

• Books of the Week •

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ACTIVATED CARBON—John W. Hassler—The Chemical Publishing Co., Inc., 397 p., illus., \$10.00. A text prepared for operators and research workers that surveys principles and practices involved in the use of active carbon.

AFGHANISTAN, Land in Transition—Mary Bradley Watkins—Van Nostrand, 262 p., photographs, \$5.75. Survey of Afghanistan including geography, religion and architecture.

AMERICA'S NEW POLICY MAKERS, The Scientist's Rise to Power—Donald W. Cox—Chilton Co., 298 p., \$6.95. Traces scientist's evolution from adviser to policy maker from the days of the steam boat to the days of the hydrogen bomb.

ATOMIC AND NUCLEAR PHYSICS, an introduction—T. A. Littlefield and N. Thorley—Van Nostrand, 436 p., photographs, \$9.75. Follows historical development of the subject, gives account of quantum theory, wave-particle dualism and atomic spectra, theoretically describes nucleus and nuclear fission.

BIENNIAL REVIEW OF ANTHROPOLOGY 1963—Bernard J. Siegel, Ed.—Stanford University Press, 315 p., \$7.50. Collates and evaluates the most significant recent published work of anthropologists. Each chapter written by a specialist in the field.

BIOLOGY OF BIRDS—Wesley E. Lanyon—Doubleday, 175 p., illus., \$3.95. Describes evolution of birds from reptiles, explains development of species and outlines world-wide distribution of birds.

BUDDHISM FOR TODAY, The way to self-help for modern man, a way by which he can extricate himself from the mess he has got into—M. O'C. Walshe—Philosophical Library, 143 p., \$3.75. On the basis of his own experience, the author answers some of the questions that arise when Westerners approach Buddhism.

EXPLORATION OF THE MOON—Franklyn M. Branley—Doubleday, 127 p., illus. Explains what man has learned about the moon, what discoveries are yet to be made and discusses what human living on the moon may be like.

HERITAGE OF VALOR, The Eighth Air Force in World War II—Budd J. Peaslee—J. B. Lippin-

cott, 288 p., photographs, \$5.50. Follows 384th Bombardment Group from training in U.S. to base in England through raid on Schweinfurt.

HISTORY OF DOMESTICATED ANIMALS—F. E. Zeuner—Harper, 560 p., illus., photographs, \$12.00. Archaeologist's account of principal mammals, birds, fishes, insects, reptiles and amphibians since their earliest contacts with human societies.

INTERPOLATION AND APPROXIMATION—Philip J. Davis—Blaisdell (Ginn), 393 p., \$12.50. Presents theories of interpolation and approximation in form of graduate school level text.

NEW PATHS IN BIOLOGY, World Perspectives Vol. 30—Adolf Portman—Harper and Row, 170 p., illus., \$4.95. Indicates how recent discoveries and developments have affected and continue to affect traditional concepts in biology.

PARACHUTE TO SURVIVAL—Herbert Best—John Day Co., 190 p., photog., \$4.50. Account of survival methods by day and by night and for anywhere on the surface of the earth.

THE PARADOX OF PLEASURE AND RELATIVITY, The Psychological Causal Law—D. G. Garan—Philosophical Library, 499 p., \$6.00. Explains psychological relativity and its causal meaning and takes the view that relativity is the point to which psychology will come in the end.

SYSTEMATICS AND LIFE HISTORY OF THE GREAT BARRACUDA Sphyræna baracuda (Walbaum)—Donald P. deSylva—Institute of Marine Science, 179 p., illus., paper, \$2.50. This monograph is the first volume of a new series of studies in tropical oceanography.

TEST EQUIPMENT MAINTENANCE HANDBOOK—Robert G. Middleton—Sams, 160 p., illus., paper, \$2.95. Practical information on the repair, calibration and modification of electronic test instruments.

U.N. EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION: The American Interest in Unesco—U.S. National Commission for Unesco—GPO, 35 p., photographs, paper, 30¢. Includes account of Unesco's work in scientific cooperation.

UP FROM THE SEA: The Story of Salvage Operations—Nora Stirling—Doubleday, 128 p., illus. by H. B. Vestal, \$2.50. A book for young boys.

A WEB OF WORDS: Keynote Address at Sixth Annual Institute in Technical and Industrial Communications—Harold Wooster—Colo. State Univ., 44 p., paper, single copies free upon request direct to university, Fort Collins, Colo. About concepts useful in expressing thoughts in words.

WORLD AVIATION DIRECTORY listing Aviation Companies and Officials, Winter 1963-64—Donald W. Dean, Ed.—Am. Aviation Publications, 1,177 p., paper, \$12. Covers U.S., Canada and 123 countries in Europe, Central and South America, Africa and Middle East, Australasia and Asia.

• Science News Letter, 85:28 Jan. 11, 1964

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MICROBIOLOGY

Bacteria Break Down Chemicals in Detergents

➤ WITH INCREASING efforts to clear up dirty water, scientists have found two strains of bacteria that can decompose certain detergent chemicals, source of much waste in today's polluted waters.

By growing bacteria at 98.6 degrees Fahrenheit in a synthetic media of basic detergent ingredients, scientists at the Johns Hopkins University in Baltimore were able to produce enzymes in the bacteria which could break down the detergent chemicals.

These detergent-splitting enzymes (substances which help bring about chemical transformations) did not appear when the same type bacteria were grown in different media, Dr. Yu-Chih Hsu reported in *Nature*, 200:1091, 1963.

The chemical media contained sodium dedecyl sulphate (SDS, as it is called.)

With too much concentration of SDS, the enzyme activity was lost, Dr. Hsu of the Environmental Microbiology section of Johns Hopkins found. The reaction of the bacteria upon this media gives clues on how bacteria could break down another sulphur chemical, alkyl benzene sulphonate, which is present in most detergents used today in households.

Further research is needed to determine whether the discovery can be applied to break up the detergents in sewage.

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AGRICULTURE

Trees, Goats Replace Marihuana Production

➤ THE ANCIENT CUSTOM of growing hemp, from which profitable marihuana is made, is being halted along the Rif Mountains that border the Mediterranean coast from the Straits of Gibraltar to the coast of Algeria.

With aid from the Food and Agriculture Organization, the Moroccan Government is trying to alleviate poverty of more than a million people in this mountain area by terracing the hills to prevent erosion, planting fruit trees and field crops in place of the drug-producing hemp, and introducing healthy milk goats with high milk and meat yields.

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