

books OF THE WEEK

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ABYSSAL ENVIRONMENT AND ECOLOGY OF THE WORLD OCEANS—Robert J. Menzies, Robert Y. George and Gilbert T. Rowe—Wiley, 1973, 512 p., illus., tables, \$24.95. Based largely on original data for four regions of the largest uniform environment on earth, study deals with relationships between animal zonation and such other biological phenomena as species diversity, vertical distribution, salinity, temperature, biomass and marine sediments.

THE AMERICAN EPHEMERIS AND NAUTICAL ALMANAC for the Year 1975—Nautical Almanac Office—GPO, 1974, 577 p., \$8.30. Source of basic calculations and data, principal ephemerides, eclipses, risings, settings, and miscellaneous tables.

THE AMATEUR NAVIGATOR'S HANDBOOK—Sallie Townsend and Virginia Ericson—T. Y. Crowell, 1974, 240 p., illus., \$7.95. Based on years of boating experience, the authors explain coastal navigation techniques in concise and nontechnical terms. Includes quick-reference section for navigating while aboard ship.

APPLICATIONS OF LASER RAMAN SPECTROSCOPY—Stanley K. Freeman—Wiley-Interscience, 1974, 336 p., diagrams, \$17.50. With the replacement of mercury arc sources by the laser in 1976, Raman spectroscopy has had a renaissance. This volume demonstrates its value as a general, independent technique in chemistry and allied fields.

CATTLE OF NORTH AMERICA: World Cattle III—John E. Rouse—U of Okla Pr, 1973, 650 p., photographs, maps, \$20. Provides in brief illustrated synopses an overall view of the many kinds of cattle in Central America, Canada and the United States, and of the ways in which they are husbanded.

CHEMICAL VILLAINS: A Biology of Pollution—James W. Berry, David W. Osgood and Philip A. St. John—Mosby, 1974, 190 p., 89 illus., paper, \$5.75. A source book of current knowledge on how pollutants work in the living system, presented in a form that can be easily understood by the student and interested layman.

COMPUTER MODELS OF THOUGHT AND LANGUAGE—Roger C. Schank and Kenneth Mark Colby—W. H. Freeman, 1973, 460 p., diagrams, tables, \$13.50. Presents models that closely resemble complex human thought processes in the areas of natural language, belief systems, memory and cognition.

DRUG-PROTEIN BINDING—Aaron H. Anton and Harvey M. Solomon, Eds.—NY Acad of Sci, Annals, Vol. 226, 1973, 362 p., diagrams, paper, \$30. Conference papers and discussion

on principles and methodology, the nature of the binding site, pharmacological and toxicological implications of protein binding, and modulation of binding.

ELECTRON SPIN RESONANCE: Theory and Applications—N. M. Atherton—Halsted Pr, 1973, 448 p., diagrams, \$35. Intended for people who wish to use, or are already using, ESR spectroscopy as a research technique. Employs mathematics to explain how spectra can be analyzed and then interpreted in terms of the physical and chemical structure of the system under study.

EXPERIMENTING WITH ELECTRONIC MUSIC—Robert Brown and Mark Olsen—TAB Bks, 1974, 180 p., photographs, diagrams, \$7.95; paper, \$4.95. From the simplest sine-wave tone generator to the complex "synthesis" sound source, this book shows how by duplication of audio waveforms the sounds of almost any musical instrument can be simulated.

GAZELLE-BOY—Jean-Claude Armen, transl. from French by Stephen Hardman—Universe, 1974, 128 p., illus. by author, maps, \$5.95. Records the author's actual experience in the Spanish Sahara where he closely observed a herd of gazelles and a nomad boy who could leap, run, feed and communicate like the quadrupeds among which he lived.

A GUIDE TO THE BIRDS OF TRINIDAD AND TOBAGO—Richard French—Livingston, 1974, 512 p., 30 color plates, photographs, drawings, \$12.50. Field guide to more than 400 species, many from neighboring Venezuela, with detailed description, habitat notes, life history and behavior, song and nesting patterns.

HANDBOOK OF MICROMETHODS FOR THE BIOLOGICAL SCIENCES—Georg Keleti and William H. Lederer—Van Nos Reinhold, 1974, 180 p., illus., \$12.50. Concise laboratory handbook for preparation, microanalytical estimation, and characterization of biological material. Each of the 106 methods is detailed in step-by-step format.

HORMONES AND SEXUAL BEHAVIOR—Carol Sue Carter, Ed—DH&R, 1974, 362 p., illus., \$20. These Benchmark Papers—ranging from early works to recent attempts to explain the mechanisms of hormone action—cover the effects of hormones on male behavior, on female behavior, on the behavior of both sexes, and on sexual differentiation.

THE INTERPRETATION OF QUANTUM MECHANICS—Michael Audi—U of Chicago Pr, 1974, 200 p., \$11.50. This two-fold philosophical thesis asserts that the conceptual incompatibility between quantum and classical theory is in appearance only, by demonstrating a unitary particle interpretation of material object phenomena, and a unitary wave-field interpretation of electromagnetic radiation.

THE NEUROSCIENCES: Third Study Program—Francis O. Schmitt and Frederic G. Worden, Eds.—in-Chief—MIT Pr, 1974, 1135 p., illus., tables, \$19.95. Proceedings contain papers on topics ranging from hemispheric specialization and interaction, feature extraction by neurons

and behavior, to central processing of sensory input leading to motor output.

PSYCHOLOGICAL BASES OF WAR—Heinrich Z. Winnik, Rafael Moses and Mortimer Ostow, Eds.—Quadrangle, 1973, 261 p., \$9.95. Basing their theme on the Einstein-Freud correspondence on why people make war, a group of analysts, invited by the Israel Psychoanalytic Society, pursue the theme in an exchange of analytical points of view.

PYCNOGONIDS—P. E. King—St Martin, 1974, 144 p., drawings, tables, \$8.95. A general account of the biology and systematics of a group of marine arthropods often referred to as "sea spiders", widely distributed in both polar and tropical seas, in both intertidal zones and depths greater than 6,000 meters.

RADIOECOLOGY—Klechovskii, G. G. Polikarpov and R. M. Aleksakhin, Eds., transl. from Russian—IPST (Wiley), 1973, 370 p., diagrams, maps, tables, \$35. Reports on studies of radionuclide migration in land biogeocenoses, the effect of ionizing radiation on populations and on forest biogeocenoses, and the radioecology of aquatic biocenoses.

READING MAPS—Paul Riffel—Hubbard Pr, 1974, 72 p., 4-color maps, photographs, \$5.95. An introduction to maps using aerial-stereo color photographs and topographic maps. Stereo glasses included.

RESPONSES OF FISH TO ENVIRONMENTAL CHANGES—Walter Chavin, Ed.—C. C. Thomas, 1973, 470 p., photographs, diagrams, tables, \$19.75. Topics of contributions range from control of protein synthesis in the acclimation of fish to temperature changes, to discussion of the lateral-line organ of fish as a chemoreceptor.

SOCIAL RESEARCH AND BASIC COMPUTER PROGRAMMING—Elwood W. Guernsey—C. C. Thomas, 1973, 332 p., \$15. Shows how programming is applied to social science in a way that should be useful to professional researchers, teachers and graduate students. Integrated with **WORKBOOK IN BASIC COMPUTER PROGRAMMING (FORTRAN IV)**, 184 p., paper, \$11.75.

SOURCEBOOK ON THE ENVIRONMENT: The Scientific Perspective—Charles ReVelle and Penelope ReVelle—HM, 1974, 342 p., photographs, diagrams, tables, paper, \$4.95. Alphabetically arranged, from Acid Mine Drainage to Water Treatment, each entry gives both short definition and covers specific aspects of the topic in detail.

SPACE SHUTTLE PAYLOADS: Vol. 30, Science and Technology—George W. Morgenthaler and William J. Burenall, Eds.—AAS (UNIVELT), 1973, 532 p., photographs, diagrams, \$25. Symposium papers explore the various characteristics of the Space Shuttle system and its contemplated payload potential.

THE THIRD EYE—Richard M. Eakin—U of Cal Pr, 1974, 168 p., color plate, electron micrographs, drawings, \$7.50. A study of the parietal eye, summarizes present knowledge of vertebrate third eyes, their evolution, structure, development and function.