

# Books of the Week

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**AMERICAN SCIENTIFIC BOOKS, 1963-1964:** A Basic Selection of Scientific, Technical and Medical Books as entered in the American Book Publishing Record—Phyllis B. Steckler, Ed.—Bowker, 250 p., \$8. Supplement to the past two editions, covers the period from April 1963 through March 1964.

**APPLIED GROUP-THEORETIC AND MATRIX METHODS**—Bryan Higman—Dover, 454 p., paper, \$2.50. Unabridged republication of work first published in 1955.

**CAPACITANCE AND CAPACITORS, Parts I and II**—Robert H. Kantor—Fearon Pubs., 36 p., 52 p., diagrams, paper, 50¢ each. Programmed student aids, covering most of the material on this topic contained in an elementary electricity and magnetism course.

**CELL DIVISION:** BSCS Pamphlet 14—Daniel Mazia—AIBS (Heath), 33 p., illus., paper, subscription, eight pamphlets per school year \$4. Sponsored by the Biological Science Curriculum Study, each pamphlet is designed to cover a specific area of life sciences.

**EDUCATION MEDIA INDEX, Vol. II: Science and Engineering**—Educational Media Council—McGraw, 365 p., \$5.10; with 1965 supplement \$7.25. Directory of non-book instructional materials; lists and describes a great variety of material (grade 7 through college, adult) in astronomy, biology, geology, chemistry, physics and engineering.

**ELECTRON TUBES AT WORK: A TutorText**—James B. Owens and Paul Sanborn—Doubleday, 555 p., diagrams, \$6.95. A programmed intermediate-level course, covers basic types of electron-tube amplifiers and oscillators, their characteristics and typical applications.

**ELECTRONICS DATA HANDBOOK**—Martin Clifford—Gernsback Lib., 158 p., illus., diagrams, \$4.60; paper, \$2.95. Contains hundreds of the most useful formulas and data in electronics arranged in groups by subject.

**ELEMENTARY CONTEMPORARY MATHEMATICS**—Merlin M. Ohmer, Clayton V. Aucoin and Marion J. Cortez—Blaisdell, 380 p., diagrams, \$7.50. A two-semester text, on the structure of the number system, based on the recommendations of the Committee on the Undergraduate Program in Mathematics for the training of elementary school teachers.

**EXPLORING THE DEEP PACIFIC:** The Story of the Capricorn Expedition—Helen Raitt—Sage Bks. (Swallow, Alan), 2nd ed., 272 p., photographs, diagrams, paper, \$1.95. Describes the life on board of an oceanographic ship while the author's husband and other scientists explored the ocean bottom and probed the waters of the Pacific.

**FREE-LIVING COPEPODA FROM IFALUK ATOLL IN THE CAROLINE ISLANDS**—Willem Vervoort—Smithsonian Institution (GPO), 431 p., diagrams, paper, \$1.75. Based on the study of a collection of nonparasitic Copepoda obtained as a result of the Coral Atoll Project of the Pacific Science Board.

**FUNDAMENTALS OF PSYCHOLOGY**—C. J. Adcock—Penguin, 266 p., illus., paper, 95¢. Simple and authoritative introduction to the study of human behavior.

**GENETICS: Laboratory Exercises**—Eldon J. Gardner—Burgess, 4th ed., 77 p., illus., paper, \$2.85. Series of exercises range from monohybrid cross and backcross to practical fur breedings with mink.

**GLACIERS AND THE ICE AGE: Earth and Its Inhabitants During the Pleistocene**—Gwen Schultz—Holt, 128 p., photographs, maps, paper, \$1.28. Reprint (1963), combines findings of the various sciences in this story of ice and man.

**HORMONES AND EVOLUTION**—E. J. W. Barrington—Van Nostrand, 154 p., diagrams, \$3.95. Written particularly for undergraduates studying zoology, physiology and medicine, the author discusses the origin and evolution of endocrine systems, and how hormones meet the varying needs of different groups of animals at different stages of their history.

**LABORATORY EXPERIMENTS IN COLLEGE PHYSICS**—Cicero Henry Bernard—Blaisdell Pub. Co., 3rd ed., 369 p., illus., paper, \$5. Revised to include one third of completely new experiments that emphasize the investigative attitude, using the PSSO type of approach and equipment.

**LATTICES TO LOGIC**—Roy Dubisch—Blaisdell, 88 p., diagrams, paper, \$1.65. Attempts to illustrate the process of unification and application centered around the mathematical concept of a lattice.

**LE CORBUSIER: Architecture and Form**—Peter Blake—Penguin, 159 p., illus., paper, \$1.25. Introduces the lay reader to one of the originators of modern architecture.

**LECTURES ON ELEMENTARY NUMBER THEORY**—Hans Rademacher—Blaisdell, 146 p., \$6.50. Introduction to number theory, discusses such subjects as number factorization, common fractions, cyclotomy, theorems on Gaussian sums, and asymptotic laws as a foretaste of analytic number theory.

**MAJORCA: Sunlight on a Sea-girt Isle**—Friedrich Springorum—Kummerly & Frey (Rand McNally), 152 p., color photographs, maps, \$17.50. Beautiful and scholarly introduction to the history, geography and life on this Spanish island in the Mediterranean.

**A MANUAL OF THE MINERAL SCIENCES**—Ray J. Holmquist—Vantage Press, 219 p., diagrams, \$5. Informative handbook for the amateur collector of rocks and minerals.

**MODERN STATISTICS**—Richard Goodman—Arc Bks., 240 p., paper, \$1.45. College level course in fundamental statistical ideas and applications.

**THE MOINE THRUST ZONE IN THE ASSYNT REGION NORTHWEST SCOTLAND**—John M. Christie—Univ. of Calif. Press, 419 p., illus., 9 plates, 6 folded maps, paper, \$3.00.

**THE MOON**—Angelo Rocca, transl. from Italian—Duell, illus. by Fedini, \$2.95. A dramatic sample of how knowledge about the moon is presented to young readers in Galileo's country.

**THE NEGRO IN AMERICA**—Arnold Rose, foreword by Gunnar Myrdal—Harper, 324 p., diagrams, paper, \$1.95. Condensed version of Gunnar Myrdal's *AN AMERICAN DILEMMA* (1944), the comprehensive study of the American Negro problem, with two new chapters on the Negro community and culture.

**NUCLEON STRUCTURE: Proceedings of the International Conference at Stanford University, June 24-27, 1963**—Robert Hofstadter and Leonard I. Schiff, Eds.—Stanford Univ. Press, 421 p., diagrams, \$12.50. Papers deal with theoretical background, electron and positron scattering, symmetry properties of elementary particles and their interactions, and anti-nucleon effects.

**ONE WORLD DIVIDED: A Geographer Looks at the Modern World**—Preston E. James—Blaisdell, 483 p., photographs, maps by Eileen W. James, \$8.75. Uses geographic methods and concepts for providing a description of the processes of change in the modern world, noting the originating places, pattern and speed of movements, and results of the impact of change on pre-existing societies.

**OPPORTUNITIES IN OCEANOGRAPHY**—E. John Long—Smithsonian Inst., 33 p., illus., paper, single copies free upon request direct to Interagency Committee on Oceanography, Bldg. 159E, Navy Yard Annex, Washington, D. C. 20390. Describes the many challenging careers opening up in the expanding program of U.S. exploration of the sea.

**PHOTOPERIODISM IN ANIMALS:** BSCS Pamphlet 15—Donald S. Farner—AIBS (Heath), 36 p., illus., paper, 60¢ direct to Heath, 285 Columbus Ave., Boston 16, Mass. Describes what is known about the annual cycles of many different species, with emphasis on unsolved problems.

**THE PHYSIOLOGY OF DIURNAL RHYTHMS**—Janet E. Harker—Cambridge Univ. Press, 114 p., diagrams, \$3.95. Monograph surveys the properties of the biological clock as revealed in studies of the rhythmical processes under its control, discussing the physiological stress which may result from any upset of the orderly functioning of the timing system.

**PLANETS FOR MAN**—Stephen H. Dole and Isaac Asimov—Random, 242 p., diagrams, \$4.95. Suggests answers to some basic questions about the ultimate goals of space travel, discussing planetary habitability and the "nearest candidates."

**PRINCIPLES OF MATHEMATICS**—Bertrand Russell—Norton, 534 p., paper, \$2.95. Reprint of second edition (1938) of the classic thesis on the logical premises of mathematics.

**PUBLIC PAPERS OF THE PRESIDENTS OF THE UNITED STATES:** Containing the Public Messages, Speeches and Statements of the President, 1948—Harry S. Truman—GPO, 1,079 p., portrait, \$9.75. Indexed collection of written and spoken words issued by former President Truman during the year he made his successful bid for re-election.

**REPORT OF THE COMMISSION ON THE HUMANITIES**—Barnaby C. Keeney, Chmn.—Am. Council of Learned Societies, 222 p., paper, single copy free upon request direct to publisher, 345 E. 46th St., New York, N.Y. 10017.

**RESEARCH ADVENTURES FOR YOUNG SCIENTISTS**—George Barr—McGraw, 153 p., illus. by Mildred Waltrip, \$3. Project ideas and experiments to encourage boys and girls to design simple apparatus, and to observe and draw conclusions in the manner of professional scientists.

**THE RESEARCH ON PROGRAMED INSTRUCTION:** An Annotated Bibliography—Wilbur Schramm—OE (GPO), 114 p., paper, 50¢. Reviews some of the findings of the research in general and discusses specific studies.

**RESEARCH ON THE POLARIZATION OF LIGHT FROM PLANETS AND FROM SOME TERRESTRIAL SUBSTANCES**—B. Lyot, transl. from French—NASA (OTS), 144 p., diagrams, paper, \$3. First (1929) of three related theses on the photometry and polarimetry of the moon.

**RESEARCH PROFILE** No. 4: Summary of Progress in Hearing and Speech Disorders. No. 5: Mental Retardation. No. 6: Multiple Sclerosis. No. 7: Neuromuscular Disorders. No. 8: Parkinson's Disease—National Institute of Neurological Diseases and Blindness—PHS (GPO), 26 p., 10 p., 7 p., 7 p., 6 p., illus., paper, 15¢ each, direct to Govt. Print. Office, Washington, D. C. 20402.

**RUSSIAN-ENGLISH DICTIONARY OF STATISTICAL TERMS AND EXPRESSIONS AND RUSSIAN READER IN STATISTICS**—Samuel Kotz with Wassily Hoeffding—Univ. of N. C. Press, 115 p., \$7.50. Selection of solely technical terms of statistics and related fields from Russian to English, includes interlinear translation of passages from recent Soviet publications.

**SCIENCE AND CRITICISM: The Humanistic Tradition in Contemporary Thought**—Herbert J. Muller—Yale Univ. Press, 303 p., paper, \$1.95. Reprint (1943) of a broad study intended to make the revolutionary findings in modern science available for the purposes of literary criticism.

**SECOND INTERNATIONAL CONFERENCE ON CONGENITAL MALFORMATIONS**—Frank L. Horsfall Jr.—Chmn.—Internat'l Medical Congress, (N.Y.), 442 p., illus., \$7.50. Contains papers and discussions presented at the conference sponsored by the National Foundation, relates the latest work in cytogenetics, protein genetic variations, cell genetics, and developmental mechanisms.

**SPACECRAFT AND BOOSTERS: First Comprehensive Analysis of More Than Seventy U.S. and Soviet Space Launchings, 1961**—K. W. Gatland—Aero Pubs., 296 p., illus., \$13. Describes in chronological order the various space launchings of 1961, both successes and accredited "failures."

**STRATEGY AND CONSCIENCE**—Anatol Rapoport, introd. by Karl W. Deutsch—Harper, 323 p., \$6.95. The author, a specialist in mathematical biology, here analyzes the presuppositions of military strategists, challenging the methods of reasoning behind strategic concepts.

**A STRATEGY OF INTERDEPENDENCE: A Program for the Control of Conflict between the United States and the Soviet Union**—Vincent P. Rock—Scribner, 399 p., \$7.50. Study presents a thorough treatment of coexistence and lucid analysis of the important body of theory and related studies developed by scholars in recent decades.

**STRONG INTERACTIONS AND HIGH ENERGY PHYSICS:** Scottish Universities' Summer School 1963—R. G. Moorhouse, Ed.—Plenum Press, 475 p., diagrams, \$22.50. Revised lectures by theoretical physicists on results of new research, subjects ranging from relativistic S Matrix theory to three-particle systems and unstable particles.

**TWO MODES OF THOUGHT: My Encounters with Science and Education**—James Bryant Conant—Trident Press, 96 p., \$3.95. Drawing on his wide experience, the author considers the free society's needs for individuals trained in the empirical-inductive method of inquiry and those with the theoretical-deductive outlook.

**THE UNIVERSE OF GALILEO AND NEWTON**—William Bixby; Eds. of Horizon Magazine, Giorgio de Santillana, Consultant—Am. Heritage (Harper), 153 p., illus., \$3.95. Volume is handsomely illustrated with paintings, drawings and documents, many of them historical.

**VASCULAR PLANTS OF THE PACIFIC NORTHWEST, Part 2: Salicaceae to Saxifragaceae**—C. Leo Hitchcock and Arthur Cronquist—Univ. of Wash. Press, 597 p., illus. by Jeanne R. Janish, \$15. Complete guide with keys to genera, species and intraspecific taxa, including pertinent geographical, ecological and horticultural notes.

**VERDICT ON SCHWEITZER: The Man Behind the Legend of Lambarene**—Gerald McKnight—Day, 254 p., photographs, \$4.95. A reporter's rather critical book about life and conditions in Albert Schweitzer's jungle hospital.

**VISION IN ELEMENTARY MATHEMATICS**—W. W. Sawyer—Penguin, 346 p., illus., paper, \$1.25. Concerned with both traditional and more recent mathematical topics at an elementary level, designed to give the general reader and temporary teachers of mathematics the essentials of "mathematical literacy."

**WHY THE MOHOLE: Adventure in Inner Space**—William J. Cromie—Little, 230 p., photographs, diagrams, maps, \$4.75. Describes in detail the project of drilling through the earth's crust to find out more about what our planet is made of.

**WILDLIFE MANAGEMENT AND CONSERVATION**—James B. Trefethen—Heath, 120 p., illus. by Bob Hines, paper, \$1.32. Presents the fundamentals, aims and objectives of this new scientific field, and provides information on the basic techniques used to attain these goals.

**THE WORLD OF ANCIENT MAN**—I. W. Cornwall—Day, 271 p., illus. by M. Maitland Howard, maps and diagrams by the author, \$5.50. Archaeologist describes the patterns of prehistory, and relates among other things why the first men appeared in the places they did, why apes and men diverge and why there were no humans in America before the last Ice Age.

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