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Agriculture and the Onset of Political Inequality Before the Inka. CHRISTINE A. HASTORF. New Studies in Archaeology. Cambridge University Press, New York, 1993. xv + 298 pp., 31 figures, 31 tables, 7 appendixes, bibliography, index. \$69.95 (cloth).

Reviewed by Clark L. Erickson, University of Pennsylvania.

The development-of political power and the processes that initiate inequality are central to an understanding of the state. Hastorf presents a detailed analysis of the late social prehistory of the Mantaro Valley region of the Department of Jauja in the Central Andes of Pem. This is an ambitious project with wide-ranging theoretical implications. The book focuses on key anthropological issues such as culture change, the formation of power relations, and the causes ofinequality, carefully set in the specific historical setting of the Sausa (Xauxa or Jauja) ethnic group between A.D. 200 and 1460.

The Sausa, a pre-state society, underwent profound structural change during the Late Intermediate Period after Wari state collapse and before the Inka conquest of the Mantaro Valley. Hastorfs approach centers on the cultural, political, social, and economic implications of agricultural production at the local and regional level and its relationship to the processes leading to the concentration of power and to social inequality. She argues that a number of key cultural principles used by Andean peoples must be considered to

explain the development of political power. These underlying principles, which channel the behavior of human agents, include dual organization and the avllu (the basic land-holding social group), balanced opposition and hierarchy, rituals and feasting, ritual warfare, and reciprocity. According to Hastorf, these principles have archaeological correlates that can be documented in Prehispanic midden composition, house floor debris, community architecture and planning, and changing settlement patterns. Changes in these patterns over time reflect transformations of political institutions of power and increasing inequality. Agricultural production over time is the primary means that she uses to document changing power relations in Sausa society.

A detailed synthesis of past and present Andean agriculture is included. Hastorfpresents a step by step analysis and interpretation of a complex data set based on her impressive paleoethnobotanical and ethnoarchaeological research of Prehispanic and modem agriculture and also integrates additional information recovered by the Upper Mantaro Archaeological Research Project. She develops an eloquent quantitative model to determine "agricultural productivity potentials" for different land use zones in the region over time. She defines a model based on expected optimal and rational economic choices ("predictions"), which are tested against the archaeological botanical data set and settlement and demographic reconstructions. Her focus is on finding and explaining the differences between the optimal model and the actual case study. Agricultural decision making is not always rational and Hastorf's explanation for the apparent divergence from the model provides very interesting anthropological (some might consider them post-processual) insights.

According to Hastorf, agricultural production is the "backbone of Andean society and all segments of society exist in relation to it" (p. 222). The contribution of paleoethnobotany is generally considered to be somewhat tangential and limited in status, often consisting of lists of plant species, quantitative tables, and discussions of local environmental reconstruction relegated to the appendixes of archaeological monographs. Hastorf's approach to ethnobotany is much more innovative and productive, demonstrating that paleoethnobotanical data can provide a rich resource for investigations of political institutions, power relations, and the growth of inequality.

In a broader theoretical context, Hastorf at-

tempts a synthesis of the processual, neo-marxist, and postprocessualapproaches in archaeology. Her theoretical approach, which combines social theory (Bourdieu, Gramsci, Foucault, and Giddens on models of power, interaction, and negotiation) and a wealth of field data, provides a convincing interpretation of the changes Sausa society underwent. Hastorf is committed to a long-term historical approach. The specific context of her case study is critical to her innovative approach to understanding internal power and social differentiation in Sausa society.

REVIEWS

One potential problem with the local historical emphasis is that the Mantaro case is presented in a cultural vacuum. The Sausa were tied to the larger context in the Central Andes of political and economic developments, which may have included considerable influence from the Wari state during the Middle Horizon. Intra- and interregional movement of agricultural production is also a possibility, which would affect quantification of botanical remains. The reliance on assumed uniformitarian, pan-Andean stmctural principles (or lo andino) and their use as ethnographic analogy for archaeological interpretation has recently come under considerable criticism by certain scholars, but Hastorf's cautious application of these concepts is convincing as a historically grounded study.

The detailed treatment of methodology, in particular the auantification of botanical remains and sampling, is impressive. Hastorf uses three methods of quantification: presence or ubiquity, standardized density, and relative percentage. I am uneasy with such a heavy reliance on the quantification of archaeobotanical food remains because of potential problems of preservation and other potential biases (such as the burning of dung for fuel and cultural discard patterns). One might also question some of the basic assumptions such as the identification of the archaeological correlates of concepts such as "elite" and "commoner" households, the simple equation of large-scale architecture and intensive agriculture with inequality, the documentation of "warfare" based on archaeological settlement locations and walled communities, and that raised field agriculture is necessarily labor intensive.

Hastorf's well-edited book, a model of the application of contemporary social theory to prehistory, is one of several fine contributions of the long-term research conducted by the Upper Mantaro Archaeological Research Project. It should have broad appeal because of the intersecting

themes of indigenous knowledge, mountain environments, human ecology, mral development, agriculture, and human impact on landscapes. The book also provides a wealth of information and references to Andean cultural institutions and environment. Hastorf's approach in this book is far more sensitive and sophisticated than traditional theories based on cultural evolution often used by Andeanist scholars, which tend to focus on narrow cultural evolutionary "prime movers," based on adaptation, formal economic models, specialization, population pressure, warfare, administration, and production of prestige items. Hastorf has contributed a major work of Andean scholarship, successfully applying a highly theoretical perspective to archaeological, ethnohistorical, and ethnographic data.