

books OF THE WEEK

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MAN AND HIS HABITATION: A Study in Social Ecology—Radhakamal Mukerjee—Humanities Press, 1969, 2nd ed., 195 p., \$5. Indian sociologist-economist considers in these revised lectures the reciprocal interchange between man, his habitations, resources, technology and social habits in rural and urban society.

MODERNIZATION BY DESIGN: Social Change in the Twentieth Century—Chandler Morse and others—Cornell Univ. Press, 1969, 426 p., diagrams, \$11.50. Essays deal with various dimensions of a characteristic 20th century phenomenon—the organized efforts of chronically poor peoples everywhere to alter their institutions in ways that will augment their wealth-creating powers.

MOLECULAR BIOLOGY: A Structural Approach—C. U. M. Smith—M.I.T. Press, 1969, 404 p., illus., \$12.50. Designed to give students and the interested general reader a clearer understanding of the materials of which living bodies, chiefly animal bodies, are fabricated. Emphasis on the anatomical treatment of the subject matter starts at the level of atoms ascending through all other forms to multicellularity.

THE NEW COSMOS—Albrecht Unsold, transl. from German by William H. McCrea—Springer-Verlag, N.Y., 1969, 373 p., 137 illus., \$6.50. Presents the modern view of the universe, intended not only for students about to undertake research in optical or radio astronomy, astrophysics or space science, but also for the general scientific reader.

NUCLEAR THEORY: The Quasiparticle Method—A. B. Migdal, transl. from Russian by Anthony J. Leggett—Benjamin, 1968, 142 p., diagrams, \$9; paper, \$4.95. Research monograph, applies the Fermi liquid theory originated by the late L. D. Landau to the atomic nucleus.

A PADDLING OF DUCKS—Dillon Ripley—Smithsonian Institution Press (Random House), 1969, 256 p., illus., by Francis Lee Jaques, \$5.95. Reprint of book first published in 1957, a naturalist's personal account of developing, observing and stocking a small duck pond on the family's farm in Connecticut.

PARTICLE ACCELERATORS: A Brief History—M. Stanley Livingston—Harvard Univ. Press, 1969, 122 p., photographs, diagrams, \$6.95. Monograph derived from lectures dealing with those phases of accelerator development with which the author had close associations.

PARTICLES AND SOURCES—Julian Schwinger, notes by Tung-mow Yan—Gordon & Breach, 1969, 91 p., diagrams, \$7.50; paper, \$4. Lecture notes deal with noninteracting particles, electro-dynamics, and strong and weak interactions.

POCKET DATA BOOK: USA 1969—Statistical Information Division: William Lerner, Ed.—Bureau of the Census (GPO), 1969, 360 p., graphs, maps, paper, \$2.75. Published biennially, offers updated and new statistics and charts on U.S. social, economic and political life, for use in school and home.

PYGMALION IN THE CLASSROOM: Teacher Expectation and Pupils' Intellectual Development—Robert Rosenthal and Lenore Jacobson—Holt, 1969, 240 p., graphs, paper, \$3.95. Summarizes existing evidence for the effects of interpersonal prophecies and presents new evidence from an elementary school study where 20% of children, drawn at random and reported to their teachers as of unusual potential, showed significantly greater gains in I.Q. than the remaining children at the end of the year.

THE R&D GAME: Technical Men, Technical Managers and Research Productivity—David Allison, Ed.—M.I.T. Press, 1969, 322 p., illus., \$12.50. An exploration of the innovation process, describes the process and the technical men who try to sustain it, what makes the industrial laboratory productive and the organizational conflicts that are part of the pattern.

REAL-TIME DATA-PROCESSING SYSTEMS: A Methodology for Design and Cost/Performance Analysis—Saul Stimler—McGraw-Hill, 1969, 259 p., diagrams, \$13.50. Designed for data-processing practitioners, develops broadly applicable methodology which helps reader to construct cost and performance relationships for each application.

RESPONSIBILITY IN MASS COMMUNICATION—William L. Rivers and Wilbur Schramm—

Harper, 1969, rev. ed., 314 p., \$8.50. Updated (1957) study of the media and the public interest, revised to include current developments in communications and national affairs.

THE RISE AND FALL OF T. D. LYSENKO—Zhores A. Medvedev, transl. from Russian by I. Michael Lerner; Lucy G. Lawrence, Ed.—Columbia Univ. Press, 1969, 284 p., \$10. The story of Soviet genetics in the period 1937-1964, explains the machinery of the Lysenko take-over in biology and the situation that made it possible, an annotated account as witnessed from within the Soviet scientific community.

SCIENCE IN ANTIQUITY—Benjamin Farrington—Oxford Univ. Press, 1969, 2nd ed., 156 p., paper, \$1.50. First published in 1936, this summary of the development of science in the ancient world attempts to place in the context of world history the value and limitations of the Greek achievement.

SCIENCE POLICY IN THE USSR—E. Zaleski, J. P. Kozlowski and others—OECD, 1969, 615 p., tables, charts, paper, \$15. Report of the Committee for Scientific Research of the Organization for Economic Co-operation and Development, giving analyses and detailed review of central planning of research and development in the Soviet Union; scientific and engineering manpower resources during 1961-66; the academies of science; establishments of higher education; and the R&D system in Soviet industry.

SOCIAL AND GENETIC INFLUENCES ON LIFE AND DEATH—The Lord Platt and A.S. Parres, Eds.—Plenum Press, 1968, 222 p., diagrams, \$12.50. The Eugenics Society's Third Symposium, papers deal with conception, pregnancy and births, somatic and psychological illness, and the causes and effects of aging.

THE SOCIOLOGY OF RESEARCH—Gunnar Boalt, transl. from Swedish, introd. by Alvin W. Gouldner, foreword by Herman R. Lantz—Southern Ill. Univ. Press, 1969, 166 p., \$5.95. Attempts systematic theory of the sociology of sociology, using the role theory to demonstrate that research itself represents something akin to a social system in which people play various roles that lend themselves to quantitative and comparative study.

THROUGH RUGGED WAYS TO THE STARS—Harlow Shapley—Scribner, 1969, 180 p., photographs, \$6.95. Wittily written autobiography by the distinguished astronomer who started his education at a Missouri farmboy in a one-room school and worked out orbits of eclipsing binaries with his bride whom he had courted in Gregg shorthand. The better known achievements of this long-time Director of Harvard College Observatory concern star clusters, galactic structure, Magellanic Clouds, science reporting, international scientific cooperation and human relations.

TIME, EXPERIENCE AND BEHAVIOUR—J. E. Orme—Am. Elsevier Pub. Co., 1969, 189 p., diagrams, \$6.75. Clinical psychologist suggests that the framework round which psychology is built takes too little account of time factors, which are an integral part of psychological development and behavioral change.

WATER MANAGEMENT INNOVATIONS IN ENGLAND—Lyle E. Craine—Resources for the Future (Johns Hopkins Press), 1969, 123 p., paper, \$3.50. Describes the British pattern of dealing with the problem of water quality and analyzes the new British institutional arrangements for water management.

THE WORLD OF THE RED FOX—Leonard Lee Rue III—Lippincott, 1969, 204 p., photographs by author, \$5.95. A study of the red fox in his habitat through the seasons, closely observed and portrayed.

WORLDS AROUND THE SUN—Lee Edson; Carl Sagan, Consultant—Am. Heritage/Smithsonian (Van Nostrand), 1969, 160 p., photographs in color, drawings, \$4.95. Summarizes historical highlights and reports on recent findings in man's quest to explore the solar system.

TEXTBOOKS

ASTROPHYSICS AND STELLAR ASTRONOMY—Thomas L. Swihart—Wiley, 1969, 299 p., illus., \$9.95. A teaching text for general astronomy course designed for science majors, uses

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mathematics through calculus and keeps language close to standard astronomical usage.

CHEMISTRY: Structure and Changes of Matter—Uno Kask—Barnes & Noble, 1969, 608 p., illus., soft cover, \$5.95. Low-priced textbook combines the appropriate subject matter for teaching the non-major with that needed for the freshman chemistry major.

FUNDAMENTAL CONCEPTS OF CHEMISTRY—Donald I. Hamm—Appleton, 1969, 811 p., illus., \$9.95. Introductory college course, material deals with the various facets of atomic-molecular theory, and looks at the evolution of ideas in their historical and philosophical context.

FUNDAMENTALS OF INORGANIC CRYSTAL CHEMISTRY—H. Krebs, transl. from German by P. H. L. Walter—McGraw-Hill, 1969, 405 p., diagrams, \$13.50. Written for third-year and post-graduate students of chemistry, mineralogy, crystallography, solid state and semiconductor physics; and to some extent of metallurgy, ceramics and glass.

OPTICAL PHYSICS—S. G. Lipson and H. Lipson—Cambridge Univ. Press, 1969, 494 p., illus., \$12.50. Textbook for graduate students, deals essentially with the principles of optics, emphasizing the relevance of these principles to other branches of physics.

PLANT SCIENCE: An Introduction to World Crops—Jules Janick and others—Freeman, 1969, 629 p., illus., \$12. Planned for introductory, university-level course, the text covers the scientific, technological and economic foundations of world crop production, blends the twin themes of plant science and crop agriculture into a single narrative.

PRACTICAL WORK IN ELEMENTARY ASTROPHYSICS—M. G. J. Minnaert—Springer-Verlag, N.Y., 1969, 247 p., illus., \$9.20. An elementary text with 74 graded exercises for advanced high school students and undergraduates, as well as for amateur astronomers.

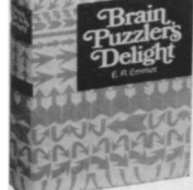
PRINCIPLES OF ANIMAL BEHAVIOR—William N. Tavolga—Harper, 1969, 143 p., drawings, paper, \$3.25. Presents framework of basic principles that underlie the science of animal behavior studies, observations in sensory capacities, species-typical behavior, and investigation of behavioral development.

PRINCIPLES OF PHYSICAL, ORGANIC AND BIOLOGICAL CHEMISTRY: An Introduction to the Molecular Basis of Life—John R. Holum—Wiley, 1969, 728 p., illus., \$10.95. Intended for use in a two- or three-term terminal college course in chemistry for students in the humanities, the paramedical sciences, physical therapy or programs in the agricultural sciences.

PROBLEMS IN PARTICLE PHYSICS—A. N. Kamal—McGraw-Hill, 1969, 126 p., diagrams, \$5.50. Grown out of a course intended for experimental students, the material presented assumes good knowledge of quantum mechanics and some familiarity with quantum field theory.

SYMMETRIC SPACES, Vol. I: General Theory. Vol. II: Compact Spaces and Classification—Ottmar Loos—Benjamin, 1969, 198 p., 183 p., diagrams, \$12.50 each; paper, \$3.95 each. Notes based on a graduate course on topics in advanced differential geometry, a text and reference for courses in Lie groups, Lie algebras and differential geometry.

Brain Puzzler's Delight



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