



Observing and cataloguing nebulae and star clusters

From Herschel to Dreyer's *New General Catalogue*

by Wolfgang Steinicke

Cambridge University Press, 2010.
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£90 (hbk.)

Published by Danish-born astronomer John Dreyer in 1888, the *New General Catalogue* is the best-known catalogue of deep-sky objects, and arguably the most important, as it contains most of the nearly 8000 brightest deep-sky objects and covers both celestial hemispheres. Although the NGC was drawn up by Dreyer, it was in fact a synthesis of the work of many observers, going back to the great celestial surveys of William Herschel a century before.

Steinicke's book aims to tell the complete story of how the clusters and nebulae of the NGC were discovered and classified, or sometimes misclassified. Steinicke is a highly experienced visual deep-sky observer, Director of the Nebulae and Clusters Section of the Webb Deep-Sky Society and an accomplished historian of deep-sky astronomy. This book is the result of many years' research and is based on a PhD thesis that Steinicke successfully submitted to Hamburg University.

The coverage of Steinicke's book is remarkable for both its breadth and depth. We read not only of the great figures whose discoveries became part of the NGC, such as the Herschels and Lord Rosse, but also of many lesser-known observers who did important work. There is also detailed treatment of the arguments that raged as to the nature of the nebulae – were they gaseous objects or unresolved star clusters? – and on the reality of some nebulae and the features within them. There are extensive references, not only to the writings of the nineteenth-century astronomers themselves, but also to secondary sources by modern science historians.

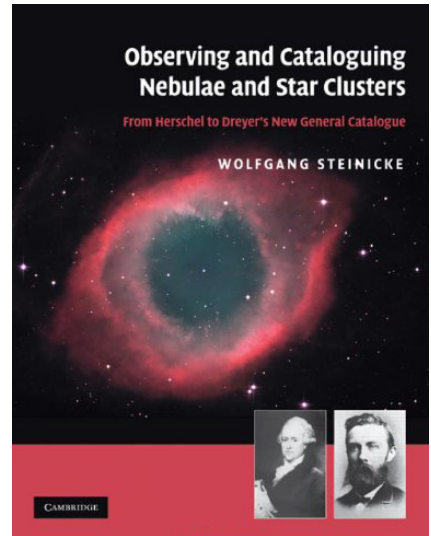
Steinicke's text is backed up by extensive – some would say exhaustive – tables giving statistics on the objects covered, as well as many illustrations. With more than 600 pages and a small typeface, this is not a book for use at the telescope, nor one to be read from cover to cover. Rather, it is an essential reference work for the serious deep-sky observer or historian. It is also a delightful book to dip into on cloudy evenings, as it abounds with compact biographies of many of the astronomers, complete with their portraits.

One way in which the book could have been improved is that it would have benefited from a better translation from the German – as it stands, the prose does not always flow

naturally. But this is a minor quibble in an otherwise superb piece of work, which is mostly very accurate apart from a few typographical errors. If Dreyer's NGC was the supreme summation of nineteenth-century visual observations of non-stellar objects, Steinicke's book has done the same for the history of nebular astronomy in this period. I heartily recommend it to all serious deep-sky observers and historians of astronomy.

Lee Macdonald

Long-time BAA member Lee Macdonald is editor of *The Deep-Sky Observer*, the journal of the Webb Deep-Sky Society, and has a Master's degree in History and Philosophy of Science from Cambridge University.



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