

Books of the Week

Listing is for readers' information, not advertising. For convenient purchase of any book listed or any U.S. book in print remit retail price (we pay postage) plus 25¢ handling charge if price is less than \$2 to Book Department, Science Service, 1719 N St., N.W., Washington, D. C. 20036.

ADAPTATION—Bruce Wallace and Adrian M. Srb—Prentice-Hall, 2nd ed., 115 p., diagrams, \$3.95; paper, \$1.75. Revised edition introduces new material on the adaptive nature of communication and examines more fully the scientific how of biological adaptations.

ANALYTIC GEOMETRY AND CALCULUS—Gordon Fuller and Robert M. Parker—Van Nostrand, 616 p., diagrams, \$9.50. Course emphasizes theory, level of treatment is suitable for students who have studied advanced high school algebra and trigonometry.

THE CAPTIVE SEA: Life behind the Scenes of the Great Modern Oceanariums—Craig Phillips—Chilton Bks., 284 p., illus. by author, \$6.50. Marine biologist tells about the many forms of life in the huge modern aquariums and about his own experiences as curator of the Miami Se aquarium.

CHEMICAL BACKGROUND FOR THE BIOLOGICAL SCIENCES—Emil H. White—Prentice-Hall, 152 p., illus., \$3.95; paper, \$1.75. New volume in the Foundations of Modern Biology Series, centers on the intricate field of organic chemistry most closely related to biology.

COLORIMETRIC DETERMINATION ELEMENTS: Principles and Methods—G. Charlot, transl. from French—Elsevier Pub. Co. (N.Y.), 449 p., diagrams, \$18. Includes detailed instruction manual for the separation and estimation of 65 of the more important elements, including new methods developed for such important elements as thorium, zirconium, niobium, tantalum, boron and beryllium.

COMMENTS ON A BRIEF RECONNAISSANCE OF RESOURCE USE, PROGRESS AND CONSERVATION NEEDS IN Some Latin American Countries—William Vogt—Conservation Foundation, 26 p., paper, limited supply of single copies free upon request direct to publisher, 30 E. 40th St., New York 16, N.Y. Some recent observations in Mexico and Central America with list of philanthropic opportunities for environmental improvement.

DIFFERENTIAL EQUATIONS WITH APPLICATIONS—Herman Betz, Paul B. Burcham and George M. Ewing—Harper, 2nd ed., 354 p., \$7.50. Text integrates theory and applications in presenting traditional topics and techniques as well as material of more recent origin.

THE DIFFICULT CHILD—Joseph S. Roucek, Ed.—Philosophical Lib., 292 p., \$7.50. Sixteen articles expressing current professional thought on various aspects of problem children, from the creative child (E. Paul Torrance) to the child with poor memory (Clyde J. Bear).

DIRECTORY OF AMERICAN PHILOSOPHERS, II: 1964-65—Archie J. Bahm, Ed.—Bahm (Albuquerque, N. M.), 397 p., \$11.25. Directory of U.S. and Canadian colleges and their philosophy staffs, philosophers and philosophical societies, philosophical journals, and employment opportunities in the profession.

A DISCUSSION ON RECENT EUROPEAN CONTRIBUTIONS TO THE DEVELOPMENT OF THE PHYSICS OF ELEMENTARY PARTICLES—C. F. Powell, Chmn.—Proceedings of the Royal Society, (Vol. 278, No. 1374) 277 p., illus., paper, \$3.35. Papers by eminent authorities from Western European countries on developments in elementary particle physics and prospects for the future.

THE DYNAMICS OF RESEARCH AND DEVELOPMENT—Edward B. Roberts—Harper, 352 p., diagrams, \$10.95. Aimed at manager and organization analyst, the book presents a dynamic system that creates the entire life cycle of a social system from beginning, through growth and maturity, to completion of purpose.

ESCP REFERENCE SERIES: 1. Sources of Earth Science Information, 2. Selected References for Earth Science Courses, 3. Selected Earth Science Films—William H. Matthews III, Ed.—ESCP (Prentice-Hall), 48 p., 34 p., 34 p., paper, \$1 for set of three pamphlets direct to Prentice-Hall, Englewood Cliffs, N.J. 07632. Reference materials for teachers and students of earth science in secondary schools, published by the Earth Science Curriculum Project.

FAMILIAR FRESHWATER FISHES OF AMERICA—Howard T. Walden 2nd—Harper, 324 p., illus. by Carl Burger, \$6.95. For the general reader and amateur naturalist, describes the life and habits of more than a hundred species, each in its natural habitat, from trout to lamprey.

A FIELD GUIDE TO THE STARS AND PLANETS: Including the Moon, Satellites, Comets and Other Features of the Universe—Donald H. Menzel—Houghton, 397 p., photographs, sky maps by Ching Sung Yu, \$4.95. Complete pocket guide to the night sky, with authoritative text, numerous charts, astronomical tables, latest volume in the Peterson Field Guide Series.

FUNK & WAGNALL'S NEW STANDARD ENCYCLOPEDIA YEARBOOK 1963—Virginia Carew, E.—Funk, 502 p., 220 photographs, \$3. Chron-

ology for 1963 and alphabetically arranged subject by subject review of outstanding news events, including the sciences.

GENTIANS FOR YOUR GARDEN—Doretta Klaber—Barrows (Morrow) 141 p., illus. by author, \$4.50. Beautifully illustrated, book describes nearly a hundred gentian species and hybrids and tells about their specific requirements for growth in an American garden.

GROWTH AND DEVELOPMENT—Maurice Sussman—Prentice-Hall, 2nd ed., 116 p., illus., \$3.95; paper, \$1.75. Modern biology text, incorporates recent research findings in a dynamic presentation at the advanced high school level.

AN INDEX OF RORSCHACH RESPONSES: Studies on the Psychological Characteristics of Medical Students, I—Caroline Bedell Thomas, Donald C. Ross and Ellen S. Freed—Johns Hopkins Press, 741 p., illus., \$15. By tabulating and indexing the test responses with the help of IBM computers, the authors provide normative data for a more objective evaluation of test results.

INVESTIGATIONS IN PHYSICAL SCIENCE—Warren L. Strickland—Burgess, 2nd ed., 246 p., illus., paper, \$3.95. A program of studies using the laboratory investigation, the group discussion form of investigation, pencil and paper, and experimenting at home, emphasizing the need for generalizing from the multitude of experiences at the empirical level.

MEDICAL CARE, HEALTH STATUS AND FAMILY INCOME: United States—National Center for Health Statistics—PHS (GPO), 92 p., paper, 55¢. Vital statistics on personal health expenditures, health insurance coverage, use of medical and dental services, chronic and acute illness, based on data from the National Health Survey.

THE MOON-DOGGL: Domestic and International Implications of the Space Race—Amitai Etzioni—Doubleday, 198 p., \$4.50. Using the moon race as a symptom, sociologist evaluates a policy tradition that seems to waste excellent short-run planning through a lack of long-run perspectives.

NUCLEAR INTERACTIONS—Sergio DeBenedetti—Wiley, 636 p., diagrams, \$16. Describes the basic facts and presents the theory of nuclear interactions in sufficient detail to be understandable to the professional nuclear experimentalist.

NUCLEAR RADIATION DETECTION—William J. Price—McGraw, 2nd ed., 430 p., illus., \$12.75. Single-volume sourcebook for students and practicing scientists and engineers, new edition includes semiconductor radiation detection, transistorized circuits and spark chambers.

ON THE ORIGIN OF THE SPECIES—Charles Darwin, introd. by Ernst Mayr—Harvard Univ. Press, 502 p., \$5.95. A facsimile of the first edition with an illuminating introduction calling attention to statements in this edition that Darwin modified extensively in later ones.

1001 QUESTIONS & ANSWERS TO YOUR SKIN PROBLEMS—Sidney J. Robbins, Stephanie H. Robbins and Samm Sinclair Baker—Harper, 308 p., \$5.95. Two dermatologists give authoritative advice on skin disorders and skin care.

OUR POISONED EARTH AND SKY—J. I. Rodale and Staff—Rodale Bks., 735 p., \$6.95. The case for the opposition to the use of many chemicals, pesticides and other substances not "organic" in food growing, food processing and medicine. It presents "the preventive and organic points of view of the poisons that threaten us." The contention is that "today's poisons may be more devastating than an atomic holocaust." Many scientists will consider this book in the class with "Silent Spring."

PRINTS AND HOW TO MAKE THEM: Graphic Arts for the Beginner—Arthur Zaidenberg—Harper, 171 p., illus., \$6.95. Describes in concise form the major techniques in the graphic arts, using illustrations of equipment and processes, from rubbings to chemigrams.

THE PROCESS OF AGEING—Alex Comfort—New. Am. Lib., 144 p., illus., paper, 60¢ direct to New American Library, 501 Madison Ave., New York, N. Y. 10022. Original publication in which gerontologist summarizes the role of heredity, hormones, glands and sex in human senescence.

RADIOLYSIS OF HYDROCARBONS—A. V. Topchiev, transl. from Russian, R. A. Holroyd, Ed.—Elsevier Pub. Co. (N.Y.), 232 p., diagrams, \$11. A detailed account of radiation chemistry in the USSR, emphasizing research activities carried out in the years 1957-61 at the Radiation Research Laboratories of the Institute for Petrochemical Synthesis.

RANDOM ESSAYS: On Mathematics, Education and Computers—John G. Kemeny—Prentice-Hall, 163 p., \$4.95. Mathematician's popularly written essays on such subjects as rigor vs. intuition in mathematics, the secondary school curriculum, and games of life and death.

SHAMANISM: Archaic Techniques of Extasy—Mircea Eliade, transl. from French by Willard R.

Trask—Pantheon Bks., 610 p., \$6. Published in the Bollingen Series, the work is addressed to the nonspecialist and treats shamanism in a comprehensive way.

SLIME MOLDS AND RESEARCH: BSCS Pamphlet 13—C.J. Alexopoulos and James Koenig—AIBS (Heath), 36 p., illus., paper, eight pamphlets per school year, annual subscription, \$4. Sponsored by the Biological Sciences Curriculum Study, this pamphlet discusses the life history, nuclear cycle, and physiology of Myxomycetes.

SUN, MOON AND STARS—William T. Skillling and Robert S. Richardson—McGraw, 2nd rev. ed., 304 p., photographs, diagrams, \$5.95. Up-to-date, expanded basic astronomy with emphasis on space and on the methods used in astronomical discovery, for young people.

SURVEY OF CHEMICAL NOTATION SYSTEMS: A Report—Committee on Modern Methods of Handling Chemical Information, NAS-NRC—Nat. Acad. of Sciences-Nat. Res. Council, 467 p., paper, \$7. Presents summary tables and discussion of data with evaluation of findings, suggestions for future work and interview reports.

TELEVISION FACTBOOK 1964—Paul Stone, Ed.—Television Digest, 1,220 p., maps, paper, \$19.50. Offers complete tabulation and data on the world's TV stations and sets, includes coverage maps for each of the U.S. and Canadian TV stations, data on CATV, FCC personnel, program sources, equipment manufacturers, station financial data and statistical material.

TESTING: Its Place in Education Today—Henry Chauncey and John E. Dobbin—Harper, 223 p., illus., \$4.95. An authoritative overview of current educational testing developments, intended to provide teachers, school board members and parents with an understanding of what the testing in schools and colleges tries to achieve.

THIS THIRTY WORLD: Water Supply and Problems Ahead—Alfred Lewis—McGraw, 96 p., photographs, \$3.50. Shows some of the ways by which science is trying to conserve, replenish and reclaim water.

TRANSFORMING TRADITIONAL AGRICULTURE—Theodore W. Schultz—Yale Univ. Press, 212 p., \$6. A study concentrating on the economic problems confronting traditional agriculture in its effort to become a more productive sector of the economy in the developing countries.

THE UNIVERSITY AND ITS FOREIGN ALUMNI: Maintaining Overseas Contacts—Forrest G. Moore and Robert E. Forman—Univ. of Minn. Press, 78 p., paper, \$2. Monograph on a pioneer project of inquiry into the problem of maintaining and improving relations with foreign alumni.

URBAN RAIL TRANSIT: Its Economics and Technology—A. Scheffer Lang and Richard M. Soberman—M.I.T. Press, 139 p., diagrams, \$6. Technical information and studies in the cost of urban rail transit systems designed to enable the nontechnician to evaluate the usual engineering reports on rail transit schemes.

WEST OF THE RHONE: Languedoc, Roussillon, the Massif Central—Freda White—Norton, 240 p., illus., map, \$6.95. A well written travel guide, gives an account of the routes to follow and the finest things to see in the old provinces and mountainous area in the south of France.

WHITEY AND WHISKERS AND FOOD—Constantine Georgiou—Harvey House, 45 p., illus. by Taylor Oughton, \$2.50. Story about a group of primary grade children doing their first controlled science experiment.

THE WORLD OF THE RED-TAILED HAWK—G. Ronald Austing—Lippincott, 128 p., photographs by author, \$4.95. Observations and close-ups showing the life cycle of this bird of prey.

• Science News Letter, 85:408 June 27, 1964

Do You Know?

Radio transmitters attached to *prairie chickens* will record their movements in a natural environment.

An electronic computer is being used to study the distribution, shape, and pairing of *chromosomes*.

Three hundred pounds of *dough* can be produced in one hour by an automatic push-button bakery designed for shipboard use.

Annual production of sand and *gravel* in the U.S. is expected to amount to about one billion tons by 1970.

• Science News Letter, 85:408 June 27, 1964