Fresh-Water Niches

Some Aspects of Life in Fresh Water. Edward J. Popham, Harvard University Press, Cambridge, Mass., ed. 2, 1961. 127 pp. Illus. $2.25.

This inexpensive little book would seem to offer a balanced treatment of fresh-water ecology, judging from its table of contents: Water—A Medium for Life; Types of Aquatic Habitats; Plants of Inland Waters; Animals from the Sea; Animals from the Land; Freshwater Communities. It is "primarily intended for undergraduate students of botany and zoology." But treatment is so uneven that the chief benefit an undergraduate might gain is some sense of excitement about various special adaptations in aquatic organisms. "The greatest changes" since the first edition (1955) retell the intriguing story of respiration in aquatic insects with captive air bubbles, which was described in 1915 by R. Ege and incorporated long ago into books such as V. B. Wigglesworth's *Principles of Insect Physiology*. Indeed, a comparison with Needham and Lloyd's *The Life of Inland Waters* (ed. 3, 1938) reveals little of the real progress made by limnologists in better than 20 years. Nearly a fifth of Popham's book is given over to an account of a Lancashire pond, 10 yards wide by about 25 yards long, of unstated depth. It is there and on the dust jacket that the concept of succession receives brief mention—but not in the index. Students may still be stimulated to examine fresh-water niches by reading this account and the "Suggestions for future study."

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Continuity and Change

In the Ngombe Tradition. Alvin W. Wolfe. Northwestern University Press, Evanston, Ill., 1961. vi + 167 pp. Illus. $6.50.

In anthropology, one of the more rigorous applications of the cross-cultural method of studying behavior consists in comparing different societies which lie within the same cultural stream; a great number of factors are thus kept constant, and the search for significant variables may be concentrated on but a few differences. It is this method that Wolfe adopts in his study (which is No. 7 in Northwestern's African Studies series) of the two sections of the Ngombe people of the Congo. As a result, what may have been simply "descriptive" ethnography becomes an exercise in refining existing theories about cultural stability and change. An interesting facet of this work is the concentration on internal changes, as opposed to acculturative changes induced by European control. Overemphasis on the latter, fruitful though it has been for cultural theory, has sometimes, and subtly, discouraged anthropologists from looking for internal mechanisms of change and has tended to support the myth of necessary stability in so-called primitive societies.

Wolfe begins by describing the two sections of the Ngombe. On the surface, the differences between them are considerable; these differences can be seen in their physical environment, in their ecology, in the economic pursuits they emphasize, in the division of labor between the sexes, in the sociostructural arrangements of village and lineage, in marriage customs, in religious activities, in the patterns of interpersonal relations. Underneath this diversity, however, Wolfe shows a large common core of cultural assumptions about the nature of the world, of man, and of supernatural forces. After demonstrating, convincingly enough, that one Ngombe group may be viewed as a derivative of a culture which the other group still largely represents, Wolfe turns to a reexamination of existing theories of cultural change. Reformulating distinctions drawn by Cassirer into anthropologically acceptable concepts, he shows that cultural elements may be subdivided according to whether they are seen as "actuality" or as "possibility" by the people concerned. "Actuality" is represented by those elements which are taken for granted as given "facts"; they are the axioms of a cultural system, which define, for the people, their unquestioned reality. Once the universe is so defined, there remain "possibilities" of manipulation, of adaptation to new conditions, of variation in behavior, of choice, and of change. It is in the realm of cultural "possibilities" that Wolfe finds most of the differences between the two Ngombe groups. The same assumptions about the universe are, quite logically, acted upon differently, given noncultural differences of setting in which action takes place. As a result, many of the superficially striking differences in the total organization of life of the two groups are found to be largely epiphenomenal to the similarities in basic cultural assumptions. The logical theoretical correlate of this finding is that it is the cultural "possibilities" which are apt to change most easily over time.

This short summary obviously cannot examine the several fruitful theoretical byways taken by the author, nor the many further elaborations that the argument suggests to the professional anthropologist. Incidentally, the latter will wish for a future, fuller ethnographic monograph on the Ngombe to fill in details that, in the present theory-oriented work, tend to be left out. For the nonanthropologist this book can be recommended as a readable example, uncluttered by jargon, of one link in the chain of theory-building which is an integral part of the science of anthropology.

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Chemical Synthesis

The Pfizer Handbook of Microbial Metabolites. Max W. Miller. McGraw-Hill, New York, 1961. x + 772 pp. Illus. $15.

Substances claimed to have been isolated or identified in cultures of microorganisms, either in the medium or in the cells, are treated in this compilation. Molds, yeasts, actinomycetes, bacteria, and the like are included. Initial compounds (1313) are listed by name; the name is followed by a short note covering properties and analysis, the organism of origin, and selected references. These entries are organized into 19 chapters, one of which has 15 subdivisions. Each chapter includes a discussion of the probable metabolic origin of the class of substances treated in it. In addition, there is an addendum of 50-odd pages, whose relation to the whole is somewhat confusing, and which is not indexed.

There are a general bibliography, three appendices, and three indexes. One appendix contains references on the chemical composition of microorganisms, another provides both data