Book Reviews

Archeology: Change and Progress

A History of American Archaeology. GORDON R. WILLEY and JEREMY A. SABLOFF. Freeman, San Francisco, 1974. 252 pp., illus. Cloth, $9.95; paper, $4.95.

This is a historic book. It is the first book-length history of American archeology by professional archeologists. It is a product of a historical moment in the discipline, and it is an attempt to understand this moment as a product of activities and concerns of past archeologists and their nonprofessional forebears. The past decade and a half has been a time of far-reaching and stressful change in American archeology. Now it is time to see where we are. Single and collected sets of articles have appeared in the 1970's that attempt just that. Some have emphasized revolution, the role of the present as the first step toward the future, while others have emphasized evolution, the present as the most recent step from the past.

The authors of this history take a moderate position, one that carefully balances accomplishments of the past 125 years with recent dissatisfactions and present programs for the future. They come with high qualifications. Willey has completed an encompassing survey of the culture history of the Americas. The leading candidate for the deanship of American archeology, he is known for his broad and synthetic perspective, for his commitment to moderation, and for his concern for the unity of the field and for its progressive development. He has had broad experience in both the Americas, and has contributed to significant advances in problem and strategy. Sabloff, one of his students, shares many of his qualities. Affected by the changes sweeping archeology, he has tried to combine these with the traditions of the "Harvard school."

The authors intend an intellectual history. This, in part, is the sequence of archeological discoveries, techniques, and methods in time and space. They mean, in addition, the changing conceptual frameworks, the problems derived therefrom, and the changing relations of these to broader intellectual climates on the one hand and to the strategies and methods of research on the other. Their intended emphasis is on concepts, and their method is to discuss and emphasize "those people and works which are most closely linked with the introduction and uses of new and important concepts" (p. 16).

The authors divide the history of American archeology into four periods: the speculative (1492–1840), the classificatory-descriptive (1840–1914), the classificatory-historical (1914–1960), and the explanatory (1960–). The penultimate period is subdivided into a period in which the primary concern was with chronology (1914–1940) and one in which it was with context and function (1940–1960). For each period, works that are the earliest or most typical expositions of concepts developed and employed are discussed, as are those that foreshadow the work of later periods. Changes in methods and techniques, in research problems and theoretical frameworks, emerge through the analysis of cases ordered temporally.

For the authors, the history of American archeology is one of continual and continuing progressive development. Most obvious in their account is the increase in the set of items, areas, and times known. Less emphasized, yet suggested, is the increasing number, precision, and sophistication of techniques. A cumulative increase in the density of concepts emerges. At first prehistoric monuments were seen and held in wonder. Their creators and their relation to living Indians were questioned and wonderful answers given. Then order was discovered in the archeological record. Things could be classed together. Individual classes and then sets of classes were seen to have spatial and then temporal existence. Variability in space at a gross scale was obvious from the beginning, and by the turn of this century variability in both space and time began to be documented at a fine scale. The definition of constituents and interrelations of "cultures" became the dominant concern under the heavy hand of the anthropological theory (and an involuted German historicism) of the day. By 1940 some archeologists, dissatisfied with these accomplishments (and aware of changing anthropological goals), attempted to put human flesh on the bones of form in space and time. In work as diverse as the archeological record itself, several archeologists and, significantly, ethnologists attempted to know past phenomena ranging from the function of pottery vessels to that of regional art styles, from prehistoric habitats to the patterns of settlements within them, and from mental norms for artifact production to the evolution of civilizations.

Several of these concerns were united in the early 1960's with concepts taken from cultural evolution, ecology, general systems theory, and logical positivist models for science. This synthesis—the "new archeology"—the authors attribute to L. R. Binford, although they carefully trace his conceptual antecedents and context. The authors welcome most of the additions made by Binford and his students and collaterals. In the contemporary concern with culture process they see a significant synthesis of reemergent evolutionism with systems and ecosystems concepts. They favor the new willingness to speculate when it is combined with the discipline of explicit description, modeling, and hypothesis testing. The introduction of sophisticated statistical analyses and the use of the computer are seen as important technical additions. Finally, the authors are enthusiastic about archeology's new enthusiasm—its optimism about knowing more about the past, contributing to anthropological theory, and making knowledge of the past relevant to the contemporary public.

The authors also discuss weaknesses of the new archeology—weaknesses that, I suggest, also illuminate weaknesses of their history. For this book is a microcosm of the conflicts and problems that contemporary archeologists are attempting to resolve. It is full of paradox. The authors believe that cultures should be conceived as systems, yet they do not define fully the elements and relationships, the negative and positive feedbacks between and among the constituents of method, theory, and technique. They hold that archeology should be evolutionary and ecological, yet they do not analyze the evolution of the discipline. They suggest

that it should analyze culture process, yet they emphasize the separate events and individuals, the discrete periods that may or may not be periods of stability and "puzzle-solving" and that may or may not have been transformed according to some model for change. They suggest that archeology should explain the past, yet they do not explain archeology's past.

For instance, our implied rise from ignorance to the verge of truth, though emotionally satisfying, casts those who speculated into the inner circles of superstition. Yet we should assume that theory of the day was fitted to facts as they were then conceived. If these relations were not explicated completely (they never can be), then it is the job of the historian to uncover them. Or, again, the rise of the new archeology is traced, but is it explained? Is it the product of an inevitable vector of change—scratch an archeologist and you'll find an evolutionist? Or is it the creative synthesis of one or a few men? Both are implied. Was it purely a cerebral process, or did new techniques —carbon-14 dating, statistics—illuminate irreconcilable flaws in culture historical theory? The emphasis on more scientific research is noted. But what was the effect of Big Science? Did radical shifts in the source of the funding of archeological research from private collectors and museums to the National Science Foundation change the stated goals of archeology? Did they change the practice? These are significant historical questions to which satisfying historical answers could be given. In this book they are not, and one senses underlying uncertainties about what satisfying explanations look like and the theoretical system from which they should be derived.

Thus the paucity of substantive explanatory accomplishment that the authors note for the new archeology also characterizes their history. And the lack of integration of diverse lines of inquiry into holistic models for cultures and culture change also is found here.

Willey and Sabloff's discussion of other shortcomings of the new archeology both highlights and obscures central methodological objectives defined by it. These objectives are, first, that the general should be sought in the particular; second, that generals that seem to account most successfully for cultural stability and change should be the primary focus of explication and analysis; and third, that these generals and their consequences should be confirmed by testing in repeated and diverse empirical contexts.

In contrast to what they feel to be more restrictive suggestions of new archeologists, they approve the direct use of analogies taken from ethnography to explain archeological data, the current diversity of problems, and the defense of non-logical-positivist models for explanation. But it is precisely these activities that contribute to lack of accomplishment and integration. In using ethnographic analogy archeologists have inevitably omitted theoretical analysis of and justification for the posited identity of past and present cases or the observed relation between behavior and material form. Such analogies implicitly assert that certain associations occur under certain conditions, that is, they are based on implicit generalizations, and examination of their general aspect would advance behavioral theory. Ethnographic analogy may produce the feeling that the archeological record has been explained, but it has not led to the explication or testing of theory.

Diversity can be a weakness as well as a strength. Evolutionary theory, ecological theory, and systems theory provide a gigantic umbrella under which many problems can be and are pursued. They do not in themselves provide the stuff of researchable problems. There is little debate and less agreement on the adaptive role of forms of, for example, population growth, technological specialization, social interaction, political centralization, or ritual performance. There have been creative suggestions, and research on such general problems is widely known and highly honored. But there are no communities of researchers that agree on the critical generals and then investigate them. In Thomas Kuhn's recent distinction, archeology is problem-seeking rather than puzzle-solving.

The heat generated by debate over method and forms of scientific explanation may illustrate a principle of organization, namely, when unsure of what to do organize a committee and discuss how to approach the problem. There may be a need for methodological debate, but it is tragically irrelevant in the absence of agreement about the processes to the investigation of which method should be applied. When such agreement is attained, one senses that the proper logical form for the explanation will be of little moment.

Both explicitly and implicitly, then, Willey and Sabloff provide insight into the state of current archeology and its development. I would have preferred more intensive and extensive analysis of intellectual trends. But this short book, full of drawings and photographs that illustrate visually the history of the field, gives one a good sense of the men (but, unfortunately, few women) and the work that manifest the processes of intellectual change. Its richly descriptive text and its extensive bibliography make it an invaluable source book. Even those familiar with the subject are likely to discover little-known and surprising details of acheological history that have been carefully uncovered by the authors. And if, as the archeologist Mark Leone has suggested, archeologists are changing their understanding of the world of scientific research and their place within it, we can expect future editions by the authors or their students to combine with solid chronicle explanation of the processes and their products.

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Conserving Whales

The Whale Problem. A Status Report. Papers from a conference, Shenandoah National Park, Va., June 1971. WILLIAM E. SCHEVILL, G. CARLETON RAY, and KENNETH S. NORRIS, Eds. Harvard University Press, Cambridge, Mass., 1974. x, 420 pp., illus. $12.50.

The whale problem is one of regulating man's activities on the high seas. The authorities on whales concede that some species have been so reduced in numbers that we should no longer kill them but point out that no species has been exterminated by whaling, yet. The Establishment of the International Whaling Commission admits that it failed in the past to control the killing of whales, but they are gaining strength and authority and if everyone will believe in them and attempt to understand them, all will be, they hope, if not well, at least much better than it has been. At least the infamous "blue whale unit" has been abandoned as a management device and quotas have been set. Some people do not believe all these things, and want us to stop killing all whales now, and send us broadsides advocat-