ance a demanding research program with extended trips to Europe and active participation in Hollywood social life? Why was he so conservative in interpreting his observations concerning the recession of distant galaxies? What is the real story of his relations with his scientific colleagues at Mount Wilson and elsewhere?

If we do not get answers to these questions, we can at least ask for Christianson's moral assessment of Hubble. Does the author condone Hubble's behavior when he retained a public relations agent to enhance his image in the popular press in hopes of gaining a Nobel Prize or in giving credence to the tale of a German submarine slipping up the Chesapeake Bay under orders from Hitler to liquidate Hubble and destroy the Aberdeen Proving Ground, where the astronomer worked during World War II? The successful biographer interprets and explains; often-credulous reportage is simply not enough.

Christianson has collected many facts and faithfully reproduced the portrait that Edwin and Grace planned, but the results are distressing. Perhaps the carefully constructed persona has miscarried. Perhaps the arrogant anglophile in tweeds with his Hollywood friends is not the Hubble history should remember. Somewhere in this mo-



Vignettes: Illiterature

My aunt belonged to the generation of educated people which took it for granted that scientists were essentially uneducated, as well as barely literate. (I would not deny that a brief scan of professional scientific journals is likely to confirm her view, but how did she know?)

—John Postgate, in The Outer Reaches of Life (Cambridge University Press)

Scientists nowadays rarely know how to read seriously. They are accustomed to strip-mining a paper to get the facts out and then moving on, not to mollycoddling the thing in search of nuances; there probably aren't any.

—David Gelernter, in How Things Are: A Tool Kit for the Mind (John Brockman and Katinka Matson, Eds.; Morrow)

rass of frequently unsavory facts is hidden one of the century's most important astronomers. Whether Hubble was a great scientist in spite of himself remains an open question. At all events, he deserves better.

John Lankford Office of the Provost and Department of History, Kansas State University, Manhattan, KS 66506, USA

Books Received

Abductive Inference. Computation, Philosophy, Technology. John R. Josephson and Susan G. Josephson, Eds. Cambridge University Press, New York, 1994. viii, 306 pp., illus. \$49.95.

The Academy in Crisis. The Political Economy of High-Education. John W. Sommer, Ed. Transaction, New Brunswick, NJ, 1995. xiv, 329 pp. \$34.95; paper, \$19.95.

Basic Medical Microbiology. Robert F. Boyd. 5th ed. Little Brown, New York, 1995. xvi, 642 pp., illus., plates. \$53.95.

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The Beast. A Reckoning with Depression. Tracy Thompson. Putnam, New York, 1995. x, 291 pp. \$23.95.

Close Encounters of the Fourth Kind. Alien Abduction, UFOs, and the Conference at M.I.T. C. D. B. Bryan. Knopf, New York, 1995. xii, 477 pp. \$25.

Diet and Cancer. Molecular Mechanisms of Interactions. Edited under the auspices of the American Institute for Cancer Research. Plenum, New York, 1995. xiv, 222 pp., illus. \$79.50. Advances in Experimental Medicine and Biology, vol. 375.

Differential Forms and Connections. R. W. R. Darling. Cambridge University Press, New York, 1994. x, 256 pp., illus. \$49.95; paper, \$19.95.

Elliptic Problems in Domains with Piecewise Smooth Boundaries. Sergey A. Nazarov and Boris A. Plamenevsky. De Gruyter, Hawthorne, NY, 1994. viii, 525 pp. \$148.95 or DM 278. De Gruyter Expositions in Mathematics. 13.

Extraterrestrial Intelligence. Jean Heidmann. Cambridge University Press, New York, 1995. xxiv, 235 pp. \$24.95. Translated from the French edition (Paris, 1992) by Storm Dunlop.

Facts, Values, and Methodology. A New Approach to Ethics. Wirn J. van der Steen. Rodopi, Atlanta, 1995. vi, 168 pp. Paper, \$31 or Dfl. 50. Value Inquiry Book, vol. 25.

Guide to the Birds of Alaska. Robert H. Armstrong. 4th ed. Alaska Northwest, Seattle, 1995. 324 pp., illus. Paper, \$24.95.

High Performance Computing Demystified.David Loshin. AP Professional (Academic), Cambridge, MA, 1994. xvi, 261 pp., illus. Paper, \$29.95.

Issues in Evolutionary Ethics. Paul Thompson, Ed. State University of New York Press, Albany, 1994. xii, 444 pp. \$24.95. SUNY Series in Philosophy and Biology.

LabVIEW Graphical Programming. Practical Applications in Instrumentation and Control. Gary W. Johnson. McGraw-Hill, New York, 1994. xviii, 522 pp., illus., + diskette. \$45.

MHD Structures, Waves and Turbulence in the Solar Wind. Observations and Theories. C.-Y. Tu and E. Marsch. Kluwer, Norwell, MA, 1995. iv, 210 pp., illus. 144 or £92.50 or Dfl. 225. Reprinted from Space Science Reviews, vol. 73, nos. 1-2, (1995).

The New Ecological Order. Luc Ferry. University of Chicago Press, Chicago, 1995. xxx, 159 pp. \$34.95 or Ω 27.95; paper, \$14.95 or Ω 11.95. Translated from the French edition (Paris, 1992) by Carol Volk.

Our Changing Planet. An Introduction to Earth System Science and Global Environmental Change. Fred T. Mackenzie and Judith A. Mackenzie. Prentice Hall, Englewood Cliffs, NJ, 1995. xii, 387 pp., illus. Paper, \$29.33.

Passionate Hobby. Rudolf Frederick Haffenreffer and the King Philip Museum. Shepard Krech III, Ed. Haffenreffer Museum of Anthropology, Brown University, Bristol, RI, 1994 (distributor, University of Washington Press, Seattle). 192 pp., illus. Paper, \$25. Studies in Anthropology and Material Culture, vol. 6.

Physics of Neutron Stars. A. M. Kaminker, Ed. Nova, Commack, NY, 1995. viii, 282 pp., illus. \$97.

Quasicrystals and Geometry. Marjorie Senechal. Cambridge University Press, New York, 1995. xvi, 286 pp., illus. \$59.95.

Renormalization Group. Giuseppe Benfatto and Giovanni Gallavotti. Princeton University Press, Princeton, NJ, 1995. viii, 143 pp., illus. \$35 or £25; paper, \$14.95 or £11.95. Physics Notes, 1.

Switching, Protection and Distribution in Low-Voltage Networks. Handbook with Selection Criteria and Planning Guidelines for Switchgear, Switchboards and Distribution Systems. Siemens Aktiengesellschaft, Ed. 2nd ed. Publicis MCD, Erlangen, Germany, 1994 (U.S. distributor, VCH, New York). 659 pp., illus. \$55. Translated from the German edition by Jan Dommisse.

Territory, Time and State. The Archaeological Development of the Gubbio Basin. Caroline Malone and Simon Stoddart, Eds. Cambridge University Press, New York, 1994. xii, 232 pp., illus., + maps. \$100.

Trends in Optical Fibre Metrology and Standards. Olivéiro D. D. Soares, Eds. Kluwer, Norwell, MA, 1995. xxxii, 850 pp., illus. \$317 or \$203 or Dfl. 495. NATO ASI Series E, vol. 285. From an institute, Viana do Castelo, Portugal, June-July 1994.

User-Friendly Workbook and ASP Tutorial to Accompany Statistics. Concepts and Applications. Harry Frank and Steven C. Althoen. Cambridge University Press, New York, 1994. xii, 239 pp. + diskette. Paper, \$19.95.

The Vanishing Universe. Adverse Environmental Impacts on Astronomy. Derek McNally, Ed. Cambridge University Press, New York, 1994. xxiv, 184 pp., illus. \$79.95. From a conference, Paris, June-July 1992.

What Is Life? Lynn Margulis and Dorion Sagan. Simon and Schuster, New York, 1995. 208 pp., illus. \$40.

A Year in the Maine Woods. Bernd Heinrich. Addison-Wesley, Reading, MA, 1994. x, 259 pp., illus. \$22.

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.

Cambridge University Press, 110 Midland Ave., Port Chester, NY 10573–4930. Phone: 800-872-7423; 914-937-9600. Fax: 914-937-4712.

Farrar, Straus and Giroux, Inc., 19 Union Sq. W., New York, NY 10003. Phone: 800-788-6262; 212-741-6900. Fax: 212-463-0641.

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