



## Vignettes: Concern for Animals

Where the women's movement and the struggle of black women and men have been identity movements, made by those people declared Other by those with power, animal liberation was to be carried out by human beings on behalf of others. Arguably the silence of the oppressed was a significant part of their attraction; the liberators could speak on their behalf unfettered by any voices which said "that is not how I feel, that is not how I am, how dare you presume to speak for me."

—Hilary Rose

A question I have often wondered about is whether most students who feel uneasy about dissecting anesthetized animals actually do so out of sympathy with the animals. Would they do whatever is necessary to help an injured animal, or are they just uneasy about handling live animals? I wonder about this especially when I am told that women students are more reluctant to do lab dissections than the men are. Are we really dealing with differences in empathy with other living creatures or with differences in permitted squeamishness?

—Ruth Hubbard

—From *Reinventing Biology: Respect for Life and the Creation of Knowledge* (Lynda Birke and Ruth Hubbard, Eds.; Indiana University Press)

bifurcation (qualitative change in behavior) phenomena observed or expected as a control parameter is varied.

A beginning is made at drawing a connection between fluctuations at the microscopic level and macroscopic behavior. Fluctuations may become important near bifurcation points or in chaotic systems, and it seems likely that chemical patterns may be a good area for investigating their effect. These treatments are mainly on the mesoscopic level.

This book provides a current and vital review of an important and active area of research.

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## Books Received

**Automation in the Laboratory.** W. Jeffrey Hurst, Ed. VCH, New York, 1995. xii, 248 pp., illus. \$95.

**The Axemaker's Gift.** A Double-Edged History of Human Culture. James Burke and Robert Ornstein. Grosset/Putnam, New York, 1995. xviii, 349 pp., illus. \$27.95 or £37.95.

**Bacteria.** In *Biology, Biotechnology and Medicine*. Paul Singleton. 3rd ed. Wiley, New York, 1995. x, 319 pp., illus. Paper, \$29.95.

**Children Solving Problems.** Stephanie Thornton. Harvard University Press, Cambridge, MA, 1995. x, 143 pp., illus. \$24.95; paper, \$10.95. Developing Child.

**Climate Change and Agriculture.** Analysis of Potential International Impacts. Cynthia Rosenzweig et al., Eds. American Society of Agronomy, Madison, WI, 1995. xviii, 382 pp., illus. Paper, \$34. ASA Special Publication

no. 59. From a symposium, Minneapolis, Nov. 1992.

**Collecting Plant Genetic Diversity.** Technical Guidelines. Luigi Guarino, V. Ramanatha Rao, and Robert Reid, Eds. CAB International, Oxford, UK, 1995 (U.S. distributor, University of Arizona Press). xx, 748 pp., illus. \$120.

**College Physics.** Raymond A. Serway and Jerry S. Faughn. 4th ed. Saunders, Philadelphia, 1995. xxvi, 1042 pp., illus., + supplementary material. \$73.50.

**Color and Light in Nature.** David K. Lynch and William Livingston. Cambridge University Press, New York, 1995. xiv, 254 pp., illus. \$44.95; paper, \$29.95.

**Computer Simulation of Polymers.** E. A. Colbourn, Ed. Longman Scientific and Technical, Harlow, Essex, UK, and Wiley, New York, 1994. viii, 343 pp., illus. \$185. Polymer Science and Technology.

**Confronting Poverty.** Prescriptions for Change. Sheldon H. Danziger, Gary D. Sandefur, and Daniel H. Weinberg, Eds. Oxford University Press, New York, 1994. xii, 529 pp., illus. \$49.95; paper, \$19.95. Based on a conference, Madison, WI, May 1992.

**Conserving Wildlife.** International Education and Communication Approaches. Susan K. Jacobson, Ed. Columbia University Press, New York, 1995. xxxiv, 302 pp., illus. \$45 or £31.50; paper, \$22 or £16.75. Methods and Cases in Conservation Science.

**Constructing Knowledge in the History of Science.** Arnold Thackray, Ed. History of Science Society, Philadelphia, 1995 (distributor, University of Chicago Press). viii, 253 pp., illus. \$39; paper, \$25; to HSS members, \$27.50; paper, \$17.50. *Osiris*, 2nd series, vol. 10 (1995).

**Cooperative Phenomena in Jahn-Teller Crystals.** Michael D. Kaplan and Benjamin G. Vekhter. Plenum, New York, 1995. xvi, 425 pp., illus. \$95. Modern Inorganic Chemistry.

**Coping with Trouble.** How Science Reacts to Political Disturbances of Research Conditions. Uwe Schimank and Andreas Stucke, Eds. Campus, Frankfurt, and St. Martin's, New York, 1994. 401 pp. \$59.95.

**Coulson and Richardson's Chemical Engineering.** Vol. 3, Chemical and Biochemical Reactors and Process Control. J. F. Richardson and D. G. Peacock, Eds. 3rd ed. Pergamon (Elsevier Science), Tarrytown, NY, 1994. xx, 776 pp., illus. \$135 or £83; paper, \$46 or £28.50.

**Critical Issues in Systems Theory and Practice.** Keith Ellis et al., Eds. Plenum, New York, 1995. xviii, 712 pp., illus. \$79.50. From a conference, Hull, UK, July 1994.

**Evolution as Growth of One Earth-Organism.**

Thomas A. Morrill. Published by the author, Rt. 16, Box 9047, Tallahassee, FL, 1995. vi, 121 pp. Paper, \$10 or £10.

**Experiment and the Making of Meaning.** Human Agency in Scientific Observation and Experiment. David Gooding. Kluwer, Norwell, MA, 1995. xviii, 310 pp., illus. Paper, \$29.50 or £19.50 or Dfl. 55. Science and Philosophy, vol. 5. Reprint, 1990 ed.

**Social Psychiatry across Cultures.** Studies from North America, Asia, Europe, and Africa. Rumi Kato Price, Brent Mack Shea, and Harsha N. Mookherjee, Eds. Plenum, New York, 1995. xviii, 226 pp., illus. \$42.50. Topics in Social Psychiatry.

**The Solar-Terrestrial Environment.** An Introduction to Geospace—the Science of the Terrestrial Upper Atmosphere, Ionosphere and Magnetosphere. J. K. Hargreaves. Cambridge University Press, New York, 1995. xiv, 420 pp., illus. \$100; paper, \$37.95. Cambridge Atmospheric and Space Science, 5. Reprint, 1992 ed.

**Somatic Embryogenesis in Woody Plants.** Vol. 1, History, Molecular and Biochemical Aspects, and Applications. S. Mohan Jain, Pramod K. Gupta, and Ronald J. Newton, Eds. Kluwer, Norwell, MA, 1995. xiv, 460 pp., illus. \$205 or £134.50 or Dfl. 320. Forestry Sciences, vol. 45.

**Space.** A Vital Stimulus to Our National Well-Being, and World Space Programs and Fiscal Reality. Gayle L. May et al., Eds. American Astronautical Society, San Diego, 1994 (distributed by Univelt, San Diego). xvi, 318 pp., illus. \$70; paper, \$50. Science and Technology Series, vol. 83. From symposia, Alexandria and Arlington, VA, April 1992 and March 1993.

**The Space Environment.** Implications for Spacecraft Design. Alan C. Tribble. Princeton University Press, Princeton, NJ, 1995. xiv, 204 pp., illus. \$49.50 or £32.50.

**Stability of Superconductors.** Lawrence Dresner. Plenum, New York, 1995. xx, 225 pp., illus. \$49.50. Selected Topics in Superconductivity.

**Stairway to the Mind.** The Controversial New Science of Consciousness. Alwyn Scott. Copernicus (Springer-Verlag), New York, 1995. xx, 229 pp., illus. \$25 or £35.

**The Stone Skeleton.** Structural Engineering of Masonry Architecture. Jacques Heyman. Cambridge University Press, New York, 1995. x, 160 pp., illus. \$59.95.

**Straight Sex.** Rethinking the Politics of Pleasure. Lynne Segal. University of California Press, Berkeley, 1994. xvi, 376 pp. \$35; paper, \$15. Reprint, 1994 ed.

**Structure Correlation.** Hans-Beat Bürgi and Jack D. Dunitz, Eds. VCH, New York, 1994. liv, 888 pp., illus. \$235.

**Sulfate-Reducing Bacteria.** Larry L. Barton, Ed. Plenum, New York, 1995. xiv, 336 pp., illus. \$85. Biotechnology Handbooks, vol. 8.

**Surface Infrared and Raman Spectroscopy.** Methods and Applications. W. Suétaka, with the assistance of John T. Yates, Jr. Plenum, New York, 1995. xiv, 270 pp., illus. \$59.50. Methods of Surface Characterization, vol. 3.

**Tinkering Toward Utopia.** A Century of Public School Reform. David Tyack and Larry Cuban. Harvard University Press, Cambridge, MA, 1995. viii, 184 pp., illus. \$22.50.

**Two Dimensional Spline Interpolation Algorithms.** Helmut Späth. Peters, Wellesley, MA, 1995. viii, 304 pp., illus. \$59.95.

**"You Do Teach Atoms, Don't You?"** A Case Study in Breaking Science Curriculum Gridlock. Lyman Lyons and Susan Bolyard Millar. LEAD Center, Madison, WI, 1995. xii, 79 pp., illus. Paper, \$10.

## Publishers' Addresses

Below is information about how to direct orders for books reviewed in this issue. A fuller list of addresses of publishers represented in *Science* appears in the issue of 26 May 1995, page 1220.

**Kluwer Academic Publishers,** P.O. Box 358, Accord St., Hingham, MA 02018-0358. Phone: 617-871-6600. Fax: 617-871-6528.

**R. G. Landes Co.,** P.O. Box 4858, Austin, TX 78765. Phone: 512-863-7762. Fax: 512-863-0081. E-mail: rglandes@aus.computize.com.