Great Basin Archeology

Man and Environment in the Great Basin. DAVID B. MADSEN and JAMES F. O'CONNELL, Eds. Society for American Archaeology, Washington, D.C., 1982. vi, 242 pp., illus. Paper, \$14.95; to SAA members, \$10.95. From a conference, 1980.

Man and Environment in the Great Basin, a timely review of archeological research and current problems facing the archeologist, is very likely to succeed in its stated goal of redirecting Great Basin archeology toward problems of general anthropological and historical importance and away from the management and mitigation orientation that has dominated it over the past decade.

The volume is divided into two parts. Part 1 consists of papers concerned with paleoenvironmental changes during the late Pleistocene and Holocene (D. L. Weide, D. R. Currey, S. R. James, and J. O. Davis), paleoclimates (P. A. Kay), and the history of mammals during the past 15,000 years (D. K. Grayson), followed by a summary (Madsen). Part 2 consists of a historical overview (D. D. Fowler and J. D. Jennings), a discussion of the settlement and subsistence systems represented in the ethnographic record (C. S. Fowler), five papers reviewing the prehistory of five regions of the Great Basin (C. M. Aikens, D. H. Thomas, M. M. Lyneis, R. G. Elston, Madsen), and a review of the developments in Great Basin archeology and suggestions for new approaches (O'Connell with K. T. Jones and S. R. Simms).

In the northern regions, paleoenvironmental studies have been integrated through correlation of lake levels and shoreline features with soil types over wide areas. This is made possible by the very large Pleistocene lakes Lahontan and Bonneville and their smaller post-Pleistocene relict stands. In the southern Great Basin the much smaller Pleistocene lakes and essentially dry playas of the Holocene make the correlation of shoreline features over wide areas impossible, and no diagnostic soil types have been described.

There are clear differences in the quality and quantity of available data that hamper comparative studies between the southern and northern regions of the Great Basin. However, some general conclusions are drawn by Madsen. Ma-

jor points are that (i) modern Great Basin climates are diverse and were apparently equally so in the past; (ii) general patterns of environmental change on the order of a thousand years or more have been identified and appear synchronous across the Basin, but the degree of change differs from area to area and synchronous changes within shorter time intervals are not recognized; and (iii) specific paleoenvironmental data needed by archeologists to interpret Basin prehistory are not available. Local areas and short time periods may exhibit environmental variations that make pan-Basin interpretation of cultural change based on correlations with climatic change misleading.

Fowler and Jennings's paper provides a historical perspective from which to view the development of Great Basin archeology. At the heart of this development has been the relationship of humans to their environment. The ecological approach can be traced to Julian Steward's ethnographic syntheses of Great Basin Numic groups. For Steward, population density, settlement patterns, and sociopolitical organization were regulated by ecological factors. Jennings's Desert Culture concept, based on Steward's model, raised questions regarding the nature of prehistoric subsistence and settlement patterns. During the 1970's these questions were addressed by developing models of settlement and subsistence at the level of subregion or valley. These investigations resulted in the recognition of both temporal and spatial variability in cultural remains that required explanation.

The focus on the variability in settlement and subsistence systems runs through the last seven papers of the volume. C. Fowler describes the variability of ethnographic settlement and subsistence patterns that appear to illustrate the continuum of "actualized" patterns found within a single subsistencesettlement model that has considerable import for the application of ethnographic models to prehistory. In the northern Great Basin, Aikens sees a lack of significant change in the artifact assemblages and human activities of the post-glacial period but recognizes changes in settlement pattern. Explanations of these changes are based on the premise that "the distribution and abundance of food and industrial resources controlled the distribution, density and residential stability of human groups" in the Great Basin (p. 151). If resources are numerous and closely spaced, hunters and gatherers can support sedentary populations; if they are sparse and scattered, only small, dispersed, and mobile groups are maintained. Steward's influence on Aikens's approach, though not explicitly acknowledged, is apparent.

Steward's influence on Thomas's work in the central Great Basin is explicit. Thomas can find "no archaeological data from the central Great Basin which cannot be comfortably subsumed under Steward's ethnographic Western Shoshoni model." This region appears to be one of great cultural stability over the past 7000 years.

Madsen's model for prehistoric change in the eastern Great Basin modifies Aikens's basic premise with the cost and benefit factors of optimal foraging theory. Madsen views the earliest occupants of the region as adapting to the lake shores and riverine marshes, where the greatest concentration of resources occurred. As population increased, the less concentrated and more costly resources were utilized, resulting in a broad range of adaptive variation. Pronounced changes in use of different habitats that occurred after the establishment of the broad range are attributed to effects of climatic change or to technological innovation.

Elston's paper is the most complex and least well structured but in the opinion of this reviewer the most seminal. He maps the variables of climate, population, resource diversity, and adaptive strategy over the past 10,000 to 11,000 years, noting that the correlation between cultural change and climatic variation is not always what the ecological models predict. He uses climatic change and relative population changes to identify periods of environmental stress or population pressure. He then makes interpretations and predictions of culture change based on optimal foraging theory. For example, regarding the late pre-Archaic he states (p. 193): "If population density was as low as site density suggests, it is hard to account for this cultural change unless pre-Archaic subsistence was so specialized and oriented toward resources so high in the food chain that a relatively small amount of environmental stress caused the system to crash."

Lyneis's treatment of the southern Great Basin is inhibited by the paucity of data and lack of ecological approaches in the literature of the area. She reexamines the regional data from the perspective of adaptive strategies, however, and identifies two trends between 10,000 and 2000 B.C.: (i) an increasing reliance on upland resources followed by an increasing reliance on processed seeds, and (ii) changes from small transient groups during the Pinto period to comparatively large communities on valley floors during the Elko period and back to small transient groups during the subsequent Saratoga Springs period.

In the final chapter, O'Connell, Jones, and Simms provide a critical review of the culture-historical and descriptive ecological approaches to Great Basin prehistory. They argue for an approach based on evolutionary ecology and specifically on optimal foraging theory. O'Connell, Jones, and Simms argue that settlement and subsistence patterns are not determined by resource abundance alone but are strongly influenced by the costs and benefits of exploiting the various resources and by the abundance of those resources incorporated in the diet. Dietary change is accounted for in terms of resource costs and benefits and climatic change. The underlying principle is that, all else being equal, those strategies that produce the greatest return in energy relative to time and effort expended will be followed. Optimal foraging theory in effect provides more sophisticated grounds for predicting and identifying change in subsistence resulting from changes in environment. The problem, however, is that all else may not be equal. As the authors note, demographic and technological changes are factors to be considered. Optimal foraging theory explains technological changes in cultural evolution no more convincingly than it explains genetic change in biological evolution.

If there is a weakness in this volume it is the unstated assumption (or stated assertion) that technology shows little or no change during post-glacial times in the Great Basin, and that the varibility exhibited by ethnographic settlement and subsistence systems is representative of the past. None of these papers presents evidence illustrating the relative importance of functional tool types, and yet it is technology that allows humans to bring down an artiodactyl or process small, hard seeds. The relative ranking of these resources is clearly dependent on the technology of the human group.

Man and Environment in the Great Basin is a remarkable volume in that it provides both a historical perspective of the development of the ecological approach to Great Basin archeology and a thorough review of current problems and probable future directions. It is required reading for Great Basin anthropologists. The authors and editors have produced a provocative and exciting work meeting high standards of scholarship.

CLAUDE N. WARREN Department of Anthropology, University of Nevada, Las Vegas 89154

The Nursing Profession

Nursing History. New Perspectives, New Possibilities. ELLEN CONDLIFFE LAGEMANN, Ed. Columbia University, Teachers College Press, New York, 1983. x, 220 pp. \$18.95. From a conference, Pocantico Hills, N.Y., May 1981.

Until recently, the history of nursing was primarily a glorious story of the rise and development of the nursing profession. M. Adelaide Nutting and Lavinia Dock, two leaders in the profession in the early 20th century, set the model. In their four-volume History of Nursing, published between 1907 and 1912, they presented a proud history of nursing's progress: once a category of work performed by the untrained, nursing evolved by the dawn of the 20th century into a profession shaped by new criteria including educational standards, a systematic training program, and a professional hierarchy. Others built on this model, illuminating nursing's continued progress through the century. These histories of the profession, written almost exclusively by nurses for nurses, were the only histories of nursing.

In the 1960's, many historians shifted their attention away from the traditional focus on leaders in society and began to look at history "from the bottom up," becoming interested in the history of women and the history of workers. Within this context, nursing captured the attention of historians. The result, as represented by the essays in this book, is a new and different history of nursing.

Nursing History: New Perspectives, New Possibilities is a product of the last two decades of research by historians into nursing's past. The nine essays that make up the book move beyond the traditional study of the nursing profession and its leaders and examine nursing in relation to variables such as gender, professional status, and social class.

What ties the essays in *Nursing History* together is this new approach, which expands the history of nursing beyond its institutional boundaries and

examines it within the context of society at large. Individually, of course, each essay has its own emphasis and point of view. Nancy Tomes's essay, "The silent battle: nurse registration in New York State, 1903-1920," is a study of the impact of restrictive licensing laws on the nursing profession in the early 20th century. Building upon the history of the medical profession, which shows that doctors gained substantial status and autonomy from licensing reform, Tomes argues that nurses did not share in the benefits of licensing reform. According to Tomes, physicians initially supported nurses who sought to regulate nursing through licensing laws. While nurses saw licensing as a way to upgrade their profession, "hospital men" believed that licensing would bring a new standard of quality to nursing and ultimately improve hospital management. When nurses tried through licensing to create an elite, prestigious profession like medicine, their alliance with doctors fell apart. "Hospital men" fought the professional parity nurses sought and made hospital needs-that is, an abundant supply of nurses—their priority. As a result, doctors fought to redefine regulatory reform in nursing to suit their own ends. Tomes argues that ultimately it was nurses' gender and position on the professional hierarchy below doctors that denied them the advantages doctors gained from licensing reform.

Barbara Melosh's essay, "Doctors, patients, and 'big nurse': work and gender in the postwar hospital," also examines the impact of gender on nursing. In particular, Melosh addresses the heightened tension between work and womanhood for nurses in the period immediately following World War II. The development of new medical specialties and sophisticated medical technology placed demands on nurses for more education and specialized training. Hospital physicians became increasingly reliant on nurses for their expertise, and nurses gained greater respect, prestige, and autonomy than ever before. These changes in the nursing profession coincided, however, with a resurgence of the notion of femininity. Women who had entered the workplace temporarily during the war crisis returned to their "proper place" at home to assume their womanly roles as wives and mothers. The blossoming of this ideology of domesticity, popularly known as the "feminine mystique," conflicted with the new demands on the nursing profession for skill and expertise.

Melosh examines this tension between work and gender in nursing through the

1226 SCIENCE, VOL. 222