



Vignettes: Around the Campuses

The University of Arizona is a real Ken and Barbie kind of place, with frats and sororities and lots of beautiful people.

—Chris Langton, as quoted by M. Mitchell Waldrop in *Complexity: The Emerging Science at the Edge of Order and Chaos* (Simon and Schuster)

A visitor . . . accustomed to the look and traffic patterns of major universities might find the grounds of the MIT campus remarkably underpopulated. Responsible people can speedskate over the sidewalks and do.

—Fred Hapgood, in *Up the Infinite Corridor: MIT and the Technical Imagination* (Addison-Wesley)

I don't like it here in Palo Alto. . . . I am in the academic demimonde. I am an editor and manager for a marginal publisher of doctoral dissertations languishing because they're too specialized or because they fall outside the desiderata of the regular university presses.

—The sometime-anthropologist main character in Norman Rush's novel *Mating* (Knopf, 1991; Vintage paperback)

The initial chapter, by George Rédei, is a fascinating account of past *Arabidopsis* research (including the author's difficulty in publishing some of his original studies on *Arabidopsis* mutants). The technical chapters on transformation using *Agrobacterium*, the establishment of linkage maps, genome mapping, analysis of proteins, and plant-pathogen interactions are interesting and clearly written, giving a context for the protocols. The protocols themselves are presented in such a useful way that postdoctoral staff and graduate students rushed to take my review copy of the book to use for our soybean research. I believe the volume will be valuable as well to those studying other plant species. In it we have a book that belongs on the desk of every molecular plant scientist. —Peter M. Gresshoff, University of Tennessee

The Maize Handbook. MICHAEL FREELING and VIRGINIA WALBOT, Eds. Springer-Verlag, New York, 1993. xxvi, 759 pp., illus., + plate. \$79 or £55. Springer Laboratory.

"In modern times, the view that other scientists are cooperators rather than competitors is unusual," write the editors of this volume, "but it is a key part of the maize community of scholars." Produced in this spirit, *The Maize Handbook* "represents the collective efforts of the maize research community to enumerate the key steps of standard procedures and to disseminate

these protocols for the common good," including that of those working with other higher plants to which the procedures may be applicable. In all, 129 authors have contributed 133 items to the enterprise. The volume opens with nine brief contributions setting forth the basics of maize development and morphology. Another ten papers under the heading Cell Biology deal mainly with techniques related to microscopy, rather than with cellular processes per se. The remaining 640 pages of the text are given over to the protocols, among which are interspersed some not strictly methodological discussions of various features of maize such as the anthocyanin gene system. Of the items in this part of the book 63 are categorized as genetics, 37 as molecular biology, and 14 as cell culture. In length they range from one page (for instance, Birchler on ring chromosomes) to 17 (Chang and Neuffer on chromosome behavior during microsporogenesis). Illustrations include a 10½-page table of reciprocal translocations between A chromosomes (Coe) and a color plate showing results of gene tagging involving *Ac* and *Ds* transposable elements (Dellaporta and Moreno). Reference lists are appended to the individual contributions, and a 34-page subject index is included at the end of the book. In the preface the editors provide as other aids to the reader information about the Maize Genetics Cooperation Newsletter and a list of other books that should be in a "robust" library of the subject.

—Katherine Livingston

Books Received

The Analysis of Natural Waters. T. R. Crompton. Oxford University Press, New York, 1933. 2 vols. Vol. 1, Complex-Formation Preconcentration Techniques. xii, 216 pp., illus. \$52.50. Vol. 2, Direct Preconcentration Techniques. xii, 249 pp., illus. \$60.

And Yet It Moves. Strange Systems and Subtle Questions in Physics. Mark P. Silverman. Cambridge University Press, New York, 1993. xviii, 266 pp., illus. \$49.95; paper, \$24.95.

Applications of Environment-Behavior Research. Case Studies and Analysis. Paul D. Cherulnik. Cambridge University Press, New York, 1993. xiv, 342 pp., illus. \$64.95; paper, \$24.95. Cambridge Series in Environment and Behavior.

Biology. Exploring Life. Gil Brum, Larry McKane, and Gerry Karp. 2nd ed. Wiley, New York, 1994. Variously pagged, illus. \$58.95.

Biology of Salmonella. Felipe Cabello *et al.*, Eds. Plenum, New York, 1993. xii, 470 pp., illus. \$115. NATO Advanced Science Institutes Series A, vol. 245. From an institute, Portofino, Italy, May 1992.

The Biophilia Hypothesis. Stephen R. Kellert and Edward O. Wilson, Eds. Island Press, Washington, DC, 1993. viii, 484 pp., illus. \$27.50.

California's Changing Landscapes. Diversity and Conservation of California Vegetation. Michael Barbour *et al.* California Native Plant Society, Sacramento, CA, 1993. x, 246 pp., illus. Paper, \$24.95.

Capillary Electrophoresis of Small Molecules and Ions. Petr Jandik and Günther Bonn. VCH, New York, 1993. x, 298 pp., illus. \$65.

Catalytic Asymmetric Synthesis. Iwao Ojima, Ed. VCH, New York, 1993. xiv, 476 pp., illus. \$110.

Data Analysis for the Chemical Sciences. A Guide to Statistical Techniques. Richard C. Graham. VCH, New York, 1993. xx, 536 pp., illus. \$65.

Digital Woes. Why We Should Not Depend on Software. Lauren Ruth Wiener. Addison-Wesley, Reading, MA, 1993. xx, 245 pp., illus. \$22.95.

Dissociative Recombination. Theory, Experiment, and Applications. Bertrand R. Rowe, J. Brian A. Mitchell, and André Canosa, Eds. Plenum, New York, 1993. x, 282 pp., illus. \$95. NATO Advanced Science Institutes Series B, vol. 313. From a workshop, Saint Jacut de la Mer, Brittany, France, May 1992.

The Ecology of Commerce. A Declaration of Sustainability. Paul Hawken. HarperBusiness, New York, 1993. xviii, 250 pp. \$23.

80 Years of Hashimoto Disease. Shigenobu Nagataki, Toru Mori, and Kanji Torizuka, Eds. *Excerpta Medica* (Elsevier Science), Amsterdam, 1993. xxvi, 721 pp., illus. \$237.25 or Dfl. 415. From a symposium, Fukuoka, Japan, Dec. 1992.

The Encyclopedia of Mental Health. Ada P. Kahn and Jan Fawcett. Facts on File, New York, 1993. xii, 464 pp. \$45.

The Engineer in the Garden. Genes and Genetics. From the Idea of Heredity to the Creation of Life. Colin Tudge. Cape, London, 1993. xii, 398 pp. £17.99.

Epidermal Growth Factors and Cytokines. Thomas A. Luger and Thomas Schwarz, Eds. Dekker, New York, 1993. xviii, 486 pp., illus. \$165. *Clinical Dermatology*, 10.

Field Guide to Coastal Wetland Plants of the Southeastern United States. Ralph W. Tiner. Abigail Rorer, illustrator. University of Massachusetts Press, Amherst, 1993. xiv, 328 pp. + plates. \$50; paper, \$17.95.

Flora of North America. North of Mexico. Nancy R. Morin, Convening Ed. Oxford University Press, New York, 1993. Vol. 1, Introduction. xxii, 372 pp., illus. Vol. 2, Pteridophytes and Gymnosperms. xvi, 475 pp., illus. Each vol., \$75.

G. I. Budker. Reflections and Remembrances. Boris N. Breizman and James W. Van Dam, Eds. American Institute of Physics, New York, 1993. xviii, 364 pp. + plates. \$45. Translated from the Russian edition (1988).

Games of Life. Explorations in Ecology, Evolution, and Behaviour. Karl Sigmund. Oxford University Press, New York, 1993. viii, 244 pp., illus. \$49.95; paper, \$17.95.

Gene Conservation and Exploitation. J. Perry

Gustafson, R. Appels, and P. Raven, Eds. Plenum, New York, 1993. x, 224 pp., illus. \$69.50. Stadler Genetics Symposia Series. From a symposium, Columbia, MO, Sept. 1991.

Genome Maps and Neurological Disorders. Kay E. Davies and Shirley M. Tilghman, Eds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1993. viii, 125 pp., illus. \$49. Genome Analysis, vol. 6.

HPLC Detection. Newer Methods. Gabor Patonay, Ed. VCH, New York, 1993. xii, 236 pp., illus. \$95.

Human Feelings. Explorations in Affect Development and Meaning. Steven L. Ablon *et al.*, Eds. Analytic Press, Hillsdale, NJ, 1993. xxii, 431 pp., illus. \$45.

Humans as Components of Ecosystems. The Ecology of Subtle Human Effects and Populated Areas. Mark J. McDonnell and Steward T. A. Pickett, Eds. Springer-Verlag, New York, 1993. xxii, 364 pp., illus. \$49. From a conference, 1991.

Integrated Public Lands Management. Principles and Applications to National Forests, Parks, Wildlife Refuges, and BLM Lands. John B. Loomis. Columbia University Press, New York, 1993. xxiv, 474 pp., illus. \$50.

Intelligent Behavior in Animals and Robots. David McFarland and Thomas Bösser. MIT Press, Cambridge, MA, 1993. xiv, 308 pp., illus. \$39.95. Complex Adaptive Systems.

Introduction to Computer Performance Analysis with Mathematica. Arnold O. Allen. AP Professional (Academic), Cambridge, MA, 1993. xx, 356 pp., illus., + diskette. \$49.95.

Introduction to Mathematical Philosophy. Bertrand Russell. Dover, New York, 1993. viii, 208 pp., illus. Paper, \$6.95. Reprint, 1920 ed.

Keeping All the Pieces. Perspectives on Natural History and the Environment. Whit Gibbons. Smithsonian Institution Press, Washington, DC, 1993. xxii, 182 pp. Paper, \$16.95 or £10.95.

Kepler. Max Caspar. Dover, New York, 1993. 441 pp. Paper, \$10.95. Translated from the German edition (1948) by C. Doris Hellman. Augmented reprint, 1959 ed.

Kinetic Theory of Living Pattern. Lionel G. Harrison. Cambridge University Press, New York, 1993. xx, 354 pp., illus. \$69.95. Developmental and Cell Biology Series, 28.

The Language of Colloid and Interface Science. A Dictionary of Terms. Laurier L. Schramm. American Chemical Society, Washington, DC, 1993. xii, 195 pp. \$69.95; paper, \$39.95. ACS Professional Reference Book.

Lasers and Optical Fibers in Medicine. Abraham Katzir. Academic, San Diego, CA, 1993. xx, 317 pp., illus. \$85. Physical Techniques in Biology and Medicine.

Life History Invariants. Some Explorations of Symmetry in Evolutionary Ecology. Eric L. Charnov. Oxford University Press, New York, 1993. xvi, 167 pp., illus. \$37.50; paper, \$19.95. Oxford Series in Ecology and Evolution.

Life into Art. Isadora Duncan and Her World. Dorée Duncan, Carol Pratt, and Cynthia Splatt, Eds. Norton, New York, 1993. 199 pp., illus. \$40.

The Literature of Animal Science and Health. Wallace C. Olsen, Ed. Cornell University Press, Ithaca, NY, 1993. viii, 404 pp., illus. \$79.95. Literature of the Agricultural Sciences.

Magnetism and Basalts. C. Radhakrishnamurty. Geological Society of India, Bangalore, 1993. xvi, 208 pp., illus. Paper, \$30 or Rs 250. Memoir 26.

The Maple Handbook. Darren Redfern. Springer-Verlag, New York, 1993. vi, 497 pp., illus. Spiral bound, \$29.

Mastering C Pointers. Tools for Programming Power. Robert J. Traister. 2nd ed. AP Professional (Academic), Cambridge, MA, 1993. xii, 163 pp. + diskette. Paper, \$35.95.

Mathematical Theory of Oil and Gas Recovery. With Applications to Ex-USSR Oil and Gas Fields. Pavel Bedrikovetsky. Gren Rowan, Ed. Kluwer, Norwell, MA, 1993. xx, 575 pp., illus. \$199 or £129 or Dfl. 325. Petroleum Engineering and Development Studies, vol. 4. Translated from the Russian by Ruth Loshak.

Mathematics for Operations Research. W. H. Marlow. Dover, New York, 1993. xviii, 483 pp., illus. Paper, \$12.95. Dover Books on Advanced Mathematics. Revised reprint, 1978 ed.

Maya Cosmos. Three Thousand Years on the Shaman's Path. David Freidel, Linda Schele, and Joy Parker. Justin Kerr and MacDuff Everton, photographers. Morrow, New York, 1993. 543 pp., illus., + plates. \$30.

Medicaid Financing Crisis. Balancing Responsibilities, Priorities, and Dollars. Diane Rowland, Judith Feder, and Alina Salganicoff, Eds. American Association for the Advancement of Science, Washington, DC, 1993. xvi, 222 pp., illus. Paper, \$22.95; to AAAS members, \$18.35. AAAS Publication, no. 93-04S.

Memory Search by a Memorist. Charles P. Thompson, Thaddeus M. Cowan, and Jerome Friedman. Erlbaum, Hillsdale, NJ, 1993. xiv, 156 pp., illus. \$39.95.

The Neurobiology of Neural Networks. Daniel Gardner, Ed. MIT Press, Cambridge, MA, 1993. xiv, 227 pp., illus. \$45. Computational Neuroscience.

The Neuropsychology of Attention. Ronald A. Cohen with Yvonne A. Sparling-Cohen and Brian F. O'Donnell. Plenum, New York, 1993. xii, 545 pp., illus. \$75. Critical Issues in Neuropsychology.

New Concepts in the Pathogenesis of NIDDM. Claes Göran Östenson, Suad Efendić, and Mladen Vranic, Eds. Plenum, New York, 1993. x, 316 pp., illus. \$79.50. Advances in Experimental Medicine and Biology, vol. 334. From a symposium, Stockholm, Sept. 1992.

New Frontiers in Cancer Causation. Olav Hilmar Iversen, Ed. Taylor and Francis, Philadelphia, 1993. xxiv, 444 pp., illus. \$75. From a conference, Oslo, Aug. 1992.

Ocean. Photographs from the World's Greatest Underwater Photographers. Boyce Thorne-Miller. Collins, San Francisco, 1993. 240 pp., illus. \$45.

Operation Epsilon. The Farm Hall Transcripts. Institute of Physics, Bristol, U.K., and University of California Press, Berkeley, 1993. x, 313 pp., illus. \$30.

Optics in Astronomy. J. V. Wall, Ed. Cambridge University Press, New York, 1993. xii, 288 pp., illus. \$59.95. From a conference, Cambridge, U.K., Sept. 1991.

Organic Geochemistry. Principles and Applications. Michael H. Engel and Stephen A. Macko, Eds. Plenum, New York, 1993. xxiv, 861 pp., illus. \$79.50. Topics in Geobiology, vol. 11.

The Origins of Modern Humans. Roger Lewin. Scientific American Library (HPHLP), New York, 1993 (distributor, Freeman, New York). xii, 204 pp., illus. \$32.95.

Our Earliest Ancestors. Björn Kurtén, Viking Nyström, illustrator. Columbia University Press, New York, 1993. xii, 158 pp. \$19.95. Translated from the Swedish by Erik J. Friis.

A Practical Guide to Human Cancer Genetics. S. V. Hodgson and E. R. Maher. Cambridge University Press, New York, 1993. xviii, 240 pp., illus. \$79.95; paper, \$34.95.

The Preocular Tear Film. János Fehér. Akadémiai Kiadó, Budapest, 1993. 142 pp., illus. Paper, \$30. Pathophysiology of the Eye, vol. 1.

Quantitative Assessment in Epilepsy Care. Harry Meinardi *et al.*, Eds. Plenum, New York, 1993. viii, 214 pp., illus. \$69.50. NATO Advanced Science Institutes Series A, vol. 255. From a workshop, Porto, Portugal, April, 1992.

Quantitative Particle Physics. Maurice Lévy *et al.*, Eds. Plenum, New York, 1993. x, 434 pp., illus. \$120. NATO Advanced Science Institutes Series B, vol. 311. From an institute, Cargèse, France, July 1992.

Random Walks in Biology. Howard C. Berg. 2nd ed. Princeton University Press, Princeton, NJ, 1993. xii, 152 pp., illus. Paper, \$12.95.

Receptors. Models for Binding, Trafficking, and Signaling. Douglas A. Lauffenburger and Jennifer J. Linderman. Oxford University Press, New York, 1993. x, 365 pp., illus. \$69.95.

Reporting Experimental Data. Selected Reprints. Howard J. White, Jr., Ed. American Chemical Society, Washington, DC, 1993. x, 365 pp., illus. \$89.95.

Representations and Characters of Groups. Gordon James and Martin Liebeck. Cambridge University Press, New York, 1993. x, 419 pp., illus. \$69.95; paper, \$29.95.

Resources of Near-Earth Space. John S. Lewis, Mildred S. Matthews, and Mary L. Guerrieri, Eds. University of Arizona Press, Tucson, 1993. x, 977 pp.,

illus. \$75. Space Science Series.

Saltmarsh Ecology. Paul Adam. Cambridge University Press, New York, 1993. xii, 461 pp., illus. Paper, \$37.95. Cambridge Studies in Ecology.

Scanning Tunneling Microscopy and Spectroscopy. Theory, Techniques, and Applications. Dawn A. Bonnell, Ed. VCH, New York, 1993. xiv, 436 pp., illus. \$125.

Semiconductor Interfaces, Microstructures and Devices. Properties and Applications. Zhe Chuan Feng, Ed. Institute of Physics, Philadelphia, 1993. xiv, 293 pp., illus. \$134 or £67.50. Based on a meeting, March 1991.

Structure Determination by X-Ray Crystallography. M. F. C. Ladd and R. A. Palmer. 3rd ed. Plenum, New York, 1993. xxvi, 586 pp., illus. \$59.50.

Subcellular Biochemistry. Vol. 21, Endoplasmic Reticulum. N. Borge and J. R. Harris, Eds. Plenum, New York, 1993. xxiv, 358 pp., illus. \$89.50.

Superconductivity. The Next Revolution? Gianfranco Vidali. Cambridge University Press, New York, 1993. xii, 165 pp., illus. \$49.95; paper, \$17.95.

Thermodynamics of Chaotic Systems. An Introduction. Christian Beck and Friedrich Schögl. Cambridge University Press, New York, 1993. xx, 286 pp., illus. \$64.95. Cambridge Nonlinear Science Series, 4.

Thermodynamics of Irreversible Processes. Bernard H. Lavenda. Dover, New York, 1993. xvi, 182 pp. Paper, \$7.95. Reprint, 1978 ed.

Thinking About Biology. An Invitation to Current Theoretical Biology. Wilfred D. Stein and Francisco J. Varela, Eds. Addison-Wesley, Reading, MA, 1993. xiv, 330 pp., illus., + plates. \$41.95; paper, \$26.95. Santa Fe Institute Studies in the Sciences of Complexity. Lecture Notes, vol. 3.

Tiger-Wallahs. Encounters with the Men Who Tried to Save the Greatest of the Great Cats. Geoffrey C. Ward with Diane Raines Ward. HarperCollins, New York, 1993. xii, 175 pp., illus. \$35.

Toxic Risks. Science, Regulation, and Perception. Ronald E. Gots. Lewis, Boca Raton, FL, 1993. x, 277 pp., illus. \$49.95.

Translational Regulation of Gene Expression 2. Joseph Ilan, Ed. Plenum, New York, 1993. xxiv, 493 pp., illus. \$95.

Transport and Thermal Properties of f-Electron Systems. G. Oomi, H. Fujii, and T. Fujita, Eds. Plenum, New York, 1993. x, 311 pp., illus. \$89.50. From a workshop, Hiroshima, Japan, Aug. 1992.

Understanding Aphasia. Harold Goodglass. Academic, San Diego, CA, 1993. xii, 297 pp., illus. \$54.95. Foundations of Neuropsychology.

The Unnatural Nature of Science. Lewis Wolpert. Faber and Faber, London, 1993. xiv, 191 pp. Paper, £6.99. Reprint, 1992 ed.

The Virtual Community. Homesteading on the Electronic Frontier. Howard Rheingold. Addison-Wesley, Reading, MA, 1993. x, 325 pp. \$22.95.

Visual BASIC for DOS. Building Scientific and Technical Applications. James W. Cooper. Wiley, New York, 1993. xxii, 401 pp., illus. Paper, \$34.95.

We Have Never Been Modern. Bruno Latour. Harvard University Press, Cambridge, MA, 1993. x, 157 pp., illus. \$29.95; paper, \$12.95. Translated from the French edition (1991) by Catherine Porter.

Weed Seeds of the Great Plains. A Handbook for Identification. Linda W. Davis. Published for the Cooperative Extension Service, Kansas State University by University Press of Kansas, Lawrence, 1993. vi, 145 pp., illus., + plates. \$25. Agricultural Experiment Station contribution no. 92-125-B.

Who Speaks for Tokyo Bay? Blair T. Bower and Katsuki Takao, Eds. Balkema, Brookfield, VT, 1993. xiv, 141 pp., illus. \$55 or Dfl. 95. Coastal Waters Series, 3.

Why Zebras Don't Get Ulcers. A Guide to Stress, Stress-Related Diseases, and Coping. Robert M. Sapolsky. Freeman, New York, 1993. xiv, 368 pp., illus. \$21.95.

World of Fairs. The Century-of-Progress Expositions. Robert W. Rydell. University of Chicago Press, Chicago, 1993. x, 269 pp., illus. \$49.95; paper, \$16.95.

The World of the Celts. Simon James. Thames and Hudson, New York, 1993 (distributor, Norton, New York). 192 pp., illus. \$29.95.