

will enjoy the pungent restatement of problems and will appreciate Shepard's treatment, based on long familiarity with marine science. The point of view is stimulating and provocative in many places—for example, in the discussion of the effects of turbidity currents, the origin of continental shelves, and the origin of submarine canyons. Students interested in geology or marine science should read this book carefully for here, in one small volume, are many of the ideas of one of the pioneers and leaders in the field. The book is not a textbook and does not attempt to outline all points of view on specific subjects; yet there is adequate documentation of the views presented.

Shepard is professor of submarine geology at Scripps Institution of Oceanography, University of California. He was one of the first Americans to study marine geology. From the first days of his study of marine science, 35 years ago, he has always been an active field investigator, going out on ships and making studies on the beaches. His book is particularly timely in this era when the American people have suddenly become aware of oceanography as something of crucial importance to national safety and welfare.

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Primitive Peoples Today. Edward Weyer, Jr. Doubleday, Garden City, N.Y., 1959. 288 pp. Illus. \$10.

Shortly after the mailman brought my review copy of *Primitive Peoples Today*, our 16-year-old baby sitter (for grandchildren) appropriated it. "I could understand every word of it," she said. "It should be in every high school in America." Later on I read it, and I am not sure that it will be in every high school. Weyer has not hesitated to discuss forms of human behavior rarely mentioned in high schools, except in the washroom. But I may be wrong, for I have not been to high school for 40 years, and things may have changed.

Edward Weyer, Jr., has been on archeological and ethnographic field trips in Egypt, in the arctic, and in Mato Grosso, Brazil. He has been a professional photographer and president of the Explorers' Club. He was editor of *Natural History* for 22 years, during which time his magazine contained few articles incomprehensible to a 16-year-old,

though it did contain some magnificent pictures. The success of *Primitive Peoples Today* should surprise no one familiar with the details of Weyer's career.

For some years jumbo books, printed in Switzerland, have been appearing, full of illustrations, particularly in color, but they have dealt primarily with zoology and have borne names such as Bourlière and Sanderson on the title page. Now Weyer has carried this format into anthropology. In appearance, his book compares favorably with the lion and baboon atlases.

Weyer begins with a short introduction, called "The world of primitive man," in which he first defines the objective anthropological viewpoint, with its sliding scale of moral values, and then develops an essentially Boasite attitude toward culture, in which attempts to establish levels of complexity are discouraged. He then discusses the races of man from the same point of view, favoring nurture over nature as a cause of differences in achievement. Blood groups and other hereditary traits are discussed in simple language. He produces the old saw that "between 90 and 99 percent of the approximately 44,000 pairs of genes in each individual are shared by all other groups of men," without saying how many may be shared with apes (which have the same chromosome count that we do), or even with frogs. Again, he says, "a child will look like an Eskimo or Zulu depending entirely on whether he is born one, [but] he will grow up acting like an Eskimo or a Zulu depending on the culture in which he is raised." This is standard Boasism, which bypasses many issues. No Eskimos have been fostered by Zulus, or vice versa.

We move on to a series of cultural vignettes of the Eskimos, Aleuts, Navahos, Lacandonese, San Blas Indians, Jivaros, Camayurás, Lapps, Ovimbundu, Bushmen, Ainus, Lolos, Aruntas, and Samosans, to each of which about six large pages are devoted. In ten instances these vignettes are illustrated by photographs of the tribe under discussion. There are no illustrations of the Aleuts, Ovimbundu, Lolos, and Aruntas. Instead we are shown pictures of 40-odd other peoples.

The vignettes are arranged geographically, without regard to race or cultural connection, and the pictures follow this same pattern. In each vignette a striking feature of the particular culture is emphasized, and often a personal-narrative technique is used. The style is lively, and the people are made to seem alive.

The splendid pictures are reproduced

on pages 8½ by 11 inches, and some are run across two pages. They were taken by 40 different photographers, of whom many are professionals, such as Fritz Goro, Alfred Eisenstaedt, and Eliot Elisofon. Both the black-and-white and the color reproduction are superb. The selection is also excellent in that few of the photographs are static and nearly all show people doing things that are of interest to anthropologists. Even the posed shots of the Ainu "chief" Miyamoto and his group (who have their pictures taken every day) are convincing to those who do not know him. A few illustrations are miscaptioned—for example, number 83, "Tuareg men eating on the desert trail near the Hoggar Mountains. One man has lowered his veil. Popular accounts have overstressed the importance of the veil among Tuareg men. . . ." The man with the lowered veil is no Tuareg, but a slave. The importance of the veil has not been overstressed.

It is hard to figure out exactly what audience this book is intended for. Too spicy, perhaps, for high schools, it is too naive for most anthropologists. However, there is a vast public in this space age which thinks the world is as homogenized as their breakfast milk, that everyone who lives in Russia is a Russian, and that all Africans are Negroes. As painlessly absorbed as a magazine in a barber shop, *Primitive Peoples Today* can show these folk how wrong they are. In this conquest of complacency I wish it luck.

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Vegetation of the Outer Banks of North Carolina. Clair A. Brown. Louisiana State University Press, Baton Rouge, 1959. x + 179 pp. Illus. \$3.

Vegetation of the Outer Banks of North Carolina is the result of a reconnaissance of the area to study the effectiveness of the sand-stabilization projects of the 1930's and to secure information on other sand-binding plants in the native vegetation. A botanical study was also made.

On the outer banks, sand fencing has been effective in establishing barrier dunes. American beach grass, sea oats, salt meadow cord grass, and Bermuda grass are the important grass binders. *Paspalum vaginatum* seems to offer the greatest possibilities among binders not

previously used. The woody species were not as effective as the grasses as sand binders.

The dunes (wooded and grass-covered), sand flats, and salt marshes are described. A list of the vascular species observed is included. The highlights of the report are the 50 illustrations, each 4 by 6 inches; the geographical and historical account is adequate, and there is a fairly complete bibliography pertaining to the vegetation of the area.

As a preliminary survey of the vegetation and as a report on sand-stabilization practices, the book is excellent. The title, however, is misleading in that the listing of 273 species, when there is a possibility that 400 species occur in the area, gives an inadequate picture of the vascular vegetation. The records at the University of North Carolina indicate a flora of at least 850 species. The author indicates (page 87) that "there are many phases of Plant Geography, and Ecology which remain to be unravelled by detailed studies of this interesting area" from a plant-community standpoint.

The figures, history, and geography should make this book of interest to tourists visiting the Cape Hatteras National Seashore Project, but as a scientific presentation, this is a preliminary study only.

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Progress in the Chemistry of Organic Natural Products. vol. 16. L. Zechmeister, Ed. Springer, Vienna, Austria, 1958. 226 pp. Illus. \$9.50.

In the past this useful series of reviews has been noted for the wide variety of fields it has covered. Almost every conceivable technique or approach capable of yielding information regarding the structure of natural products, how they are made in nature, and their probable function has been touched upon in some way. Since each volume is a collection of relatively short reviews, there is little space for developing the subjects in such a way that anyone who is not a specialist in the particular field and even in the particular techniques used can always fully appreciate them. Perhaps this is inevitable, and the reader should at least be thankful that most of the more recent literature is given in the bibliography, which will serve as a starting point for a more penetrating study. Two of the reviews

in particular in volume 16 appear to fall in this category—namely, the third and the fifth.

The first review, 25 pages in length and written in German by Von Karl Freudenberg and Klaus Weinges, covers a class of naturally occurring phenolic substances—the catechuic acids, hydroxyflavanes, and hydroxyflavenes—usually treated as part of a wider field of plant dyes and intermediates. As a class they merit treatment in this way.

The second review (62 pages), by Karel Wiesner and Zdenek Valenta, on the chemistry of the aconite-garrya alkaloids, is an exceptionally timely and interesting one, because much light has been thrown on this complicated group of natural products in recent years by the newer experimental methods such as infrared and x-ray analysis. For relatively small molecules of diterpenoid nature they are amazingly complicated. As the authors point out, a solid basis for the more recent structural conclusions was made mostly by W. A. Jacobs and his collaborators, working along classical lines of organic chemistry. It is only to be expected that the more recent work, with the greatly improved tools for interpreting chemical transformations, would make possible a more enlightened choice of key members of such a large group, but it would still be patterned after the original truly pioneering work. Some of the structures proposed will form the basis for deriving still more complicated structures in this field, while others already seem to be of doubtful validity on the basis of present information.

The third review, ably written by E. E. von Tamelen, suffers from the fact that it attempts to cover too large a field in too short a space. In 24 pages the structures of 24 different types of antibiotics are treated. Even though all are produced by the actinomycetes group of microorganisms, they range widely in structure from highly unsaturated straight-chain fatty acids to complex cyclic polypeptides containing ten amino acids and a heterocyclic nucleus. Since much space is occupied by the accepted structural formulas little is left for discussion of the unique structural features particularly characteristic of these compounds. To be sure, many of them are mentioned but, in my opinion, not with sufficient discussion for such a truly fascinating field. Does the fact that we now have so many new and different structures to consider mean that we are content to know but little of each one? Unlike the fields covered in the first two

reviews, all of the substances considered have been isolated very recently.

The fourth chapter, by James Bonner, covers a field, "Protein synthesis in plants," which is developing so rapidly at the present time that workers not in the field will surely welcome this short review (29 pages) as a means of trying to keep informed. Protein synthesis is certainly one of the most important areas of biochemical research today. This is true in spite of the fact that we are still sadly lacking in knowledge of the detailed structure of proteins and know only the rougher outlines with regard to the structure of the nucleic acids. Since the interdependence of the two classes is now well established, an understanding of both on a molecular level must be achieved.

The final chapter, by Hans Kuhn, deals with the "Electron gas theory of the color of natural and artificial dyes: problems and principles." The first third of the review deals with experimental facts concerning color and structure. This will be of interest to organic chemists working in the field of natural products, but it is doubtful that many will have the background or even the inclination to become sufficiently well versed in quantum mechanics to properly understand the whole treatise. Even though an ultimate and complete understanding of the structure of an organic compound does require an understanding of the structure of each atom, it is seldom practical to try to treat all of such a mass of information in one short article.

Volume 16 of *Progress in the Chemistry of Organic Natural Products* is a worth-while addition to any chemical library.

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Manual of Insect Morphology. E. Melville DuPorte. Reinhold, New York; Chapman and Hall, London, 1959. xi + 224 pp. Illus. \$5.

The appearance of a manual of insect morphology written by Melville DuPorte, an authority in the field, is an event of the first importance. The arrangement of the book is original and practical, from the viewpoint of the teacher. The idea of beginning each section with general considerations (which in the strict meaning of the term *morphology* is the morphological part of the book, the rest being straight anatomy)