

# BOOKS

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**THE ADVISORS:** Oppenheimer, Teller and the Superbomb—Herbert F. York—W. H. Freeman, 1976, 185 p., \$6.95. Insider's annotated study of the technical, strategic and human content of the great debate that led to the decision to build the hydrogen bomb, with retrospective analysis of some of the consequences.

**ALL THE STRANGE HOURS:** The Excavation of a Life—Loren Eiseley—Scribner, 1975, 273 p., illus. by Emanuel Haller, \$9.95. Autobiography of naturalist-anthropologist whose exceptionally literary prose brings alive his formative adventurous years as well as his philosophy. See story on p. 109.

**BIOGRAFFITI:** A Natural Selection—John M. Burns—Quadrangle, 1975, 128 p., 52 illus., \$6.95. Terse verse on zoological, botanical and geological themes, full of clever fun and such puns as in the end line of a poem on evolution: "... but *Homo* stole the Holocene."

**BRAIN MECHANISMS AND THE CONTROL OF BEHAVIOUR**—W. Ross Adey et al.—Crane-Russak, 1976, 505 p., photographs, illus., \$9.75. Ethologists and neurophysiologists discuss the evolutionary biology of behavior, and the ways the brain and its ancillary machinery controls and mediates the influence of body chemistry and sensory stimulation on behavior.

**COMPLEX CARBOHYDRATES:** Their Chemistry, Biosynthesis and Functions—Nathan Sharon—Addison-Wesley, 1975, 485 p., illus., tables, \$21.50; paper, \$12.50. Updated version of lecture notes, discusses molecular and cellular aspects of structure, biosynthesis and genetic control, the functions of glycoproteins, and blood group substances.

**THE CULTURAL CONTRADICTIONS OF CAPITALISM**—Daniel Bell—Basic Bks, 1976, 316 p., \$12.95. Essays probe the disjunctions and contradictions in our culture, economy and polity, deriving from the influence of the hedonism which seems to have become the prevailing value in our society.

**DICTIONARY OF INVENTIONS AND DISCOVERIES**—E. F. Carter—Crane-Russak, 1976, 214 p., \$6.50. Lists alphabetically under 2,400 main headings scientific and technological discoveries and developments, indicating to whom each is attributable, and the year in which made or introduced.

**DICTIONARY OF NUTRITION**—Richard Ashley and Heidi Duggal, introd. by Roy Brown, M.D.—Pocket Bks, 1976, 270 p., paper, \$1.95. Alphabetically arranged information compiled from many sources, cites conflicting claims where they exist.

**DORMANCY AND THE SURVIVAL OF PLANTS**—Trevor A. Villiers—Arnold (Crane-Russak), 1975, 72 p., diagrams, paper, \$3.75. Scientific study, places dormancy in an ecological perspective as a distinct developmental stage in the life cycle which requires perception of environmental signals for the synchronization of life processes.

**THE EDGE OF REALITY: A Progress Report on Unidentified Flying Objects**—J. Allan Hynek and Jacques Vallee—Regnery, 1976, 317 p., 19 photographs, map, \$14.95; paper, \$5.95. Astronomer and computer-scientist bring up-to-date their speculative inquiry into flying saucer sightings and their interpretations.

**ELECTROPHOTOGRAPHY**—R.M. Schaffert—Halsted Pr, 1975, rev. ed., 989 p., diagrams, \$77.50. First part describes techniques and equipment of electrophotographic processes; part 2, mainly analytical, is addressed to laboratory researcher, and part 3 consists of annotated U.S. patent survey.

**EVOLUTION ILLUSTRATED BY WATERFOWL**—David Lack—HarRow, 1975, 96 p., illus. by Robert Gillmor, \$10. There are nearly 150 living species of waterfowl, this study probes how this diversity of forms has come into existence, and why species differ from each other; uses waterfowl to show the main principles of classification and evolution.

**A FIELD GUIDE TO THE COMMON AND INTERESTING PLANTS OF BAJA CALIFORNIA**—Jeanette Coyle and Norman C. Roberts—Nat Hist Pub Co, La Jolla, 1975, 216 p., 189 color photographs, drawings, maps, \$11; paper, \$8.50. Comprehensive botanical guide to the region's woody plants, describes some 250 species; includes key to families and information on geology, climate, and phylogeographic areas.

**FOR GOOD MEASURE: A Complete Compendium of International Weights and Measures**—William D. Johnstone—HR&W, 1976, 350 p., \$12.95. Discusses the problems involved in establishing systems of measurement, and contains complete ready reference, including the metric system, separately and with equivalents throughout.

**THE TAO OF PHYSICS: An Exploration of the Parallels Between Modern Physics and Eastern Mysticism**—Fritjof Capra—Shambhala Pubns (Random Hse), 1976, 330 p., photographs, drawings, \$12.50; paper, \$5.95. Equally at home in high energy physics and Eastern religions, the author explores parallels between the emerging theories of particle physics and the mystical traditions of Hinduism, Taoism and Zen.

**THEORY AND PRACTICE OF PROPELLERS FOR AUXILIARY SAILBOATS**—John R. Stanton—Cornell Maritime Pr, 1975, 80 p., photographs, diagrams, paper, \$4. Concerned mainly with the application of general principles of hydrodynamics and propulsion devices to displacement craft.

**TRACE ELEMENT ANALYSIS**—V. Valkovic—Taylor & Francis (Halsted Pr), 1975, 239 p., diagrams, tables, \$22.50. Intended to help research workers in physics and chemistry laboratories to improve analytical techniques, showing what can be measured, and how accurately.

**THE UNDERWATER DIG: An Introduction to Marine Archaeology**—Robert F. Marx—Walck, 1976, 255 p., photographs, \$9.95. About the historical background, underwater archaeological research, the techniques of search and excavation, dating, identification and preservation of specimens.

**WORKING MOTHERS**—Jean Curtis—Doubleday, 1976, 214 p., \$7.95. Based on more than 200 personal interviews, the author explores the changing views and experiences concerning the children, the mothers, husbands and homes.

## TEXTBOOKS

**AN INTRODUCTION TO METALLURGY (SI Units)**—Alan Cottrell—Crane-Russak, 1975, 2nd ed., 560 p., diagrams, \$29.50; paper, \$14. Converted to SI units, text forms a comprehensive survey of the field, asserting the unity of metallurgical knowledge, linking up new developments with the more traditional aspects of the subject.

**MICROSCOPY OF MATERIALS: Modern Imaging Methods Using Electron, X-ray and Ion Beams**—D.K. Bowen and C.R. Hall—Wiley, 1975, 314 p., photographs, diagrams, \$27.50. Advanced undergraduate text, provides balanced and comparative account of all the important advanced techniques, except optical microscopy.

**MOLECULAR STRUCTURE: The Physical Approach**—J.C.D. Brand and J.C. Speakman, rev. by J.D. Speakman and J.K. Taylor—Halsted Pr, 1975, 2nd ed., 377 p., photographs, diagrams, \$25. Text for advanced undergraduates and research workers.

**NUCLEAR REACTOR ANALYSIS**—James J. Duderstadt and Louis J. Hamilton—Wiley, 1976, 668 p., diagrams, \$23.95. Text is tailored to the needs of the modern nuclear engineering student, presents the fundamentals governing nuclear chain reactions in a manner that renders natural the transition to reactor design.

**PHYSICAL PROPERTIES OF TEXTILE FIBRES**—W.E. Morton and J.W.S. Hearle—Halsted Pr, 1975, 2nd ed., 678 p., photographs, diagrams, \$49.50. Thoroughly revised text and reference, deals with the dimensions, moisture relations, and mechanical, electrical, optical, thermal, and frictional properties of fibers, with introductory chapter on fiber structure.

**PHYSICS FOR TECHNOLOGY**—John E. Betts—Reston (P-H), 1976, 735 p., diagrams, \$15.95. Requiring only elementary algebra and trigonometry, introductory text first analyzes each topic in terms of physics, from vector to nucleus, then applies the principles to several technologies, with examples and problems.

**PRACTICAL STUDIES OF ANIMAL DEVELOPMENT**—F.S. Billet and A.E. Wild—Chapman & Hall (Halsted Pr), 1975, 262 p., plates, drawings, \$15. Practical manual and general introduction to laboratory techniques with live specimens, from echinoderms to mice and rabbits.

**THE RAT: A Study of Behavior**—S.A. Barnett—U of Chicago Pr, 1975, rev. ed., 332 p., photographs, drawings, \$20. Text and reference work presents some of the principles of ethology primarily from studies of a single species, the "Norway" rat. Covers recent findings in experimental psychology, ethology, and behavioral physiology.

**REPRODUCTIVE PHYSIOLOGY OF MAMMALS AND BIRDS: The Comparative Physiology of Domestic and Laboratory Animals and Man**—A.V. Nalbandov—W.H. Freeman, 1976, 3rd ed., 350 p., photographs, diagrams, tables, \$14.50. Expanded and revised standard text.

**VECTOR CALCULUS**—Jerrold E. Marsden and Anthony J. Tromba—W.H. Freeman, 1976, 463 p., illus., \$14.95. One-semester introduction to the calculus of functions of several variables, emphasizes computational skills and intuitive understanding rather than proofs. Includes 500 student-tested problems.