

**THE PACIFIC NORTHWEST**—Stewart Holbrook, Nard Jones and Roderick Haig-Brown, Anthony Net-bow, Ed.—Doubleday, 191 p., photographs, maps, \$5.95. Introduction to Oregon, Washington and British Columbia.

**PHILOSOPHY OF SCIENCE**: The Delaware Seminar, Vol. 1, 1961-1962—Bernard Baumrin, Ed.—Interscience, 370 p., \$9.75. Explores the differences of opinion among scientists and philosophers on the subject of reconciling the scientific and humanistic cultures of our time.

**PHOTOCOPYING FROM BOUND VOLUMES**: A Study of Machines, Methods and Materials—William R. Hawken—Am. Lib. Assn., 208 p., illus., \$5. Comprehensive evaluation of the processes and the equipment available, discussing the advantages and disadvantages of each method and the limitations of existing equipment.

**A PLANET CALLED EARTH**—George Gamow—Viking, 257 p., illus., \$5.75. A readable summing up of the latest findings and theories concerning earth as a part of the universe, its geology, and the biology and biochemistry of life.

**PORTALS TO THE PAST**: The Story of Archaeology—Katherine B. Shippen—Viking, 255 p., illus., by Mel Silverman, \$4.50. For young students and the general reader.

**QUANTITATIVE ORGANIC ANALYSIS** via Functional Groups—Sidney Sigia—Wiley, 3rd ed., 697 p., diagrams, \$19. Extensively revised handbook and standard textbook on chemical methods of analysis.

**RAND McNALLY CAMPGROUND GUIDE**—Rand McNally, 216 p., maps, \$2.95. Up-to-date family camping directory with sectional maps of road atlas giving key to 8,000 campgrounds in the United States and Canada.

**RAND McNALLY VACATION GUIDE**: United States, Canada, Mexico—F. Dorothy Wood, Ed.—Rand McNally, 198 p., illus. maps, paper, \$1.95. Scenic North America for the automobile traveler, with up-to-date information for each region.

**READINGS IN ADOPTION**—I. Evelyn Smith—Philosophical Lib., 532 p., \$7.50. Collection of articles on general concepts of adoption, adoption services as related to natural parents, to the child and to adoptive parents.

**THE SCIENCE OF BIOLOGY**—Paul B. Weisz—McGraw, 2nd ed., 786 p., illus., \$8.50. Thoroughly updated text with expanded discussion of morphological biology and plant biology. Analytical approach designed to serve both the terminal student and the prospective major in biology.

**THE SCIENCE OF HUMAN COMMUNICATION**—Wilbur Schramm, Ed.—Basic Bks., 158 p., \$4.50. About communication research in the U.S., susceptibility to persuasion, mass media and personal influence, and other related social research.

**SCIENCE SHAPES TOMORROW**—Gerald Leach—Day, 140 p., photographs, diagrams, \$5.95. A British science writer tells about some of the advances in technology based on recent breakthroughs in basic science.

**THE SCOPE AND FINANCING OF URBAN RENEWAL AND DEVELOPMENT**—Peter Wagner—Nat. Planning Assn., 55 p., paper, \$1.50. Includes statement by the NPA Business Committee in regard to large-scale urban renewal, including mass transportation.

**SEMIMICRO EXPERIMENTS IN CHEMISTRY**—John W. Sulcoski—Burgess, 128 p., illus., paper, \$2.90. Manual discusses laboratory techniques and 50 problems for the laboratory.

**SIX CULTURES**: Studies of Child Rearing—Beatrice B. Whiting, Ed.—Wiley, 1,017 p., photographs, \$12.50. Studies of village family life in Kenya, India, Japan, Mexico, the Philippines and New England.

**SO YOU WANT TO BE A HAM**—Robert Hertzberg—Sams, 3rd ed., 192 p., illus., paper, \$2.95. Updated guide for the radio amateur.

**SO YOU WANT TO BE A PHYSICIST**—Alan E. Nourse—Harper, 182 p., \$3.50. About the science of physics, the qualities desirable in a physicist and the general and specific training required.

**SPECTROMETRIC IDENTIFICATION OF ORGANIC COMPOUNDS**—Robert M. Silverstein and G. Clayton Bassler—Wiley, 177 p., \$8.50. To aid the organic chemist in the identification of organic molecules by their responses to four energy probes: spectrometry of mass, infrared, nuclear magnetic resonance and ultraviolet.

**THEORIES AND PRACTICES OF INDUSTRIAL WASTE TREATMENT**—Nelson Leonard Nemerow—Addison-Wesley, 557 p., illus., \$15. Practical textbook for graduate students in sanitary engineering and reference for practicing municipal and industrial plant engineers.

**TOPOLOGICAL ANALYSIS AND SYNTHESIS OF COMMUNICATION NETWORKS**—Wan Hee Kim and Robert Tien-Wen Chien—Columbia Univ. Press, 310 p., diagrams, \$11.50. Presents uniform approach to such engineering problems as analysis and synthesis of electrical networks, sampled data feedback, switching networks and communication nets.

**WHAT SCIENCE KNOWS ABOUT LIFE**: An Exploration of Life Sources—Heinz Woltereck, transl. from German by Mervyn Savill—Association Press,

240 p., 48 p. of photographs, \$6.50. Focuses on biological research findings about the origin, nature, development, multiformity, function and span of life.

**THE WORLD OF ATOMS**: An Introduction to Physical Science—J. J. G. McCue with Kenneth W. Sherck—Ronald, 2nd ed., 775 p., illus., \$8.50. Textbook focuses on the atom and describes the chain of experiments and concepts that have led to some of the present theories about matter.

**WORLD-WIDE SPANISH DICTIONARY**: Spanish-English; English-Spanish (American English)—Based on Fucilla Spanish Dictionary, rev. by Ida Navarro Hinojosa; Emilio C. LeFort, Ed.—Follett, 528 p., paper, \$1.65. Modern, 40,000 entries, conversation guide.

**THE YOUNG PATHFINDER'S BOOK OF SNAKES**—Hilda Simon—Hart, 127 p., illus. by author, \$3.95. Tells boys and girls how to distinguish between varieties and describes the strange habits of snakes in many parts of the world.

• Science News Letter, 83:364 June 8, 1963

## BIOLOGY

### Tiny Worm Lizards in Sand React to Light

➤ TINY WORM LIZARDS, creeping in their underworld of moist sand, are not blind, as scientists previously thought.

With an improved method of "listening" to movements of animals digging under the soil, biologists now can record accurate data on undisturbed animal activity.

Worm lizards, *Amphisbaena caeca*, react to sudden low-level light, Drs. Carl Gans and James J. Bonin of the State University of New York reported in *Science*, 140:398, 1963.

Vibrations of animals digging or turning in a dry or moist soil can now be picked up and recorded continuously by a microphone, amplifier and recorder setup. This system permits animals to move about undisturbed in their underworld environments without being removed to unnatural cages where their activities are recorded by conventional techniques such as time-lapse photography, treadles or foot plates connected to microswitches, or light beams impinging upon photoelectric cells.

Animal vibrations can be picked up only within a certain distance, the scientists reported. For the lizard experiment, the animals were confined in a three-quarter-inch layer of sand between two plastic panes in a box 17 inches long and 12 inches high.

• Science News Letter, 83:365 June 8, 1963

## Do You Know?

The average family of four in the United States uses 550 gallons of water a day.

A chemical element, *technetium*, that occurs naturally only in the stars, may help to keep steel from rusting.

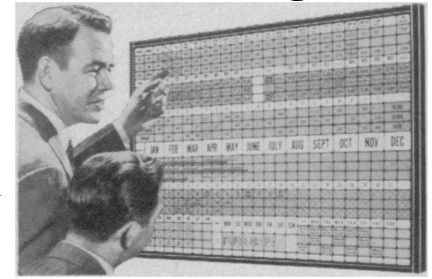
Manganese, nickel, cobalt and copper can now be recovered profitably from the ocean floor.

Some 1,500 million people, half the world's population, suffer from hunger and malnutrition today.

A frequently fatal tear in the lining of the body's main artery near the heart can now be repaired by surgery.

• Science News Letter, 83:365 June 8, 1963

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