

ing a rather heterogeneous amount of material.

Although much of the volume is devoted to British methods, the principles developed are sufficiently general to be of universal applicability. The volume fills a need among both chemical and mining engineers.

J. M. DALLAVALLE

Georgia Institute of Technology

The People of Puerto Rico. A study in social anthropology. Julian H. Steward, Robert A. Manners, Eric R. Wolf, Elena P. Seda, Sidney W. Mintz, and Raymond L. Scheele. A Social Science Research Center Study, College of Social Sciences, University of Puerto Rico. University of Illinois Press, Urbana, 1956. 540 pp. Illus. \$10.

The People of Puerto Rico is an important book, not only for all those who are interested in Puerto Rico, the islands of the Caribbean, and Latin-American cultures, but also for all social anthropologists and sociologists who are interested in the analysis of complex contemporary cultures and societies. It provides useful and important empirical data on the society and the culture of Puerto Rico. But even more important is its theoretical contribution with respect to the use of the "community study" method for an understanding of national (in this case insular) cultures. Several decades ago, social anthropologists turned from the study of homogenous primitive cultures to communities within the context of great civilizations and nations. Such studies have been undertaken of communities within many modern nations—in Ireland, France, Mexico, Brazil, China, and the United States, to mention but a few. These studies have contributed much to the understanding of the national cultures of the nations concerned. Yet, studies of individual communities, many of them small rural communities, provide a picture of only one small segment of a complex modern society. Often such community studies have not shown the relationship of the single community to the nation; they have tended to treat the community as if it were an exotic and isolated tribe. The present book by Julian Steward and his associates offers a conceptual scheme for integrating studies of individual communities into a national (insular) frame of reference, and the authors have applied that scheme admirably for Puerto Rico.

Concretely, this team from Columbia University undertook studies of four Puerto Rican communities as well as another study—for which they used social anthropological techniques—of the

prominent upper-class families who resided in the city of San Juan. Each of these communities was selected to represent an important variant of Puerto Rican culture—or, in other words, a "subculture." Thus, a community that produces tobacco and mixed crops, located in the central mountain region, was studied by Robert Manners; a community that produces coffee, located in the western highlands, was studied by Eric Wolf; a community of workers on a large government-owned sugar plantation was studied by Elena Padilla Seda; and a community of workers on a large corporation-owned sugar plantation was studied by Sidney Mintz. Raymond Scheele carried out the study of the urban, upper-class subculture. These individual studies were closely coordinated; they cover much of the same ground and deal with a comparatively large number of island-wide problems. They are brought into relationship with one another and with Puerto Rican insular institutions by a careful perusal of the historical background and by an excellent comparative analysis of the regularities and variants that appear in the various Puerto Rican subcultures that are covered by the study. Thus, each community is seen not as an isolated and local manifestation of a complex society but in relationship to the whole culture.

This study is a model, so to speak, of group research in social anthropology. There will be social scientists who will argue with some of the theoretical concepts, but all will recognize that this book by Steward and his associates is a major step forward in the adaptation of the methods and theories of social anthropology to national cultures. It may well become a modern classic in social anthropology, comparable in importance, in its time, to Robert Redfield's *The Folk Culture of Yucatan*.

CHARLES WAGLEY

Columbia University

Marine Algae of the Northeastern Coast of North America. William Randolph Taylor. University of Michigan Press, Ann Arbor, rev. ed., 1957. viii + 509 pp. Illus. \$12.50.

For the past 20 years William Randolph Taylor's *Marine Algae of the Northeast Coast of North America* has been a standard treatise on marine algae. The revised edition follows the same format as the first, both with respect to keys and descriptions of orders, families, genera, and species. For each species the description is followed by notes on distribution within the range covered by the book, and by bibliographic references. The new edition contains descrip-

tions of three genera and 14 species not known for the area at the time of the first edition. In addition, information concerning the range of many species is amplified, especially that for arctic species found in the northern portion of the area covered by the book.

Critical studies on type specimens by the author and by other phycologists has necessitated change in certain specific names appearing in the first edition. More modern views concerning relationships of certain families have been followed, and this has resulted in transfers from one order to another.

The revised edition, similar to the first, is not a compilation but is based in large part on study of living and herbarium specimens. Records from the area, given by other phycologists, have been scrutinized with care, and wherever possible herbarium specimens authenticating these records have been studied. The result is a book of the same scholarly quality as the first edition.

GILBERT M. SMITH

Stanford University

Vergleichende Physiologie. vol. III, *Ernährung, Wasserhaushalt und Mineralhaushalt der Tiere.* W. von Buddenbrock. Birkhäuser, Basel, Switzerland, 1956. 677 pp. Illus. DM. 66.

This is the third in a series of volumes of W. von Buddenbrock's *Vergleichende Physiologie*. The first volume dealt with sense physiology, the second, with nerve physiology and hormones. The first 424 pages of this volume deal with nutrition, feeding, and digestion; the next 127 pages, with water balance (osmoregulation); and the final 67 pages, with mineral economy. Each of the first two sections opens with an extended discussion of the general physiology of the subject. Then follows an account of the function in each principal group of animals, from protozoans through vertebrates. The work is designed for zoologists, and the general physiological discussions do not include many physicochemical details of cell physiology.

Vitamins are treated briefly in the general section, scarcely at all for specific animal groups. Feeding mechanisms and the morphology of digestive systems are well presented, with useful diagrams. Many tables summarize the distribution of digestive enzymes in different animals. Characterization of proteases is by pH optima rather than by specific substrates; lipases and esterases are not clearly distinguished. Controversial matters, such as the importance of dissolved organic foods and the relative roles of extracellular and intracellular digestion in pelecypods, are critically examined.