

this curious volume can answer old questions, raise new ones, open vistas, become unforgettable.

In short, Sagan has done it again. The book's title may be Broca's brain, but its subject is Sagan's.

RICHARD BERENDZEN
*American University,
Washington, D.C. 20016*

Mesoamerican Settlements

Prehistoric Coastal Adaptations. The Economy and Ecology of Maritime Middle America. Papers from a symposium, St. Louis, May 1976. BARBARA L. STARK and BARBARA VOORHIES, Eds. Academic Press, New York, 1978. xx, 316 pp., illus. \$21. *Studies in Archeology*.

This volume is a collection of essays most of which were originally presented at a meeting of the Society for American Archeology. Its purposes are to present a sampling of the archeological and ethnohistorical research being carried out within coastal habitats of Mesoamerica; to define the nature of the coastal ecosystem as a type; and to examine the significance of coastal habitats in the overall pattern of Mesoamerican prehistory.

Ten papers bearing on these questions are presented under the headings Procurement Patterns, Settlement Patterns, and Exchange Patterns. These papers are preceded by a historical review of coastal studies and are followed by an Overview section that includes a commentary by William Sanders and a summary statement on "future research directions" by the editors.

The first goal of the volume is fulfilled through the presentation of research findings from the coastal zones of Mexico, Belize, Costa Rica, Nicaragua, and Panama. "Coastal" is considered to denote an ecotype in which most of the subsistence and technological resources of a population are derived from marine, estuarine, or lagunal sources. On this criterion the geographically diverse Mesoamerican coastal habitats are analytically comparable.

With respect to the second goal, then, the definition of coastal environments is a cultural one, and the distinction between ecology and economy is blurred. Although many papers acknowledge the importance of interaction among socio-cultural, biotic, and abiotic variables, the last two are usually discussed from the viewpoint of assessing exploitable resources. Little in the discussions indicates a theoretical position from which human populations are regarded as but

one component of an ecosystem, and there is no introduction to or treatment of the structure, productivity, or variability of the coastal habitat relative to ecotones or other communities. Because of the restrictions imposed by the anthropocentric view of environment, for this reader the volume falls short of defining the nature of coastal ecotypes. The volume primarily treats the economics of maritime adaptations, ranging from local consumption of subsistence products to long-distance trade of nonsubsistence goods. Investigations of biological and geomorphological processes are subsidiary, but are identified by the editors as a future research priority.

The comments and criticisms of the overview section are fruitful in synthesizing the individual studies and in fulfilling the third goal of the volume. For this reviewer, Sanders's comments generate the most provocative contributions to the overview. Rejecting arguments that attribute the settlement of coastal areas to the abundance and dependability of those habitats, Sanders suggests that early permanent settlements and ranked societies occur in coastal zones only where costly fishing and collecting can be underwritten by agricultural surpluses generated by inland groups. He hypothesizes that riverine ecosystems are more likely loci of such developments than coasts. In criticizing the analyses of settlement systems by archeologists, Sanders suggests that, aside from difficulties arising from deficient data bases, central-place models based on market principles of profit will be unsuccessful in archeological analyses because prehistoric exchanges were probably based largely on redistribution. The final theoretical point made by Sanders is that archeologists' time would be better spent studying local exchange systems than long-distance trade as a factor in sociopolitical evolution. Drawing on studies of ecological energetics, he suggests that control over production and distribution of high-consumption, general-use, low-value goods (local production) is more important to social stratification than is long-distance movement of low-consumption, restricted-use, high-value items.

The editors correctly point out that Sanders's propositions are dependent on a number of unproven assumptions. As part of their summary they expand on methodological and theoretical issues he raises, as well as bring some substantive data to bear on their assessment with respect to coastal dynamics. The value of Sanders's critique and the editors' discussion lies in the fact that both suggest questions for debate and should prompt

research that transcends a focus on a single habitat or a single culture area. In this sense the volume addresses itself to a broader readership than the Mesoamerican coastal specialist.

DON S. RICE
*Department of Anthropology,
University of Chicago,
Chicago, Illinois 60637*

Books Received

Alcoholism. New Directions in Behavioral Research and Treatment. Proceedings of a conference, Os, Norway, Aug. 1977. Peter E. Nathan, G. Alan Marlatt, and Tor Løberg, Eds. Plenum, New York, 1978. x, 404 pp., illus. \$35. *NATO Conference Series III*, vol. 7.

Alimentation et Travail. Nutrition and Work. Proceedings of a symposium, Nancy, France, Sept. 1977. Centre National de la Recherche Scientifique, Paris, 1978. x + pp. 205-742, illus. Paper, 96 F. *Annales de la Nutrition et de l'Alimentation*, vol. 32, No. 2-3.

Brain Mechanisms in Memory and Learning. From the Single Neuron to Man. Papers from a symposium, London, 1977. Mary A. B. Brazier, Ed. Raven, New York, 1978. xviii, 400 pp., illus. \$30. *International Brain Research Organization Monograph Series*, vol. 4.

A Business-like Approach to COBOL. Henry Mullish. Crowell (Harper and Row), New York, 1978. xx, 346 pp., illus. \$11.95.

Chemical and Biochemical Aspects of Electron-Spin Resonance Spectroscopy. Martyn Symons. Halsted (Wiley), New York, 1978. xiv, 190 pp., illus. \$19.50.

Chemical Toxicology of Food. Proceedings of a symposium, Milan, June 1978. C. L. Galli, R. Paoletti, and G. Vettorazzi, Eds. Elsevier/North-Holland, New York, 1978. viii, 388 pp. \$48. *Developments in Toxicology and Environmental Science*, vol. 3.

DNA. The Ladder of Life. Edward Frankel. McGraw-Hill, New York, ed. 2, 1979. xviii, 234 pp., illus. \$8.95.

Drugs, Lipid Metabolism, and Atherosclerosis. Proceedings of a symposium, Philadelphia, Aug. 1977. David Kritchevsky, Rodolfo Paoletti, and William L. Holmes, Eds. Plenum, New York, 1978. xii, 444 pp., illus. \$37.50. *Advances in Experimental Medicine and Biology*, vol. 109.

Electromagnetic Interactions of Hadrons. Vol. 2. A. Donnachie and G. Shaw, Eds. Plenum, New York, 1978. xvi, 574 pp., illus. \$57.50. *Nuclear Physics Monographs*.

Electronic Measurements. Philip Kantrowitz, Gabriel Kousourou, and Lawrence Zucker. Prentice-Hall, Englewood Cliffs, N.J., 1979. xiv, 398 pp., illus. \$18.95.

Enzyme-Activated Irreversible Inhibitors. Proceedings of a symposium, Strasbourg, France, July 1978. N. Seiler, M. J. Jung, and J. Koch-Weser, Eds. Elsevier/North-Holland, New York, 1978. viii, 360 pp., illus. \$49.

EPH-Gestose. Übersicht und statische Studie über 2485 Schwangere mit Gestose-Zeichen. R. Barthel-Wottke and C. Goecke. Organisation Gestosis-Press, Basel, 1978. 136 pp. Paper, SFr. 20. Publication No. 13.

Growth and Development of the Full-Term and Premature Infant. Lectures from a

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