

books OF THE WEEK

Books of the Week is an editorial service for readers' information. To order any book listed, or any U.S. book in print, please remit retail price, plus 25¢ handling charge for each book to Book Order Service, Science News, 1719 N St., N.W., Washington, D.C. 20036. All books sent postpaid.

THE ABACUS: Its History, Its Design, Its Possibilities in the Modern World—Parry Moon—Gordon & Breach, 1972, 179 p., illus., \$14.95; paper, \$4.95. Comprehensive study deals with different kinds of abaci—Chinese, Japanese and Russian, with their operation, and the design and construction of new forms of abaci.

ACUPUNCTURE—Marc Duke, introd. by J. W. C. Fox, M.D.—Pyramid House, 1972, 223 p., photographs, drawings, \$6.95. An account of the history, classical philosophy and theory of traditional Chinese acupuncture—the Tao, Yin, Yang, Points, Meridians, the Twelve Chinese pulses and the Law of the Five Elements. Includes long list of diseases treated by acupuncture.

ALTERED STATES OF AWARENESS: Readings from SCIENTIFIC AMERICAN—Introd. by Timothy J. Teyler—Freeman, W. H., 140 p., photographs, drawings, diagrams, \$6; paper, \$2.95. Covers research in that area of psychology which includes dreaming, drug-induced perception, and aspects of biofeedback in which the individual uses special training to control his own state of awareness.

ANIMALS IN ARCHAEOLOGY—A. Houghton Brodrick, Ed.—Praeger, 1972, 180 p., 10 color plates, 75 photographs, map, \$15. In this collaborative work of archaeologists and art historians, we see man's use of animals depicted as gods, as sacrificial victims, quarry for the chase, slaves and pets, in the Stone Age, in Mesopotamia, Egypt, the Aegean, India and China.

BIENNIAL REVIEW OF ANTHROPOLOGY, 1971—Bernard J. Siegel, Ed.—Stanford Univ. Press, 1972, 385 p., \$12.95. Review articles cover critical examination of social organization, cross-culturally structured work in psychology, developments in medical anthropology and in human biology, and anthropological approaches to the study of religion and linguistics.

BIOFEEDBACK: Turning on the Power of Your Mind—Marvin Karlins and Lewis M. Andrews—Lippincott, 1972, 223 p., \$5.95. A popular treatment of alpha waves, the electroencephalograph or EEG machine, and the uses of the technique of EEG feedback.

BIOLOGICAL WASTE TREATMENT—Raymond P. Canale, Ed.—Wiley-Interscience, 1971, 177 p., illus., \$8.95. Symposium papers deal with such topics as kinetic models of biological waste treatment processes, oxygen transfer and control, and developments in anaerobic treatment processes.

THE CLOSED ENTERPRISE SYSTEM: Ralph Nader's Study Group Report on Anti-trust Enforcement—Mark J. Green with Beverly C. Moore, Jr., and Bruce Wasserstein—Grossman Pubs., 1972, 488 p., \$8.95. Documented study of price fixing, collusion and market concentration by non-competing industries, shows in case studies how antitrust rulings are being circumvented.

COMPLEX ORGANIZATIONS AND THEIR ENVIRONMENTS—Merlin B. Brinkerhoff and Phillip R. Kunz—Brown, Wm. C., 1972, 435 p., paper, \$5.95. Viewing society as a composite structure of interrelated organizations, the selected articles discuss alternative theoretical and methodological approaches to study, the life cycle of organizations, organizational control, and interorganizational analysis.

CROCODILES: Their Natural History, Folklore and Conservation—C. A. W. Guggisberg

—Stackpole Bks., 214 p., photographs, drawings, maps, \$7.95. Detailed discussion of the ancient order of crocodylia, the different habitats and habits of crocodiles, alligators, caimans and gavials, aestivation, mating, reproduction and longevity of these successful amphibians dating back to mesozoic times.

THE DRINKING MAN—David C. McClelland and others—Free Press, 1972, 402 p., illus., tables, \$10. Research on human motivation for alcohol consumption. See p. 375.

ENGLISH-SPANISH, SPANISH-ENGLISH DICTIONARY OF COMMUNICATIONS AND ELECTRONIC TERMS—Roger L. Freeman—Cambridge Univ. Press, 1972, 206 p., \$15. Comprehensive compilation of some 8000 English-Spanish and 9000 Spanish-English words and phrases in telecommunications and electronics.

EVOLUTIONARY BIOLOGY, Vol. 5—Theodosius Dobzhansky, Max K. Hecht and William C. Steere, Eds.—Appleton, 1972, 317 p., photographs, drawings, \$18. Presents latest critical reviews and original papers on such topics as ecological genetics, species interaction, evolution of bilateral symmetry in flowers, and population biology.

THE EXTENSION OF MAN: A History of Physics Before the Quantum—J. D. Bernal—MIT Press, 1972, 317 p., 111 illus., \$12.50. A readable historical narrative of developments in experimental physics up to the end of the 19th century, shows how classical physics had grown out of the interplay of the necessities of navigation and gunnery, as well as philosophical and religious ideas.

HANDBOOK OF FRUIT TREES AND SHRUBS—George L. Slate, Ed.—Brooklyn Botanic Garden, 1972, 85 p., photographs, drawings, paper, \$1.50. Updated fruit culture for amateurs, articles by specialists include dwarf fruit trees, site and soil for fruits, blueberry and strawberry cultures, home fruit gardening in the West and in the prairies, pruning and pest control.

INVERTEBRATES OF NORTH AMERICA—Lorus and Margery Milne—Doubleday, 1972, 250 p., 150 photographs (93 in color), map, \$9.95. Describes all the important groups of invertebrates (other than insects), including life histories, habits and ecological relationships, with illustrations of live specimens in their habitats.

LIKELIHOOD: An Account of the Statistical Concept of Likelihood and its Application to Scientific Inference—A. W. F. Edwards—Cambridge Univ. Press, 1972, 235 p., diagrams, map, \$13.50. Addressed to scientists rather than statisticians, the author explores estimation, tests of significance, randomization, experimental design and other statistical topics using the likelihood approach.

MAGNETIC RESONANCES IN BIOLOGICAL RESEARCH—Cafiero Franconi, Ed.—Gordon & Breach, 1972, 408 p., diagrams, \$24.50. Up-to-date reference, covers the field of research into complex biological systems by magnetic resonance techniques, from new methods of studying the interaction of small molecules with proteins to recent advances in electron parametric resonance techniques.

MATHEMATICAL ASTRONOMY FOR AMATEURS—E. A. Beet—Norton, 1972, 143 p., diagrams, \$7.95. Explains in simple terms the calculations behind the most important astronomical laws and principles. Contains a large number of examples and exercises related to particular principles.

MEASURING THE EFFECTIVENESS OF MEDICAL DECISIONS: An Operations Research Approach—Shlomo Barnoon and Harvey Wolfe—Thomas, C. C., 1972, 229 p., diagrams, \$28. Structures the clinical decision problems in the context of statistical decision theory. Measures derived are meant to provide a basis for computerized evaluation for sequential diagnosis and treatment problems.

NONVERBAL COMMUNICATION: Notes on the Visual Perception of Human Relations

—Jurgen Ruesch and Weldon Kees—Univ. of Calif. Press, 1972, 205 p., 300 photographs, paper, \$4.95. Of interest to both specialist and general reader, this reprint of pioneering study (1956) explores with the aid of still photography informal and often spontaneous methods of communication.

ONLY ONE EARTH: The Care and Maintenance of a Small Planet—Barbara Ward and René Dubos—Norton, 1972, 225 p., \$6. Unofficial report commissioned by the U.N. Conference on the Human Environment. Written by economist and microbiologist, both known for their readable style, the book examines the environmental problems from a global perspective in the totality of their manifestations. (SN: 6/3/72, p. 258).

OPTIMAL DECISIONS: Principles of Programming—Oskar Lange, transl. from Polish—Pergamon Press, 1972, 292 p., \$12. Economist's exposition of programming as a science of rational activity based on the application of the Lagrange multipliers, discusses typical models, marginal and linear programming, activity analysis, programming uncertainty, purchases and production under uncertainty.

OUR CHANGING FISHERIES—Sidney Shapiro, Ed.—NOAA (GPO), 1971, 534 p., photographs, illus. in color, maps, \$9. Deals with the living resources of the oceans and inland waters, classification of species, life histories, exploratory fishing gear and vessel development, chemical and physical analysis of environment. Discusses specific fishing areas and anticipated trends.

RECENT ADVANCES IN PLANT NUTRITION, Vols. 1 and 2—R. M. Samish, Ed.—Gordon & Breach, 1972, 736 p., illus., individuals' set \$24.50. Papers summarize research on the use of inorganic tissue analysis, biochemical approaches, evaluation of soil nutrient potential, methods to increase fertilizer efficiency, nutrient interaction, and effects of environmental conditions on nutrient requirements.

REVOLUTION IN LIGHT: Lasers and Holography—Irwin Stambler—Doubleday, 1972, 159 p., photographs, diagrams, \$4.95. Explains the basic theory and summarizes developments and applications, both present and future.

SEA SHELLS OF THE TEXAS COAST—Jean Andrews—Univ. of Texas Press, 1972, 298 p., photographs by Jean Bowers Gates, drawings, maps, \$17.50. Thoroughly identified guide presents systematic descriptions of the mollusks and gives physical and historical account of the barrier islands of Texas. Subjects treated include detailed shell collecting trip with maps; practical tips on cleaning, storing, photography and beachcombing.

SYMMETRY: A Stereoscopic Guide for Chemists—Ivan Bernal, Walter C. Hamilton and John S. Ricci—Freeman, 1972, 182 p., illus., \$9.50. Introduces the concept of symmetry operations and groups of operations, and presents in three-dimensional drawings the way in which these operations can be used in the description of molecular shapes. Glossary included.

THE SYSTEMS VIEW OF THE WORLD: The Natural Philosophy of the New Developments in the Sciences—Ervin Laszlo—Brazilier, 1972, 131 p., \$5.95; paper, \$2.45. This exploration of where the processes of change are taking the sciences, attempts to present a systems view of both nature and of man and contemporary humanism.

THE TWENTIETH-CENTURY SCIENCES: Studies in the Biography of Ideas—Gerald Holton, Ed.—Norton, 1972, 527 p., illus., \$15. Arranged from the least to the most mathematical sciences, essays include Erikson's autobiographic notes on the identity crisis; an account of Crick's central role in the formulation of the double helix, the sequence hypothesis and the central dogma; and R. R. Wilson's fight against team research.