

his enthusiasm for promising leads when he discusses such ideas as a possible cure for the common cold and the speculation that viruses may cause cancer.

Typical of his restraint is this quotation from the chapter on the latter subject: "One thing that sensational headlines do not tell us, but the experienced know full well, is that any bold, unqualified announcement of a 'new cure' for cancer is a good sign that the source may be a charlatan, a crank, or a fool. It hardly matters which—the statistics are all against the claim proving true. Somewhat the same thing applies to assertions about the exact cause or causes of cancer, but in a lesser degree."

Yet *Virus Hunters* is bright and readable. Williams, a newspaper and magazine writer, former public relations director for the American College of Surgeons, and director of information for the Joint Commission on Mental Illness and Health, includes some of the very human, personal background of contemporary virologists. All this is a dramatic and often exciting story, and that is how Williams tells it.

He points out (and I think he proves his point with this book) that such data are of some importance to the understanding of scientists as human beings, even if they may not be too important to the public's understanding of science itself. Many science writers and some scientists would argue even this last point.

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We Come from the Sea. Hans Hass.
Translated by Alan Houghton Brod-
rick. Doubleday, New York, 1959.
288 pp. Illus. \$6.50.

The numerous books on skin-diving which have appeared in recent years may be roughly divided into several classes—those dealing with barren records of depth descents, others telling of hair-raising adventures with giant octopi, barracudas, and sharks, and still others devoted to the unsportsmanlike slaughtering of shore fishes to record their numbers and size. Another rather small group contributes lasting value to our knowledge of undersea life. The present volume may be accorded a different main objective—the presentation

of outstanding photographs together with a creditable number of scientific facts.

In the search for photographic material, Hass admits that "Our first and foremost preoccupation on all our expeditions was with sharks and other marine creatures that are ready to attack. This was a matter for ourselves as well as for other scientists to whom we wanted to recommend our diving methods as useful for research." As a result, lovers of excitement will find much that appeals to their taste in this conservatively written book. The experiences vary from an encounter with a 5-foot brown shark, which severely wounded the diver, to the prolonged investigation of a 25-foot whale shark, which permitted all kinds of intimacies including the taking of closeup underwater photographs from all angles. I can testify to these extremes of shark psychology. Hass considers that blood in the water or attempts to escape by swimming rapidly away are most likely to induce a shark to attack. He believes that noise is an effective way to frighten sharks.

Much of the work was done with the aid of a 140-foot, three-master schooner, the *Xerifa*, fitted with dynamos, sound-recording instruments, and complete photographic and skin-diving equipment. Much of the latter was invented by the author.

The volume is a pleasant running account of the activities of several expeditions that ranged from the Red Sea and the Caribbean to Galapagos and the Great Barrier Reef. Among the scientists on these expeditions was I. Eibl-Eibesfeldt, whose studies of the Galapagos sea-lions are touched upon. Serious scientific work was also carried on at the Dutch island of Bonaire; this work included an investigation of the toxic effects on marine life of various paints on the ship's bottom, and observations on the responses of fish to mirrors and on their territorial behavior.

The chapter "We go back into the sea" provides an excellent résumé of the history of skin-diving. The list giving the names of fishes and birds mentioned is of little use, but both the bibliography and the index are good. The illustrations, of which ten are in color, are of unusually high quality, and take up about one-third of the book. There are three maps.

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The Population of the United States.

Donald J. Bogue. With a chapter on "Fertility" by Wilson H. Grabill. Free Press, Glencoe, Ill., 1959. xix + 873 pp. Illus. \$17.50.

The massive magnitude of this demographic catalog of contemporary America and its consequent utility as a reference source can readily be documented by statistics about the production. The book contains 26 chapters delineating the major variables of population structure and process, furbished with 385 substantial, numbered tables and 92 well-designed figures, as well as several hundred smaller tables inserted directly into the text; the text itself is a document of a quarter of a million words. The appendix consists of 68 full-page summary tables, and 90 pages are devoted to detailed data on occupation and industry. In short, no opportunity has been lost to display the host of research potentialities and policy implications which might otherwise languish unsighted within our national statistical system.

The list of contents is closely keyed to the kinds of socioeconomic data yielded by official enumeration and registration procedures; particular emphasis is placed on spatial distribution and economic characteristics; this is cross-classified by the conventional demographic control variables. Supplementary chapters based on diverse sources provide data concerning illness, religion, housing, and the populations of Alaska and Hawaii. The latter information is particularly welcome since it conveniently obviates for the analyst the nuisance of referring to otherwise scattered materials.

Bogue's book is useful in different ways, which I am confident will assure it wide distribution for a long time. Its most obvious utility is as a rich reference source, particularly for nonprofessionals working in applied fields. For this reason it is regrettable that the production is marred by an excessive number of trivial mistakes which tend somewhat to reduce the confidence with which the data can be used. More serious is the criticism that, in common with government analysts, the author has underemphasized the analytic relevance of errors of misstatement and misenumeration in officially published data. The book also has considerable virtues as a textbook, or at least teaching supplement, despite its almost prohibitive price for this particular market. From the

standpoint of this use, the omission of anything approaching an adequate bibliography or reference to other research is most unfortunate. It is particularly puzzling that Bogue does not mention either the census monograph by the Taeubers (its chapter outline almost parallels his own) or that by Duncan and Reiss (on rural and urban communities)—especially in the light of his major emphases.

Finally, judged as a research contribution in its own right, the book varies considerably in quality from topic to topic. This comment is, I admit, uncharitable in view of the aggregate magnitude of the tasks attempted. The treatment is outstanding where Bogue deals with spatial distributions and agglomerations, but falters in areas of analysis where he has had less experience—for example, in the vital processes and in the interrelations of demographic and economic development. It is, nevertheless, unquestionable that Bogue has produced a most impressive array of research suggestions, guides, and assistance, and the fields of pure and applied demography should be properly appreciative of this.

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Dana's Manual of Mineralogy. Revised by Cornelius S. Hurlbut, Jr. Wiley, New York; Chapman and Hall, London, ed. 17, 1959. xi + 609 pp. Illus. \$11.50; textbook edition, 9.50.

This new edition of one of the oldest textbooks of mineralogy has been extensively rewritten, rearranged, and enlarged. It is 79 pages longer than the previous edition, but the new material exceeds 100 pages, since some sections, especially that on mineral uses, have been drastically cut. New features emphasized in the preface are: (i) a section on stereographic projection (10 pages) together with half of a Wulff net of 10-cm radius on the inside back cover; (ii) the inclusion of all the 32 crystal classes in the systematic discussion of morphology; (iii) a section (10 pages) on calculation of axial ratios (which ought to have dealt with axial elements); and (iv) 22 pages on x-ray crystallography.

Unfortunately, no reference to axial elements, interfacial angles, or cell dimensions is to be found in the descriptive part of the text. This is a serious

lack, and limits the value of some of the new sections. Welcome as they are, these new sections are not without faults. The brief discussion of rules for crystal orientation, which precedes the section on calculation of axial ratios, seems to be intended only for the guidance of students in exercises with crystal models, and scarcely touches upon the real problems. A number of errors have crept into the new part on x-ray crystallography. The formula (page 139) for determination of the identity period from a rotation pattern is incorrect, and a very bad example is given to students by the reproduction of something in Figure 354 that should be frowned upon by all good mineralogists—an unindexed powder diffraction pattern. The American Society for Testing Materials' card for quartz reproduced in this figure was deleted from the ASTM file years ago. Moreover, it can readily be seen to be faulty if it is compared with the excellent photographic quartz diffraction pattern shown in Figure 356.

Parts of the chapter on descriptive mineralogy remain unchanged from the previous edition. Some of the chemical formulas of minerals, such as that of coemanite, have not been brought up to date as they should have been. The newly inserted statement that "chrysoberyl has a puckered structure of lower symmetry than the spinels" fails to illuminate the very interesting structural relations. The unchanged treatment of limonite seems curious in a text that has been modernized to a large extent, and the use of the name *turgite* (pages 306 and 317) as though it were a valid species designation is astonishing. However, much of the descriptive chapter has been improved. About 20 fine photographs of crystal structure models have been inserted, and the treatment of the silicates has been thoroughly revised, with a new order of presentation and increased emphasis on structural relations, especially those of the phyllosilicates.

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New Books

Aircraft and Missiles. D. M. Desoutter. De Graff, New York, 1959. 220 pp. \$7.50.

Amino Resins. John F. Blais. Reinhold, New York; Chapman and Hall, London, 1959. 231 pp. \$4.95.

Biennial Review of Anthropology, 1959. Bernard J. Siegel, Ed. Stanford Univ. Press, Stanford, Calif., 1959. 281 pp. \$6.

Chemicals, Drugs, and Health. John H. Foulger. Thomas, Springfield, Ill., 1959. 110 pp. \$4.25.

Chemistry of Nuclear Power. J. K. Dawson and G. Long. Philosophical Library, New York, 1959. 216 pp. \$10.

Darwin's Biological Work. Some aspects reconsidered. R. P. Bell et al. Cambridge Univ. Press, New York, 1959. 356 pp. \$7.50.

Les Destins de la Vie et de l'Homme. Controverses par lettres sur des thèmes biologiques. H. Laborit and P. Morand. Masson, Paris, 1959. 249 pp. F. 1800.

Electrical Impedance Plethysmography. The electrical resistive measurement of the blood pulse volume, peripheral and central blood flow. Jan Nyboer. Thomas, Springfield, Ill., 1959. 260 pp. \$7.50.

Elementary Biochemistry. Edwin T. Mertz. Burgess, Minneapolis 15, Minn., 1959. 300 pp. \$6.50.

Fluid Dynamics. D. E. Rutherford. Oliver and Boyd, Edinburgh; Interscience, New York, 1959. 235 pp. \$1.95.

The Fluids of Parenteral Body Cavities. Paul D. Hoeprich and John R. Ward. Grune and Stratton, New York, 1959. 102 pp. \$4.75.

Foundations of Aerodynamics. A. M. Kuethe and J. D. Schetzer. Wiley, New York; Chapman and Hall, London, ed. 2, 1959. 460 pp. \$11.75.

German-English Science Dictionary. Louis De Vries. McGraw-Hill, New York, ed. 3, 1959. 603 pp. \$7. From the preface: "This dictionary has again been revised to include over 3000 new terms and newly recognized translations of terms that have become important in scientific literature since the end of the Second World War. These new entries, for the sake of expedience, are placed at the back, following the Appendix."

German Secret Weapons of the Second World War. Rudolf Lusar. Translated by R. P. Heller and M. Schindler. Philosophical Library, New York, 1959. 280 pp. \$10.

A Guide to the Identification of the Genera of Bacteria. With methods and digests of generic characteristics. Based on data given in ed. 7 of *Bergey's Manual of Determinative Bacteriology* and on original papers. V. B. D. Skerman. Williams and Wilkins, Baltimore, Md., 1959. 226 pp. \$5.50.

Handbook of South American Indians. vol. 7, *Index.* Bureau of American Ethnology, Bull. No. 143. Smithsonian Institution, Washington, D.C., 1959 (order from Supt. of Documents, GPO, Washington 25). 292 pp. \$2.

Homotopy Theory. Sze-Tsen Hu. Academic Press, New York, 1959. 360 pp. \$11.

Introduction to Colloid Chemistry. Karol J. Mysels. Interscience, New York, 1959. 490 pp. \$10.

An Introduction to the Kinetic Theory of Gases. Sir James Jeans. Cambridge Univ. Press, New York, 1959. 311 pp. Paper, \$2.95.

An Introduction to Plasticity. William Prager. Addison-Wesley, Reading, Mass., 1959. 156 pp. \$9.50.

Introduction to Quantum Mechanics. Chalmers W. Sherwin. Holt, New York, 1959. 397 pp. \$7.50.