

Books of the Week

For the editorial information of our readers, books received for review are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N.W., Washington 6, D. C.

AMERICAN VETERINARY MEDICAL ASSOCIATION DIRECTORY 1962—*AVMA*, 20th ed., 468 p., paper, \$10. Alphabetic and geographic listing of 23,623 veterinarians.

ANTARCTICA: Land of Frozen Time—Roger A. Caras—*Chilton Co.*, 209 p., illus., map, \$6. A readable reference book with useful appendices on treaty, list of expeditions, Antarctic philately, photography, and charts of ships, tracked vehicles and aircraft.

APPLIED PHYSICS LETTERS, Vol. 1, No. 1—J. H. Crawford, Jr., Ed.—*Am. Inst. of Physics*, 51 p., illus., paper, \$1, monthly, subscription. Vol. 1 (1962) \$4; Vol. 2 & 3 (1963) \$10. Publishes short self-contained presentations of research of current importance.

ATOMPOWER—Joseph M. Dukert—*Coward-McCann*, 127 p., illus. by John T. Gorsuch, photographs, \$3.50. An up-to-date look at current uses of atomic energy.

THE BACTERIA: A Treatise on Structure and Function, Vol. III: Biosynthesis—I. C. Gunsalus and Roger Y. Stanier, Eds.—*Academic Press*, 718 p., \$19.50. For microbiologists and biochemists concerned with the process of cellular biosynthesis.

BEHAVIOR OF THE LOWER ORGANISMS—H. S. Jennings, new introd. by Donald D. Jensen—*Ind. Univ. Press*, 366 p., illus., \$7.50. Descriptive and experimental classic, first issued in 1905.

BIOLOGICAL ASPECTS OF AGING—Nathan W. Shock, Ed.—*Columbia Univ. Press*, 391 p., illus., \$7.50. Conference proceedings cover genetics and comparative physiology of aging, changes in cellular structure, cancer, environmental factors, and aging of connective tissue.

BIOLOGICAL PROTOTYPES AND SYNTHETIC SYS-

SCIENCE in CRIME DETECTION by Nigel Morland

A fascinating, detailed account of the latest scientific methods of crime detection. Includes actual case histories of complicated crimes and how they were solved by the use of these methods. Shows how more and more the laboratory is becoming one of the most powerful of police weapons against criminals at work.

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Part II: MATERIAL EVIDENCE. 5. LABORATORY TECHNIQUES • Summary • Some Methods in Use • Blood and Blood Tests • Hairs • Stains and Marks • Toxicology • Bibliography. 6. THE FORENSIC CHEMIST • Explosives and Gases • Arson • Wood and Botanical Evidence • Glass • Metallography • Paint • Bibliography. 7. THE EXAMINATION OF DOCUMENTS • Basis • Paper • Discolored or Marked Paper • Inks • Ink and Pencil Tests • Erasures and Alterations • Writing and Documents • Graphology • Typewriting • Forgery • Bibliography.

Part III: THE EXPERT AT WORK. 8. MISCELLANEOUS EVIDENCE • A Criminological Bibliography. 9. THE MICROSCOPE • Bibliography. 10. Illustrative Cases: Brown and Kennedy • Dr. Buck Ruxton • Harry Dobkin • Alfred Arthur Rouse • James Comb • Bruno Hauptmann • John Christie • Norman Thorne • Bibliography.

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TEMS, Vol. 1—Eugene E. Bernard and Morley R. Kare, Eds.—*Plenum Press*, 397 p., diagrams, \$12.50. Proceedings of the Second Annual Bionics Symposium, held at Cornell University, 1961.

BIOPHYSICAL SCIENCE—Eugene Ackerman—*Prentice-Hall*, 626 p., illus., \$13.35. Covers special sensory systems, nerve and muscle, physical microbiology, molecular biology, thermodynamics and transport systems, and specialized instrumentation.

BIRTH CONTROL TODAY: A Practical Approach to Intelligent Family Planning—Leon F. Whitney—*Collier*, 158 p., illus., paper, 95¢. Reprint (1960).

A BOOK TO BEGIN ON MUSEUMS—Suzanne de Borhegyi—*Holt*, unpagged, illus. by Leonard Kessler, \$2.50. Explains to young children the various kinds of museums.

CAMP CENTURY: City Under The Ice—Walter Wager—*Chilton Co.*, 143 p., photographs, \$3.95. Depicts the life and work of scientists and engineers in the hostile Arctic environment.

THE CAVES OF THE GREAT HUNTERS—Hans Baumann—*Pantheon Bks.*, rev. ed., 184 p., illus., 37 color photographs, \$3.95. Handsome book for young people about the discovery of prehistoric art in the caves of southern France.

CHEMICAL ROCKET PROPULSION AND COMBUSTION RESEARCH—S. S. Penner—*Gordon & Breach*, 158 p., diagrams, \$5.75. On the advanced undergraduate level.

Cis-Trans ISOMERIC CAROTENOIDS, VITAMINS A AND ARYLPOLYENES—L. Zechmeister—*Academic Press*, 251 p., illus., \$10. Survey of research group's experimental work in the course of two decades.

COMPUTERS AT YOUR SERVICE—Bernice Kohn—*Prentice-Hall*, 72 p., illus. by Alike, \$2.95. Amusingly illustrated, simple explanations.

DICTIONARY OF DATES—Robert Collison—*Philosophical Lib.*, 428 p., \$10. Alphabetical list of more than 10,000 famous men and events, and day-by-day listing of anniversaries.

THE DISCOVERER OF OXYGEN: Joseph Priestley—William D. Crane—*Messner*, 191 p., \$3.25. Juvenile biography.

D.S.I.R., UNIVERSITIES AND COLLEGES 1956-60: A Report on D.S.I.R. Support for Research and Training in Universities and Colleges, 1956-60—*Dept. of Scientific & Indust. Res. (Brit. Inform. Services)*, 232 p., photographs, paper, \$3.

THE EARTH & YOU: A Geographic Picture of the World We Live in—Norman J. G. Pounds—*Rand McNally*, 591 p., illus., maps, \$6.95. A readable and compact geography of the modern world, showing the interaction of land, air, water and man.

THE EYE, Vol. 2: The Visual Process. Vol. 3: Muscular Mechanisms—Hugh Davson, Ed.—*Academic Press*, 796 p., 323 p., illus., \$22, \$12. Vol. 2 covers the visual functions in man, the photobiology of visual processes and the visual pathway. Vol. 3 treats movements of the eyes, accommodation and the pupil, and secretion of tears and blinking.



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THE FEDERAL INVESTIGATORS—Miriam Ottenberg—*Prentice-Hall*, 348 p., \$5.95. A reporter presents inside story of the federal government's work through the FBI, Bureau of Narcotics, Secret Service, Food and Drug Administration, Postal Inspection and other U.S. investigative agencies.

THE FIRST BOOK OF LIGHT—George Russell Harrison—*Watts, F.*, 85 p., photographs, diagrams, \$1.95. Handsomely presented elementary principles of light, for young readers.

GIBEON, WHERE THE SUN STOOD STILL: The Discovery of the Biblical City—James B. Pritchard—*Princeton Univ. Press*, 176 p., illus., \$5.75. Day-by-day experiences during the intensive excavations at the Arab village of el-Jib, told by the director of the expedition.

GLOSSARY OF TERMS FREQUENTLY USED IN BIOLOGY OF NUCLEIC ACIDS—Vincent G. Allfrey—*Am. Inst. of Physics*, 37 p., paper, \$1.

GLOSSARY OF TERMS FREQUENTLY USED IN PROTEIN CHEMISTRY—Paul Berg, Henry A. Lardy and Hans Neurath—*Am. Inst. of Physics*, 29 p., paper, \$1.

INTRODUCTION TO ELECTROMAGNETIC FIELDS AND WAVES—Dale R. Corson and Paul Lorrain—*Freeman*, 552 p., illus., \$12. On advanced undergraduate level, assumes knowledge in elementary electricity and in differential and integral calculus.

INTRODUCTION TO LIVESTOCK PRODUCTION: Including Dairy and Poultry—H. H. Cole, Ed.—*Freeman*, 787 p., illus., \$8.75. Text about current practices in the livestock industry.

IS ANYBODY OUT THERE?—John Rublowsky, introd. by Willy Ley—*Walker & Co.*, 118 p., illus., \$3.95. Describes for young people the reasoning and technology behind man's quest for clues to life in space.

KNOWLEDGE AND WONDER: The Natural World as Man Knows It—Victor F. Weisskopf—*Doubleday*, 222 p., illus., \$4.95. A theoretical physicist's view of the qualitative aspects of the world seen in science, in layman's language.

LIVING WITH TELEVISION—Ira O. Glick and Sidney J. Levy with others—*Aldine Pub. Co.*, 262 p., \$4.95. A social research study about TV viewers, how they use the medium and how they feel about it.

THE MIND AS NATURE—Loren Eiseley, foreword by Arthur G. Wirth—*Harper*, 62 p., \$2.75. The Fifth John Dewey Society Lecture.

MODERN MICROBIOLOGY—Wayne W. Umbreit—*Freeman*, 507 p., illus., \$8.50. Textbook emphasizing microorganisms as part of the living world of nature, not a premedial course.

MODERN QUANTUM THEORY—Behram Kur-sunoglu—*Freeman*, 518 p., \$14. Graduate-level course designed to give thorough understanding of the foundations of quantum mechanics.

NATIONAL SCIENCE FOUNDATION—Alan T. Waterman, Dir.—*NSF*, 32 p., illus., paper, single copies free upon request to publisher, 1951 Constitution Ave., NW, Washington 25, D. C. Survey of some of the projects sponsored by NSF.

THE NIGHT THE EARTH SHOOK: A Guide to the Madison River Canyon Earthquake Area—Irving J. Witkind—*U.S. Forest Service (GPO)*, 24 p., illus., paper, 25¢. The story of the geologic events of the Montana earthquake in 1959.

OPTIMIZATION TECHNIQUES: With Applications to Aerospace Systems—George Leitmann, Ed.—*Academic Press*, 453 p., \$16. Volume 5 of series of monographs "Mathematics in Science and Engineering."

ORGANIC CHEMISTRY LABORATORY OPERATIONS—W. B. Renfrow and P. J. Hawkins—*Macmillan*, 216 p., illus., paper, \$3.75. Sixty-six experiments, including advanced material.

THE ORGANIZATION OF CELLULAR ACTIVITY—Ch. M. A. Kuyper—*Elsevier (N. Y.)*, 272 p., illus., \$7.50. Synthesis of morphological and biochemical data relating to the functioning of cells.

THE OTTER'S TALE—Gavin Maxwell—*Dutton*, 125 p., photographs, \$3.95. A shorter version of "Ring of Bright Water," suitable for children.

PATTERSON'S SOURCE GUIDE for Educational Materials and Equipment—Norman F. Elliott, Ed.—*Educ. Directories*, 48 p., paper, \$1. Established buying guide, now available separately.

PEACE THEORY: Preconditions of Disarmament—John W. Burton—*Knopf*, 201 p., \$5.50. Methodical analysis of the forms and dynamics of conflict, and analysis of policies required in a disarmed world to avoid provocations leading to rearmament.

THE PEOPLES OF AFRICA—Colin M. Turnbull—*World Pub. Co.*, 127 p., illus. by Richard M. Powers, \$3.50. Introduces young people to the hunter, herdsman and cultivator tribes of Africa.

THE PHOENICIANS—Donald Harden—*Praeger*, 336 p., photographs, \$6.95. About the origins, colonization, social structure, culture and commerce of this ancient people, presents up-to-date archaeological data.

PHYSICAL SCIENCE: A Study of Matter and Energy—Verne H. Booth—*Macmillan*, 713 p., illus., \$7.95. Integrated course, including astronomy, physics, chemistry and geology, for non-science majors.

PHYSICS AND POLITICS—Max Born, foreword by Dame Kathleen Lonsdale—*Basic Bks.*, 86 p., \$3. Nobelists' recent lectures, applying the methods of new thinking in physics to thinking about current political problems.

PREHISTORIC RELIGION: A Study in Prehistoric Archaeology—E. O. James—*Barnes & Noble*, 300 p., illus., paper, \$1.95. Reprint (1957).

PROBLEMS OF PARENTS—Benjamin Spock—*Houghton*, 308 p., \$5. The well-known child care specialist here deals with such subjects as family tensions, anxieties and over-protection, divorce, widowhood and remarriage.

PROCEEDINGS OF THE CONFERENCE ON SALINE WATER CONVERSION, WASHINGTON, D. C.—C. F. MacGowan, Chmn.—*U.S. Dept. of Interior (OTS)*, 134 p., illus., paper, \$2.75. Includes technical papers on basic and applied research, and on demonstration plants.

THE QUESTION AND ANSWER BOOK OF NATURE—John R. Saunders—*Random House*, 61 p., illus. by Donald Moss, \$1.95. Informative picture-book for children.

RANDOM NUMBERS, MATHEMATICAL INDUCTION, GEOMETRIC NUMBERS—Frederick H. Young—*Ginn*, 26 p., illus., paper, 80¢. Intended to acquaint students with material not usually found in high-school mathematics.

THE REALM OF THE GREAT GODDESS: The Story of the Megalith Builders—Sibylle von Cles-Reden—*Prentice-Hall*, 328 p., 121 photographs, illus., \$10. An attempt to trace certain religious and cultural processes among the builders of ancient tombs and monoliths in the Mediterranean world and northern Europe.

RECENT SOVIET CONTRIBUTIONS TO MATHEMATICS—J. P. LaSalle and S. Lefschetz, Eds.—*Macmillan*, 324 p., \$8.75. Evaluation of Soviet mathematical research, identifying special features that indicate the objectives of Soviet scientific research.

RING OF BRIGHT WATER—Gavin Maxwell—*Fawcett*, 208 p., illus., paper, 60¢. Reprint (1961).

SCIENCE: A Key to the Future—J. Darrell Barnard, Celia Stendler, Benjamin Spock and Lon Edwards—*Macmillan*, 632 p., illus., \$5.52. Textbook on ninth grade level, examines the nature of scientific theories.

SCIENCE CLUBS OF AMERICA: Sponsor Handbook, 1962-63—Leslie Watkins, Ed.—*Science Service*, rev. ed., 63 p., illus., paper, \$1. Basic information to help sponsors and students with their science club programs and activities.

THE SEA: The Largest Continent in the World—W. A. de Salis, Auguste Piccard and others—*Rand McNally*, 200 p., photographs by Hein Wenzel and others, \$17.50. A visual treat, printed in Switzerland, tells of man's explorations of the oceans, such as a detailed account of the descent of the bathyscaph Trieste.

SEABIRDS IN SOUTHERN WATERS—H. R. H. Prince Philip—*Harper*, 62 p., 72 photographs by author, \$3.95. About frigate-birds, noddies, terns, albatrosses, petrels and penguins.

THE SEARCH FOR THE ELEMENTS—Isaac Asimov—*Basic Bks.*, 158 p., \$4.50. Tells for young people the 2,600-year-long quest by scientists to discover the components of the universe, from alchemy to the cyclotron.

SEISMIC EFFECTS OF UNDERGROUND EXPLOSIONS—I. P. Pasechnik and others, transl. from Russian—*Consultants*, 88 p., illus., paper, \$22.50. Describes nature of seismic records obtained in the USSR from underground explosions at the Nevada test site in 1957 and 1958, and differences in spectra of surface waves from earthquakes and from explosions.

STANDARD ENCYCLOPEDIA OF THE WORLD'S OCEANS AND ISLANDS—Anthony Huxley, Ed.—*Putnam*, 383 p., photographs, maps, \$10.95; \$9.95 until Jan. 1, 1963. More than 350 articles with factual information on major seas, islands, bays and capes, from the Gulf of Aden to the Zuider Zee.

STARS, MOSQUITOES AND CROCODILES: The American Travels of Alexander von Humboldt—Millicent E. Selsam, Ed.—*Harper*, 170 p., illus. by Russell F. Peterson, \$3.50. Selections of interest to young people.

THE STORY OF LIFE: Plants and Animals Through the Ages—Peter Farb—*Harvey House*, 126 p., illus. by Kathleen Elgin, \$3.50. Natural history for boys and girls.

THE STORY OF SUBMARINES—George Weller—*Random House*, 210 p., photographs, \$1.95. For young people.

STUDIES OF WAR: Nuclear and Conventional—P. M. S. Blackett—*Hill & Wang*, 242 p., \$3.95. British Nobel prize winner in physics analyzes in series of articles, from 1948 to 1962, the problems of Western nuclear defense policy.

TELEVISION AND HOW IT WORKS—Eugene David—*Prentice-Hall*, 72 p., illus. by Alik, \$2.95. Amusingly illustrated book, takes the young reader behind the scenes in studio and factory.

TOWARD EFFECTIVE GROUPING—Margaret Rasmussen, Ed.—*Assn. for Childhood Educ.*, 56 p., illus., paper, 75¢. Research and experience with different ways of school grouping.

WHALES—E. J. Slijper, transl. from Dutch by A. J. Pomerans—*Basic Bks.*, 475 p., illus., \$12.50. Comprehensive review of the advances in whale biology, with particular emphasis on whale and dolphin physiology, anatomy and behavior.

THE WIDENING WORLD OF CHILDHOOD: Paths Toward Mastery—Lois Barclay Murphy and others—*Basic Bks.*, 399 p., \$10. Based upon studies of normal children observed in infancy and periodically to adolescence, clearly demonstrating how few norms exist in the behavior of the young child.

YOU AND SPACE—Frances George—*Nat. Aerospace Educ. Council*, 31 p., illus. by Joan Bopst, paper, 50¢ direct to publisher, 1025 Conn. Ave., NW, Washington 6, D. C. For young readers.

THE YOUNG PATHFINDER'S BOOK OF BIRDS—Hilda Simon—*Hart Pub. Co.*, 128 p., illus. by author, \$2.95. Unusual facts about birds, told for boys and girls.

• Science News Letter, 82:292 November 3, 1962

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