

John Herschel's Cape Voyage: private science, public imagination and the ambitions of empire

by Steven Ruskin

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This book sets J. F. W. Herschel's four-year observational sojourn in southern Africa against the backdrop of the political and economic aims of the British Empire in the first half of the nineteenth century. Ruskin successfully brings to bear a wealth of historical and social information that casts new light on John Herschel's observational tour de force, and places an important astronomical event in its human and sociopolitical context.

The first part of the book deals with the preparations and motivations for the Cape voyage. The second part examines the important question of how the results of the Cape expedition were published and distributed. Finally, the author discusses Herschel's rise in status as a national icon after his return from the Cape.

Herschel's principal reason for embarking on the journey had more to do with romantic aspirations to a Humboldtian-style scientific expedition than with a sense of filial obligation to complete the survey of the entire heavens initiated in the northern hemisphere by his father, Sir William. I think, however, that Ruskin fails to give sufficient emphasis to possible scientific reasons for Herschel's refusal of Admiralty patronage of the expedition. Astronomy as practised at the Royal

Observatories was at the time largely dedicated to positional work and celestial mechanics. Star counts, introduced by the elder Herschel, not only did not form part of official observing programmes but were positively frowned upon, as were attempts to examine the physics of celestial phenomena. By keeping the project on a private basis, Herschel was free to extend his father's demographic survey of the Milky Way to the southern hemisphere.

How results are published is an important aspect of the history and sociology of science. We learn here how a donation of £1000 by Hugh Percy, third Duke of Northumberland, enabled Herschel to publish the results together in a limited-edition book, rather than have them dispersed in sundry volumes of astronomical journals.

A brief but accurate description is given of how Herschel carried out his survey of the southern sky, and I found the description of Herschel's 'imaging' technique illuminating (he traced the image cast on a screen by a totally



John Herschel. From the *Illustrated London News*, June 1845

reflecting prism – an apparatus known as a camera lucida – with the result that his drawings of nebulae need to be viewed in a mirror to become recognisable). Astronomers will no doubt find the astronomical content of the book rather slender, but that does not detract from its worth as a useful contribution to the social history of astronomy, a new but long overdue field of historical research. Ruskin's ample discussion of the background to the publication of the Cape results is also a useful contribution to astro-

nomical bibliography.

Although this volume is aimed primarily at historians of science, all astronomers with an interest in the historical background of their subject will learn much from this informative account of one of the greatest contributions to observational astronomy.

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