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 florahave 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