

REVIEW

Dean E. Arnold, *Ceramic Theory and Cultural Process*. Cambridge University Press, 1985. 268pp; 37 figs., 39 tables. Price £19.50.

Dean Arnold's book is a synthesis of much of the ethnographic literature on ceramics, and as such would be of interest in general terms to the archaeological reader who might not have the time to familiarise him/herself with this complex body of material spread across a number of periodicals and other publications. Dr Arnold is not content merely to synthesize, however; he is particularly interested in 'cross-cultural regularities which relate ceramics to environmental and non-ceramic cultural phenomena', and why these regularities exist. His aim in this book is to present a set of feedback mechanisms which stimulate or inhibit ceramic production, his thesis being that 'there are certain universal processes involving ceramics that are tied to ecological, cultural or chemical factors'. These universal processes 'can provide a solid empirical (as opposed to speculative) base for interpreting ancient ceramics'. There is much to commend this approach, especially in British archaeology where the emphasis on period divisions such as prehistoric, Roman, Saxon and medieval often tends to obscure more than it reveals about cultural processes.

The introductory chapter discusses the limitations of traditional archaeological and ethnographical paradigms, and goes on to outline the theoretical perspectives used in this book: the systems paradigm (systems theory), cultural ecology and cultural materialism, and ethnoarchaeology. Arnold poses the question 'why does pottery making develop in an area and why does it evolve into a full-time craft?', a question to be considered in relation to the ethnographic evidence which is his main subject here, but a question which is of obvious interest to archaeologists concerned with post-Roman and medieval pottery.

The main chapters discuss different feedback mechanisms affecting pottery production, and the relationships between these mechanisms. Chapter 2 gets to grips with cultural ecology by considering the nature and location of resources necessary to make pottery, and the relationship of these to pottery-making communities. Of particular interest are the tables (Tables 2.1, 2.2 and 2.3) showing the distances that potters from a number of societies are willing to travel to obtain clay, temper and slips/paints. This information is sensibly dealt with in terms of the exploitable territory threshold model. A section at the end of the chapter considers the archaeological implications of the ethnographic evidence for analysing distribution patterns of particular pottery fabrics.

In chapter 3 Arnold discusses the feedback effects of weather and climate on pottery-making communities. The ethnographic statistics show that a cold and damp climate provides a significant limiting factor for pottery production, and may play a large part in preventing any development of pottery making, as in the case of the North-West Coast culture area of North America. This mechanism may also partly explain the absence of pottery in many areas in north and west Britain at various times in the past. Regions with a warmer, drier summer, on the other hand, permit pottery making for part of the year, but are unlikely to see the development of full-time ceramic specialization without technological innovations such as elaborate drying

facilities and kilns.

Chapter 4 covers 'scheduling conflicts', a feedback mechanism produced by an interaction of climatic restraints on both pottery making and subsistence activities such as agriculture. This comes into play when the optimum weather for pottery making coincides with a time of substantial agricultural commitments, for example. It is a factor that has been little considered by authors of reports on medieval kiln sites in this country when discussing the lifetime of a kiln and the frequency of firings. The problem of scheduling ceramic production around subsistence activities, a problem for part-time peasant potters, is also related to the question of whether men or women are the potters in a society. The following chapter considers a society's degree of sedentariness as another factor affecting pottery production.

The factors creating demand for pots rather than containers of other materials are outlined in chapter 6. Among factors determining vessel shapes is one that has rarely been taken into account by archaeologists, that of the motor habit patterns of a society, which are altered only with difficulty. Life expectancy of pots in different cultures, with some useful statistics, and the ritual uses of ceramics are also covered.

The feedback mechanism in chapter 7, the man/land relationship, is most relevant to the development of pottery production from a part-time activity to a full-time craft. As available agricultural land or land productivity decreases, people will increasingly turn to crafts like pottery to make a living. Potters dwelling on marginal agricultural land are well documented in the ethnographic literature, as is the fact that potters prefer to return to agriculture or some other more secure living if that is available. Here Arnold also draws on historical parallels, quoting Mrs Le Patourel's seminal article 'Documentary evidence and the medieval pottery industry' in Medieval Archaeology 12 (1968) (wrongly cited here as 'Patourel, 1968').

Chapter 8 outlines the effect of technological innovations, such as the potter's wheel, drying sheds and kilns, on the pottery-making process; some create new feedback mechanisms, others mitigate the effects of existing regulatory mechanisms. Among barriers preventing the acceptance of innovations are, again, the motor habit patterns of a society, as well as the organizational patterns of pottery making, the economic marginality of potters, and a society's attitudes and beliefs.

The concluding chapter discusses the evolution of pottery making to full-time specialization; Arnold considers Peacock's system states of ceramic production in the light of the feedback mechanisms already described. In a final section, the author examines the implications for archaeology of his cross-cultural generalizations and feedback mechanisms; this section is rather cursory and could usefully have been expanded. Perhaps, however, that would have developed into a separate volume.

This is a well-written and produced book, and easy to read once one has assimilated Arnold's theoretical perspectives as outlined in the Introduction; moreover, there is not too much 'New Archaeology' jargon. It is well illustrated with a number of half-tones (numbered as figures), and there is a comprehensive bibliography. Archaeologically, it is biased towards the New World, but the unfamiliarity of the examples to the Old World reader does not detract from the impact of Arnold's arguments.

Ceramic Theory and Cultural Process is an important and stimulating book that will be invaluable to ceramic specialists of all periods, providing as it does the fascination of detailed ethnographic examples and the breadth of cross-cultural generalizations. With these the archaeologist can at the least be made aware of the range of possible human behavioural elements represented by the scanty material remains; more than this, however, there is the possibility of testing Dr Arnold's models and generalizations against the accumulated body of data on Saxon and medieval pottery. It is time that pottery specialists in this country began to broaden their outlook, and this book is a useful contribution towards that end.

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