

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 colemanite, 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. Hoepflich and John R. Ward. Grune and Stratton, New York, 1959. 102 pp. \$4.75.

Foundations of Aerodynamics. A. M. Kuethe and J. D. Schetzler. 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 Lüsar. 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.