
3-1977

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Publication Info

Published in *The Conference on Historic Site Archaeology Papers 1975*, Volume 10, 1977, pages 153-155.

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PATTERN RECOGNITION IN HISTORICAL ARCHEOLOGY*

Stanley South

The archeologist is concerned with understanding past lifeways, culture history, and culture process by examining the material remains of culture reflecting these processes. The conceptual framework for this understanding is that of evolutionary theory. The method whereby these phenomena of the past are examined pivots on the recognition of pattern in the archeological record. Once pattern is abstracted and synthesized with other patterns, these demonstrated regularities are often expressed as empirical laws. The explanation of why these lawlike regularities exist is the goal of archeology. The explanation is addressed to the causal processes in the past cultural system in the form of hypotheses to be tested with new data through research designs specifically constructed to fit the questions being asked. The understanding of culture process and how it works comes through this basic procedure of archeological science. This understanding provides a conceptual environment within which new theory is invented to explain the phenomena the archeologist has observed.

With this procedure as basic to archeological science, it follows that the use of ethnographic data and historical documentation by the archeologist does not result in a different kind of archeology merely because a wider data base is available. This viewpoint is not generally shared by archeologists, however. Many colleagues assume historical archeology is a particularistic involvement with details of history, cataloging, and classification. This is not enough! The archeologist has a responsibility to go further than this and to address the culture process by scientific procedures.

There is historical reason for the more limited approach in that historical archeology has so frequently been done by archeologists with a particularistic point of view. This historical development accompanied by the publication of a number of books emphasizing the particularistic approach has resulted in historical archeology having a particularistic image. Historical archeologists must come to a realization that we can, and in fact must, do more than this in an area of archeological research that offers great promise for the development of archeological science.

Unless there is an effort made to go beyond the particularistic approach to historical archeology there can be no concern for pattern recognition. Pattern recognition, however, is a basic step in any analysis. Judging from many recently published reports by historical archeologists as well as a number of doctoral dissertations, containing no attempt at pattern recognition, it is apparent to me that the training these people received did not prepare them to carry out scientific archeology. Pattern recognition is a basic methodological approach in archeology. Without

* Since this paper is being published in Method and Theory in Historical Archaeology, by Stanley South, New York: Academic Press, Inc. (1977), only an abstract is presented here.

quantification, however, there can be no explicit pattern recognition. Without pattern recognition there can be no archeological science. Without archeological science our ideas about man's past cannot be predictably tested, and this is the basic goal of archeology. Without predictability man's ideas about the past amount to antiquarianism. Therefore, pattern recognition and quantification are basic to the archeological process. These are, however, merely the first steps in that process, but archeologists must take them before they can ever hope to contribute, through their work, to a science of archeology.

The concepts we are concerned with here can be envisioned in terms of "Archeology and the Art of Weaving." The basic warp of the fabric is the process of evolution, interwoven with the weft of unique events trailed from the shuttle of history. The variable strands of the weft produce a pattern interlocked with the regularity of the warp. The resulting design, "Carolina Pride," has determined the relationship each strand of yarn has to every other in the woof and warp of the fabric. This design can be equated with culture process. The fabric is that creation of man known as culture.

The particularist is involved primarily with the description of the weft strands as they cross the warp, tracing each step of the way, over and under, with every row of yarn representing a single archeological site. At the end of the row he writes his report and he is done.

The archeological scientist searches for pattern not only within each row of weft yarn as it goes over two, under three, over two, under three, but he also notices that adjoining rows of weft (sites) have somewhat similar, yet varying patterns. With pattern recognized for a number of sites (weft rows), he makes a prediction as to what pattern the next row (site) will have. If his postulates are empirically verified, he then hypothesizes as to the design (culture process) that was the explanatory determinant for the pattern he has delineated from the empirical data. As his hypotheses are tested and found to be valid, he eventually is able to say "the explanatory phenomenon is a design I will call 'Carolina Pride.'" Having thus addressed himself to culture process, he is well on the way to understanding something about the fabric of culture.

It is hoped that the discussion here has made clear that historical archeology is archeology carried out on sites of the historic period. This fact does not make it a different kind of archeology than any other. David Clarke (1968:13) has emphasized that "archaeology is archaeology is archaeology," and Leslie White (1938) has stressed that "Science is Sciencing." In the decades to come, as more archeologists come under the continuing influence of the "great pulsation" toward archeological science, there may come a time when it can be said that archeology is sciencing, and no one will seriously challenge the proposition. At that time archeology can indeed be spelled with a capitol "S" for science, as Flannery has suggested (1973:47).

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