

**NEW!**

### Eyes on the Universe

*The Story of the Telescope*

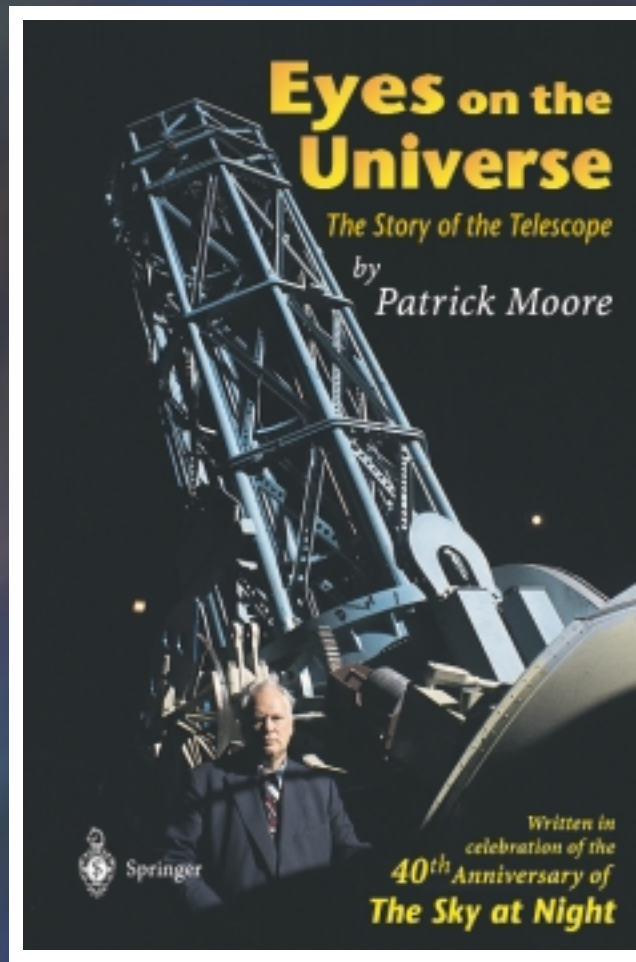
Patrick Moore

*Eyes on the Universe* tells the story of the telescope as only Patrick Moore could tell it. He describes the progress and development of astronomical telescopes, from the early beginnings made by Lippershey, Galileo – and just possibly by an Englishman called Digges – to today's Multiple Mirror Telescopes and of course, the Hubble Space Telescope.

Although astronomical telescopes have been in use for only about four hundred years, they are the chief means by which we have come to know what we do about the universe. And that is why the Story of the Telescope was the obvious choice for the 40th Anniversary programme of the BBC's *Sky at Night* presented by Patrick Moore, and for this book.

April 1997. c.128 pages. Softcover.

ISBN 3-540-76164-0. £9.95



### ■ PRACTICAL ASTRONOMY SERIES

Series Editor: **Patrick Moore**

"They all go together to make a very valuable series worth its weight in gold." **Amateur Astronomy**

"... a very accessible and modern source of astronomical information" **Journal of the British Astronomical Association**

The *Practical Astronomy* series has been put together specially for amateur astronomers who, while not yet experts, want to learn more.

All the books in the series are as non-mathematical as possible and only a modest background knowledge of science is required by the reader. By covering each topic in considerable depth and detail, the Springer *Practical Astronomy* series bridges the gap that, until now, has existed between the many introductory books and specialised technical publications available.

### Small Astronomical Observatories

*Amateur and Professional Designs and Constructions*

Editor: Patrick Moore

"This is an excellent little book... (and) can be heartily recommended to those contemplating building their own observing facilities." **The Observatory**

"I found this book delightful and hard to put down" **Institute of Physics**

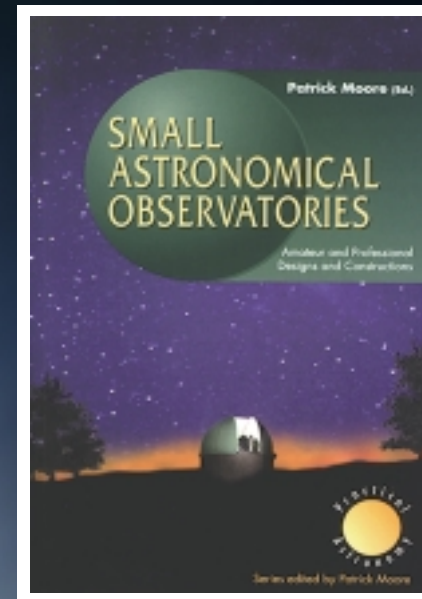
The advantages of a small permanent site for a small astronomical telescope are very clear. It is more comfortable, much quicker to bring into use, and allows you to spend your time observing and not setting up equipment.

But just how difficult is it to build a small observatory? And how much will it cost?

In *Small Astronomical Telescopes*, Patrick Moore has collected descriptions of all manner of projects from several different countries. Each chapter describes a different design – everything from run-off sheds to elaborate rotating domes. Their builders' extraordinary innovations and improvisations make fascinating, instructive, and often amusing reading.

Here is a book that contains a wealth of practical advice for anyone thinking (or dreaming) of building their own observatory.

1996. 248 pages. 216 figs. Softcover. ISBN 3-540-19913-6. £19.00



## The Modern Amateur Astronomer

Editor: Patrick Moore

Along with its companion book, *The Observational Amateur Astronomer*, this provides a comprehensive but affordable guide for amateur astronomers who want to do more than just star-gaze.

All aspects of astronomy are covered, from optical principles to astrophotography. Each chapter is written by a well-known professional or amateur astronomer, and care has been taken to put in plenty of information on each topic, but not too much. Patrick Moore has edited the book overall into his easy, readable style.

1995. 176 pages. Softcover.  
ISBN 3-540-19900-4. £15.95



## Telescopes and Techniques

C. Kitchin

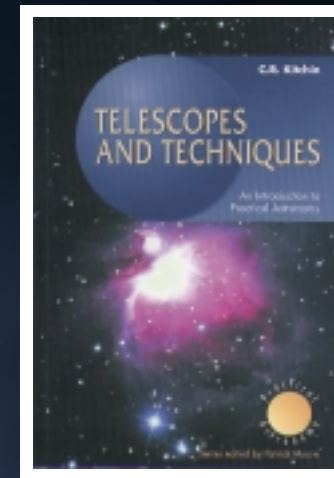
"... an excellent introduction... It will undoubtedly become a standard text."

*Astronomy Now*

Chris Kitchin has produced an easy-to-read book explaining how to use a small telescope and find your way around the sky.

Covering all the basic topics – telescopes, optics, positions and motion, observing and instruments – here is a natural introduction for anyone wanting a firm grounding in the essentials of astronomy. The book features an impeccable scientific background that has been developed from the author's long experience in teaching undergraduates.

1995. 216 pages. Softcover.  
ISBN 3-540-19898-9. £15.95



## The Observational Amateur Astronomer

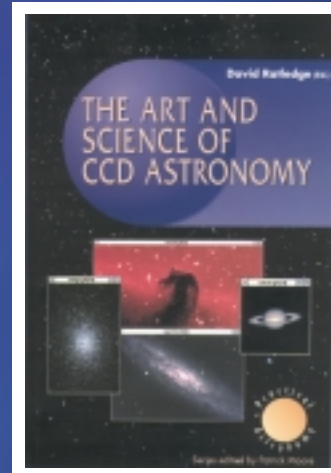
Editor: Patrick Moore

"(Patrick Moore) is to be congratulated upon producing an up to date and enjoyable guide to observational astronomy..."

*Journal of the British Astronomical Association*

This book deals entirely with serious observing, and pulls together chapters by noted professional and amateur observers, each covering a different category of object, from the Moon to deep-space. It explains how to use a small telescope for serious observing, whether from backyard, field location, or university. The ideal companion to *The Modern Amateur Astronomer*.

1995. 288 pages. Softcover.  
ISBN 3-540-19899-7. £15.95



## The Art and Science of CCD Astronomy

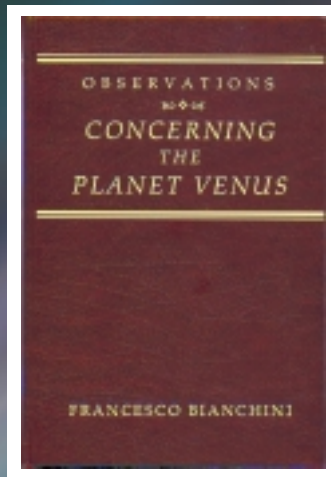
Editor: D. Ratledge

Charge-coupled Devices (CCDs) have revolutionised astronomy. Even affordable CCD cameras can be ten times as sensitive as photographic film, and they deliver a digitised image that is easy to enhance using a personal computer.

David Ratledge has brought together contributions from twelve leading amateurs from around the world, people who are routinely producing astronomical images of a quality that rivals those of professional observatories only of 10 years ago.

These experts describe their techniques and solutions, and offer essential tips and advice for anyone who is choosing or using a CCD camera. There's a Colour Gallery at the back of the book, so you can see just what can be done with amateur equipment!

1996. 192 pages. 16 page colour gallery. Softcover.  
ISBN 3-540-76103-9. £19.95



### Observations Concerning the Planet Venus

F. Bianchini  
Translated by: Sally Beaumont

From the foreword:

*"Years ago I acquired a copy of the first book ever written about the planet Venus. It was the work of Francesco Bianchini, and it was published, in Latin, more than two and a half centuries ago. Bianchini believed that he had seen lands and seas on Venus... his book is a superb piece of history.*

*(This translation) is the reverse of a dry historical document. It is a fascinating story, and one can easily transport oneself back in imagination to the time when Bianchini was setting up his strange, long-focus telescopes in the Vatican... I think it will be agreed that even if Bianchini has waited so long for a translator, he has at last been well served."*

**Patrick Moore**

1996. 176 pages. Hardcover. ISBN 3-540-19980-2. £49.00

### Meteorites

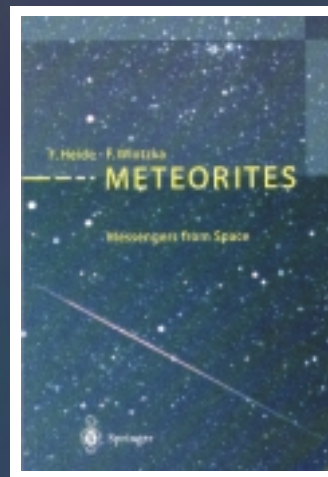
Messengers from Space  
F. Heide, W. Wlotzka

*"I personally have no doubt that this new translation of an 'old' success story will become a bestseller in its own right... (it is) easy to read and manages to keep the reader's interest focused... I enjoyed reading it and will not hesitate to recommend it to friends and undergraduate students..."*

**Meteorites**

A brief yet comprehensive book that explores the latest insights into extraterrestrial geology and mineralogy based upon what's been learned from meteorites. This book not only offers an up-to-date description of all aspects of these messengers from space – formation and origin, chemical and mineral composition, classification, and fall phenomena – but also tells the story of the formation of our planetary system.

1995. 241 pages. 111 figs. Softcover. ISBN 3-540-58105-7. £14.95



### Hubble

A New Window to the Universe  
D. Fischer, H. Duerbeck

*"... this is more than a collection of stunning glossy pictures, it is a modern astronomy book in its own right..."* **Astronomy Now**

Containing over 140 spectacular images as well as self-contained portraits of astronomers and explanations of astronomical topics and instruments, this book concentrates on the scientific achievements of this multi-billion dollar project.

The authors use new and ground-breaking Hubble results to illustrate a wide range of astronomical topics. Written in a style appealing to both the interested public and to individuals familiar with the field, this compendium serves as a testament to the significant role that the Hubble has played in astronomical accomplishment and discovery over the past five years.

1996. 176 pages. 82 photographs (71 in color). Hardcover. ISBN 0-387-94672-1. £19.50

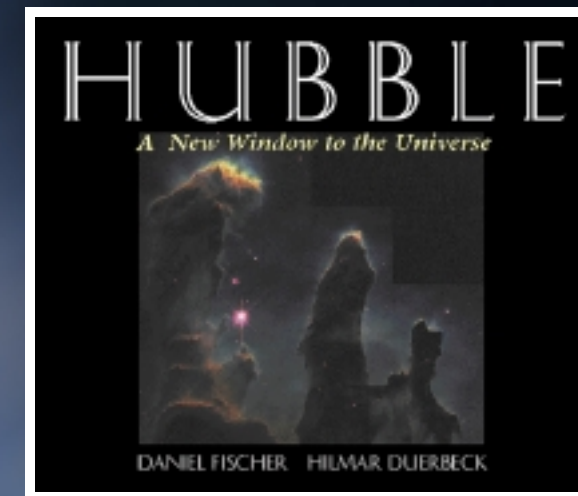
**NEW!** **Astronomy Explained**  
G. North

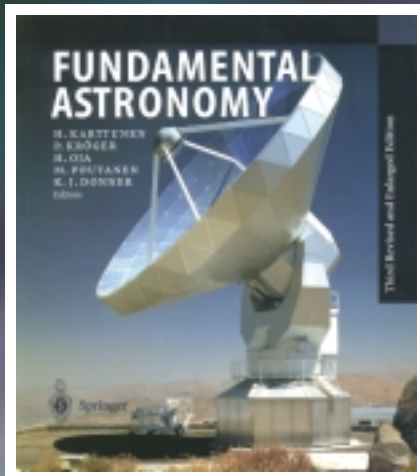
Every year large numbers of people take up the study of astronomy, mostly at amateur level. There are plenty of elementary books on the market, full of colourful photographs, but lacking in proper explanations of how and why things are as they are. Many people eventually wish to go beyond the 'coffee-table book' stage and study this fascinating subject in greater depth. This book is written for them.

Also intended for those who sit public examinations in this subject each year, the book covers all the topics from the GCSE syllabus, with sample questions at the end of each chapter.

*Astronomy Explained* provides comprehensive treatment of the subject in more depth than is usually found in elementary works, and will be of interest to both amateur astronomers and students of astronomy.

Due July 1997. c.352 pages. 161 illus. Softcover. ISBN 3-540-76136-5. £15.00





## Fundamental Astronomy

Third Edition

Editors: H. Karttunen, P. Kröger, H. Oja, M. Poutanen, K.J. Donner

From reviews of the previous editions:

*"... the wide range of expertise gives the book an authority that would be almost impossible for a single-author text... there are other aids to the reader: worked examples... starred sections in small print take the inquisitive reader beyond the general level of the book."*

**Nature**

Fully updated to reflect the rapid advances in astrophysical knowledge that have resulted from recent data, this new third edition of an enthusiastically received introductory text presents a thorough, calculus-based development of the basics of astronomy. It is also an ideal reference for the advanced amateur astronomer.

1996. 536 pages. 402 figs. (106 in colour). Softcover.

ISBN 3-540-60936-9. £38.00

## Sun, Earth & Sky

K. Lang

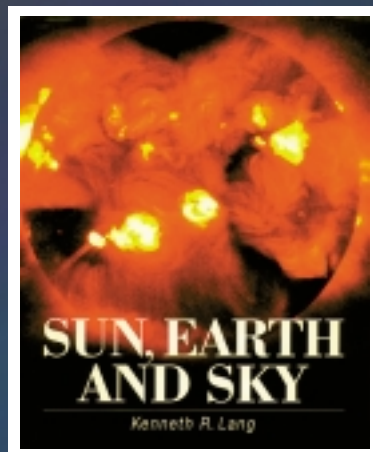
*"Kenneth Lang... has written a jewel of a book... This is a book to buy, not borrow, because you will want to return to it."*

**Simon Minton, Journal of the British Astronomical Association**

A lavishly illustrated book that introduces the Sun, its physics, and its impact on life here on Earth. Using the most recent results, Kenneth Lang describes all aspects of the Sun and its interaction with us. Written in a light and friendly style, this is a delightful book for all who wish to understand the latest discoveries about the Sun. It would also make an ideal gift for all students of astronomy and related disciplines as well as for amateur astronomers.

1995. 282 pages. 133 illus. 61 in color. Hardcover.

ISBN 3-540-58778-0. £25.00



## A History of Astronomy

D. Leverington

*"... the end product is a most useful and enjoyable book."*

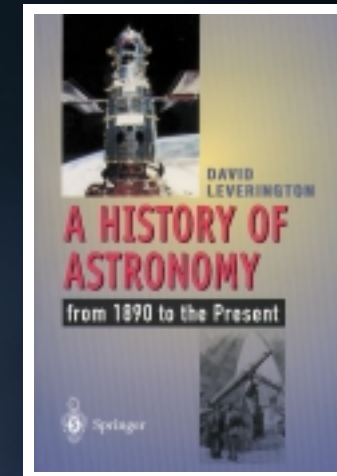
**New Scientist**

During the last hundred years our knowledge of the universe has increased explosively. The systematic use of photography and spectroscopy, followed by the building of more, bigger, and better telescopes, provided a flood of data, and the radical new theories of Einstein, Planck and Heisenberg changed our most fundamental concepts of the nature of the universe.

This fascinating but scholarly book charts the progress of astronomy's most exciting century.

1995. 400 pages. Softcover.

ISBN 3-540-19915-2. £19.50



## Compendium of Practical Astronomy

G.D. Roth

This revised and enlarged English version of the fourth edition of Roth's famous handbook comprises three volumes and is written for amateur astronomers and both students and teachers, covering the length and breadth of practical astronomy.

**Volume 1**

**Instrumentation and Reduction Techniques**

1994. 564 pages. 153 figs. Softcover.  
ISBN 3-540-53596-9. £42.50

**Volume 2**

**Earth and Solar Systems**

1994. 383 pages. 181 figs. Softcover.  
ISBN 3-540-54885-8. £28.00

**Volume 3**

**Stars and Stellar Systems**

1994. 340 pages. 128 figs. Softcover.  
ISBN 3-540-54886-6. £28.00

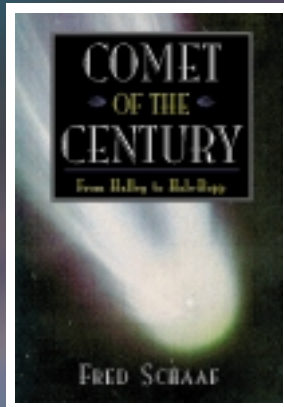
**3 Volume Set**

1994. Softcover.  
ISBN 3-540-56273-7. £85.50



## Comet of the Century

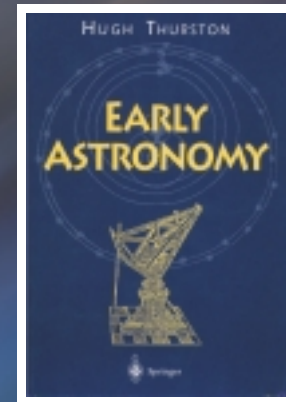
From Hally to Hale-Bopp  
Fred Schaaf



The twentieth century has been a disappointment, comet-wise, but Comet Hale Bopp bears a striking resemblance to the Great Comet of 1811, the biggest-headed and most enduringly visible comet ever known. Is Hale-Bopp our Comet of the Century?

Timed to coincide with Hale-Bopp's first naked eye appearance in the evening sky, the renowned astronomy writer Fred Schaaf offers a delightful history of all the greatest comets ever recorded – the astonishing lore, and the even more astonishing science.

1996. 399 pages. 45 illus. Softcover.  
ISBN 3-540-94793-0. £21.00



## Early Astronomy

H. Thurston

The earliest investigations that can be called scientific are concerned with the sky; they are the beginnings of astronomy. Many early civilizations produced astronomical texts, and several cultures that left no written records left monuments and artefacts ranging from rock paintings to Stonehenge.

This book covers the history of astronomy from its earliest beginnings to this point which marks the beginning of modern instrumental and mathematical astronomy, the work of earlier astronomy's, of all civilizations, remains as a triumph of the human intellect.

1996. 276 pages. 139 illus. Softcover.  
ISBN 0-387-94822-8. £21.00



## Unveiling the Universe

An Introduction to Astronomy  
J.E. Van Zyl

"It soon becomes apparent that one of the main appeals of this book – apart from its sheer readability – is that although each subject is dealt with concisely, the range of topics within each area is wide. 'Unveiling the Universe'... is well worth buying." *Popular Astronomy*

A large format book with many colour illustrations that includes material on almost every aspect of astronomy, beginning from first principles. Unique in its ability in providing a level of scientific accuracy and detail found in no other introductory book, the book features a wealth of material on instruments, space exploration and cosmology. It is encyclopaedic in its breadth of coverage, yet still contains detailed explanations of the underlying theories.

Accompanied by numerous illustrations, the clear and concise text provides the reader with a fascinating, easy-to-read description of the fundamentals of astronomy.

1996. 337 pages. 383 illus. (45 in colour).  
Hardcover. ISBN 3-540-76023-7. £29.00

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