

detail already available in modern compendia is repeated only where needed to provide a necessary background.

An introductory chapter reviews the concepts of Protochordata and Deuterostomia, and discusses possible phylogenetic relationships among deuterostomes. Modern groups are regarded as related clades, with the pterobranchs perhaps representing the existing group least modified from remote protochordate progenitors. Chapters on the Hemichordata (42 pp.), Urochordata (45 pp.), and Cephalochordata (57 pp.) summarize newer information on feeding and digestive processes, the nervous system and behavior, and selected aspects of reproduction, larval ecology, and life histories for each group. The accounts of microphagous feeding in ascidians and amphioxus, and of the nervous system and function of the gut in enteropneusts and amphioxus are particularly good. Other outstanding features are the discussion of the origin

of the vertebrate pituitary and its possible homologs in hemi- and protochordate groups, and the excellent summary of work by the author and others on the organic binding of iodine and evolution of the thyroid gland. The chapter on Urochordata is less comprehensive and up to date than those on the other two groups, but the literature to be covered here is much larger.

Altogether the author has done an excellent job in selecting material of broad interest, in summarizing and evaluating it, and in pointing out the features that we vertebrates owe to our remote descent from ciliary-mucoid particle feeders. The illustrations are good, and approximately half of the 114 references listed date from the last decade. The book is recommended to students and teachers of both invertebrate and vertebrate biology.

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## Africa Today: Representative Cultures

**Peoples of Africa.** James L. Gibbs, Jr., Ed. Holt, Rinehart, and Winston, New York, 1965. xiv + 594 pp. Illus. \$10.50.

Tyros have had nowhere to turn for concise descriptions of representative cultures of Africa. There is, of course, no real substitute for the prolonged visit to a tribal people which a book-length description affords. But for readers without the time or inclination to tarry with each tribe, *Peoples of Africa* now provides a well-conducted "Gibbs's Tour" through 15 societies south of the Sahara. Although designed primarily as a "student cruise," the itinerary is recommended for anyone with any social science background or with Bohannon's *Africa and Africans* as a foundation.

The authors of the profiles of *Peoples of Africa* are experts, depicting "their" societies with the intimacy of knowledge derived from protracted study in the field since 1950. Although the superb prose of Colin Turnbull's description of Mbuti Pygmy life is rare in the profession, the style and clarity of all of the writing is commendable. Selection of the authors was determined not only by such abilities, but also by the nature of the cultures they had studied.

Gibbs's selection of societies reflects African diversity in race, language, environment, economy, size of population, and in type of kinship and of government. Although the major categories of all of these features are represented in the sample, the societies can not be taken as "representative," in the sense of being typical of the classificatory divisions. Actually, where diversity is very great within such categories, a variety of examples is usually provided. On the other hand, there is no representation at all from the old French colonial area, and a third of the entire cultural sample comes from Nigeria. These biases, which reflect Anglophonic parochialism and an uneven distribution of research, are not as serious as they might seem. Three of the cultures studied in Nigeria extend more or less widely into previously French territory. The emphasis of the book is not on colonial or emergent Africa, and the sample provides a satisfactory picture of the outstanding features of traditional African cultures.

The various profiles are roughly comparable in format, each being introduced with editorial comment on the special significance of the particular society. There follow the familiar categories of ethnological description, plus

some less standard ones, such as child training and law. The common outline proved to be no straitjacket for the authors, but the standard categories assured greater comparability among the profiles. Unfortunately, such comparison is not facilitated by the book's index, which is internally confused and sometimes actually misleading. The maps, diagrams, and bibliographies are helpful and a half-dozen snapshot-size illustrations add meaning and flavor to each description.

Although emphasizing the indigenous aspects of African life, the cultural sketches show their modernity by avoiding the old fiction of a precolonial "ethnographic present." The traditional past is carried into the observed present throughout virtually every profile. This too involves some fictions, but little worse than the kind of oversimplification entailed in forcing "the life of a people" into 40 pages. Largely missing in the discussion of change are the conflicts and problems of Africans caught up in the punishing opportunities of "development." Here the anthropologists have been more prone than the tribesmen to read the literate, urban clerk out of the tribe. But, like all fictions, this one is useful. It keeps an introduction to the complexities and varieties of African culture as simple as possible.

There are more than 30 American universities with a concentration of courses on Africa. It is difficult to see how they have gotten along without *Peoples of Africa*. None should try to do so now.

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## Magnetohydrodynamics

**Engineering Aspects of Magnetohydrodynamics.** Proceedings of the third annual symposium (Rochester, N.Y.), March 1962. Norman W. Mather and George W. Sutton, Eds. Gordon and Breach, New York, 1964. xiv + 675 pp. Illus. \$34.50.

This volume is an almost complete collection of the papers presented at the third symposium on engineering aspects of magnetohydrodynamics (MHD) held at the University of Rochester in March 1962. It is the second and last