Book Reviews

Peruvian Prehistory

The Peoples and Cultures of Ancient Peru. LUIS LUMBRERAS. Translated from the Spanish edition (Lima, 1969) by Betty J. Meggers. Smithsonian Institution Press, Washington, D.C., 1974 (distributor, Braziller, New York). viii, 248 pp., illus. $15.

Of the two centers of pre-Columbian civilization, Mexico has received more attention than Peru, partly because it is easier to reach and partly because its architecture, sculpture, and intellectual life were more highly developed and hence have been more attractive as subjects for archeological research. This parallels the situation in the Near East, where Egypt originally had priority over Mesopotamia for the same reasons. Just as knowledge of Egyptian archeology became available to the general public before knowledge of Mesopotamian archeology, so laymen have had greater access to Mexican than to Peruvian archeology.

Betty J. Meggers therefore deserves our thanks for translating and publishing the latest summary of Peruvian archeology. Lumbreras wrote the summary in 1964–65 as a text for his university course in local archeology. He expanded and revised it in preparation for Meggers's translation. So much had become known in the meantime about his Lithic period (21,000 to 4000 B.C.) and Archaic period (5000 to 1300 B.C.) that the chapters on these subjects had to be completely rewritten. The Inca period (1100 to 1470 A.D.), on the other hand, receives only sketchy treatment because it is already well covered in the English-language literature.

Two competing systems of periods are currently used to organize the results of archeological research in Peru. One, which was worked out by the late A. L. Kroeber, John H. Rowe, and their students at the University of California in Berkeley, is based on changes in the style of pottery and associated artifacts, especially on the south coast of the country. The other system is an outgrowth of the cooperative program carried out by a number of American institutions in Virú Valley on the north coast immediately after World War II. Its periods are defined by and named after the major innovations in technology and (for the later periods) social structure inferred from the artifacts. It has therefore been termed developmental, but Lumbreras also calls it functional, and this is more accurate, since it is based not on developments in style but on those in the manufacture and use of artifacts.

The two previous summaries of Peruvian archeology—Edward P. Lanning's *Peru before the Incas* (1967) and Gordon R. Willey's chapter on the subject in his *Introduction to American Archaeology* (1971)—both used the stylistic approach. Lumbreras's periods are instead functional. This makes it difficult to relate the conclusions in the three books. Moreover, Lumbreras has developed his own set of functional periods, placing greater emphasis on social (as opposed to cultural) developments than his predecessors did. This illustrates the weakness of the functional approach; its users are unable to agree about the nature and importance of the inferences they draw from the artifacts. There is more agreement about stylistic criteria, since they are empirically determined, and so they provide a more practicable means of establishing periods.

Because the functionalists base their periods primarily on the situation along the north coast, they tend to overlook the local developments elsewhere. Thus, Lumbreras implies that urban life did not develop in Peru until his period of the Wari Empire (700 to 1100 A.D.), whereas Willey and Lanning note its presence on the south coast during their Early Horizon (900 to 200 B.C.) and Rowe suggests that it may go back to Preceramic time on the central coast.

Lumbreras implies that Chavín, the earliest civilization in Peru, is derived from Mexico. Yet he shows that the ceremonial centers, temples, and many of the iconographic elements characteristic of Chavín were present in Peru centuries earlier, during the latest Preceramic period (his Archaic). The first pyramids also date from that period, 2000 years before they developed in Mexico—a fact that undercuts Thor Heyerdahl's attempt to derive the New World pyramids from Egypt. One wonders whether Lumbreras has underestimated the contributions of Peru to the rise of civilization in this hemisphere, as Old World archeologists once did in the case of Mesopotamia relative to Egypt.

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Folk Systematics

Principles of Tzeltal Plant Classification. An Introduction to the Botanical Ethnography of a Mayan-Speaking People of Highland Chiapas. BRENT BERLIN, DENNIS E. BREEDLOVE, and PETER H. RAVEN, Eds. Academic Press, New York, 1974. xxiv, 660 pp., illus. $39.50. Language, Thought, and Culture. Advances in the Study of Cognition.

Gently childing their ethnographer colleagues, the authors of *Principles of Tzeltal Plant Classification* write in the preface:

> There are innumerable excellent accounts of a society's kinship system, ritual, and sexual behavior for every sketchy report of its ethnobiological knowledge. This state of affairs appears to us unfortunate because topics relating to primitive man's understanding of his biological world are often the ones he is most eager to discuss.

Berlin, Breedlove, and Raven—the first an anthropologist specializing in ethnolinguistics, the latter two botanists with long-standing interest in Chiapas flora—have set out to right this imbalance, at least for the Tzeltal-speaking Tenejapa Indians of this southeastern Mexican state. The rationale for this encyclopedic treatment of Tzeltal nomenclature and classification is threefold. First, Tenejapanecos, like other Indians of highland Chiapas, not only gain their livelihood from various forms of agriculture but also regard cultivation of the *milpa* as the essential, most honorable pursuit of man. Their knowledge of plants, both cultivated and wild, is of crucial practical importance to their lives; accordingly it is central to an adequate account of the conceptual bases of their culture. Second, the authors have taken seriously the notion that "primitive science" is nonetheless science; collaboration between anthropologist and botanist ensured that the authors could do justice to both the folk and the systematic aspects of this

portion of "folk systematics." Finally, the authors have taken advantage of voluminous material to illustrate principles of naming and organization which, in line with recent speculation by the writers (particularly Berlin) and others, they suggest applies universally to ethnobiological (if not wider ethnoscientific) classification in general.

Truly the wealth of botanical and linguistic detail in the volume is impressive. The book overflows with photographs and beautiful line drawings, detailed lists of plant names and descriptions, tables of alternate Tzeltal forms for naming and describing plants, plant parts, and plant attributes, and index and cross-index to suit every taste. As a result, the volume would doubtless meet the authors' standards as a field guide for someone with a modest competence in botanical terminology. Moreover, there are presumably enough data here to enable interested Western botanists to come to understand and appreciate Tzeltal ethnobotany as a detailed and principled "alternative analysis" of a certain range of facts about the plant world.

The authors' suggestions about possibly universal features of classificatory terminology, though far from conclusive, are persuasively argued and illustrated in detail. Berlin *et al.* propose, for example, a division of plant-name lexemes based on productivity and simplicity, and they relate that division to a rough measure of cultural significance. They find, not surprisingly, that highly significant plants are likely to have simple, unanalyzable names, whereas less significant ones are more likely to have more complex and more transparent labels. These and similar observations at last lend genuine substance to the familiar principle that lexical diversification and elaboration invade areas of cultural importance.

There is, unfortunately, something rigid, unproductive, and sterile about the cognitive emphasis in this treatment of ethnobotany. The authors began with the premise that primitive man enjoys an intimate and vital relationship with the plant world. In the book, however, the relationship never blossoms. There is more to the cultural significance of plants than the fact that some are cultivated, others protected, others merely used. Plants are also revered, treated with respect, fear, caution. The relationship is affective as well as cognitive; Tzeltal speakers know about plants, but they also feel about them. It is true that "the variety of food types that can be prepared from corn and beans is . . . rather spectacular" (p. 113). But there is more to this spectacular variety than can be captured by a single list of different "food-types"; different foods are appropriate to different occasions and seasons, valued for virtues medical as well as culinary. Such facts are surely part of Tzeltal ethnobotany. The ethnocentric lapse that allowed the authors to claim of a particular corn drink that its taste is "not notably pleasant" (p. 114) is hard to reconcile with the lack of any account of native tastes, any explanation for the fact that Tzeltales prize the drink. An account of the forces—political, social, and ecological—at work in determining the constantly shifting economics of agriculture for Chiapas Indians is lacking; in its place is a rather lame, out-of-date list of rough market prices for Tenejapa produce. These are symptoms of the authors' failure to represent the fact that highland Chiapas Indians not only know a good deal about the world of plants but also live in that world; and that their world is changing, in ominous ways shrinking.

The authors' selective concerns may have led them to stress certain facts of Tzeltal plant knowledge and to omit others. And, as it is, the collaborative effort represented in this book spanned more than a decade and included dozens of researchers in addition to the three authors. But what we are left with is a rather laundered set of lists, an encyclopedic but unidimensional ethnographic notebook, rather than a more global picture of the interaction between man and plant in highland Chiapas.

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Archeology of New York

Aboriginal Settlement Patterns in the Northeast. WILLIAM A. RITCHIE and ROBERT E. FUNK. New York State Museum and Science Service, Albany, 1973. x, 378 pp., illus. Paper, $4.50. New York State Museum and Science Service Memoir 20.

For as much as 130 years, archeologists in New York State have been in the forefront of American archeologists in terms of data production, and, indeed, many of the type cultures of the northeastern United States and southeastern Canadian areas were first named and described by New York State archeologists. For example, the widely used term "Archaic" to denote a cultural stage characterized by band-level foragers, sans pottery, dwelling in a remote age (more remote than could then generally be believed), was first used in its modern sense to describe a particular New York State culture (the Lamoka culture) by the senior author of this volume in 1932. Much of this evidence-oriented work has been supported by the New York State Museum and its active line of State Archaeologists. Arthur C. Parker, who took the title in 1906 and was himself a Seneca, set up what must surely be one of the first anthropological dioramas of excellence. His Iroquoian scenes (still at the New York State Museum) were notable in part because he used life casts of actual Iroquois.

Aboriginal Settlement Patterns in the Northeast rather explicitly consists, as any such work ought, of separate sections presenting respectively the theoretical position of the authors, the archeological data used, and the resulting models of prehistory. As one would expect in a work on this area, the volume of data is quite impressive.

The book consists of chapters on the major prehistoric cultural stages of New York State (not the whole Northeast): Paleo-Indian, Archaic, Transitional, and Early, Middle, and Late Woodland. Specialists will note the use of the Transitional as a stage (all cultures are of course in a state of transition, and some northeastern scholars prefer to regard the manifestations in question as part of the Late Archaic) and the lack of data for discussion of separate Early, Middle, and Late Archaic substages. For each stage there is a meticulous, generally complete description of a major site or sites excavated by the authors. Interestingly, the authors use one such site for each of their first four major periods (for the first 10,000 years), two sites for the roughly 1000-year Middle Woodland, and eight sites for those final 500 years of prehistory in New York State, the Late Woodland. This disproportion results in part from the bias of available archeological evidence. It is less real than apparent, however, because the authors draw upon the great wealth of existing data (as summarized in figure 1, p. iv), largely from Ritchie's *Archaeology of New York State* (1969) and Funk's as yet unpublished "An Archaic Framework for the Hudson Valley," and so are able to discourse upon