

Books of the Week

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ADAM'S ATOMS: Making Light of the Elements—Vernon Newton—Viking Press, 108 p., \$2.95. Short versified descriptions of the elements, possibly of some mnemonic value.

ANNUAL REVIEW OF ASTRONOMY AND ASTROPHYSICS, Vol. 3 (1965)—Leo Goldberg, Armin J. Deutsch and David Layzer, Eds.—Annual Reviews, 438 p., illus., \$8.50. Selected fields covered include clustering of galaxies, spectral line broadening, model atmospheres and radar astronomy.

AUSTRALIA—Maurice Berney—Kummerly & Frey (Rand McNally), 160 p., 98 color plates, maps, \$10.95. Authoritative articles on the aborigines, geography, geology, fauna, flora, national character and the economics of Australia, fully illustrated.

BASIC CONCEPTS OF ECOLOGY—Clifford B. Knight—Macmillan, 468 p., illus., \$8.50. A text concerned with the basic principles of modern ecology, dealing with the abiotic factors, climatology, population and community ecology, ecological succession, terrestrial and aquatic areas, and statistical procedures in ecology.

BIOLOGY OF THE ANTARCTIC SEAS, II—George A. Llano, Ed.—Am. Geophysical Union, 280 p., illus., \$12. Marine biological studies concerned both with phenomena and systematics, providing information on Antarctic marine environments and their organisms.

BIONICS: The Science of "Living" Machines—Daniel S. Halacy, Jr.—Holiday House, 190 p., photographs, illus. by D. M. Steinberg, \$4.50. A good introduction to the working partnership between biology and engineering, applying the observed mechanics of nature to models for sensors, thinking machines and artificial life cycles.

BRIDGES AND HOW THEY ARE BUILT—Daniel Goldwater—Scott, W. R. (N.Y.), 72 p., illus. by Harvey Weiss, photographs, \$3. Explores stresses, strains and materials, shapes, spans, trusses, arcs and cantilevers, with simple sketches and examples of great bridges.

BURIED TREASURE IN BIBLE LANDS—Le-nore Cohen—Ward Ritchie Press (Lane Bk. Co.), 225 p., illus., \$4.95. A readable survey of the finds on ancient civilizations brought to light by Biblical archaeologists.

THE CAMERA—Edward F. Dolan, Jr.—Messner, 191 p., photographs, diagrams, \$3.95. The story of the camera, films and processes, from the first camera obscura to today's high-speed cameras.

THE CENTURY OF THE DETECTIVE—Jurgen Thorwald, transl. from German by Richard and Clara Winston—Harcourt, 500 p., photographs, \$8.95. A very readable treatment of the developments in the scientific investigation of crime, from full discussion of fingerprinting to recent advances in forensic medicine and toxicology.

CHEMISTRY: Principles and Concepts—Malcolm Sturchio, Howard Nechamkin and Harry Dorfman—Prentice-Hall, 403 p., illus., \$5.98. An up-to-date high school text.

COMPARATIVE VERTEBRATE ANATOMY—Coleman J. Goin and Olive B. Goin—Barnes & Noble, 242 p., illus., paper, \$1.75. Outline summarizes material covered in college course.

THE COMPLETE PEACE CORPS GUIDE—Roy Hoopes, introd. by R. Sargent Shriver—Dial Press, rev. ed., 254 p., \$4.50. Gives detailed and authoritative answers to questions most often asked about the Peace Corps.

COMPLEX VARIABLE METHODS IN SCIENCE AND TECHNOLOGY—John Cunningham—Van Nostrand, 178 p., \$7.50. Explains systematically the basic ideas of the subject and demonstrates the theory by means of worked examples in practical situations.

DAWN OF ART: Painting and Sculpture of Australian Aborigines—Karel Kupka, foreword by A. P. Elkin, preface by Andre Breton—Viking Press, 180 p., color plates, map, \$10. A beautifully presented study of Australian aboriginal art, seen through the interpretation of an artist rather than an anthropologist.

DRINKING IN FRENCH CULTURE—Roland Sadoun, Giorgio Lolli and Milton Silverman—Rutgers Center of Alcohol Studies, 133 p., maps, \$6.

EARLY MESOPOTAMIA AND IRAN—M. E. L. Mallowan—McGraw, 142 p., photographs, \$5.50. A generously illustrated, compressed account of the archaeological evidence concerning the beginnings of civilized life in the Near East.

EGYPT TO THE END OF THE OLD KINGDOM—Cyril Aldred—McGraw, 143 p., photographs, illus., map, \$6.50. Reviews for the layman archaeological finds dating from the predynastic period up to the end of the eighth dynasty, c. 2160 B.C.

ELECTROMECHANICAL ENERGY CONVERSION—C. R. Chapman—Blaisdell Pub. Co., 250 p., illus., \$8.50. Modern mathematical treatment of practical electrical machines.

ELEPHANTS: The Last of the Land Giants—Anthony Ravielli—Parents' Magazine Press, unpag., illus. by author, \$3.50. A colorful informative book for young readers.

THE ENVIRONMENT AND MAN—J. Herbert Holloman and others—Travelers Research Center, 70 p., illus., paper, \$1.50. A collection of papers presented in the 1964-65 seminar series on man's progress and the effects of changes in the quality of the air, water and climate.

ENZYMES—J. B. S. Haldane—M.I.T. Press, 235 p., paper, \$2.45. Originally published in 1930, this historical work sheds new light on research possibilities today.

EVOLUTION—Irving and Ruth Adler—Day, 48 p., illus. by authors, \$2.50. Explains in simple terms the reasons why we know what we know about evolution.

EXCAVATIONS AT SNAKETOWN: Material Culture—Harold S. Gladwin and others—Univ. of Ariz. Press, 305 p., 213 plates, illus., \$7. Reprint of intensive study published in 1938, describing the features and reconstructing the history of the Hohokam civilization in southern Arizona.

EXPLORATIONS IN CHEMISTRY—Charles A. Gray, foreword by Hilary J. Deason—Dutton, 221 p., illus., \$5.95. To stimulate the student to explore on his own, the author, a Science Talent Search winner in 1956, here presents more than 150 experiments, explains the chemistry behind them and includes instructions for setting up a home laboratory.

FACTBOOK ON MAN: From Birth to Death—Louis I. Dublin—Macmillan, 2nd ed., 465 p., \$7.95. Expert and concise coverage of a broad range of topics, including marriage, family, disease, suicide, accidents, old age, public health, body build and longevity.

FATHER OF SUPERSONIC FLIGHT: Theodor von Karman—D. S. Halacy, Jr.—Messner, 192 p., \$3.25. Juvenile biography of a mathematical genius who ap-

plied himself to solving some of the technical problems of his time

FLIGHT TO THE STARS: An Inquiry into the Feasibility of Interstellar Flight—James Strong—Hart Pub. Co., 178 p., diagrams, \$4.95. Personal speculation about the problems involved in interstellar flight.

FLORA OF JAPAN (In English)—Jisaburo Ohwi; Frederick G. Meyer and Egbert H. Walker, Eds.—Smithsonian Institution, 1067 p., illus., plates, maps, \$25. A full systematic treatment of the approximately 4,500 species and varieties of plants and ferns of Japan from Hokkaido to Kiushu, the first flora of Japan in any western language since 1879.

FLYING FREE—Reidar Brodtkorb, foreword by Carl W. Buchheister—Rand McNally, 141 p., photographs, \$2.95. A factual and sympathetic account of how the Golden Eagle lives.

FOOD FACTS & FALLACIES: The Intelligent Person's Guide to Nutrition and Health—Carlton Fredericks and Herbert Bailey—Julian Press, 382 p., \$5.95. Presents in readable form the facts known about the relation of food to optimal health.

GALAXIES, NUCLEI AND QUASARS—Fred Hoyle—Harper, 160 p., illus., \$3.95. Deals with the formation of galaxies, radio galaxies, X-rays, gamma and cosmic rays, and the history of matter.

GASES IN CAST METALS—B. B. Gulyaev, transl. from Russian—Consultants, 257 p., illus., paper, \$27.50. Special report on research concerning processes and techniques of eliminating gases in steel, cast irons, nonferrous alloys and in casting molds, and on methods of analysis of gases in metals.

THE GREAT IDEAS TODAY, 1965—Robert M. Hutchins and Mortimer J. Adler, Eds.—in-Chief—EB (Atheneum), 590 p., photographs, \$10. Essays on contemporary aspects of work, wealth and leisure, and the year's developments in the sciences.

GROWTH—James M. Tanner, Gordon Rattray Taylor and the Eds. of LIFE—Time-Life Bks., 200 p., illus., \$3.95 direct to publisher, Time & Life Bldg., Chicago, Ill. 60611. Copiously illustrated, examines the processes of life from fertilized egg to adult human being, including recent research on genes, hormones and other influences.

HANDBOOK OF CALIFORNIA BIRDS—Vinson Brown and Henry G. Weston, Jr.—Naturegraph, rev. ed., 156 p., illus., color plates, \$4.50; paper, \$2.95. An aid to identification.

HEROES OF THE OLYMPICS—Hal Higdon—Prentice-Hall, 63 p., illus. by Paul Frame, \$3.50. Tells young readers what it takes to make an amateur athlete who can compete in the Olympic Games.

A HISTORY OF THE UNITED STATES WEATHER BUREAU—Donald R. Whitnah—Univ. of Ill. Press, 267 p., illus., paper, \$1.75. Reprint (1961).

HUMAN DIVERSITY: The Nature and Significance of Differences Among Men—Kenneth Mather—Free Press, 126 p., diagrams, \$5.95. Geneticist discusses in nontechnical language the various causes of diversity—environmental, genetical and social, and examines the way natural selection is related to the differences they bring about.

IDEAS IN MODERN BIOLOGY—John A. Moore, Ed.—Natural Hist. Press (Doubleday), 563 p., illus., \$8. Proceedings of the 14th International Congress of Zoology presenting research on genetic continuity, cell biology, development, evolution phylogeny and behavior, fully indexed.

IN MY TIME—Robert Strausz-Hupe—Norton, 284 p., \$5. Autobiography of an active scholar in foreign policy research.

INTRODUCTION TO APPLIED THERMODYNAMICS—R. M. Helsdon—Pergamon Press, 192 p., diagrams, \$3.75. Introduces the student to some of the more advanced thermodynamic topics.

AN INTRODUCTION TO MATHEMATICAL STATISTICS—H. D. Brunk—Blaisdell, 2nd ed., 427 p., \$8.50. Text for either one- or two-semester courses.

INTRODUCTION TO SPACE SCIENCE—Wilmot N. Hess, Ed.—Gordon & Breach, 919 p., illus., prof. ed. \$10; institutional ed. \$29.75. A collection of scientific papers intended to fill the need for cross-discipline communication between scientist and engineer, and for summaries useful to graduate students.

LIGHT AND LIFE IN THE UNIVERSE: Selected Lectures in Physics, Biology and the Origin of Life—S. T. Butler and H. Messel, Eds.—Pergamon Press, 340 p., illus., \$3.75. Lectures for advanced high school students, with units on living matter, origin of life on earth and possibility of life on other planets.

LIVING ARCHITECTURE: Mayan—Henri Stierlin, preface by Pedro Ramirez Vasquez—Grosset & Dunlap, 192 p., photographs by author, \$6.95. A detailed record of the ruins at Tikal, Copan, Palenque and Yucatan.

MANUAL FOR PROTECTION OF PUBLIC WATER SUPPLIES FROM CHEMICAL AGENTS—PHS (GPO), 21 p., paper, 15¢. Basic information on chemical agents, detection measures, treatment and tolerance limits.

MATTERHORN CENTENARY—Arnold Lunn—Rand McNally, 144 p., 25 plates, \$5.95. Reviews the principal climbing feats from the first successful ascent 100 years ago to the recent spectacular north face ascents.

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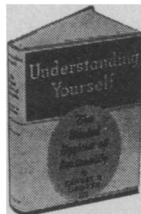
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MECHANICAL TESTING OF MATERIALS—A. J. Fenner—Philosophical Lib., 221 p., diagrams, \$15. A concise account, including both short-term and long-term static and dynamic tests, from torsion and tensile tests to recent studies of fatigue and creep.

MEDICINE IN TRANSITION—Iago Galdston—Univ. of Chicago Press, 220 p., \$5.95. A medical historian and social anthropologist, the author in this work seeks to establish the shortcomings of medical practice today and present these in their historical setting.

NATIONAL PARKS OF THE WEST—Editors of Sunset Books and Sunset Magazine—Lane Bk. Co., 320 p., photographs, illus., \$9.95; after 1/1/66, \$11.75. A visually exciting book, describes geology, flora and fauna of each park, with 32-page section of park facts for travelers.

NATIVE WILD PLANTS OF NORTHEASTERN UNITED STATES AND EASTERN CANADA—F. H. Montgomery—Warne, 193 p., line drawings, color plates, \$3.95. A field guide with simplified key.

NEW FOUNDATIONS OF QUANTUM MECHANICS—Alfred Lande—Cambridge Univ. Press, 171 p., \$7.50. Derivation of quantum theory from non-quantum foundations and repudiation of dualism in physics and philosophy.

THE NEW INTELLIGENT MAN'S GUIDE TO SCIENCE—Isaac Asimov, foreword by George W. Beadle—Basic Books, 864 p., illus., \$9.95; after 1/1/66, \$12.50. An up-to-date, one-volume view of what is known about the universe, the earth, the atmosphere, the elements, the molecule, microorganisms, the species and the mind.

NEW YORK CITY IN CRISIS—New York Herald Tribune Staff, Barry Gottehrer, Dir.—McKay, 212 p., \$4.50; paper, \$1.95. Collection of articles based on six months of interviewing by reporters probing into the reasons for urban deterioration.

THE NEXT GENERATION: The Prospects Ahead for the Youth of Today and Tomorrow—Donald N. Michael—Random House, 218 p., \$4.95. Based on report prepared in 1963 for the President's Committee on Juvenile Delinquency, discusses conditions essentially independent of the influence of youth developers, conditions subject to considerable influence, and the consequences of these conditions.

NORWAY—Alfred Nawrath—Kummerly & Frey (Rand McNally), 131 p., 93 color plates, map, \$19.95. Printed in Switzerland, shows the beauty of Norway from Cape Lindesnes in the south to the Norwegian islands in the Arctic.

NUMERICAL ANALYSIS—I. M. Khabaza—Pergamon Press, 242 p., \$5. Emphasizes methods suitable for digital computers.

OKLAHOMA PLACE NAMES—George H. Shirik—Univ. of Okla. Press, 233 p., \$4.95. An alphabetical listing, giving location and origin.

ON THE SHOULDERS OF GIANTS: A Shandean Postscript—Robert K. Merton, foreword by Catherine Drinker Bowen—Free Press, 290 p., illus., \$4.95. Written with tongue-in-cheek scholarship by social scientist as a good-natured spoof on quasi-scholarship.

OPERATIONAL METHODS IN NONLINEAR MECHANICS—Louis A. Pipes—Dover, 99 p., paper, \$1.50. Original publication.

THE OPINIONMAKERS—William L. Rivers—Beacon Press, 207 p., \$4.95. A book about modern political journalism, about the interplay of politics and the mass media, about government officials using reporters and reporters using government officials.

THE PENICILLIN GROUP OF DRUGS—Gordon T. Stewart—Elsevier Pub. Co. (N.Y.), 212 p., \$10. From discovery in 1929 to recent work with cephalosporins, this book draws together the various aspects of the whole family of penicillins and cephalosporins.

PHOTOGRAPHY FOR SCIENTIFIC PUBLICATION: A Handbook—Alfred A. Blaker—Freeman, 158 p., photographs, diagrams, \$8. Based on experience gained in a laboratory devoted exclusively to research illustrations, this handbook shows how to apply general photographic practices to the special subject matter and problems of this type of work.

PHYSICAL METHODS IN INORGANIC CHEMISTRY—Russell S. Drago—Reinhold, 430 p., diagrams, \$14.50. A basic work on the application of the different kinds of spectroscopic methods to problem solving in inorganic chemistry.

PLASMA PHYSICS: Scientific Principles and Technological Applications—Ali Bulent Cambel and Marion Cambel—Heath, 120 p., illus., paper, \$1.32. Traces the development that gave rise to the concept of plasma and shows how it is investigated.

THE PREDOMINANTLY NEGRO COLLEGES AND UNIVERSITIES IN TRANSITION—Earl J. McGrath—Teachers College, Columbia Univ., 204 p., \$4.75; paper, \$2.75. A set of facts and recommendations based on a study of the predominantly Negro institutions of higher learning in 1964.

PSYCHIATRY AND THE AGED: An Introductory Approach—The Committee on Aging—Group for the Advancement of Psychiatry, 60 p., paper, \$1. Presents selected facts, defines terms and briefly reviews the mental disorders common in old age, and discusses goals in their treatment.

PSYCHOLOGY OF THE SCIENTIST, XIV: Experimenters' Hypothesis-Confirmation and Mood as Determinants of Experimental Results—Robert Rosenthal and others—Perceptual and Motor Skills, Mono-

graph Supplement 6-V20, 15 p., paper, \$1. Study evaluates the contribution of two factors, expectancy and mood, to the mediation of the early returns effect.

THE WILD CASCADES: Forgotten Parkland—Harvey Manning, with lines from Theodore Roethke, foreword by William O. Douglas—Sierra Club, 128 p., photographs by Ansel Adams, Philip Hyde and others, folded map, \$20. Magnificent views of the primeval landscape in the remote natural park of the state of Washington.

WHALE'S WAY—Johanna Johnston—Doubleday, 45 p., illus. by Leonard Weisgard, \$2.95. A handsome, simply written book for the youngest readers.

X-RAY—VANGUARD OF MODERN MEDICINE—Theodore Berland—Public Affairs Pamphlets, 28 p., illus., paper, 25¢. Discusses for the layman X-rays for diagnosis, new uses, radioisotopes in diagnosis, radiotherapy and radiation safety.

• Science News Letter, 88:284 October 30, 1965

Nature Note

The Roundworms

Roundworms are more highly developed creatures than flatworms in the animal kingdom. They have a single straight digestive tube running down their elongated cylindrical body, with openings at both ends. Their nervous system is more advanced and complex than that of the flatworms, but there is little or no development yet of the circulatory or respiratory system.

These worms of the phylum Nematelminthes are found virtually everywhere. Millions inhabit a spadeful of rich garden soil, uncounted billions live in the oceans, streams, woods and fields. Nearly every man, animal and plant has roundworm inhabitants. Some are microscopic, others may be a yard long.

A large group of the Nematelminthes are the nematodes that often attack plants and cause serious damage to crops—the wheat eelworm, the root-knot nematode, the stem-and-bulb eelworm, the chrysanthemum nematode and many others.

There are about 50 kinds of roundworms parasitic in man. Hookworms, once thriving in the southern United States, live in the intestines of human beings, causing an infected person to become anemic and weak.

Ascaris is a common form of intestinal worm that infects wild and tame animals as well as man. Pinworms are fairly common in children. Trichinosis worms infect pigs, rats and man. In man, they burrow into the muscles all over the body where they form cysts, causing severe pain, weakness and even death.

• Science News Letter, 88:285 October 30, 1965

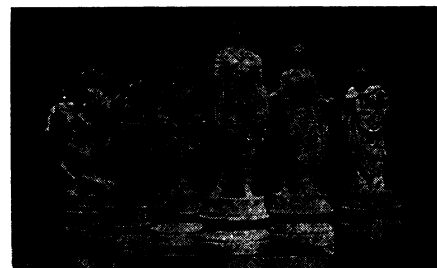
Do You Know?

One out of every 20 youngsters, never having learned to use both eyes together, is seeing with *one eye* and allowing the other to become "dead."

Years ago a plant that looked like a part of the body was thought to have *curative powers*, such as the clover, thought to cure heart disease.

There is high correlation between scholastic or reading performance and *myopia* in individuals.

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