



## Vignettes: Boltzmann in Berkeley

On the train there had been less occasion to engage in English conversation than I hoped. . . . My English conversation followed this pattern: I: "When lunch will be served?" He: "ieöö." I: "I beg you, could you say me, at what hour lunch will be served?" His gurgled answer now turned a fifth deeper: "aoouu." I see the mistake in my plan of attack and cry despairingly: "Lunch," "lanch," "lonch," "launch" and so forth. I utter vowels which cannot be found in Gutenberg's vast collection of minted metal printing blocks. Suddenly a face lights up with dawning comprehension: "Ah! Loanch!" . . . And now I should give thirty lectures in this language?

I soon began to feel more easy and at home. . . . How proud I became when I could easily pronounce tongue-twisters like "blackboard" and "chalk" . . . . How smooth and fluent flowed prickly pearls such as "algebra," "differential calculus," "chemistry," "natural philosophy," and so forth.

A speculative proprietor had read in an encyclopedia that Berkeley had been an English bishop whose residence had been called "Cloyne Court" which apparently inspired him to build a faculty lodging with that name, and it is here that I lived. But he made little effort to make the architecture similar since his impressionable mind had also noticed that the front street was called "Euclid Avenue." Thus, the building became an exact parallelepiped without a trace of anything non-Euclidean. . . . The food was good. As a rule, at least elements of one type of food placed in front of me could be eaten and kept down.

The women of California are remarkably large and strongly built, and often there is also a rather unwanted wisp of mustache . . . . I also had to honestly agree with a colleague when he asked: "Don't you find that American women have something masculine about them?" But he was reluctant to accept my answer "and the men somewhat feminine?" But by the last I only meant their unbearded chins. In terms of courage, strength of will, adventurous spirit, and constancy of character they hold their jaws at manly height. . . .

Yes, America will accomplish great things in the future. I believe in these people, even after seeing them integrating and differentiating in my seminar in theoretical physics.

—Ludwig Boltzmann, as quoted in *Ludwig Boltzmann: His Later Life and Philosophy, 1900-1906*, book 1 (John Blackmore, Ed.; Kluwer)

## Reprints of Books Previously Reviewed

**The Astonishing Hypothesis.** The Scientific Search for the Soul. Francis Crick. Touchstone (Simon and Schuster), New York. Paper, \$14. *Reviewed* 263, 696 (1994).

**The Development of Darwin's Theory.** Natural History, Natural Theology, and Natural Selection, 1838-1859. Dov Ospovat. Cambridge University Press, New York, 1995. Paper, \$22.95. *Reviewed* 215, 1385 (1982).

**Games of Life.** Explorations in Ecology, Evolution and Behavior. Karl Sigmund. Penguin, New York, 1995. Paper, \$11.95 or £6.99 or \$C14.99. *Reviewed* 264, 294 (1994).

**Kalahari Hyenas.** Comparative Behavioural Ecology of Two Species. M. G. L. Mills. Chapman and Hall, New York, 1995. Paper, \$34.50 or £19. *Reviewed* 265, 2107 (1994).

**The RNA World.** Raymond F. Gesteland and John F. Atkins, Eds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1995. Paper, \$45. *Reviewed* 264, 1479 (1994).

**Science on Trial.** The Case for Evolution. Douglas J.

Futuyma. Sinauer, Sunderland, MA, 1995. Paper, \$15.95. *Reviewed* 220, 851 (1983).

**The Transition from Infancy to Language.** Acquiring the Power of Expression. Lois Bloom. Cambridge University Press, New York, 1995. Paper, \$16.95. *Reviewed* 264, 1783 (1994).

## Books Received

**Agriculture Utilization of Urban and Industrial By-Products.** D. L. Karlen, R. J. Wright, and W. O. Kemper, Eds. American Society of Agronomy, Madison, WI, 1995. xviii, 295 pp., illus. Paper, \$26. ASA Special Publication no. 58. From a symposium, Cincinnati, OH, Nov. 1993.

**Agrobacterium Protocols.** Kevan M. A. Gartland and Michael R. Davey, Eds. Humana, Totowa, NJ, 1995. xiv, 417 pp., illus. Spiralbound, \$69.50. Methods in Molecular Biology, vol. 44.

**AIDS.** The Good News is HIV Doesn't Cause It. The Bad News is "Recreational Drugs" and Medical Treatments Like AZT Do. Peter Duesberg and John Yiamouy-

iannis. Health Action Press, Delaware, OH, 1995. xii, 194 pp., illus. Paper, \$15.

**Antibiotics.** A Multidisciplinary Approach. Giancarlo Lancini, Francesco Parenti, and Gian Gualberto Gallo. Plenum, New York, 1995. x, 278 pp., illus. \$59.50. Translated from the Italian edition (Salerno, 1993) by the authors.

**But Is It True?** A Citizen's Guide to Environmental Health and Safety Issues. Aaron Wildavsky. Harvard University Press, Cambridge, MA, 1995. x, 574 pp. \$35.

**Cardiovascular Disease 2.** Cellular and Molecular Mechanisms, Prevention, and Treatment. Linda L. Gallo, Ed. Plenum, New York, 1995. xii, 366 pp., illus. \$110. GWUMC Department of Biochemistry Annual Spring Symposia. Based on a symposium, Washington, DC, June 1994.

**Cities of Light and Heat.** Domesticating Gas and Electricity in Urban America. Mark H. Rose. Pennsylvania State University Press, University Park, 1995. xviii, 229 pp., illus. \$34.50 or £30.95.

**Discovering Dinosaurs.** In the American Museum of Natural History. Mark A. Norell, Eugene S. Gaffney, and Lowell Dingus. Knopf, New York, 1995. xx, 204 pp., illus. \$35 or \$C49.

**Diversity and Complexity in Prehistoric Maritime Societies.** A Gulf of Maine Perspective. Bruce J. Bourque. Plenum, New York, 1995. xvi, 414 pp., illus. \$59.50. Interdisciplinary Contributions to Archaeology.

**The Dreaming Universe.** A Mind-Expanding Journey Into the Realm Where Psyche and Physics Meet. Fred Alan Wolf. Touchstone (Simon and Schuster), New York, 1995. 415 pp., illus. Paper, \$13.

**Edwin Hubble.** Mariner of the Nebulae. Gale E. Christianson. Farrar, Straus and Giroux, New York, 1995. xvi, 402 pp. \$25.

**Growth Curves.** Anant M. Kshirsagar and William Boyce Smith. Dekker, New York, 1995. xvi, 359 pp., illus. \$135. Statistics: Textbooks and Monographs, vol. 145.

**How "Natives" Think.** About Captain Cook, For Example. Marshall Sahlins. University of Chicago Press, Chicago, 1995. x, 318 pp., illus. \$24.95.

**Infinity and the Mind.** The Science and Philosophy of the Infinite. Rudy Rucker. Princeton University Press, Princeton, NJ, 1995. xii, 342 pp., illus. Paper, \$12.95. Princeton Science Library. Reprint, 1982 ed.

**Journey to the Centers of the Mind.** Toward a Science of Consciousness. Susan A. Greenfield. Freeman, New York, 1995. xii, 221 pp., illus. \$24.95.

**L'Atome.** Dans L'Histoire de la Pensée Humaine. Bernard Pullman. Éditions Fayard, Paris, France, 1995. 440 pp., illus., + plates. Paper, 190 FF. Le Temps de Sciences.

**Madness in America.** Cultural and Medical Perceptions of Mental Illness before 1914. Lynn Gamwell and Nancy Tomes. Cornell University Press, Ithaca, NY, and Binghamton University Art Museum, Binghamton, NY, 1995. 182 pp., illus. \$39.95 or £31.50. Cornell Studies in the History of Psychiatry.

**Naked Earth.** The New Geophysics. Shawna Vogel. Dutton, New York, 1995. vi, 218 pp. \$21.95 or \$C29.99.

**A Nation of Steel.** The Making of Modern America, 1865-1925. Thomas J. Misa. Johns Hopkins University Press, Baltimore, MD, 1995. xxviii, 367 pp., illus. \$49.95. Studies in the History of Technology.

**Polynomial Invariants of Finite Groups.** Larry Smith, Peters, Wellesley, MA, 1995. xvi, 360 pp. \$59.95. Research Notes in Mathematics, vol. 6.

**A Practical Guide to Cooperative Learning in Collegiate Mathematics.** Barbara E. Reynolds et al., Eds. Mathematical Association of America, Washington, DC, 1995. xii, 176 pp. Paper, \$18.95; to MAA members, \$14.95. MAA Notes, no. 37.

**Protein Kinases.** James Robert Woodgett, Ed. IRL (Oxford), New York, 1995. xvi, 273 pp., illus. \$85; paper, \$46. Frontiers in Molecular Biology.

**Psychologists in Word and Image.** Nicholas Wade. MIT Press, Cambridge, MA, 1995. xx, 240 pp., illus. Paper, \$22.50.

**Structuralism and Structures.** A Mathematical Perspective. Charles E. Rickart. World Scientific, River Edge, NJ, 1995. xiv, 219 pp., illus. \$48. Series in Pure Mathematics, vol. 21.

**Structure and Structure Development of Al-Zn Alloys.** Hans Löffler. Akademie Verlag, Berlin, 1995 (U.S. distributor, VCH, New York). 487 pp., illus. \$115.

**World Fire.** The Culture of Fire on Earth. Stephen J. Pyne. Holt, New York, 1995. xiv, 379 pp., illus. \$30.