

Books of the Week

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ANAXAGORAS AND THE BIRTH OF SCIENTIFIC METHOD—Daniel E. Gershenson and Daniel A. Greenberg, introd. by Ernest Nagel—Blaisdell Pub. Co., 63 p., paper, \$1.45. Includes conclusions of the authors' study of Anaxagoras.

ANDEAN CULTURE HISTORY—Wendell C. Bennett and Junius B. Bird—Nat. Hist. Press (Doubleday), 2nd rev. ed., 257 p., illus., maps, paper, \$1.95. Originally published by the American Museum of Natural History in 1949, presents the archaeological evidence of the civilization of the Inca Empire.

THE ATLANTIC CABLE—Bern Dibner—Blaisdell, 2nd ed., 180 p., illus., paper, \$1.85. History of science reading.

FORTRAN PROGRAMMING (II and IV)—L. Dale Harris—Merrill, 146 p., paper, \$2.95. Makes programming with the algebraic "language" Fortran clear with examples and detailed explanations.

FOSSIL MAMMALS OF THE TYPE LANCE FORMATION, WYOMING, Part I: Introduction and Multituberculata—William A. Clemens, Jr.—Univ. of Calif. Press, 105 p., illus., folded map, paper, \$2.50. Describes general geology of the dinosaur-bearing strata and systematics of large collection of lance fauna.

THE GREAT ARC OF THE WILD SHEEP—James L. Clark—Univ. of Okla. Press, 247 p., illus., \$6.95. Discusses the urials, argalis, Asiatic big-horns, dalli and American bighorns that live in the mountain ranges forming an arc through Asia and North America.

HOW TO USE A MICROSCOPE—W. G. Hartley, American edition ed. by John J. Lee and Bernard Friedman—Nat. Hist. Press, 255 p., diagrams, paper, \$1.45. A thoroughly illustrated handbook for the student and amateur microscopist, covers history, manipulation and care of the instrument and special methods of illumination.

IN SEARCH OF MERMAIDS: The Manatees of Guiana—Colin Bertram—Crowell, 183 p., \$4.95. About a vanishing species of sea mammal that lives in

the muddy waters of British Guiana, written by zoologist.

INDIAN OCEAN TREASURE—Arthur C. Clarke and Mike Wilson—Harper, 147 p., photographs, maps, \$3.50. The story of a modern-day treasure hunt off the coast of Ceylon.

INSIGHT—J. Bronowski—Harper, 108 p., photographs, \$5.95. Shows a series of underlying ideas, tracing a common thread throughout the development of modern science.

LABORATORY MANUAL FOR VERTEBRATE PHYSIOLOGY—Donald M. Pace, Benjamin W. McCashland and Carl C. Riedesel—Burgess, 287 p., illus., paper, \$4. Exercises designed to give a working knowledge of laboratory procedures and offer experience in the application of techniques.

THE LIFE OF INSECTS—V. B. Wigglesworth—World Pub. Co., 359 p., 36 plates, drawings, \$12.50. Presents the complexities of insect life against the background of what is known about the physiological working of the insect body.

MANKIND EVOLVING: The Evolution of the Human Species—Theodosius Dobzhansky—Yale Univ. Press, 381 p., paper, \$2.45. Reprint (1962).

THE MONTESSORI METHOD: Scientific Pedagogy as Applied to Child Education—Maria Montessori, transl. from Italian by Anne E. George; introd. by Martin Mayer—Robert Bentley (Cambridge, Mass.), 377 p., photographs, \$6.50. Sets forth the educational method for children from three to six years, originally published in 1912.

THE NATURAL PHILOSOPHER, Vol. 3—Daniel E. Gershenson and Daniel A. Greenberg, Eds.—Blaisdell, 111 p., paper, \$1.95. Scholarly papers dealing with the impact of physics on human thought, such as Einstein and the wave-particle duality, and the gravitational theory of Le Sage.

NUMERICAL METHODS USING FORTRAN—L. Dale Harris—Merrill, 244 p., \$9. Relates programming and numerical methods and applies them to problems on the digital computer.

ORGANOMETALLIC CHEMISTRY—Eugene G. Rochow—Reinhold, 112 p., diagrams, paper, \$1.95. Attempts to place the subject in the general study of chemical principles and their application.

PHYSIOLOGICAL PROBLEMS IN SPACE EXPLORATION—James D. Hardy, Ed.—Thomas, C. C., 333 p., illus., \$12.50. Deals with the psychological problems associated with environmental extremes, and the research concerned with the physiology of stress.

THERMODYNAMICS OF IRREVERSIBLE PROCESSES—Pierre Van Rysselberghe—Blaisdell, 165 p., \$7.50. Intended to be of practical help to physical chemists, chemical engineers, electrochemists and other scientific workers concerned with simultaneous irreversible processes and their possible mutual influence.

TOPICS IN ALGEBRA—I. N. Herstein—Blaisdell, 242 p., \$8.50. Deals with group and ring theory, with vector spaces, fields, linear transformations and other selected topics.

• Science News Letter, 86:188 Sept. 19, 1964

BIOCHEMISTRY

Anti-Radiation Pill Possibility for Future

► **KNOWLEDGE** that cells can recover from radiation damage under certain conditions could lead to the development of an anti-radiation pill, a biologist told a meeting of the Joint Meeting of Biological Societies in Boulder, Colo.

Dr. Alvin Beatty of Emory University, Atlanta, Ga., said he found the chemical adenosine triphosphate very effective in helping radiation-damaged cells recover, if given in an oxygen-helium or carbon monoxide atmosphere. Adenosine triphosphate is a material known to be directly associated with cellular energy.

Dr. Beatty said oxygen aids damaged-cell recovery because it functions in the cell's metabolism to release energy needed for the repair of chromosome damage.

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Pollution Stunts Plants

► **AIR POLLUTION** of the type found in and around our major cities is causing \$325 million worth of damage to plants and crops every year, some of it in the form of "hidden injury."

Pollution-resistant plants have been developed to help reduce the toll, but even these are not immune. A test showed that pollution-resistant tobacco plants suffered from "hidden injury" in the form of a ten percent growth loss when grown in a polluted atmosphere.

Both ordinary, sensitive plants and the resistant variety were grown in unfiltered air in a plastic enclosure near Washington, D. C.

Concentrations of ozone ranged from 0.03 to 0.22 parts per million. For comparison, a "control group" of both types was grown in a filtered-air enclosure next to them.

No damage occurred to the plants of either variety in the filtered-air enclosure. The plants exposed to the polluted air were damaged, however. The non-resistant plants suffered severe leaf damage and the resistant plants grew ten percent less than those in the filtered air.

Dr. H. A. Menser Jr., a plant physiologist with the crops research division of the U.S. Department of Agriculture, reported on the "hidden injury" of air pollution to plants at the Joint Meeting of Biological Societies in Boulder, Colo.

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The New Mathematical Library



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