books

The younger Herschel: More than an astronomer

The Shadow of the Telescope

By Günter Buttmann 219 pp. Scribners, New York, 1970. \$7.95

Reviewed by Stephen Goldfarb

Sir John Herschel is one of those individuals whose reputation during his lifetime (1792-1871) has failed to outlive him. The high esteem in which his contemporaries held him is probably a more accurate assessment than is today's neglect. Probably the reason Herschel's fame has not endured is due to his failure to make a dramatic discovery or to inspire a band of disciples to carry on the work in his name. In addition, when one hears the name "Herschel" today, reference is usually being made to John's famous father William, whose discovery of Uranus and his subsequent founding of sidereal astronomy made him the most famous English astronomer of his day, as well as an important figure in the history of astronomy. Whereas William Herschel has been the object of several biographies and his scientific papers have been widely studied, the son was the object of no full-scale biography until the publication in 1965 of Günter Buttmann's John Herschel, Lebensbild eines Naturforschers The volume under review here is a slightly altered and edited translation of the Buttmann biography.

The portrait that comes through Buttmann's pages is of an engaging personality who, though a frail child and always prone to illness, lived a long and fulfilling life. Both Herschel's happy domestic life, complete with a loving, indulgent wife and twelve children, and his scientific career, which won for him the esteem of his contemporaries, are described. In the chapters on Herschel's scientific investigations, the author gives the 20th-century reader a detailed account of a very productive and wide-ranging mind. His significant contributions to mathematics, physical optics, chemistry (including photography) and his inherited field, astronomy, are adequately covered in chapters that are neatly woven together with the chapters on his personal life. But Buttmann is less comprehensive with Herschel's public career, especially in the area of the politics of science. The most glaring omission is the total neglect of Herschel's role as the scientists' candidate for the presidency of the Royal Society in the famous revolt of the scientists of 1830. Because Herschel's defeat led to the establishment of the British Association, this episode is an important event in the professionalization of science.

Buttmann's book falls somewhere between a popular and scholarly work. The nonspecialist will find it attractive and readable with well produced illustrations. Though Buttmann has used the full scholarly apparatus of footnotes, and has appended a valuable bibliography, the historian of science will be less pleased with this volume. In all but a few cases Buttmann has stayed painfully close to the printed papers, and the manuscript materials the author chose to use deal almost exclusively with Herschel's personal life rather than with his scientific career. The author has not availed himself of the latest trends in the history of science, as he has made only a minimal attempt to place Herschel into the scientific milieu in which he lived.

In spite of its weaknesses, however, this biography—considered only a "sketch" by the author—fills a large gap in the literature and will hopefully serve to stimulate further studies of Herschel and his era. It should also introduce many 20th-century readers to the fascinating personality of early-Victorian England's most famous scientist.

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Barlow's Tables

L. J. Comrie, ed.
Barnes and Noble, New York, 1970.
\$3.25

Not every scientific and technical publisher has a book on his list with a pedigree going back to 1814. Peter Barlow,

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JOHN HERSCHEL

of the Royal Military Academy, Woolwich (near London), sent his tables of squares, cubes, square and cube roots, and reciprocals to the printers in that year, confident that the time involved in their preparation, the expense of publication, and the limited sale to be expected "preclude every idea of adequate remuneration." One hundred and fifty six years later the book is still available, now in the twelfth reprint of the fourth edition.

In 1930 L. J. Comrie, editor of the 3rd edition, followed Barlow himself and A. de Morgan, who prepared the 1840 edition. The current edition is also Comrie's (1941); a few tables have been added but the work is still essentially Barlow's. Even the publisher remains the same. The book is handled in its home country by E & F Spon Ltd of London, the same firm that Barlow dealt with. Spon has now been swallowed up by Associated Book Publishers Ltd, but retains its name on the book jacket. Barnes and Noble handles US distribution.

Not a history book, this volume is for