

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.

THE ABC'S OF ASTRONOMY: An Illustrated Dictionary—Roy A. Gallant—*Doubleday*, 122 p., illus. by John Polgreen, \$3.95. Intended for the young amateur astronomer, defines and explains more than 500 essential technical terms.

ADVANCES IN APPLIED MECHANICS, Vol. 7—H. L. Dryden and Th. von Karman, Eds.—*Academic Press*, 327 p., diagrams, \$11. Includes extensive reviews of topics in solid mechanics and analytical results in the field of hypersonic obstacle flow.

APPARATUS DRAWINGS PROJECT—Robert G. Marcle—*Plenum Press*, 289 p., photographs, complete with drawings 1-30 by author, \$40. Sponsored jointly by the American Assn. of Physics Teachers and the American Institute of Physics.

AUTOMATION FUNDS AND DISPLACED WORKERS—Thomas Kennedy with Frank D. Plaut—*Harvard Business School, Div. of Res.*, 374 p., \$5. Discusses problems associated with technological unemployment and analyzes the functioning of the automation fund device as a means of dealing with these problems.

BEHAVIORAL SCIENCE AND CIVIL DEFENSE—George W. Baker and Leonard S. Cottrell Jr., Eds.—*NAS-NRC*, 169 p., paper, \$2. Conference papers considering civil defense and nuclear weapons, decision making, conceptual approaches to civil defense and applications of social science research.

BETA DECAY FOR PEDESTRIANS—Harry J. Lipkin—*Interscience*, 117 p., \$6. Attempts to present those aspects of beta decay which can be understood without reference to formal theory.

BIOLOGY FOR THE MODERN WORLD—C. H. Waddington—*Barnes & Noble*, 120 p., illus., \$2. Geneticist's general account of the science of biology today, in nontechnical language.

CHEMISTRY FOR THE MODERN WORLD—George Porter—*Barnes & Noble*, 116 p., \$2. About molecules, solids, liquids and gases, atomic structure and chemical energy. Written by scientist for the intelligent layman.

COLOR TELEVISION AND HOW IT WORKS—Stephen D. Kerman—*Sterling*, 68 p., illus., \$2.95. Simple explanation of telecasting generally and color TV in particular.

THE CRESCENT DICTIONARY OF MATHEMATICS—William Karush—*Macmillan*, 313 p., diagrams, \$6.50. Reference to more than 1,000 definitions and explanations, designed for high school and college mathematics students and teachers.

GAS CHROMATOGRAPHY: Principles, Techniques and Applications—A. B. Littlewood—*Academic Press*, 514 p., diagrams, \$15. Textbook for those who use the technique and for research workers.

THE GOLDEN BOOK OF FACTS AND FIGURES: A Treasury of Information on Hundreds of Subjects—Bertha Morris Parker—*Golden Press*, 144 p., illus. by Lowell Hess, \$5. Colorful invitation to browsing among science facts, for young students.

GUIDE TO AMERICAN WATERFOWL—Staff of Hunter's Encyclopedia—*Collier*, 126 p., illus., paper, 95¢. Describes the more important features of the birds as an aid to identification.

A HISTORY OF THE CROATIAN PEOPLE, Vol. II—Francis R. Preveden—*Philosophical Lib.*, 240 p., illus., \$7.50. The history of Croatia and Slavonia, of the Bosnian Church, and of Dalmatia, from 1397 to 1718.

INORGANIC POLYMERS—F. G. A. Stone and W. A. G. Graham, Eds.—*Academic Press*, 631

p., \$19.50. Review of current research in several areas of inorganic polymer chemistry, such as sulfur, boron, silicone and coordination polymers.

INSTANT MATH: Based on the Trachtenberg Speed System of Basic Math—Ann Cutler—*Doubleday*, 60 p., \$2.50. Explains first steps to a system that speeds up mental calculations.

JUNIOR SCIENCE BOOK OF ROCK COLLECTING—Phoebe Crosby—*Garrard*, 64 p., photographs, \$2.25. Invites youngest readers' interest in rock specimens.

JUNIOR SCIENCE BOOK OF TURTLES—Henry Hill Collins Jr.—*Garrard*, 64 p., illus. by Matthew Kalmenoff, \$2.25. Primary reading level.

LAND ALIVE: The World of Nature at One Family's Door—Ronald N. Rood—*Stephen Greene Press*, 144 p., illus. by Edward J. Brundage, \$4.50. The four seasons observed in Vermont's countryside.

THE METALLURGY OF TOOL STEELS—Peter Payson—*Wiley*, 349 p., illus., \$15.50. Textbook and reference volume for metallurgists.

MINISTRIES OF EDUCATION: Their Functions and Organization—Kathryn G. Heath—*OE (GPO)*, 684 p., illus., paper, \$2.50. Multinational study prepared by the United States with the cooperation of 69 governments.

NEBRASKA SYMPOSIUM ON MOTIVATION, 1962—Marshall R. Jones, Ed.—*Univ. of Neb. Press*, 330 p., illus., \$4.25; paper, \$3.25. Papers range widely, from theory on cooperation and trust, to measurement of drive and conflict in humans.

PHOTOGRAPHIC INSTRUMENTATION: Techniques, Equipments, Applications—Kenneth Shaftan and Dean Hawley—*Soc. of Photographic Instrumentation Engineers*, 325 p., illus., \$20. Reference volume for photo-optical data with reference to naval research.

PHYSICS AND ARCHAEOLOGY—M. J. Aitken—*Interscience*, 181 p., illus., \$6. Intended both for the general scientific reader and for the student of measurements made on archaeological material.

PHYSICS FOR THE MODERN WORLD—E. N. da C. Andrade—*Barnes & Noble*, 100 p., diagrams, \$2. Scientist's general account of the new physics, in non-technical language.

THE PLANETS—Patrick Moore—*Norton*, 185 p., illus., \$5.95. Basic material and up-to-date information on what is known about the planets.

THE POLAR REGIONS: The Geography, Climate and Life of the Arctic and Antarctic—Walter Sullivan—*Golden Press*, 54 p., photographs, illus. by Ray Pioch, 69¢. Colorful, informative and readable.

PRICE, OUTPUT AND INVENTORY POLICY: A Study in the Economics of the Firm and Industry—Edwin S. Mills—*Wiley*, 271 p., \$7.95. Operations research study concerned with formulation of theories.

RADIOISOTOPES—John H. Woodburn—*Lippincott*, 128 p., illus., \$3.50. Informs young people about the many ways in which radioisotopes serve science, agriculture, medicine and industry.

RECONNAISSANCE & BOMBER AIRCRAFT OF THE 1914-1918 WAR—W. M. Lamberton; E. F. Cheesman, Ed.—*Aero Pubs.*, 231 p., photographs, drawings by J. D. Carrick and F. A. Yeoman, \$9.75. Pictorial record of "heavy" aircraft of World War I participating countries.

RIVERS IN HARNESS: The Story of Dams—Allan H. Cullen—*Chilton Co.*, 175 p., photographs, \$3.95. A history of dam building, tells about the particular purposes they serve and some of the problems involved.

SCIENTIFIC RESEARCH IN BRITISH UNIVERSITIES AND COLLEGES, 1961-62—*Dept. of Scientific and Industrial Research (Brit. Inform. Services)*, 622 p., paper, \$6.50. Provides brief notes on scientific research in progress in British universities and associated institutions during the academic year 1961-62.

SEMICONDUCTOR AND CONVENTIONAL STRAIN GAGES—Mills Dean III and Richard D. Douglas, Eds.—*Academic Press*, 381 p., illus., \$15. Up-to-date information on the characteristics, limitations and applications of modern strain gages.

SHAPING THE WORLD ECONOMY: Suggestions for an International Economic Policy—Jan Tinbergen—*Twentieth Century Fund*, 330 p., \$4; paper, \$2.25. Economist surveys today's world tensions and offers proposals for what the West can do to relieve tensions between developed and underdeveloped countries.

A SHORT HISTORY OF MEDICINE—Charles Singer and E. Ashworth Underwood—*Oxford Univ. Press*, 2nd ed., 854 p., illus., \$10. The part dealing with 19th and 20th centuries has been completely rewritten, based on up-to-date historical studies.

SOCIETY: Problems and Methods of Study—A. T. Welford and others, Eds.—*Philosophical Lib.*, 586 p., \$10. An up-to-date British outline of present work and thought in the study of social processes.

SOVIET EDUCATION: Anton Makarenko and the Years of Experiment—James Bowen—*Univ. of Wis. Press*, 232 p., \$5. Reviews theory and collectivistic methods of education introduced in Russia after World War II.

SPACE AGE ASTRONOMY—Armin J. Deusch and Wolfgang B. Klemperer, Eds.—*Academic Press*, 531 p., illus., \$16.50. Papers and comments on current projects and techniques, future astronomical observations from space stations and celestial mechanics problems.

SPACE FLIGHT REPORT TO THE NATION—Jerry Grey and Vivian Grey, Eds.—*Basic Bks.*, 224 p., illus., \$7.50. Leading space scientists and engineers sum up the state of astronautics today, in layman's language.

THE SPACE RACE: From Sputnik to Apollo and Beyond—Donald W. Fox, foreword by J. W. Fulbright—*Chilton Co.*, 393 p., \$6.95. A five-year review charting U.S. and U.S.S.R. space efforts and accomplishments, with an analysis of the political background to developments.

STUDIES IN OPTICS—A. A. Michelson—*Univ. of Chicago Press*, 176 p., illus., paper, \$1.75. Includes descriptions of the various experiments carried out to detect the effects of the motion of the medium on the velocity of light. Reprint (1927).

A SURVEY OF FEDERAL PROGRAMS IN HIGHER EDUCATION: Summary—J. Kenneth Little—*OE (GPO)*, 56 p., paper, 25¢. Describes programs, participating institutions and the effects of the programs on the institutions.

TECTONICS—Jean Goguel, transl. from French by Hans E. Thalmann—*Freeman*, 384 p., illus., \$10. Textbook, with examples chosen mostly from Western European countries.

TELSTAR: Communication Break-Through by Satellites—Louis Solomon—*McGraw*, 63 p., photographs, \$2.95. Pictorial account for the general reader.

TIME, CELLS AND AGING—Bernard L. Strehler—*Academic Press*, 270 p., illus., \$5; paper, \$2.95. Monograph attempts to summarize the major lines of information on aging and indicates important areas for theoretical and experimental research.

TO THE ENDS OF THE EARTH: The Explorations of Roald Amundsen—J. Gordon Vaeth—*Harper*, 219 p., photographs, maps, \$3.50. For young people.

TWO IN THE FAR NORTH—Margaret E. Murie—*Knopf*, 438 p., illus. by Olaus J. Murie, \$5.95. Adventures while exploring Alaska's Arctic wilderness.

THE UNSEEN WORLD—Rene Dubos—*Rockefeller Inst. Press (Oxford Univ. Press)*, 112 p., 97 illus., \$4.75. Based on lectures for the non-specialist, describes biological relationships of microorganisms with plants, with each other and with man.

VISION: How, Why and What We See—Janette Rainwater—*Golden Press*, 54 p., illus. Welmer Pursell, 69¢. Interesting information for the young.

• Science News Letter, 82:373 December 8, 1962

EDUCATION

Israel "Alma Mater" to African, Asian Leaders

► THE NEWLY developing nations in Africa and Asia have come to look upon Israel as "teacher and university," Dr. Abba Eban, Israel's Minister of Education and former Ambassador to the United States, said in Washington, D. C.

"For hundreds of the young leaders of the new states, Israel is 'Alma Mater,'" he said.

More than a thousand Africans and Asians this year are attending institutions of learning in Israel to develop the knowledge and skills that will aid them both in developing and governing their countries. In addition, more than a thousand of Israel's scientists and technicians are working by official invitation in almost all of the newer nations. Their projects are to advance energy resources, improve agricultural production and livestock, develop new products for export and for domestic use to increase national economy, and aid in improving the educational levels of the populations.

This "aid to education" to the new countries has been a part of Israel's national policy for almost a decade of its 15 years as a sovereign power.

The growing demand for Israel's talent and know-how has placed a strain on the resources of this tiny Middle East democracy.

To meet the internal and external demands for this specialized manpower, important departures have been undertaken in Israel's scientific institutions and universities, notably in its famed Weizmann Institute for Advanced Scientific Research. This center, formerly devoted exclusively to the purest basic research, now will have an Applied Research Institute and a graduate school, Dr. Eban revealed.

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Do You Know?


Enzymes in DDT-resistant lice convert DDT to a harmless substance.

Fluorides in the atmosphere can damage plants or cause sickness in animals consuming them.

A cholesterol-reducing drug, *triparanol*, has harmful side effects, including loss of hair, cataracts and skin troubles.

• Science News Letter, 82:373 December 8, 1962

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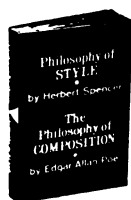
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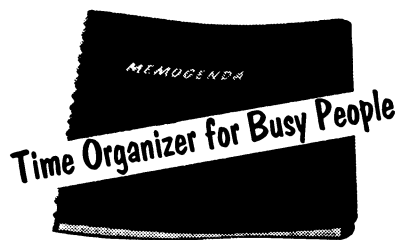


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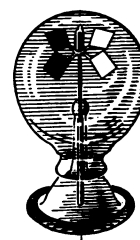


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