



Books and Multimedia Reviews

Meteorites: Their Impact on Science and History edited by Brigitte Zanda and Monica Rotaru. Cambridge University Press, Cambridge, United Kingdom, 2001, 128 pp., \$18.95 (ISBN 0-521-79940-6).

This is a very nice popular science book on planetary science that bravely encompasses many of the more complex aspects of planetary science, including short-lived radionuclides, exposure ages and nucleosynthesis, all in a remarkably well-presented manner. First published in French as *Les Météorites!*, it has now been translated into English by Roger Hewins. The translation is unusually good and, apart from the occasional odd phrasing, it is very readable.

The book is well illustrated with many magnificent pictures and diagrams. The illustrations in particular complement the text very well and make complex issues such as presolar grains, short-lived radionuclides, age dating and nucleosynthesis, understandable without compromising particularly on accuracy. This is a difficult thing to do in a popular science text aimed at a very wide readership. If you have a partner who wants to know why you spend so much of your free time, unpaid, in the laboratory, working on meteorites, then this book is a must. Even planetary scientists will find the descriptions interesting and useful. As a source for quick facts, which never seem to be at hand when you need them, and ways to explain planetary science in a concise, but accurate manner, this book is invaluable. I have, for example, already found the book useful in describing certain elements of planetary science.

Do not, however, be misled. This is not a bible of meteoritics with handy facts on everything. It is exactly what it is supposed to be, a popular description of our science requiring a relatively small level of background knowledge with appropriate examples and facts thrown in. It reminds me very much of a copy of an illustrated book of geology I had as a young boy which stimulated my fascination with the subject and left me wanting more. If you're looking for a present for a nephew, niece, or uncle and aunt for that matter, this is the book to buy.

The line up of authors that have contributed to this work is impressive. Roger Hewins has contributed a fine chapter on the solar nebula. Ernst Zinner explains presolar grains in the most easily to understand way yet and Brigitte Zanda and colleagues provide an excellent description of meteorites in general. My advice is to just flip the pages and you'll probably end up buying a copy.

Matthew Genge
Mineralogy Department
Natural History Museum
Cromwell Road
London SW7 5BD
United Kingdom



The Universe Unveiled: Instruments and Images through History edited by Bruce Stephenson, Marvin Bolt and Anna Felicity Friedman. The Adler Planetarium and Astronomy Museum, Chicago, Illinois, USA and Cambridge University Press, New York, New York, USA, 2000, 152 pp., \$29.95 hardback (ISBN 0-521-79143-X).

When I first saw the title of this book, I had the impression it would be a comprehensive volume about the history of astronomical instruments and discoveries resulting from them. It is not. Although not as catchy, perhaps a more accurate title would have been, "The Adler Planetarium Unveiled: Instruments and Images in Our Collection". This is a lovely book filled with crisp images of beautiful instruments, diagrams, and maps. It is simply more limited in scope than its title implies.

The book contains an illustrated introduction, four chapters, a short glossary, an appendix, a suggested reading list, and a reference list for the illustrations. The four chapters are subdivided into numerous two-page sections, each with its own subheading. There are no captions *per se* for the illustrations in the book. Rather, the text in each section eloquently describes the figures that appear on those two pages. Illustrations are given about twice as much space as text. Topics are not covered in excruciating detail, but they do provide a basic understanding of the instruments. Readers interested in the intricacies of using the antiquated devices in this book will need to find additional sources. The list of suggested reading will be quite useful in that respect. The appendix contains original, simple drawings of celestial mechanics and of exploded and cut-away views of instruments.

While the emphasis is clearly on devices and images from western culture, there is some discussion of products from eastern and Islamic cultures. The book concentrates on instruments and images from the middle 1400s through the

early 1800s, but references to earlier tools and techniques appear throughout the text. For the most part, the book is limited to small-scale instruments, essentially those that can be displayed easily at indoor exhibits. So large-scale instruments from the same period, such as Jantar Mantar in Jaipur and Delhi, India, are not discussed.

The organization of the book may be a bit frustrating for readers accustomed to sequential presentations. The illustrations in each section are labeled in alphabetical order, but most of the text discusses the figures in random fashion. The same is true when the text refers to figures in the appendix. For example, page 20 in the text refers to diagram G in the appendix, but appendix diagram A is not referenced until page 118. In addition, the text often refers to figures much farther ahead in

the book. It is not clear whether the arrangement of the book was intended to give it a freeform, artistic flair, or if it was just poorly organized.

Professional astronomers and planetary scientists probably would consider this volume a coffee-table book, and rightly so. It is a showcase for the Adler Planetarium collection. Even at its reasonable and affordable price, most professionals will not be quick to buy it. However, I would bet that many of these same people would be pleased to receive a copy as a gift.

Michael S. Kelley

Mail Code SR

NASA Johnson Space Center
Houston, Texas 77058, USA

The following books were received during 2001 but were not reviewed:

- The Annotated Flatland: A Romance of Many Dimensions* by E. A. Abbott. Perseus Publishing, Cambridge, Massachusetts, USA, 2001, 239 pp., \$30.00 (ISBN 0-7382-0541-9).
- Annual Review of Astronomy and Astrophysics, Vol. 38, 2000*, edited by G. Burbidge, A. Sandage, and F. H. Shu. Annual Reviews, Palo Alto, California, USA, 2000, 859 pp. (ISBN 0-8243-0938-3).
- Annual Review of Astronomy and Astrophysics, Vol. 39, 2001*, edited by G. Burbidge, A. Sandage, and F. H. Shu. Annual Reviews, Palo Alto, California, USA, 2001, 668 pp. (ISBN 0-8243-0939-1).
- Cambridge Dictionary of Astronomy* by J. Mitton. Cambridge University Press, New York, New York, USA, 2001, 443 pp., \$18.95 (ISBN 0-521-80480-9).
- The Cambridge Star Atlas, Third Edition* by W. Tirion. Cambridge University Press, Cambridge, United Kingdom, 2001, 90 pp., \$24.95 hardback (ISBN 0-521-80084-6).
- Celestial Treasury: From the Music of the Spheres to the Conquest of Space* by M. Lachize-Rey and Jean Pierre Luminet. Cambridge University Press, Cambridge, United Kingdom, 2001, 217 pp., \$59.95 hardback (ISBN 0-521-80040-4).
- The Cichlid Fishes: Nature's Grand Experiment In Evolution* by G. W. Barlow. Perseus Publishing, Cambridge, Massachusetts, USA, 2000, 335 pp., \$28.00 (ISBN 0-7382-0376-9).
- The Complete Idiots Guide to Astronomy, Second Edition* by C. De Pree and A. Axelrod. Alpha Books, Indianapolis, Indiana, USA, 2001, 431 pp., \$18.95 (ISBN 0-02-864198-1).
- Cosmic Butterflies: The Colorful Mysteries of Planetary Nebulae* by S. Kwok. Cambridge University Press, Cambridge, United Kingdom, 2001, 179 pp. (ISBN 0-521-79135-9).
- Effects of Changing Climate on Weather and Human Activities* by K. Trenberth, K. Miller, L. Mearns and S. Rhodes. University Science Books, Sausalito, California, 2000, 43 pp., \$22.00 paper (ISBN 1-891389-14-9).
- Electromagnetic Scintillation: 1. Geometrical Optics* by A. D. Wheelon. Cambridge University Press, Cambridge, United Kingdom, 2001, 455 pp., \$110.00 (ISBN 0-521-80198-2).
- Exploring the Night Sky with Binoculars, Fourth Edition* by P. Moore. Cambridge University Press, Cambridge, United Kingdom, 2000, 213 pp., \$18.95 paper (ISBN 0-521-79390-4).
- Extreme Stars: At the Edge of Creation* by J. Kaler. Cambridge University Press, Cambridge, United Kingdom, 2001, 236 pp., \$34.95 hardback (ISBN 0-521-40262-X).
- Flutterland Like Flatland Only More So* by I. Stewart. Perseus Publishing, Cambridge, Massachusetts, USA, 2001, 301 pp., \$25.00 (ISBN 0-7382-0442-0).
- The Grip of Gravity: The Quest to Understand the Laws of Motion and Gravitation* by P. Gondhalekar. Cambridge University Press, Cambridge, United Kingdom, 2001, 358 pp., \$27.95 (ISBN 0-521-80316-0).
- Life On Other Worlds: The 20th-Century Extraterrestrial Life Debate* by S. Dick. Cambridge University Press, Cambridge, United Kingdom, 1998, 290 pp., \$15.95 paper (ISBN 0-521-79912-0).
- Marking Time: The Epic Quest to Invent the Perfect Calendar* by D. Steel. John Wiley & Son's, Inc., New York, New York, USA, 2000, 422 pp., \$14.95 paper (ISBN 0-471-40421-7).
- Memoirs: A Twentieth-Century Journey in Science and Politics* by E. Teller with J. Shoolery. Perseus Publishing, Cambridge, Massachusetts, USA, 2001, 628 pp., \$35.00 hardback (ISBN 0-7382-0532-X).
- MetBase: Meteorite Data Retrieval Software* by Joern Koblitz. Fischerhude, Germany, 2000 (Bar code 23942 43016).