An interpreter of early astrophysics


Agnes Mary Clerke (1842–1907) was a remarkable Victorian. She was born a generation too soon to have been eligible for the women’s university colleges, and never worked in fundamental astronomical research in her own right, but by the time of her death she was one of the most respected interpreters of the “new astronomy” of astrophysics in the world. I use the word interpreter in clear contrast with popularizer, for like Mary Somerville, her predecessor in that tradition, whose “mantle” Dr Brück sees her as inheriting, Agnes Clerke worked at the highest intellectual level. Her System of the Stars (1890) can be seen in many ways as an up-to-date version of Mary Somerville’s Connexion of the Physical Sciences (1834), and when Agnes Clerke used the word “popu-
their predecessors. But there again, one would not expect it from the author, whose mastery of plain English makes her work a delight to read. It is thoroughly referenced, making it possible to identify the sources consulted, while the six-page appendix reprints extracts from some of Agnes Clerk’s published papers, thus giving the reader a sense of her prose style.

My only wish is that Dr Brück could have said a little bit more about the financial aspects of Agnes Clerke’s career – assuming that the document exists. As one who is interested in how Victorian “Grand Amateur” astronomy was paid for, I would have liked to know more about Agnes’s earning capacity. What did she get paid for an article in the Edinburgh Review or the Encyclopaedia Britannica? What did her extremely successful books bring in in cash terms? It is clear, for example – as one might expect from a woman descended from bankers, lawyers and successful entrepreneurs on both sides – that Agnes was not unaware of the potential profitability of her books from the way in which she tried, in an age without international copyright law, to make sure that her British-published books were not pirated by unscrupulous American publishing houses.

But this is an incidental point. What really matters is that Dr Brück has brought Agnes Clerke before us as a truly remarkable Victorian. And from the range of Agnes’s erudition and from the nature of her individual character and temperament, Dr Brück has made us think again about many aspects of Victorian culture: about “non-feminist” intellectual women, about Ireland, about science and Roman Catholicism, and about that revolution in astrophysics upon which modern astronomy is based, which Agnes Clerke was the first to chronicle. Allan Chapman.

Books received

Reissues and new looks

The second half of this year has seen a bumper crop of books arriving in the A&G office. There’s a range from the most straightforward of reference books to the beauties of Hubble Space Telescope images. I’ll mention just a few. A gem among them is a revised edition of Steven Weinberg’s The Discovery of Subatomic Particles (Cambridge University Press, 2003, £18.95, pbk). The first edition of this book came out in 1983, as part of the Scientific American Library. In that classic work, Weinberg set out the discoveries of modern physics in context, describing the discoveries in the past that set the scene for today’s fundamental science. In this revision he re-emphasizes the links between ancient and modern (in physics terms), and brings his treatment bang up to date. Although the focus of this book is on elementary particles, what it provides is a lively, personal and authoritative account of the way scientists found out about matter: what it is made of and how it behaves, at the most fundamental level. Thus is the basis of much of modern physics and chemistry, and so it contains the foundations of modern astronomy and geophysics. Weinberg draws together the lives of the scientists who took significant steps forward, with succinct accounts of what it was they achieved, and how the scientific culture of the times influenced both their work and its reception. It is a very good read, combining lively...