

Books of the Week

Listing is for readers' information, not advertising. For convenient purchase of any book listed or any U.S. book in print, remit retail price (we pay postage) plus 25¢ handling charge if price is less than \$2 to Book Department, Science Service, 1719 N St., N.W., Washington, D. C. 20036.

THE BREATH OF LIFE—Donald E. Carr—Norton, 175 p., \$3.95. A popular treatment on the chemistry of the air and the problem of chemicals in the air affecting our health and life.

THE CLOCK WE LIVE ON—Isaac Asimov—Abelard-Schuman, rev. ed., 172 p., diagrams by John Bradford, \$3.50. Deals with facts gathered from different fields of knowledge that have contributed to our understanding of time.

CONTROLLED THERMONUCLEAR REACTIONS—L. A. Artsimovich, transl. from Russian by P. Kelly and A. Peiperl, A. C. Kolb and R. S. Pease, Eds.—Gordon & Breach, 405 p., 23 plates, illus., \$19.50. A distinguished Russian expert reviews the state of the art in plasmas, fast high-power discharges, heating of plasma by sustained electrical discharges, and magnetic traps in general as well as specific types.

THE CRAB THAT CRAWLED OUT OF THE PAST—Lorus & Margery Milne—Atheneum, 84 p., illus. by Kenneth Gosner, \$3.50. An intriguingly told story about the ancient horseshoe crab, its life cycle and history through milleniums.

THE CROSSROAD PAPERS: A Look Into the American Future—Hans J. Morgenthau, Ed.—Norton, 279 p., \$5.50. Brings together the thinking of distinguished scholars and political practitioners on how to come to terms with such critical issues as nuclear power, concentration of economic power, race, education and certain processes of democratic government.

EDUCATIONAL GUIDANCE IN THE SPACE AGE: Proceedings of 1964 National Conference for State Dept. of Education Directors—Paul L. Gardner, Ed.—NASA, 76 p., paper, single copies free upon request direct to Educ. Publications Center, AFEE-1, NASA, Washington, D.C. 20546.

THE EFFECTS OF EXPERIMENTAL LATHYRISM ON ORAL TISSUES—Alvin F. Gardner—N.Y. Acad. of Sciences, Annals, Vol. 118, Art. 5, 97 p., illus., paper, \$5. Study establishes lathyrisms as a useful experimental tool in the study of collagen metabolism.

FUNDAMENTAL ASTROMETRY: Determination of Stellar Coordinates—V. V. Podobed, transl. from Russian, A. N. Vyssotsky, Ed.—Univ. of Chicago Press, 236 p., illus., \$7.50. Deals in detail with the subject of meridian astronomy, discusses relevant astronomical instruments, their uses and inherent errors, and the problems of constructing a fundamental system of stellar positions.

GAMBLING IN SWEDEN—Nechama Tec—Bedminster Press, 135 p., \$5. A systematic investigation by sociologist, analyzing the comprehensive data of the Swedish Institute of Public Opinion. The analysis failed to support the common allegations that gambling leads to disastrous consequences for bettors, their families or society.

HIGH ENERGY PHYSICS PROGRAM: Report on National Policy and Background Information—Jt. Committee on Atomic Energy, U.S. Congress—GPO, 175 p., illus., paper, 55¢. Report considers the need of advanced accelerators and equipment.

INTERNATIONAL SYMPOSIUM ON END RESULTS OF CANCER THERAPY—Sidney J. Cutler, Ed.—National Cancer Institute (GPO), 446 p., illus., \$3.75. Presents national data regarding survival rates for treatment of specific types of cancer.

INTERPRETATION OF NMR SPECTRA: An Empirical Approach—Roy H. Bible, Jr.—Plenum Press, 150 p., diagrams, \$12.50. Specifically written to teach the person with some training in organic chemistry the interpretation of proton spectra.

AN INTRODUCTION TO COUNTING TECHNIQUES AND TRANSISTOR CIRCUIT LOGIC—K. J. Dean—Reinhold, 223 p., diagrams, \$6.75. Explains the principles underlying transistor counting circuits and the connection between circuitry and logical design.

JUNIOR COLLEGE DIRECTORY 1965—Am. Assn. of Junior Colleges, 50 p., paper, \$1 to publisher, 1315-16th St., N.W., Washington, D.C. 20036.

LABORATORY INSTRUCTIONS IN MICROBIOLOGY—Louis P. Gebhardt and Dean A. Anderson—Mosby, 3rd ed., 335 p., illus., paper, \$4.25. Contains ten new exercises including microbial genetics experiments.

MENDELEEV AND HIS PERIODIC TABLE—Robin McKown—Messner, 191 p., \$3.25. Juvenile biography about the Russian scientist who in 1869 established one of the basic laws of modern chemistry.

OLDUVAI GORGE 1951-61, Vol. I: A Preliminary Report on the Geology and Fauna—L. S. B. Leakey with contributions by others; foreword by G. Gaylord Simpson—Cambridge Univ. Press, 118 p., 97 plates, maps, \$14.50. This interim report deals with extensive discoveries of fossil faunas, far greater in extent though less generally appreciated than the succession of hominid remains found in this famous gorge with sedimentary sequences ranging from early Pleistocene to the present day.

OPEN TUBULAR COLUMNS IN GAS CHROMATOGRAPHY—L. S. Ettre, foreword by M. J. E. Golay—Plenum Press, 164 p., diagrams, \$4.95. Comprehensive and practical monograph devoted to the latest developments in gas chromatographic analysis graphic analysis.

THE PATHS OF CULTURE: A General Ethnology—Kaj Birket-Smith, transl. from Danish by Karin Fennov—Univ. of Wis. Press, 537 p., 64 plates, \$10. Embracing the entire span of human existence, this anthropological classic sketches man's cultural development and the paths along which it moved in space and time.

PUBLIC HEALTH SERVICE GRANTS AND AWARDS, Fiscal Year 1964 Funds, Part I: Research Grants; Part II: Training Grants, Traineeships, Fellowships and Research Career Program Awards—Div. of Research Grants, N.I.H.—PHS (GPO), 594 p., 375 p., paper, \$1.50, \$1.25.

THE RADIO AMATEUR'S HANDBOOK 1965—Headquarters Staff of the American Radio Relay League, Byron Goodman, Ed.—Am. Radio Relay League, 42nd ed., 592 p., tables and indexes, illus., \$6.50; paper, \$4. Up-to-date standard manual of amateur radio communication.

RESEARCH IN THE TEACHING OF SCIENCE: Analysis and Selected Abstracts 1959-61, Studies Completed 1959-63—Lloyd K. Johnson, Ellsworth S. Obourn and Paul E. Blackwood—OE (GPO), 152 p., paper, 60¢. Deals with research studies in elementary, secondary school and college science teaching.

RESONANCE AND RELAXATION IN METALS—Arthur S. Nowick and others—Am. Soc. for Metals (Plenum Press), 2nd rev. ed., 423 p., diagrams, \$19.50. Collection of up-to-date papers presented at seminar, first published by the Society in 1962.

THE RUN—John Hay—Doubleday, rev. ed., 184 p., illus. by David Grose, paper, 95¢. Chronicle of the annual migration of the alewives, members of the herring family.

SELECTED DENTAL FINDINGS IN ADULTS BY AGE, RACE AND SEX: United States 1960-1962—National Center for Health Statistics—PHS (GPO), 35 p., graphs, paper, 30¢. Detailed vital statistics.

SPACE FLIGHT, Countdown for the Future—Eugen Sanger, transl. from German by Karl Frucht, Ed.—McGraw, 301 p., \$6.95. A space scientist here surveys in very specific terms the reasons for space flight, the quantity of invested man-hours and the time elements, and rocket engines today and in the future.

TREASURES OF YESTERDAY—Henry Garnett—Natural Hist. Press, 252 p., illus. by Gaynor Chapman, photographs, \$5.95. Published for the American Museum of Natural History, this book is a colorful, popularly written account of some of the most famous archaeological expeditions.

VIRUSES AND CANCER: Report of a WHO Scientific Group—W. Chas. Cockburn, Sec'y—WHO (Internat'l Docum. Service, Columbia U.), 60 p., paper, \$1. Contains the collective views of an international group of experts on the present state of knowledge on the subject of virus-induced cancer.

WILD HERITAGE—Sally Carrighar-Houghton, 276 p., \$5.95. A popular survey of what field studies of animals have taught us about animal behavior in relation to human behavior, with references to the scientific sources on which the observations are based.

WORLD BENEATH THE OCEANS—T. F. Gaskell—Natural History Press, 154 p., illus. by Barry Evans, photographs, \$4.95. Published for American Museum of Natural History, the book is designed to acquaint young people with explorations, methods and findings of oceanography.

• Science News Letter, 87:188 March 20, 1965

CARTOGRAPHY

New United States Map Now Available To Public

➤ A WALL MAP of the United States, showing Federal lands and historical boundaries, just printed by the Geological Survey may be purchased from the Government Printing Office, Secretary of the Interior Stewart L. Udall announced.

Compiled by the Geological Survey in cooperation with the Department's Bureau of Land Management, the single-sheet, 42-by-65-inch, multicolored map, was prepared and published at the direction of the 88th Congress, Secretary Udall said.

It details for the first time on a single sheet of paper national parks and monuments, national forests, Indian reservations, wildlife refuges, public lands, and historical boundaries, in addition to cities, towns, rivers and lakes. Approximately 7,500 names of cultural, hydrographic and historical features are positioned on the map.

The map shows boundaries of early U. S. territorial acquisitions of particular value to teachers, students, librarians and others interested in historical references.

The map is available from the Superintendent of Documents, United States Government Printing Office, Washington D. C. 20402, at \$2.00 per copy.

• Science News Letter, 87:188 March 20, 1965

ASTRONOMY

Halley's Comet Most Observed of All Time

➤ HALLEY'S COMET, which will be a strikingly visible object again in 1986, is the most widely observed comet of all time.

It has been seen 31 times between 466 B.C. and its last appearance in 1910. Halley's Comet is the only conspicuous such object making a periodic return to earth in less than a hundred years. It has now passed its far-out point beyond the orbit of Neptune and is returning sunward.

This famous comet was named after the English astronomer, Edmund Halley, who first predicted that it would reappear in 1757, based on past observations.

The earliest observations of Halley's Comet were made mainly by the Chinese.

These and all other known observations of comets are listed in a new translation, "Physical Characteristics of Comets," by Russian astronomer S. K. Vsekhsvyatskii.

The 600-page book was translated by the Israel Program for Scientific Translations with the support of the National Aeronautics and Space Administration and the National Science Foundation.

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PUBLIC HEALTH

Less Teen-Age Smoking, Cancer Society Reports

➤ A 16% DROP IN high-school-age smoking since 1958 was shown in the 1964 report of the American Cancer Society.

A limited survey in 1958 by Gilbert Youth Research, Inc. of New York, showed that 33% of U.S. high school students said they smoked cigarettes. A second survey carried out in 1963 showed a drop to 29%, while a 1964 survey showed that only 17% of high school students smoked.

Other estimates have been as high as 40%, but no complete national survey has been made.

"Apparently those who once start to smoke continue, but beginning to smoke is becoming less fashionable," the report said.

The death rate from lung cancer has increased 10 times in men in the past 30 years, and is going up in women, the report pointed out. Lung cancer is highly preventable if persons stop smoking cigarettes.

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