

BOOK REVIEWS

Observing and Cataloguing Nebulae and Star Clusters. From Herschel to Dreyer's New General Catalogue, by Wolfgang Steinicke (Cambridge, Cambridge University Press, 2010), pp. 648, 359 illustrations. ISBN 978-0-521-19267-5 (hard cover), 248 x 192 mm, £90.00.

This is the slightly revised English edition of W. Steinicke's German thesis, reviewed in *JAH*² 12(3), p. 255 (2009). With the text arranged in two columns, and the use of a slightly larger font size, this fundamental investigation of the prehistory, genesis and content of Dreyer's *New General Catalogue* makes a much more agreeable read than the German print-on-demand book. With 359 figures, among them many portraits of nowadays little-known astronomers and contemporary sketches of objects, 238 tables and 1628 references, this will remain the standard reference work in the field. An appendix gives a timeline of major events, from Messier's 1781 catalogue up to Dreyer's and Bigourdan's studies in the early twentieth century. This is followed by a long table with technical data on telescopes employed for nebular work, arranged by site. The final 28 pages contain indexes of names, sites, objects and subjects. The numerous citations, kept in their original language in the German edition, are now all translated into English, but scholars can always turn to the properly-referenced original sources.

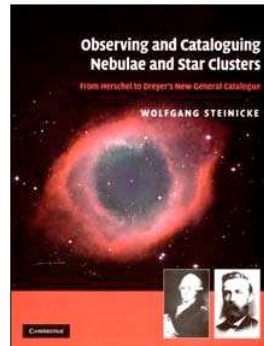
With this labour of love, Steinicke has provided an invaluable service to historians of astronomy and deep sky observers.

Professor Hilmar W. Duerbeck

History of Astronomy in Finland 1828 - 1918, by Raimo Lehti and Tapio Markkanen (Sastamala, Societas Scientiarum Fennica, 2010), pp. 269, 40 b&w and 38 colour figures, ISBN 978-951-653-379-0 (soft cover), 150 x 235 mm, €28.

This book is part of the series *The History of Learning and Science in Finland 1828 - 1918*, and represents the first major account on this topic written in English.

The reader should not take the above time interval too seriously: the first 100 pages describe learning in the Middle Ages, Maupertuis' degree measurement in the eighteenth century, the rise of the Abo Academy, the



installation of an observatory there and the appointment of Friedrich Argelander as its Director. The infamous Abo (Turku) town fire of 1827 put an end to these activities. The decision to build a new university in Helsinki, and the close collaboration of Argelander with its architect, Carl Ludwig Engel, led to the construction of a new observatory, finished in 1834, which would be a model for other ones like Pulkovo.

The next 100 pages trace the activities of the Helsinki Observatory Directors Argelander, Lundahl, Woldstedt, Lindelöf, and the more famous Adalbert Krueger and Anders Donner, who were responsible for the Finnish share of the *Astronomische Gesellschaft* and *Carte du Ciel* sky surveys. Special chapters are dedicated to Hugo Gylden and Karl Frithiof Sundman, two specialists in celestial mechanics. The final two dozen pages trace the history of Finnish astronomy to the present. Memberships in the European Space Agency (1985) and the European Southern Observatory (2004), as well as the joint project of a Nordic Optical Telescope (NOT) on the Canary Islands are modern examples of the international collaboration that has always influenced the course of Finnish astronomy.

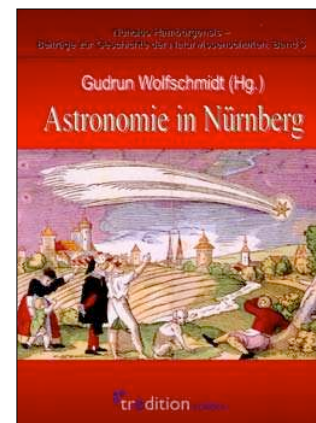
This book is highly recommended as a concise overview of the important astronomical contributions made by Finland.

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Astronomie in Nürnberg, edited by Gudrun Wolfschmidt (Tredition Science, Hamburg 2010), pp. 388, many color and b&w illustrations, ISBN 978-3-86850-609-9, 175 x 227 mm, €49.90.

This book includes 14 papers given at a conference held in Nuremberg in early 2005, commemorating the 500th anniversary of Bernhard Walther's death, and the 300th of that of Georg Christian Eimmart.

The first third of this book contains an overview paper by the editor, focussing on the instruments (including globes and atlases) used and built by Nuremberg artisans and astronomers from about AD 1450 to 1850. The next two papers deal with Johannes Regiomontanus and Bernhard Walther: Uta Lindgren investigates the impact of Regiomontanus' ephemerides on the discovery of America, and Richard Kremer elucidates the question of whether Walther was not only an excellent observer but also a theoretician who intended to use the observations for an improvement of planetary



tables. Two shorter papers deal with Nuremberg calendar-makers and solar eclipses seen from the city. A paper by Hans Gaab focuses on the history of the first permanent observatory, installed by the mathematician, astronomer and engraver Georg Christoph Eimmart in 1678, up to its closure about 85 years later.

Eimmart, his observatory and his assistants and successors are also the focus of the following papers: Doris Gerstl describes Eimmart's activities as an artist (copper engraver); Inge Keil gives a brief overview of Eimmart's estate of letters and papers kept at the St. Petersburg National Library; and Ronald Stoyan discusses the lunar maps of Eimmart, his daughter Maria Clara Eimmart and Tobias Mayer. Reinhard Schielicke discusses Erhard Weigel, his teachings, inventions and instruments, and Antal Adrás Deak describes the activities of Eimmart's student Johann Christoph Müller, an early Hungarian cartographer. Three more of Eimmart's assistants, Johann Philipp von Wurzelbau, Johann Leonhard Rost and Johann Gabriel Doppelmayr, are the topic of papers by Willi Deinzer, Hans Gaab and Olaf Simon, and Siegfried Kett.

All papers are in German. Due to the long digestion of the conference papers, some have been superseded in the meantime, while others are just short versions of previous publications. Eimmart's estate has been inspected in more detail in the meantime (see http://www.naa.net/ain/personen/eimmart_nachlass.asp), and more detailed biographies of Wurzelbau were given by Hans Gaab in the *Beiträge zur Astronomiegeschichte* series in recent years. Nevertheless, this is a good overview of the astronomical activities in this important German town.

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Johann Bayer: Uranometria 1603, edited by Ulrich Schaake and Winfried Berberich (Gerchsheim, Kunstschatzerverlag, 2010), 51 tables and text pages, unpaginated, ISBN 978-3-934223-35-6, 340 x 450 mm; **Die Himmelsvermessung des Johannes Bayer**, by Jürgen Hamel (Gerchsheim, Kunstschatzerverlag, 2010), pp. 176, ISBN 978-3-934223-36-3, 210 x 290 mm; the set: ISBN 978-3-934223-37-0, €178.00.

This set contains a reprint of Bayer's famous star atlas *Uranometria*, first published in Augsburg in 1603—the atlas in which the stars were marked with Greek letters for the first time. In addition, there is an extensive explanatory book (in German) by astronomy historian Jürgen Hamel, in which he describes the development of star maps before and after Bayer, tries to elucidate the little we know about Johannes Bayer, and adds some



explanatory information on the constellation maps—mainly taken from the 1720 German edition of the Bayer text. It also contains translations of the original introductory texts and dedicationary poems in Latin and Greek of Bayer's *Uranometria*.

Besides a small-size, medium-quality pocket edition of the Bayer atlas from the copy in the state and city library of Augsburg, which appeared in 1981 in West Germany, there exists the impressive large-size Archival Facsimiles Limited (England) reprinted in 1987. So, is there a need for a new edition? Most likely, although I would say that, at a time when thousands of old astronomical books are available as scanned copies in good quality (sometimes even in colour), such editions become more and more collectors' items.

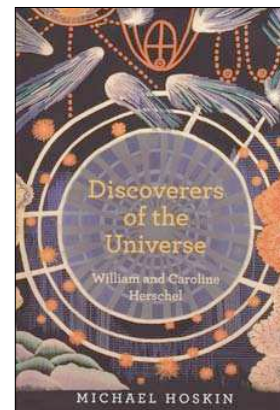
The reproduction presented here is, contrary to the 1987 edition, a halftone print that better shows the delicate constellation figures, star symbols, and outlines of the Milky Way. In the 1603 edition, the plate descriptions were printed on the reverse of the plates, and in this way would faintly show up as mirror images on the plates. For this reason, the originals of the constellation plates were taken from the University of Heidelberg Library copy of the 1648 edition (where the backs of the pages are blank). However, the Heidelberg copy shows some slightly-disturbing marginal notes and lines by a previous owner. The text facsimiles were taken from the 1603 edition, kept at the Linda Hall Library in Kansas City, USA (see also <http://www.lindahall.org/services/digital/ebooks/bayer/about.shtml>).

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Discoverers of the Universe. William and Caroline Herschel, by Michael Hoskin (Princeton, Princeton University Press, 2011), pp. xviii+237, ISBN 978-0-691-14833-5, 160 x 240 mm; UA\$29:95.

Michael Hoskin is undoubtedly the maestro of the Herschels. Over the decades, he has entertained us with a succession of books and research papers that mainly relate to William and Caroline, so I have to admit that the thought of reading yet another tome on these famous discoverers of the Universe did not exactly fill me with joy.

However, I was in for a pleasant surprise, as this new book is not only very well written but it also reads like a novel, not an academic text—though in this instance fact is often stranger than fiction! Having been bombarded over the years with details of William's telescopes, his celestial observations and those of sister Caroline, and their collective invaluable contributions to astronomy, it is fascinating to read a book that sketches out the personalities and the human



dramas behind these ‘key players’, as well as William’s son, John. In the process we also learn about William’s father; the gradual conversion of William from musician to astronomer (including “Hobnobbing with Royalty”); the valuable role that Alexander played in brother William’s early telescope-making exploits; how Caroline was craftily ‘kidnapped’ from her over-zealous mother in Germany so that she could ‘have a life’ in England; how she also gradually turned—but perhaps a little less willingly—from a life of music to one dominated by the stars; how William increasingly exploited her following his marriage to Mary; and last, but not least, how their son, John, “... sacrificed his chosen career in Cambridge ...” in order to perform his “sacred duty” and complete his father’s lifetime work. This, of course, would lead him to South Africa.

Nonetheless, these comments should not lead you into thinking that Hoskin’s book is solely about the politics and sociology of astronomy, for it certainly is not. Among the 200 or so pages of text we also learn about William’s telescopes and the observing programs to which they were assigned by William and Caroline, William’s numerous academic publications, and John’s fields of research.

Also scattered throughout the book is a succession of figures. Some of these are taken from the original

publications, others derive from the Herschel manuscripts—which Michael Hoskin surely knows better than anyone else—and others again present the appearance of houses associated with the Herschels. There are also numerous quotations, taken from published or manuscript sources. Part way through the book is a 16-page spread containing a selection of attractive coloured plates, some of which were new to me. At the end of the book there are 11 pages of notes and references relating to the individual chapters, then a brief “Bibliographical Essay” and finally, 3.5 pages of “Further Reading”. The only surprising omission is Ruskin’s 2004 book about John Herschel’s time at the Cape.

All in all I found this ‘a great read’, and Michael Hoskin is to be congratulated for producing a volume that gives us far more than a mere scientific or technical account of the Herschels. This fascinating book deserves to be on the bookshelf of anyone with an interest in the history of astronomy.

References

Ruskin, S., 2004. *John Herschel’s Cape Voyage. Private Science, Public Imagination and the Ambitions of Empire*. Aldershot, Ashgate.

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