

Books of the Week

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BEYOND TIME—Michel Siffre, transl. from French by Herma Briffault, Ed.—McGraw, 228 p., photographs, maps, \$5.95. Describes the experience of a young scientist who voluntarily endured 63 days alone in an icy cavern under the French Alps Maritimes.

THE BOOK OF KNOWLEDGE ANNUAL 1964—William E. Shapiro, Ed.-in-Chief—Grollier, 420 p., illus., \$10. Summary of the events of the world during 1963, colorful geographical section, and articles on highlights in science and technology.

CHARACTERISTICS OF A LUNAR LANDING CONFIGURATION HAVING VARIOUS MULTIPLE LEG LANDING-GEAR ARRANGEMENTS—Ulysse J. Blanchard—NASA (OTS), 44 p., illus., paper, \$1.25. Investigation of symmetric four-point and five-point systems and an asymmetric four-point system for landing on the moon.

CHEMISTRY—George W. Watt, Lewis F. Hatch and J. J. Lagowski—Norton, 582 p., illus., \$6.95. Conceived as a terminal course, the text provides a broad orientation with respect to the science of chemistry as a whole.

CHEMISTRY IN THE LABORATORY—George W. Watt, Lewis F. Hatch and J. J. Lagowski—Norton, 200 p., illus., paper, \$3.50. Laboratory manual appropriate for use with terminal chemistry course.

CHRISTIANS IN A TECHNOLOGICAL ERA—Margaret Mead and others; Hugh C. White Jr., Ed.—Seabury Press, 143 p., \$3.50. Offers an ecumenical debate between Roman Catholic, Orthodox, Protestant and Anglican churchmen and laymen.

THE CONDUCT OF INQUIRY: Methodology for Behavioral Science—Abraham Kaplan—Chandler Pub. Co., 428 p., \$8. A systematic, wide-ranging inquiry into the tasks, achievements, limitations and dilemmas of the newer disciplines of the behavioral sciences with emphasis on aspects they have in common.

CRAIGIE'S NEUROANATOMY OF THE RAT—Revised and expanded by Wolfgang Zeman and James Robert Maitland Innes—Academic Press, 230 p., illus., \$8.50. Modern, comprehensive text on the murine nervous system, amply illustrated.

DIVALENT CARBON—Jack Hine—Ronald, 206 p., diagrams, \$7. A survey of the chemistry of reaction intermediates containing divalent carbon, emphasizing the study of the mechanism of the reactions involving methylenes and the effect of structure on reactivity in these reactions.

DOCTORS IN PETTICOATS—Alice Fleming—Lippincott, 159 p., \$3.50. Short biographies of ten women doctors who made outstanding contributions to medicine, for young people.

EARTH TREASURES: Rocks and Minerals—Iris Tracy Comfort—Prentice-Hall, 72 p., illus. by Jan Fairservis, \$2.95. An introduction to the science of rocks, for young boys and girls.

EARTHQUAKES AND EARTH STRUCTURE—John H. Hodgson—Prentice-Hall, 166 p., illus., paper, \$3.95. Describes in nontechnical language past earthquakes of seismological importance, analyzes the information they yield on the earth's interior, and discusses earthquake engineering.

AN EXPERIMENTAL CURRICULUM FOR YOUNG MENTALLY RETARDED CHILDREN—Frances P. Connor and Mabel E. Talbot—Teachers College, 300 p., paper, \$3.50. A tested curriculum based on a four-year classroom study designed to develop teaching methods and materials for use with pre-school, educable retarded children.

EXPERIMENTAL PATHOGENIC MICROBIOLOGY—John M. Slack, Vincent F. Gerencser and Samuel J. Deal—Burgess, 2nd ed., 163 p., diagrams, paper, \$4.50. Revised edition contains new experiments in genetics, virology, oral flora and mycology.

EXPLORING LIGHT AND COLOR—Charles D. Neal—Childrens Press, 156 p., illus. by Paul Cassidy, \$4.50. Explains to children how we see with our eyes and with the help of optics.

Handbook of KNOTS AND SPLICES

by Charles E. Gibson

A fascinating and practical guide to rope work and the numerous uses of rope. Yachtsmen, campers, etc., will find this book especially useful for information regarding breaking strengths, kinds of rope for differing jobs, uses of wire rope, etc. Also for hobbyists. Profusely illustrated with simple, step-by-step line drawings. "Well-illustrated . . . an incredible amount of extremely useful information."—*Yachting*. **ORDER NOW!**

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FINAL REPORT ON THE TIROS I METEOROLOGICAL SATELLITE SYSTEM—Staffs of Goddard Space Flight Center and U.S. Weather Bureau—NASA (GPO), 258 p., illus., paper, \$2.25. Summary of design, instrumentation and operational achievements of this first and highly successful weather satellite.

5000 YEARS OF STARGAZING—Frances Rogers—Lippincott, 161 p., illus. by Brenda Bettison, \$3.75. A popularly told story about the men and the methods which have added to our knowledge of the universe.

FOSSILS IN AMERICA: Their Nature, Origin, Identification and Classification, and a Range Guide to Collecting Sites—Jay Ellis Ransom—Harper, 402 p., illus., \$8.95. A comprehensive guide to the major fossil collecting sites in all fifty states, with valuable information for the amateur collector.

INTERNATIONAL ENCYCLOPEDIA OF CHEMICAL SCIENCE—A. F. Clifford and others, Eds.—Van Nostrand, 1,331 p., diagrams, \$32.50. A new chemical encyclopedia prepared to meet the needs of chemists and non-chemists, teachers and students, those interested in pure or applied chemistry, in chemical research, engineering or technology. Includes four multilingual indexes: French-English, German-English, Russian-English and Spanish-English for use in reading foreign literature.

JULES VERNE: The Man Who Invented the Future—Franz Born, transl. from German by Juliana Biro—Prentice-Hall, 102 p., illus. by Peter P. Plascencia, \$3.25. Literary biography about the man who invented as science fiction in the 19th century what the young people of today learn to know as accomplished facts.

KEYS TO THE TREMATODES OF ANIMALS AND MAN—K. I. Skrabbin and others, transl. from Russian by Raymond W. Dooley; Hisao P. Arai, Ed.—Univ. of Ill. Press, 351 p., illus., \$10. Presents in one volume a translation from the Russian 20-volume work, of the keys to the various taxa, the literature citations and illustrations of a representative species of each genus.

THE LAND RESOURCES OF ALASKA—Hugh A. Johnson and Harold T. Jorgenson—Univ. Pubs. (N. Y.), 551 p., folded map, \$15. This Conservation Foundation Study attempts to assess the quantity, quality and availability of the known resources, describes present and prospective uses, and projects desirable further development.

MENTAL RETARDATION: A Family Crisis. The Therapeutic Role of the Physician—Formulated by The Committee on Mental Retardation—Group for the Advancement of Psychiatry, 35 p., paper, 50¢ direct to publisher, 104 E. 25 St., New York, N.Y. 10010.

THE MIRACLE AHEAD—George Gallup—Harper, 205 p., \$3.95. The originator of the Gallup Poll takes a look at our civilization and describes what it might achieve if it made fuller use of brain power, the development of mental abilities through education, and the potentialities of cooperative action.

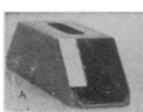
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION: Eighth Semiannual Report to Congress, July 1 through December 31, 1962—James A. Webb, Admin.—GPO, 193 p., illus., paper, \$1.25. Discusses in some detail the activities and accomplishments of the period in review, the launch vehicles, scientific investigations in space, advanced research and international programs.

OEERSTED AND THE DISCOVERY OF ELECTROMAGNETISM—Bern Dibner—Blaisdell Pub. Co., 84 p., illus., \$3.50; paper, \$1.95. Biographical sketch with bibliography.

ONCE A MARINE: The Memoirs of General A. A. Vandegrift—Robert B. Asprey, Ed.—Norton, 338 p., photographs, \$6.95. The story of the recapture of Guadalcanal, Iwo Jima and Okinawa as told by the former Commandant of the Marine Corps.

ONIONS AND THEIR ALLIES: Botany, Cultivation and Utilization—Henry A. Jones and Louis K. Mann—Interscience, 286 p., illus., \$12.50. Covers world production, history, classification, chemical composition, breeding, cultivating, weed control and disease control.

PARAPSYCHOLOGY: An Insider's View of ESP—J. Gaither Pratt—Doubleday, 300 p., \$4.95. De-



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scribes some of the experiments in which the author participated at the Parapsychology Laboratory of Duke University.

PERSONAL STRUCTURES: II. Personal Substructures—Maynard W. Shelley—Psychological Reports, 14 p. paper, \$1. This Monograph Supplement is concerned with presenting mathematical concepts applicable to groups of judgments.

PHILOSOPHY OF SCIENCE: The Delaware Seminar, Vol. 2, 1962-1963—Bernard Baumrin, Ed.—Interscience, 551 p., \$14.50. Topics of inquiry deal with scientific explanation, prediction and theories, with space and time, induction and measurement, science and man, and cosmology.

THE PHYSICAL DIMENSIONS OF CONSCIOUSNESS—Edwin G. Boring—Dover, 251 p., diagrams, paper, \$1.75. Reprint (1933).

POLYMER SINGLE CRYSTALS—Phillip H. Geil—Interscience, 560 p., illus., \$16. Considers results of recent research pertinent to the general problem of polymer morphology, single crystals from solution, hedges, spherulites, annealing and theoretical calculations of folding.

PRACTICAL TRANSISTOR THEORY—E. Patrick Wiesner—Sams, 128 p., illus., paper, \$2.50. Tells how transistor devices are used and how they work.

PRINCIPLES OF MODERN BIOLOGY—Douglas Marsland—Holt, 3rd ed., 632 p., illus., \$8.50. Revised edition contains much new material throughout and new chapters on cellular metabolism and on genes, and survey chapters utilizing up-to-date system of classification.

SOVIET FOREIGN PROPAGANDA—Frederick C. Barghoorn—Princeton Univ. Press, 329 p., \$6. A scholarly study of the international political communication program of the USSR, tracing the historical development of systematic effort made since 1917 by the Soviet communists to shape world opinion.

SPACE FLIGHT AND HOW IT WORKS—William P. Gottlieb—Doubleday, 61 p., photographs by author, diagrams, \$3.50. Explains to young readers with the help of graphic illustrations and experiments some of the concepts and problems of space flight.

STRANGE LIZARDS—Olive L. Earle—Morrow, 64 p., illus. by author, \$2.75. About lizards, salamander, chameleon, gecko and Gila monster, at primary reading level.

SYSTEMS OF PSYCHOTHERAPY: A Comparative Study—Donald H. Ford and Hugh B. Urban—Wiley, 712 p., \$10.95. Offers a systematic analysis of ten widely divergent theories of psychotherapy within a framework built upon the questions practicing psychotherapists face, and the answers which theories must provide.

THINKING WITH A PENCIL—Henning Nelms—Barnes & Noble, 346 p., illus. by author, \$4.95; paper, \$1.95. Planned for self-instruction, the book offers a practical text in freehand technical sketching.

VEGETATION AND FLORA OF THE SONORAN DESERT, Vols. I and II—Forrest Shreve and Ira L. Wiggins, foreword by H. A. Spoeher—Stanford Univ. Press, 1,740 p., illus., maps, \$22.50. Presents more than 30 years of research on the botany of the area comprising parts of California, Arizona and the Mexican state of Sonora, and most of the Lower California peninsula. Both ecological and taxonomic approaches have been used in the analysis of arid conditions on plant life.

WONDER DRUGS: A History of Antibiotics—Helmuth M. Boettcher, transl. from German by Einhart Kauerer—Lippincott, 285 p., \$4.95. The story of the trials, errors and final breakthroughs, from ancient Egypt to the present, in man's search for antibiotic substances.

THE WORLD OF THE BEAVER—Leonard Lee Rue III—Lippincott, 155 p., photographs by author, \$4.95. A remarkable close-up study of beavers at work through the seasons.

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Do You Know?

High energy states of atoms and molecules in the upper atmosphere occur as a result of the absorption of high energy radiation from the sun.

A 100-kiloton, deeply buried *detonation* would produce more than 15 million cubic yards of broken rock at a cost of less than \$1 million.

The oldest known living trees, bristlecone *pines* in California's White Mountains, have been traced back in time to 1900 B.C.

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