

the 1920's stalled fern morphological research for 25 years. The Tryons do point out some matters that require further work, but these indications are not the major point of the book and are obscured by the mass of other data.

Overall, *Ferns and Allied Plants* is a very useful reference volume but should be used with a critical eye.

JOHN T. MICKEL

*New York Botanical Garden,
Bronx, New York 10458*

Social Change in Early Europe

Ranking, Resource and Exchange. Aspects of the Archaeology of Early European Society. Papers from a symposium, Philadelphia, May 1980. COLIN RENFREW and STEPHEN SHENNAN, Eds. Cambridge University Press, New York, 1982. viii, 168 pp., illus. \$39.50. New Directions in Archaeology.

Colin Renfrew has been a key figure during the last decade in applying ideas generated by the "new archeologists" of the United States, such as Lewis Binford, and of Britain; such as David Clarke, to the archeological data of prehistoric Europe. He and his colleagues have been instrumental in developing a new and dynamic approach to the study of the prehistoric past, with attention shifting from the traditional subjects of typology, chronology, and culture history to examination of the processes of change in ancient societies, especially change in economic and social behavior.

This volume provides a sampling of results of such approaches to data from prehistoric and early historic Europe, with emphasis on changes reflecting the development of ranking and the formation of hierarchies among individuals, settlements, and monuments. Renfrew's introductory paper deals with the problem of defining "ranking" and identifying it in the archeological record. Fifteen papers treat specific problems in the archeological material and suggest models to account for the patterns observed. They are arranged in four groups, concerning respectively the Neolithic and Early Bronze ages, the Bronze and Iron ages, early states in the Aegean region, and the early medieval period. Throughout the papers is a strong emphasis on explaining economic and social change in terms of internal dynamics of societies rather than with reference to movements of peoples or long-distance trade relations.

The 15 case studies are for the most

part clear and informative, briefly presenting data and then suggesting new interpretations of them. To cite only a few of the especially interesting papers, Sherratt proposes an economic explanation, revolving around exchange of cattle, for the beginning of ranking in early Neolithic eastern Europe; T. Champion describes the development of social differentiation during the Bronze and Iron ages in central Germany in terms of control of critical resources; Hodges relates the emergence of early medieval "gateway communities" to other changes of the time; and Arnold demonstrates the importance of the concept of cultural stress for understanding change in Anglo-Saxon England.

Critical discussions of the case studies, written by two discussants at the original symposium, Robert Whallon and Lewis Binford, are included at the end of the volume. These provide valuable balance, placing the papers in the context of current theoretical debates in the discipline of archeology. Whallon takes issue with the concept of "explanation" as exemplified by the papers, calling for the formulation of more general theories to account for changes than the case-specific mechanisms described in many of the instances here. Binford's principal criticism is that the authors assume that human behavior in the archeological past was similar to that of today. The authors do not deal with the methodological issue of how to derive information about the past from the meager physical remains that survive. Such concepts as prestige, rivalry, and display may not be appropriate to our analysis of past behavior in the same way as they apply to behavior in the modern world.

As Binford suggests, the authors of the individual papers might have benefited from a more critical appraisal of the sources of models used. Many rely heavily on the social-evolutionary schemes put forward by Service (*Primitive Social Organization*, 1962) and Fried (*The Evolution of Political Society*, 1967). Some make use of one or two ethnographic examples as sources of mechanisms to explain change apparent in the archeological data of ancient Europe. The evolutionary schemes cited and the models advanced by ethnographers are interpretations and possess no inherent validity. Instead of relying on other researchers' schemes for models, perhaps European archeologists can begin to develop models of change based upon the very rich and varied data available from the archeological past of Europe.

Some authors here freely use such

terms as "prestige goods," "elite group," "status," and "control" in presenting their models for change. These terms are rarely defined, yet it is important that both authors and readers know exactly what is intended by them, both in terms of human behavior and in terms of their representation in the archeological evidence. Furthermore, as Binford suggests, it is necessary to ask to what extent such concepts from modern ethnography are applicable to the prehistoric past. All of these methodological points merit further discussion.

This volume is a valuable contribution to the growing literature on the interpretation of European archeological data in terms of changes in economic and social behavior and organization. The case studies show how productive such approaches can be, and the theoretical and critical essays draw attention to many different aspects of the principal issues under consideration. From this book the reader obtains a rich and varied view of current trends in European archeological research being conducted by an active group of younger archeologists trained in British universities.

PETER S. WELLS

*Department of Anthropology,
Harvard University,
Cambridge, Massachusetts 02138*

Books Received

Acid Precipitation. Walter R. Hibbard, Jr., Ed. Pergamon, New York, 1982. iv pp. + pp. 251-384, illus. Paper, \$27.50. *Materials and Society*, vol. 6, No. 3.

Advances in Archaeological Method and Theory. Selections for Students from Volumes 1 through 4. Michael B. Schiffer, Ed. Academic Press, New York, 1982. xiv, 690 pp., illus. Paper, \$25.

Advances in Cognitive-Behavioral Research and Therapy. Vol. 1. Philip C. Kendall, Ed. Academic Press, New York, 1982. xiv, 324 pp. \$32.

Advances in Hydrosience. Vol. 13. Ven Te Chow, Ed. Academic Press, New York, 1982. xii, 394 pp., illus. \$53.

Advances in Inorganic Chemistry and Radiochemistry. Vol. 25. H. J. Emeléus and A. G. Sharpe, Eds. Academic Press, New York, 1982. viii, 356 pp., illus. \$56.

Advances in Marine Biology. Vol. 20. J. H. S. Blaxter, Frederick S. Russell, and Maurice Yonge, Eds. Academic Press, New York, 1982. xii, 398 pp., illus. \$65.

Advances in Parasitology. Vol. 21. J. R. Baker and R. Muller, Eds. Academic Press, New York, 1982. x, 314 pp., illus. \$52.

Advances in Thin Layer Chromatography. Clinical and Environmental Applications. Papers from a symposium, Philadelphia, Dec. 1980. Joseph C. Touchstone, Ed. Wiley-Interscience, New York, 1982. xviii, 522 pp., illus. \$55.

Advances in Viral Oncology. Vol. 2, The Transformation-Associated Cellular p53 Protein. George Klein, Ed. Raven, New York, 1982. xii, 180 pp., illus. \$32.

Agaves of Continental North America. Howard Scott Gentry. University of Arizona Press, Tucson, 1982. xiv, 670 pp., illus. \$49.50.

The Age of Triage. Fear and Hope in an Overcrowded World. Richard L. Rubenstein. Beacon, Boston, 1983. x, 302 pp. \$15.50.

Aging and Cognitive Processes. Papers from a symposium, Toronto, 1980. F. I. M. Craik and Sandra Trehub, Eds. Plenum, New York, 1982. xviii, 396 pp., illus. \$39.50. *Advances in the Study of Communication and Affect*, vol. 8.