for behaviouralists. Klein (1969, 1973) has adequately covered much of Shimbki's material and archaeology. It is hardly surprising to read that they must consider humans in their environmental setting before they can understand the archaeological database (Lucretian hand). This latter work takes on an ambitious aim (see, for example, p. 125): to place human communities in their environmental setting and discuss evolutionary and ecological relevance but, given the wide area investigated, the paucity and unreliability of much of the data are far from REMAINING generally. There is too great a concentration on North China where Choukoutien still seems to dominate despite the inadequacy of that site's data. In both papers the presentation of more illustrations and of reliable archaeological data would have been useful. The appendix to Shimbki's paper being a case for this point.

Experimental archaeology is surprisingly absent from this volume, and much more could have been made of functional analysis. The volume is adventurous in attempting such a wide brief. It succeeds in gaining a good area coverage of the Old World, but is lacking in method and theory. Each of the papers is of interest to specialists, but the lack of coherent focus to the book, and the degree to which it has become dated could tend to reduce it to reference shelves, a victim of delayed publication, and the increased tempo of research into palaeo-behaviour.

References


Reviewed by Valerie Pinsky

This book is the product of three separate but conceptually related symposia held at the Southampton conference of the Theoretical Archaeology Group (TAG) in 1980. It is remarkable for its unity of focus on the problems of archaeological explanation and the study of socio-cultural process and change -- two issues central to the theoretical concerns of the new archaeology which have been the subject of extensive and often heated debate since the early 1960s. What might appear to some readers as an inherent contradiction of the volume -- that to a large extent its individual thematical sections are highly interrelated -- is in fact its major strength, and reinforces the view that processual archaeology, far from being a monolithic epistemological edifice, is a much looser and more diverse association of ideas and approaches to the study of the human past.

The three separate symposia form the basis of the book's thematic-scholarly divisions. Section I, 'Explanation Revisited', contains ten papers and two commentary pieces, and addresses itself to the efforts of archaeologists to formulate specific explanatory models on the inspiration of the philosophy of science. Renfrew's introductory paper provides an overview of the development of 'theory' during the last hundred years, and associates the emergence of the new archaeology with what he calls "The Great Awakening" (David Clarke's "loss of innocence") in which the demand for scientific explanation became a central concern. He reviews common forms of explanation in archaeology, equally critical of both hypothetico-deductive and historical approaches, and emphasises the need for knowledge adequate for general explanations. The next three papers reassert the value of the philosophy of science for archaeology and broaden Pigg's general remarks about its utility for increasing archaeological credibility and arguing that dialogue collapses because their interests in explanation are considerably different. She none-theless stresses the value of disciplinary interaction and discusses the potential of the statistical-relevance model (S-R). The latter is developed more fully in the next paper by W. Salmon in his discussion of the need for a probabilistic rather than a universal causality. Muller's contribution expands on the idea of causality, and argues for a deterministic model of causal explanation. The conclusion is that this is in fact none other than the deductive-nomological model, and the following paper by Jim Bell advocates the Popperian method of falsification as the basis of scientific growth through criticism. Smith's piece is also critical of the use of the hypothetico-deductive method in archaeology and of causal explanation in general, and urges the adoption of a new empirical model instead. The next two papers by Miller and Geliner shift the focus of discussion radically, to different perspectives: Miller rejects deductivism out of hand and suggests realism as a more viable alternative, and Geliner introduces an intriguing description of French "structuralism" and its limitations. These papers are followed by a strident commentary addressed to Rinfield, in which he reasserts the need for a robust testing methodology and the development of "middle range reseach". In this he stresses the very different functions of ideas (as paradigms, or the culture of science) and testable hypotheses (as scientific knowledge). The final commentary, by Eggert and Hall, agree in seeing contemporary debate on explanation as a sign of disciplinary viability.

Section II, 'The Dynamics of Change', is a diverse grouping of five papers which focus on approaches to the study of socio-cultural process and transformation, and are united by varieties of an historical Marxist perspective. Rowlands' discussion of the rejection of history in contemporary archaeology reassesses the value of history as the basis of an archaeologically social science, and Friedman reviews neo-evolutionary approaches and their limitations for the analysis of social transformation, providing an example of the failure to account for the development of an African society from an hierarchical to an egalitarian structure. Giedhil and Larsen consider the implications of the Polani paradigm for Archaic Mesoamerican and Mesoamerican social formations, and are critical of its essentially static nature. The following paper by Nugent discusses disparities between anthropological and archaeological approaches to units of analysis such as the "tribe" through an example from Amazonia, and the resulting lack of a "cultural" historical explanation in anthropology in general. The final paper in this section by Kristiansen is a general survey of Northern Europe from the Neolithic through the Bronze Age according to a cyclical model of tribal transformation. Each of the papers develop from substantive bodies of ethnographic and archaeological material, and together they constitute a diversity of sociological, ecological and neo-evolutionist approaches to the study of socio-cultural process.
disjunctions, between the empiricist emphasis in Sections I and III, and the historical Marxist directions in Section II, might usefully serve as a catalyst for further consideration of the connections between formal explanatory models inspired by the philosophy of science and the more substantive types of explanation of social transformation sought by archaeologists. By making these disjuncts explicit and accessible, this volume will certainly contribute positively to the synthesis of theory and explanation in archaeology.


Reviewd by R. Michael Cawano

The Many Dimensions of Pottery

The Many Dimensions of Pottery has, in some respects, been gestating for 20 years, since the 1962 Burg Wartenstein conference on ceramics provided the impetus for the 1982 Lhee conference which gave birth to this volume. A lot has happened to ceramic studies in the intervening two decades, as Pritchard and van der Leeuw point out in their introduction. As a historical record of change, the Many Dimensions of Pottery makes a fine companion to the collected papers of the Burg Wartenstein conference (R.F. Watson, 1986, Ceramics and Man). This new volume also stands as a useful complement to recent thought in ceramic studies in its own right.

The 17 papers in this volume are a potpourri of ideas — ranging from thought provoking to irrelevant (depending on your particular area of interest, of course). Since the order in which the papers occur follows no perceptible train of continuity, I have grouped them into two major categories, reflecting the broad areas covered in this book. The areas, which overlap somewhat, are technology and behaviour. No doubt some wigg will comment that this 'typology' of papers reflects an 'old order' ceramicist (he/she might be right though I don't know). In any case, it helps make this volume a little easier to discuss — it has a lot of food for thought between its covers.

Pritchard and van der Leeuw open the volume with a succinct appraisal of the change in direction in ceramic studies over the twenty years between the Burg Wartenstein and Lhee symposia. At that point, one, there is an increasing tendency for ceramicists to be more aware of context, and less concerned with typology. This awareness has led to greater emphasis on the ethnology of ceramics, and the people who make and made pottery, and the raw materials they used. This is certainly borne out by the rest of the papers in this book.

In the final paper in the book, van der Leeuw expands on these directions, and why they have occurred, in terms of attempting to come to an understanding of how and why ceramic patterning occurs in time and space, and what data ceramics can provide concerning the social, political and economic systems of past populations. In part, this new focus has led ceramicists into considerations of cognition, learning and communications, and how they relate to pottery. van der Leeuw suggests this increasing awareness of the need to study ceramics within the total social context proceeds out of the positions created by the ceramicist's attempt to remain objective, while relating pottery to the subjective context in which it was made and used (p. 711).

Watson's paper, which forms the second chapter of the book, provides an historical overview of the past two decades which expands on the introduction. The 'grand man' of ceramic studies, E. H. L. van der Leeuw is a ceramicist, not a historian, and yet generally understudied, directions he feels are of use to a greater understanding of pottery are presented. He suggests we should begin to examine the relationship between potters and other craft specialists at the village level, since the potter is a member of a larger system, and should be studied in that context. Watson also feels the isolation of the various aspects of ceramic technology for separate study may provide significant information concerning the nature of change, and what change means in human terms.

Change is the major focus of three of the papers, those by Riee; Feinman, Kowalewski and Blanton; and Papoucek. Though each of the papers handles the question of change somewhat differently, they form a coherent body of recent thought. Riee focuses on change and conservatism, and suggests one of the problems we face as archaeologists in understanding change is our tendency to give time up to fairly large blocks. While this is, he notes, useful at times, we tend to miss what happens on the boundaries of those blocks of time. Riee feels there are four basic questions which must be addressed: the nature of change, and whether it is qualitative or quantitative, what constitutes a pottery-producing system; whether all aspects of a pottery-producing system are equally change resistant; and if not, what produces changes in that system.

Riee suggests that not all change results in concomitant change within a ceramic system, and