

language and communication theory, which is discussed in the chapter by F. Lounsbury. He reports mainly on recent challenges to the American structural linguistics school, with its perhaps outmoded behavioristic canons. Dissatisfaction has been expressed, not only by Europeans but by Americans engaged in "transformational analysis." Lounsbury also mentions the revived interest in a long-taboo topic—the ultimate origins of language.

A. K. Romney tackles the perennial topic of social organization and kinship, in an unavoidably technical chapter. R. Woodbury ably summarizes New World archeology. In addition to regional roundups, he discusses salvage archeology, archeological finances, training programs, chronology, and some of the new technical aids such as shortwave radio direction finders for field mapping. J. N. Spuhler and E. Heglar review physical anthropology, which is increasingly involved with genetic polymorphisms, abnormal hemoglobins, and more widely ramifying medical research relationships, going beyond earlier osteological and anthropometric interests. Recent fossil finds and primatology are briefly reported.

In his survey of Japanese anthropology, T. Sofue begins with a historical résumé that may surprise those unfamiliar with the speed with which Japan made scientific contact with the West. The Japanese had an anthropological society in 1884, began publishing an anthropological journal in 1886 and were engaged in archeological excavation by 1887. Before World War II, Japanese anthropologists, though active on several fronts, tended to limit themselves to Japan and adjacent parts of Asia and were contributing little to general theory. Postwar Japanese anthropology has expanded greatly, is concerned with major anthropological issues, and has built up several good academic departments. Japanese anthropologists have done fieldwork far beyond Eastern Asia, in India, Nepal, Iran, Iraq, and South America (where they have made notable archeological finds in the Andes). They lead the world in studies of wild primate behavior. Sofue provides a valuable 322-item bibliography of Japanese anthropological publications.

This intelligently selective survey is wholeheartedly recommended.

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New Books

Mathematics, Physical Sciences, and Engineering

Absorption Spectroscopy. Robert P. Bauman. Wiley, New York, 1962. 625 pp. Illus. \$12.

Advances in Astronautical Propulsion. Proceedings of the seminar at Milan, Italy, 8–12 September 1960. Corrado Casci, Ed. Pergamon, New York, 1962. 387 pp. Illus. \$14.

Analytical Mechanics. Grant R. Fowles. Holt, Rinehart, and Winston, New York, 1962. 288 pp. Illus. \$6.

Anorganische Chemie. vol. 2. István Náray-Szabó. Akadémiai Kiadó, Budapest, Hungary, 1962. 815 pp.

Application of Probability Theory and Mathematical Statistics in the Design and Manufacture of Radio-Electronic Equipment. P. P. Mesyatsev, V. I. Siforov, Ed. Translated from the Russian by L. Ebner. Published for the National Science Foundation and the Department of Commerce by the Israel Program for Scientific Translations, Jerusalem, 1961 [order from Office of Technical Services, U.S. Department of Commerce, Washington, D.C. (order number: 60–51086)]. 256 pp. Illus. \$2.50.

Asphalts and Allied Substances. vol. 4, *Methods of Testing: Industrialized Raw Bituminous Materials.* Herbert Abraham. Van Nostrand, Princeton, N.J., ed. 6, 1962. 448 pp. Illus. \$15.

Atomic-Absorption Spectrophotometry. W. T. Elwell and J. A. F. Gidley. Macmillan, New York, 1962. 109 pp. Illus. \$14.

Bibliography of the Ionosphere. An annotated survey through 1960. Laurence A. Manning. Stanford Univ. Press, Stanford, Calif., 1962. 626 pp. \$15.

Chemistry, with Selected Principles of Physics. Raymond E. Neal and Rosemary Kennelly. McGraw-Hill, New York, 1962. 381 pp. Illus.

The Collected Papers of Enrico Fermi. vol. 1, *Italy 1921–1938.* Emilio Segrè, Ed. Univ. of Chicago Press, Chicago, 1962. 1105 pp. Illus. Plates. \$15.

Combinatorial Chance. F. N. David and D. E. Barton. Hafner, New York, 1962. 365 pp. \$10.25.

A Course in the Geometry of n Dimensions. M. G. Kendall (No. 8 of Griffin's Statistical Monographs and Courses). Hafner, New York, 1961. 71 pp. \$3.

Differential Equations. H. S. Bear, Jr. Addison-Wesley, Reading, Mass., 1962. 215 pp. Illus. \$7.50.

Elementary Introduction to Molecular Spectra. Borge Bak. North-Holland, Amsterdam; Interscience, New York, ed. 2, 1962. 155 pp. Illus. \$6.

Formal Methods. An introduction to symbolic logic and to the study of effective operations in arithmetic and logic. Evert W. Beth. Reidel, Dordrecht, Netherlands; Gordon and Breach, New York, 1962. 184 pp. \$9.75.

A Guidebook to Mechanisms in Organic Chemistry. Wiley, New York, 1962. 260 pp. Illus. Paper, \$3.95.

Heat Transfer and Fluid Mechanics Institute, 1962. Proceedings. Held at the University of Washington in June 1962. F. Edward Ehlers *et al.*, Eds. Stanford

Univ. Press, Stanford, Calif., 1962. 303 pp. Illus. Paper, \$8.50.

Hydrogen Compounds of the Group IV Elements. F. G. A. Stone. Prentice-Hall, Englewood Cliffs, N.J., 1962. 110 pp. \$5.25.

Ion Production by Electron Impact. R. I. Reed. Academic Press, New York, 1962. 254 pp. Illus. \$7.

Laboratory Experiments for Chemistry, With Selected Principles of Physics. Raymond E. Neal and Rosemary Kennelly. McGraw-Hill, New York, 1962. 109 pp. Paper, \$3.

Laboratory Guide for General Chemistry. A research approach. Henry S. Gates. Houghton Mifflin, Boston, Mass., 1962. 107 pp. Illus. Paper, \$2.25.

Magnetogasdynamics and Plasma Dynamics. Shih-I Pai. Springer, Vienna; Prentice-Hall, Englewood Cliffs, N.J., 1962. 207 pp. Illus. Trade ed., \$14; text ed., \$10.

Mathematics Manual. Methods and principles of the various branches of mathematics. For reference, problem solving, and review. Frederick S. Merritt. McGraw-Hill, New York, 1962. 399 pp. Illus. \$9.50.

Modern Chemistry. Charles E. Dull, H. Clark Medcalfe, John E. Williams. Holt, Rinehart, and Winston, New York, ed. 2, 1962. 704 pp. Illus. Plates.

Modern Physical Science. William O. Brooks, George R. Tracy, Harry E. Tropp. Holt, Rinehart, and Winston, New York, ed. 3, 1962. 655 pp. Illus. Plates.

Nouveau Traité de Chimie Minérale. vol. 5, *Cadmium, Mercure* (1005 pp. 1962. NF. 182); vol. 6, *Bore, Aluminium, Gallium, Indium, Thallium* (1078 pp. 1961. NF. 172). Paul Pascal, Ed. Masson, Paris. Illus.

On the Theory of Radiation in Matrix Form: Theory of Crystal Diode. Nagatoshi Tunazima. Sanshusha Press, Tokyo, Japan, 1962. 92 pp. Paper, \$3.

Progress in the Astronautical Sciences. vol. 1. S. F. Singer, Ed. North-Holland, Amsterdam; Interscience, New York, 1962. 427 pp. Illus. \$14.50.

Progress in Astronautics and Rocketry. vol. 6, *Detonation and Two-Phase Flow.* S. S. Penner and F. A. Williams, Ed. Academic Press, New York, 1962. 380 pp. Illus. \$5.25. Sixteen contributed papers, based mainly on a symposium held by the American Rocket Society in April 1961.

The Sudbury Ores. Their mineralogy and origin. J. E. Hawley. Mineralogical Association of Canada, Ottawa, 1962. 221 pp. Illus.

Thermophysics. Allen L. King. Freeman, San Francisco, Calif., 1962. 386 pp. Illus. \$9.50.

USSR Olympiad Problem Book. Selected problems of elementary mathematics. D. O. Shklarsky, N. N. Chentzov, I. M. Yaglom. Translated from the Russian by John Maykovich. Irving Sussman, Translation Editor. Freeman, San Francisco, Calif., 1962. 468 pp. \$9.

Uses of Infinity. Leo Zippin. Random House, New York, 1962. 158 pp. Illus. Paper, \$1.95.

Vom Denken in Begriffen. Mathematik als Experiment des reinen Denkens. Alexander Israel Wittenberg. Birkhäuser, Basel, Switzerland, 1962. 360 pp.