psychologist Donald Campbell. Such a model, along with the case studies, provides important insights into the distinctiveness and complexity of engineering knowledge.

DAVID F. CHANNELL
Program in Historical Studies, University of Texas at Dallas, Richardson, TX 75083

Some Other Books of Interest

Psychology at Iowa. Centennial Essays. JOAN H. CANTOR, Ed. Erlbaum, Hillsdale, NJ, 1991. xii, 178 pp., illus. $34.50. Based on a symposium, Iowa City, Oct. 1988.

Among the early developments important in establishing psychology as a discipline in the United States was the founding of the Psychology Laboratory at the University of Iowa. Associated with the laboratory and other institutional arrangements that succeeded it have been such eminent figures in the field as Carl Seashore, Kurt Lewin, and Kenneth Spence. In the opening chapter of this collection celebrating the laboratory's centennial Howard Kendler traces the intellectual lineages and orientations of these and other principal figures and describes the interplay of ideas and approaches that have gone into "the Iowa tradition" in psychology, which he sums up as representing "the strivings for a mutually beneficial relationship between experimental and applied psychology, a close and intimate bond between research and comprehensive theorizing, and a constant concern with the methodological foundations of psychology." After this introduction ten other Iowa alumni or former faculty further expound matters bearing on the tradition. I. E. Farber discusses the course "History and systems of psychology" taught by Gustav Bergmann at Iowa for over 30 years and Bergmann's assessments of British associationism, Gestalt theory, Freudianism, and various forms of behaviorism. Ernest Hilgard then presents recollections of faculty, students, and facilities up to about 1938, and Leonard Goodstein of the American Psychological Association takes note of roles Iowa faculty and graduates have played in that organization. The remaining papers deal with more specific research areas within psychology. Judson Brown, chairman of the Iowa department from 1965 to 1972, discusses definitional and experimental issues that have emerged in his studies of motivation, and Leonard Eron describes laboratory studies of aggression he conducted there. Research in developmental psychology at Iowa dates back to the establishment of the Iowa Child Welfare Research Station in 1917, and Tracy Kendler gives a "retrospective and prospective view" of that field. Norman Garmezy then offers some observations bearing on research in psychopathology; Albert Bandura discusses "the changing icons in personality psychology"; and Abram Amsel discusses the study of frustration ("experimental neurosis" in one formulation) as related to stimulus-response theory and learning theory more broadly. In a more broadly focused paper Janet Spence offers some observations on current directions, including organizational issues, in psychology generally, concluding that "the challenge we currently face is to resist the balkanizing tendencies that have come with" the advances that have been made. The book ends with subject and author indexes.—**K.L.**

Science, American Style. NATHAN REINGOLD. Rutgers University Press, New Brunswick, NJ, 1991. x, 429 pp. $42; paper, $18.

In this volume Nathan Reingold, one of the first historians trained to take American science as his research subject, presents a collection of his essays published between 1958 and 1987. After an introduction in which he distinguishes his approach to the subject from the once-conventional "top-only. . .fixation on great ideas, great scientists, and great revolutionary events" and expresses his avocation for analyzing archival collections as material for "detective stories," Reingold presents a total of 17 essays under five headings. The group headed The National Stage includes a bicentennial assessment (De Tocqueville to Gerald Ford) and discussion of the professionalization of American science up to about 1900 and the supposed initial "American indifference to basic research." There follow five papers specifically focused on the 19th century, dealing with the Navy Department in the Civil War, activities in Russia of the meteorologist Cleveland Abbe, the influence of Alexander Dallas Bache, a "founder of the American scientific community," and the concerns of Joseph Henry. A further three papers consider institutions—the relations between American graduate schools and their European models and the early days of the Carnegie Institution of Washington, the National Academy of Sciences, and the Rockefeller Institute. The group headed The Perils of Maturity is a miscellany considering refugee mathematicians from Nazi Germany, Vannevar Bush's "new deal for research," and a Hollywood representation of the atomic bomb program. A final trio deals with historiographic issues: the relation of the history of science to the other disciplines—sociology and philosophy—concerned with science, a 1980 indictment of trends in the field by Charles Gillispie (relevant references here being *Science* **207**, 389 and 934), and the formulations of Thomas Kuhn. The essays have not been updated for the collection; rather, the author provides for each an introduction expounding the concerns that motivated him at the time of writing. A 19-page index concludes the volume.—**K.L.**

Books Received

The Analysis, Communication, and Perception of Risk. B. John Garrick *et al.*, Eds. Plenum, New York, 1991. xii, 713 pp., illus. $145. Advances in Risk Analysis, vol. 9. From a meeting, San Francisco, CA, Oct. 1989.

The Anatomy of Philosophical Style. Literary Philosophy and the Philosophy of Literature. Berel Lang. Blackwell, Cambridge, MA, 1990. viii, 277 pp. $44.95; paper, $16.95.

Ancient North America. The Archaeology of a Continent. Brian M. Fagan. Thames and Hudson, New York, 1991. 480 pp., illus. Paper, $29.95.

Bioactive Compounds from Plants. Derek J. Chadwick and Joan Marsh, Eds. Wiley, New York, 1990. xii, 242 pp., illus. $63.50. Ciba Foundation Symposium 154. A Wiley-Interscience Publication. From a symposium, Bangkok, Thailand, Feb. 1990.

A Celebration of Colour in Astronomy. David Malin. Current Science Association, Bangalore, India, 1991. ii, 32 pp., illus., + plates. Paper, $15. Current Science, A Special Issue. Vol. 60, no. 1.

Dry Etching for VLSI. A. J. van Roosmalen, J. A. G. Baggerman, and S. J. H. Brader. Plenum, New York, 1991. xviii, 237 pp., illus. $69.50. Updates in Applied and Electrical Technology.

Earthwatch. The Climate from Space. John E. Harries. Horwood (Prentice Hall), Englewood Cliffs, NJ, 1991. 216 pp., illus., + plates. $32. Ellis Horwood Series in Atmospheric Science.

Fundamentals of Ocean Acoustics. L. M. Brekhovskikh and Yu. P. Lysanov. 2nd ed. Springer-Verlag, New York, 1991. xii, 270 pp., illus. Paper, $45. Springer Series on Wave Phenomena, vol. 8.

Genetic Algorithms and Robotics. A Heuristic Strategy for Optimization. Yuval Davidor. World Scientific, Teaneck, NJ, 1991. xvi, 164 pp., illus. $29. World Scientific Series in Robotics and Automated Systems, vol. 1.

Genetically Engineered Organisms. Benefits and Risks. J. R. S. Finchman and J. R. Ravetz. University of Toronto Press, Buffalo, NY, 1991. xiv, 158 pp., illus. $50; paper, $15.95.

A Geostatistical Primer. Peter I. Brooker. World Scientific, Teaneck, NJ, 1991. vi, 95 pp., illus. $32.

Global Change and Relevant Space Observations. J. L. Fellous, Ed. Published for the Committee on Space Research by Pergamon, New York, 1991. vi, 270 pp., illus. Paper, $130. Advances in Space Research, vol. 11, no. 3. From a symposium, The Hague, The Netherlands, June 1990.

Glycogen Phosphorylase b. Description of the Protein Structure. K. R. Acharya *et al.*, Eds. World Scientific, Teaneck, NJ, 1991. viii, 123 pp., illus. $38; paper, $18.

Gossamer Odyssey. The Triumph of Human-Powered Flight. Morton Grosser. Dover, New York, 1991. xxii, 298 pp., illus., + plates. Paper, $9.95. Reprint, 1981 ed.

Governmental Management of Chemical Risk. Regulatory Processes for Environmental Health. Rae Zimmerman. Lewis (CRC Press), Boca Raton, FL, 1990. xxii, 345 pp., illus. $65. Technology and Environmental Health Series.

Gradient HPLC of Copolymers and Chromatographic Cross-Fractionation. Gottfried Glockner. Springer-Verlag, New York, 1991. xvi, 210 pp., illus. $69.

Greek Astronomy. Sir Thomas L. Heath. Dover, New York, 1991. lviii, 192 pp. Paper, $6.95. Dover Books on Astronomy. Reprint, 1932 ed.

Guide to Yeast Genetics and Molecular Biology. Christine Guthrie and Gerald R. Fink, Eds. Academic