings or explicit interpretations have come from stylistic methodologies even though style categories were defined in Utah almost thirty years ago (Turner in 1963, and Schaafsma in 1970).

When style is viewed as the only classification method, there is created a paradigm which alienates interpretation. This is because function and style are different components of an object. Function is related to meaning, but style is separate from function. This is further discussed below.

Because of the strong emphasis on style, most authors of

current rock art publications only touch lightly on the issue of meaning, then go on to what they perceive to be higher objectives, i.e. cultural affiliation, chronology, and distribution. Schaafsma states:

The relationship between rock art and its cultural matrix is all very well, but of surpassing interest to most general readers are the questions: What does it mean? Are these rock drawings a language awaiting interpretation? Interpreting rock art designs is intriguing yet difficult, often impossible. As a result, other, more fruitful approaches to rock art have been developed [Schaafsma 1980:10].

So formidable and entrenched is the style paradigm that there becomes a doubt that meanings can ever even be determined for rock art images. Justifications are thus created to explain the inability of style to determine meanings. As Cole (1990:36) states, "Explanation of function and meaning are tentative because the rock art now exists outside of its living cultural context."

Much of this confusion regarding style comes from a misunderstanding of the origins of style and the relationship of style to function. As briefly mentioned earlier, the concept of style was applied as a tool to solve the problems of cultural affiliation, chronology and distribution in archaeology and rock art. Schapiro was well aware of the origins and purpose of style when he stated, "For the archaeologist, style is exemplified as a motive or pattern, or in some directly grasped quality of the work of art, which helps him to localize and date the work and to establish connections between groups of works or between cultures" (Schapiro 1953:287). And also, "As with languages, the definition indicates the time and place of a style or its author, or the historical relation to other styles rather than its peculiar features (Schapiro 1953:288)."

Sackett's Explanation of the difference between function and style in archaeology is applicable to rock art. He states: An artifact can be regarded from two contrasting, but fully complementary points of view. In the first it is perceived in action, as a thing that was manufactured and in turn used in a succession of activities that made up daily life in a given cultural setting. Our interest in this case concerns the ends it served, the roles it performed in what was going on, the manner in which it behaved as an integral part of the cultural system. When considering an artifact from this point of view we are thinking of its function [Sackett 1977:370].

Concerning style Sackett writes:

Just as any artifact has as an active voice which connotes function, so it has a passive voice which connotes style. In this latter case we are viewing it not as an actor in a

variety of roles but instead as a signpost or banner advertising the arena in which the roles are being performed. Stated in an archaeological perspective, the artifact is in this instance being regarded in terms of its diagnostic value for specifying a particular historical context - that is, space-time locus - in the stream of culture history [Sackett 1977:370].

The relationship of function to style was also discussed by Klejn: "When grouping by formal similarities without regard to the functional-technical purpose, i.e. without taking into consideration the boundaries of the 'category', the archemes [any phenomenon that is prominent (and available for exarticulation) in the archaeological material projected in the past] form an aggregate, by generalization of which the archaeologist obtains a 'style' concept" (Klejn 1982:190).

There are two concepts apparent from these statements; one is that style was created to solve the problems of cultural association, chronology and distribution and two, style is separate from function. Style classifications simply are not made based upon function, and therefore they are not based upon purpose nor meaning. In other words, there is no subdivision or subclass in style analysis for function, thus none for meaning - images are not differentiated based upon functional characteristics. To analyze the meaning of rock art by style methodology is like attempting to determine the meaning of the English language by a study of fonts. The wrong thing is being studied!

The concept of style and the resultant broad stylistic classification also overshadows the necessity of interpretative analysis on a specific level. The aggregation of images into only a few styles even influences the perception of interpretation. It forces interpretation into the same paradigm. Cole (1990:36-37) for example, states that interpretations based upon clear archaeological associations between the Anasazi and the historic Pueblos, "are tenuous (especially with regard to very early rock art) and are most meaningful on a systems or broadly defined level rather than on a specific level." Having been caught in the style paradigm, Cole appears to not recognize that interpretation of specific image relationships requires a specific level of interpretation.

Cole provides a specific example to substantiate her statement: "For example, humpbacked and phallic flute players of the Anasazi cannot be equated to the historic Hopi katsina (also spelled katchina and kachina) known as Kokopelli despite certain parallels in symbolism and archaeological continuities between the Anasazi and Hopi; however, the roots of the katsina symbolism are certainly suggested by the image [Cole 1990:37]."

Cole does not provide a reason for her conclusion. Perhaps it is because she has failed to discover the evidence by searching on a systems or broadly defined level rather than on a specific level. Correlations between the Anasazi and the historic Hopi, because they are so closely related in time and space, would be enveloped by the currently defined, broad stylistic categories. As stated above, the currently defined series of styles takes one through history by leaps instead of by steps. The images that would show correlation and consistency in interpretation, or meaning, between the Anasazi and the historic Pueblo - a small step - will only be discovered at a specific or individual level of analysis, and not by broad stylistic grouping.

Information then needs to be gathered, and testable hypothesis formulated, which would postulate both specific meanings for individual images and how these images functioned within the society that generated the images. These research goals have not, and are not, readily approachable by consideration of current style methodologies. In order to answer specific research questions different classification methodologies need to be established. These classifications need to be based upon the narrowly defined level of specific individual images and their context.

Problems are Created When Rock Art is Classified as Art

Many problems exist in the stylistic analysis of rock art because the concept of style, as exercised in art, was applied directly to rock art believing that rock art was art (see quote from Schaafsma 1985:246 above). The concepts expressed by Schapiro (1953) are frequently quoted by rock art researchers and applied directly to rock art studies (Schaafsma 1971, 1980; Noxon and Marcus 1982, 1985; Heizer and Baumhoff 1962). This has been done apparently without the realization that Schapiro was discussing style concepts strictly applied to art as defined from paintings, sculptures, and architecture, i.e. from paintings such as Rembrandt and Picasso, or the sculptures and cathedrals of the Greek and Roman world. But the majority of rock art in Utah is not art in this sense; it is symbolism - much of it is based on religious ideologies and ritual. Some rock art is explanatory. Each image has a specific meaning, which is determined by its form, attributes, and context. Some of the images convey a very specific meaning.

There are substantial differences between art and symbolism. The difference may be likened to a stop sign. The concepts discussed by Schapiro would classify and analyze stop signs as if they were works of art, when in reality they are symbols with a conventionalized and specific meaning. The meaning of a stop sign is widely understood and important to everyday existence - the symbol may even make the difference between life and death. A stop sign is not art. The images used

by the Native Americans were generally symbols, but their symbols went beyond this simple example - also many of them had a strong religious meaning. Some of their symbols were also likely perceived to even make the difference between life and death, as some were among historic cultures. The prehistoric symbols are also the beginnings, the precursors, of a written language. Some symbols reached a point where their meanings were just as explicit and well defined as a stop sign is to us. While some of the concepts of art may be applied to prehistoric rock art, conflicts are inevitable when rock art is treated the same as a painting by Rembrandt.

Sackett (1977:376) was well aware of the difference between style and symbolism. He recognized that the term style, as used in much of the literature, "ought perhaps more properly be called symbolism. The two notions must of course be kept distinct, since any symbol or symbolic structure can lend itself to an endless variety of specific expressions." When rock art is studied as symbolism a realistic characterization and discussion of style will result.

Furthermore, the concept of stylistic classification did not exist in the mind of the creators of the rock art images. It even seems illogical then to use such a nonentity for classification and research purposes to determine meanings. The best classification system would be to use what existed in the mind of the individual who created the images. What then did exist in the mind of the individual who created the rock art images? When a person creates a painting, for example of a deer, he or she first visualizes the deer. The person then visualizes how the painting of the deer will appear. The form of the painting will be determined by the persons preconceived ideas or concepts of what the painting of a deer should look like. The person's customs or cultural biases - i.e. what other people's paintings of deer have looked like - will also influence the result, as will the persons artistic ability and experience. (Many other factors of course influence the final painting, but those stated above are sufficient for the purposes of illustration.)

If a classification scheme is to be effective, and developed to get at the meaning of the image, it should include, not differentiate, the variables of artistic ability, experience, etc. (Images may vary, not only with the ability of the artisan, but with such factors as time available to the artisan to construct the images) For other purposes, for example to determine if a relationship existed between artistic ability and a specific kind of image, a different classification scheme would be used. For the initial classification scheme developed here we would not want the images separated based on artistic talent, because we want, among other things, to determine what the images represent and how they were used. My drawing of a deer would not

likely match another persons drawing of a deer, even though we were trying to draw the same deer under the same circumstances. The basis for a classification scheme to include these variables would then be to classify images by the basic form and context of each image. This subject is discussed more fully below.

Problems with the Concept of Style

A discussion of the concepts and uses of style in archaeology, and thus in rock art, could easily be the subject of an entire book. Indeed, they almost have been. The uses of style in Archaeology is a book, edited by Margaret Conkey and Christine Hastorf (1990), which is a collection of papers discussing the concepts of style in archaeology. It is obvious then that style cannot be fully discussed here.

The meaning and usage of the term style are nearly as varied as the term type (see Klejn 1982 for a discussion of type). This variation has led to some of the confusion regarding style. Schaafsma (1985) notes that type and style are sometimes confused in the literature. The reason for this confusion is that there are several different definitions or meanings for both style and type, and these meanings overlap. Some of these variations in terminology can be traced to the transference of style concepts from writing (style was initially observed and defined as a means to characterize the differences in handwriting between individuals [Conkey and Hastorf 1990]), to art history, to anthropology, to archaeology, and finally to rock art. In this process style concepts have been broadened, diluted and confused. The methodologies of style are thus ambiguous, especially in archaeology, and appear to lack a rigorous scientific basis.

Conkey and Hastorf (1990:2) comment on the difficulty archaeologists have with style concepts, "archaeologists remain frustrated in their pursuit of the role and use of style. Style, like ideology, remains elusive, implicit, and ambiguous. Stylistic inferences in archaeology are, to many, unsettlingly under-determined." They further note that style in archaeology, "has been referred to as elusive, controversial, and the proverbial 'Black Box'" Conkey and Hastorf (1991:1). Klejn offers similar observations:

As distinct from the 'type' concept, the 'style' concept has ~~received little elaboration in archaeological literature,~~ and is applied in research practice with far greater uncertainty and inconsistency. The shakiness of art historic notions about style have long frightened archaeologists and the dissimilarity in style to other classificatory units has disturbed them - the selectivity and the scrappiness of manifestation in the various aspects of the cultural material, especially in solubility and miscibility. "The concept of style has proved to be particularly elusive to archaeologists," Sackett writes (1973:321) [Klejn 1982:191, italics added].

If there is a difficulty with archaeologists utilizing the concept of style then there is an even greater difficulty with the current style concept among rock art researchers, as many individuals, struggling to utilize style methodologies, have discovered.

The definition of style in rock art is particularly ambiguous, varied, generalized, and poorly defined. One has only to examine the extent of the discussion of all the aspects of style in the text of authors who have defined styles to realize this is true. (Most authors simply reference Schapiro [1953].) Heizer and Baumhoff (1962), Cole (1990), and Noxon and Marcus (1982, 1985) devote less than a single page to the definition of style. Schaafsma, in the *Rock Art of Utah* (1971), devotes just one page to the definition of style, and in her 350+ page book, *Rock art of the Southwest*, she hesitatingly devotes only one paragraph to style definition (Schaafsma 1980:7). It is apparent then that the concept of style is poorly defined and conceived by even the most competent and well published users.

Cole defines style as, "the particular manner in which something is done" (1990:35). Sackett 1977, quoted also by Schaafsma (1985:246) indicates that style, "concerns a highly specific manner of doing something." But what is it that is being done? By these definitions style is a contrast between different ways of doing the same thing, because if a certain thing is done only one way, then that one way is a type and not a style.

The most serious problem confronting the use of style occurs when an attempt is made to differentiate between different manners of doing the same thing and two different things being done. Which of the two is being classified? When what has been done is not understood, how can we be sure that we are classifying different ways of doing the same thing, rather than two different things? The answer is, we simply cannot. Not being able to determine what was being done in the creation of rock art, makes meaningful stylistic classification impossible.

One of the dangers inherent in current rock art style classification methodologies then, is that some of the ~~differences in rock art, which have been classified as different~~ styles, may in fact represent differences in function or meaning. These functional differences may have been assigned affiliation to different cultures based upon their perceived 'style'. Prehistorically the same individual may have created two different 'styles' at nearly the same time because the purpose for which the rock art was created was different. For example, the same person may have created what has been defined as a, 'Barrier Canyon Style panel' while depicting a religious ritual, and what has been defined as a 'Northern San Rafael Style panel' when showing the location of a passage through the cliffs along

the San Rafael River. By current rock art style methodologies these two panels, which may have been constructed just one day apart and by the same individual, could be classified in two different cultures in two widely spaced periods.

Current style methodologies may also fail if a later culture, observing the rock art of an earlier culture, created similar concepts and ideologies, and then created so similar a rock art 'style' as to be undifferentiable today. For example, there are indications that what has been called the Barrier Canyon Style (Schaafsma 1971) existed from Archaic times to nearly the early historic period (Manning 1990). The possibility exists that a later culture, seeing the archaic Barrier Canyon Style, produced other images so much resembling them that in the current classification system they have also been defined as Barrier Canyon Style. Current style methodologies then have the potential to provide extremely erroneous information.

Style also has been applied to almost every concept. Conkey and Hastorf in the introduction to The uses of style in Archaeology take an extreme position, "Style is pervasive and unavoidable because there is nothing to discuss or be interpreted without assigning or inferring style. Without style we have nothing to say", and "Style is also ideas, inferences, and perceptions." If style is everything then style is, in reality, nothing, because style, which is everything, can then be classified by other means i.e., subclasses to style, which would provide more consequential information than the all inclusive category, style.

One question results from the above discussions: Has the intuitive process used to define styles really defined styles? All of the difficulties with the style concept and methodologies that have been discussed here seem to suggest that style classifications in rock art may be erroneous. Clearly however there is something in rock art that is being comprehended - a difference which allows classification into perceived stylistic categories. Is this style, or is this something else? What is this elusive entity if it is not style? It may simply be the form of the images. It is self-evident from an examination of the defined styles that in each there are unique types of images. ~~In each of, for example, Schaafsma's defined styles in Utah rock art,~~ there are distinctive anthropomorphic forms that are unique to each style (see Schaafsma 1985:247 for an example of anthropomorphic variations). Intuitive classification based solely upon these anthropomorphic forms occur easily, and is capable of producing exactly the same classes as style analysis. The same is true for some other elements. Classification into the currently defined styles then, could just have easily been accomplished by classifying the different anthropomorphic forms, or even the characteristics, attributes, etc. of those images. It would appear then that the intuitive classification of Utah

rock art styles may unconsciously have been based upon types. This suggests that current style classifications are the result of the style paradigm.

Summary

I have shown here that style classification methodology, or as it has been practiced, broad stylistic grouping, is an inadequate functional method for advanced studies of rock art. It does not provide information to answer questions that are being asked, such as meaning, purpose, function, causes of variation, etc. Stylistic grouping results in confusion, contradiction, and it limits analytical research. Rouse (1960) stated, "Classification, like statistics, is not an end in itself but a technique by means of which to attain specified objectives, and so it must be varied with the objective." More than one approach to classification of rock art then is certainly acceptable and much needed to meet new objectives.

CLASSIFICATION BY MODE

As stated above, detailed classification and analysis of the particular characteristic features of rock art are needed to remedy deficiencies within the current style classification methodology. The particular characteristic features that make up the rock art panels are the individual images and their context. It is logical then to analyze and study rock art by classifying the individual images and their context.

A significant part of this analysis should include those features that underwent change. This should include a determination of the beginnings of distinct images and their distribution through space and time. It should also include how the persistent features compared with the new, if new features coincided with technological development, and if new features can be attributed to foreign influence or to native invention. As noted above, the broad stylistic classifications currently being used will not provide the information necessary to make these determinations.

The basic process of classification is well known (Westaway 1924:215-224; Rouse 1972; Klejn 1982). Classification occurs when entities (objects, events, ideologies, etc.) are sorted into categories or groups based upon one or more shared characteristics, features, or attributes. Each of these groups is called a class, hence the name classification. There are several different methods of structuring the grouping procedures to form classes, or in other words, there are types of classification schemes. There are for example, analytic and taxonomic classification (Rouse 1960), and bifurcate classification (Westaway 1924).

Taxonomic classification consists of dividing up the total

collection into initial classes based upon one or more shared characteristics. Each initial class may then be subdivided into two or more smaller subclasses based upon differences between the entities. These differences may be a single attribute or a cluster of attributes. Each of these subclasses may then be further subdivided into one or more smaller sub-subclasses based upon further attribute analyses. This process of subdivision continues until no further subdivisions are possible, or until each subdivision contains the attributes which meet the needs of the classifier. Each of the classes so formed is mutually exclusive. An entity moves from a class to its subclass, and so on. An entity never moves from one class to the subclass of another class.

In analytic classification however some of the entities from more than one class be placed in a subclass of a single class. A simple example may clarify these systems. Suppose the initial collection consisted of images of quadrupeds, or animals with four legs. The initial division might place them into classes consisting of horses, deer and sheep. The classifier may then desire to differentiate images that were painted from those that were pecked. Assuming that there were examples of both painted and pecked images in each initial class there would be in the one painted subcategory of analytic classification, painted horses, painted deer and painted sheep.

In a taxonomic classification, there would have to be three painted categories, one for painted horses, another for painted deer, and yet another for painted sheep. Each method produces different classes, and each has its advantages. In complex systems in archaeology there are advocates for first doing analytic classification, then classifying taxonomically the classes so formed (Rouse 1960, Dunnell 1971). Rock art analysis will undoubtedly benefit from this procedure. The classification method used here however, as a beginning, is the taxonomic system. There is simply not space available here to describe analytic classification for rock art, and combinations of the two.

It should also be noted that one objective of the classification process for complex entities is to base the classification system on the most common and therefore, perhaps, the most important attributes. This is accomplished by placing in each class the entities that possess in common the greatest number of attributes.. Rouse explained the process:

The archaeologist sorts his specimens into trial classes, examines the members of each class to see how many attributes they have in common, and then sorts the specimens into revised classes in an effort to achieve the grater homogeneity within each class. This process may have to be repeated over and over again until the classes become

reasonably homogeneous and share all possible attributes [Rouse 1972:45].

This classification procedure may reveal patterns of easily overlooked attributes, attributes which may be less obvious, but of greater importance. This is crucial, because as Westaway (1924:216) points out, "It often happens that the natural groups must be founded not on the more obvious but on the less obvious properties of things... .

The next topic then is where to begin the classification process. The goals of the classification system should be kept in mind when designing the system. The principal goal desired here is to determine the meaning of individual images, relationships, and panels. The most productive classification system therefore would be one based, to the greatest extent possible, on the meaning the images had to the person who created them.

It is implicit that each individual image was created by a person or persons who had a definite concept of meaning in mind when making the image. The image was also generally placed in a panel specific context, i.e. associated with other images. The image was further placed in a locational specific context, i.e. in a rock shelter, on a south facing cliff, above a Kiva, etc. The classification then should focus on the basic form of the image, the attributes of the image, and the context of the image, i.e. both the panel and locational context. Since a researchers interest generally begins with a particular image, and perhaps the knowledge that the particular image reoccurs in another location, it is appropriate to commence classification at that level.

A simple taxonomic classification then could begin with all of the known images with the basic form, or images that utilize the basic form, or some specific attribute to be studied. These images would then be grouped or sorted based upon form or shared attributes. This would form the initial classes. The collection of images in each class could then be sorted into subclasses based upon selected attributes of the images. Each subclass could then be sorted, for example, into sub-subclasses based upon context - either panel or locational context, or further subdivided based upon other attributes. There are of course many choices on which to base classes.

It should be noted that depending on the nature of the images chosen there may exist a broader classification. For example, if a person chose an anthropomorph with a specific headdress as the initial class, all the images would fit under the broad classification of anthropomorphs.

It is also assumed that in many instances the prehistoric

creation of an image was based upon conventional or culturally established patterns that held constant and specific meanings for the images. There would of course be occasional excursions because of new techniques, ideologies, inventions, etc. This conventionality suggests that images represent a cultural mode. The concept of cultural modes has been borrowed from Irving Rouse (1960, 1972), with some modification, to be used here as a unit of rock art classification.

Cultural modes are a fundamental unit of archaeological classification. They have been used in archaeology for many years (Whiteford 1947; Rouse 1939, 1960, 1970). The term "mode" was defined by Rouse as, "any standard concept, or custom which governs the behavior of the artisans of a community." Rouse further stated that cultural modes are handed down from generation to generation, and they may spread from community to community over considerable distances (Rouse 1960:313). Cultural modes then should be expressed in the form, attributes, and context of the images of rock art. Modes also may be distinguished on the basis of many additional factors including for example: technique, size, color, direction, and even culture.

Modes in rock art are a classification unit that agree with Rouse's definition, because an individual created the images from the concepts, standards, and customs common to the individuals time and place to illustrate and communicate to others the idea the individual was symbolizing. These modes then are classified as cognitive modes because they originate from the thoughts of the person or people who created them. It should be also noted that, "Cognitive archaeology - the study of past ways of thought from material remains - is in many respects one of the newer branches of modern archaeology" (Renfrew and Bahn 1991:339).

Modes also embody symbolic concepts. Renfrew and Bahn (1991:339) state that, "It is generally agreed today that what most clearly distinguishes the human species from other life forms is our ability to use symbols." Rock art may be thought of as composed mostly, if not entirely, of symbols. By analyzing rock art in a classification system with an underpinning of symbolic meanings, we are pursuing cognitive archaeology.

~~In making modes the object of study, instead of an abstract and often indefinable term of our own creation such as style, we are closer to the mind of the individual who created the images, and thus closer to determining the meaning, function, and purpose of the images. Classification by mode will more readily define and establish the ideas and concepts that the rock art was created to express. It will also make possible a more narrow delineation of cultural associations and intra-cultural, and inter-cultural variations. Modal classification will enable us to get at the meaning of specific images, why they exist, and how they have changed over time.~~

It is important to note that modes are not types. There is not space available to include even a short discussion of types and their applicability to rock art research. Types are typically defined to be the diagnostic attributes that serve to define a class of features and to identify the members of the class. More than just a simple sorting of images to produce types is necessary to infer meanings for rock art images. One goal of classification by mode is to make the classification a measure of cultural concepts, i.e. meaning in rock art images, rather than just simply the means to group the images in a classification to form types.

It is also important to note that modes in rock art, as defined here, are extracted from, rather than imposed on, empirical reality. Modes are initially identified on the basis of the attributes of an image which was created by an individual or individuals. Modes in rock art then constitute emic units (Dunnell 1986:177). The images are "real" in the sense that they were created out of the consciousness of an individual.

The creation of an image in a rock art panel is similar to the creation of a written sentence in a paragraph. A person creating a sentence first conceptualizes the meaning that the sentence is to convey. The person then arranges the words in an understandable, learned pattern that is based upon learned characteristics - cultural norms. The person then forms the sentence with words consisting of images (characters) on paper that also have a learned meaning. Within a limited range, the person forming the sentence has a choice of arranging the words. For example, the simple sentence: Sugar is sweet, could also be written: Sweet, is sugar. The repetition and consistency of the learning process enables another individual to identify the images and enables the person to "read the words" and (hopefully) to conceptualize the same meaning as the writer. The arrangement and form of the individual images (characters) to assemble words, and the arrangement of each individual word to form sentences constitute modes. They are responses based upon cultural norms. This consistency and repetition in the construction of words and sentences would enable a person to interpret the meaning of the sentence even if it were to be written in code. To decipher the meaning of such a sentence, a hypothesis based upon modes would be formulated and tested. The same process would enable the interpretation of the meaning of images and panels of rock art. This is of course a simplification, because many other aspects and contexts are included in the interpretation of codes, and many other aspects and contexts would also be included in the interpretation of rock art, such as ethnographic analogy, provenance data, chronological information, environmental reconstruction, etc. The classification and analysis of modes will then enable the discovery of empirical meanings in rock art.

For an image to represent a mode the form and attributes

must be repeated. A mode is thus also a cultural pattern - a group of points in time and space. (It should be noted that science does not deal with the unique occurrence.) If the attributes are not repeated they may be indicative of the personal idiosyncrasies of the maker. The repetition of the attributes makes it possible to formulate and test hypotheses for meanings of the modes. This is a significant advancement in rock art research.

A mode then is a class, or group, of images with a common form. They share one or more attributes, and have the same context, and therefore appear to have the same meaning. Mode is as much an equivalent to meaning as is possible. It should be noted that there may be substantially different techniques of manufacture in the images comprising the mode. A mode may for example contain an image which was produced by painting and another by pecking.

As stated above, modes are derived by classifying images by their context. The same image may have a different meaning depending upon the context in which it was used. By classifying each context as a mode it may be possible to gather information which will determine the meaning of the image. The process of classifying images, and their associated attributes, by context (i.e. modes) discovers the patterning of meaning and the cultural patterning of human behavior.

Modes may also be subdivided. These subclasses are labeled a variation or variety. This variety designation is useful because images incorporating what are initially thought to be minor attributes can be discussed, differentiated, or grouped if desired for further study. For example, two images that are identical except that they were produced by two different methods (for example painting and pecking) could be combined initially into one mode, yet each would represent a different variety.

A group of modes constitutes a complex. A complex may be either large or small. It could consist of just two modes that occur consistently together. A complex may be all the image modes that form a specific panel, or groups of panels. Complexes may be as large as currently defined styles, but most will be smaller. The Barrier Canyon Style for example appears to be composed of at least five large complexes. In the Uintah Basin, where what has been called the Classic Vernal Style predominates, there are at least two large complexes.

Modes in rock art are defined based upon the classifier's knowledge of the images being classified. This in turn is based upon the classifiers limited awareness of the potential for meaning in the images, and is based upon known or hypothesized context, distribution, cultural associations, etc. Westaway (1924:217) has stated, "that an extensive knowledge of the

properties of objects is almost always a necessity for making a good classification of them." Since a classifier's knowledge is never static, or never should be, the modes and varieties should be further subdivided as new information is acquired. The mode classification system should not be a static classification system. Today's variety may likely be tomorrow's mode; indeed in complex systems it should be. Classifications should constantly be evolving until a class and the resultant modes are so well defined and understood, as well as subdivided, that no further subdivisions are possible. At this point each mode should have a known or hypothesized meaning, function, purpose, cultural affiliation, distribution, etc.

The following are proposed definitions for modal classifications in rock art along with additional descriptions (The definitions below follow the outline shown in Figure 1).

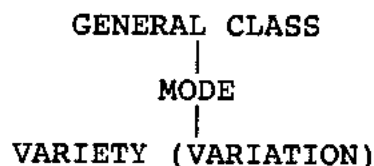


Figure 1. Classification outline.

A GENERAL CLASS is a broad group of images that share common traits or characteristics that distinguish them as an identifiable group. Anthropomorphs, or Mountain Sheep, or Abstracts are examples of broad classes. General class designations are useful in some instances, although not all images need to be placed into a general class to be further subdivided. A general class is a useful term for communication and rough classification. (A class is also the generic term for each of the divisions of a classification system.)

A MODE is a narrowly defined group of similar images, appearing to represent an ideological concept, or a singular object, or a group of nearly identical objects which have the same meaning. The images may be naturalistic or abstract. Mode is the pattern of attributes that are diagnostic of a class of features (Rouse 1960). Modes represent a largely consistent meaning applied by the maker to a rock art image that is reflected in the form, attributes, and context of the image. Modes are indicative of standards imposed by the customs of the culture or local group which governs the meaning and form of the image. A mode is also the product of a certain cultural configuration, has a definable areal distribution and a temporal connotation. A range of minor attributes, or variations, are expected to be encompassed in a mode designation - especially in initial classification. A mode can be perceived of as the physical results of meaningful thought processes.

A VARIATION or VARIETY is a subclass of a mode. It may be thought of as a temporary division which may later result in a mode. The variety embodies a unique, or combination of unique, recognizably distinct minor attributes that do not initially result in a mode. A variety is a specific, clearly definable, group that has one or more specific traits, features or characteristics in common.

A COMPLEX is composed of two or more modes. A complex may contain all of the images in a specific panel or in a group of panels. Large complexes are generally associated with a community, culture, or phase.

These images then could initially consider them all to represent a single mode. This would facilitate inventorying their distribution, context (placement with respect to other elements), cultural association, chronology, etc., and thus deduce possible meanings, and areal variations.

An example of the mode concept is given in Figure 2. The initial mode category is the Isolated (Detached) Heads, Faces or Masks found in the Anasazi Basketmaker Culture area of the Four Corners. These images were produced by a variety of techniques, and appear also in a variety of contexts. All of these images together constitute a broad class. Initially all of these images were defined to be a mode and were not subdivided. The reason for this was that there were only about 8 examples known, and at that time there was not enough information available to form modes of more than one or two images. As more examples became known the Isolated (Detached) Heads/Faces fell easily into varieties based upon observed specific characteristics. For example, there are images that have the face divided into four distinctive areas, others have three painted parallel bands, some have two. Initially, when only one or two of these image variations were known they were classified as varieties .

As more examples were located the varieties were classified as a mode, then further subdivided into varieties. This is shown in Figure 2. The face with four distinctive areas has been divided into varieties based solely upon hair lengths. Following this classification the locational contexts of each of the images in each of the mode groups were determined, and the combination of these attributes sorted to determine other classes of modes, i.e. those based upon contexts. This is not shown in Table 2. From this classification, inferences concerning meaning, distribution, areal variation, etc., can be formulated and tested.

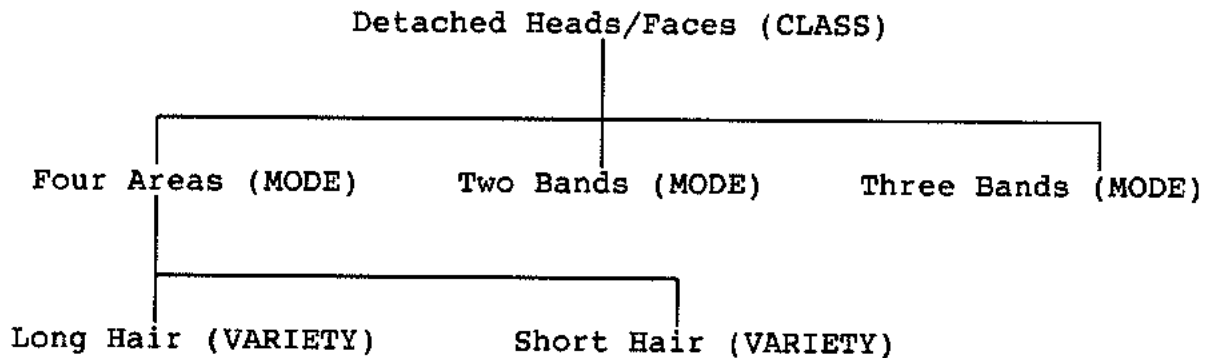


Figure 2. Outline showing a further classification of Basketmaker Isolated (Detached) Heads/Faces.

Discard all Style Definitions?

Although it might appear appropriate to completely scrap the whole of style designations and start completely over, redefining the entirety of rock art styles into modes and varieties would be dreadfully time consuming, and many of the cultural association conclusions determined by the style classification methodologies would remain unchanged. A better approach is to build a modal classification either independent or within the currently defined assemblage of styles and then use it, including other data, to provide new information and remedy deficiencies within the style approach.

Also, style designations should not be discarded without additional information. Style classifications have served a useful purpose in the past. They have provided information on possible cultural affiliations, distributions, and relative time period. They have also established a standardized means for communication. When the function of rock art is better understood style concepts will provide useful information.

Limitations to the Mode Classification System

Mode designations are not without limitations. They suffer from some of the same deficiencies as style classifications, i.e. ~~with regard to determinations of cultural affiliation.~~ It may be almost impossible to determine cultural affiliation from a single isolated image, when that image occurs in more than one style. There are several specific elements that are present in more than one of the currently defined styles. These are almost always geometric forms such as: circles, wavy and zigzag lines. These and other geometric forms, are so easily invented by the human intellect that they seem to occur almost universally throughout the world. To assign cultural affiliation to a simple wavy line or circle would be difficult, whether classified as a style or a mode. It should not be surprising then to discover the presence

of images common to different styles and to find that they are not as fully analyzable as other images.

Perhaps a criticism of mode classification will be that it does not, or cannot address subjects like total ascetic impact, general ascetic mode, or spatial relationships. My argument is that none of these aspects (and others) have been adequately addressed anyway, and that no defined styles exist where any one of these criteria alone differentiate individual styles. If they did, how would an isolated, individual images have any style? It therefore appears unlikely that these criteria have had any past relevancy to style determinations.

SUMMARY

Classification by mode has the potential to be the means to define and weigh the relative variation and regularity of ideologies in human society. Mode definition and classification, and a detailed analysis of the context of modes within panels, as well as the distribution of modes in relation to cultural associations and physical location, will open avenues of greater freedom in our thinking. This information will make the study of the spread of ideologies and movement of individuals much more specific, clear and understandable than current style classifications. Mode classification will also make possible a clearer, more precise understanding of the differences and similarities in rock art images, and how those characteristics vary with respect to culture, time, and space. Classification by mode will provide information that would assist in determining prehistoric behavior, and explanations of variability and change in this behavior. Classification by mode will enable a greater level of sensitivity for cultural associations. And finally, analysis by mode will provide information that will make possible the formulation of hypothesis for meaning of the individual images that make up the rock art record. 3

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1 For example Turner (1963:10) developed the five Glen Canyon Styles from only about 100 sites, and Heizer and Baumhoff's (1962:16) five styles were defined from defined from 99 sites. Schaafsma (1971) defined the Classic Vernal Style from about 98 panels, and the Barrier Canyon Style from 16 sites.

2 Consider for example that in the 8,000 year history of Glen Canyon, as apparently represented in the rock art, only five styles were defined by Turner (1963). In all of Nevada, Heizer and Baumhoff (1962) defined only five styles.

3 The ideas and concepts expressed in this paper have not been developed as far as I would like. Time and space constraints limit a more detailed development and discussion. These concepts should also be considered as being in their infancy, and thus subject to modification. Several papers are presently being prepared that use and discuss the mode concepts for analysis presented in this paper.