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### Rebekah Higgitt, Recreating Newton: Newtonian Biography and the Making of Nineteenth-Century History of Science (London: Pickering and Chatto, 2007)

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Rebekah Higgitt. Recreating Newton: Newtonian Biography and the Making of Nineteenth-Century History of Science . Recreating Newton: Newtonian Biography and the Making of Nineteenth-Century History of Science by Rebekah Higgitt Review by: By John Henry Isis, Vol. 100, No. 1 (March 2009), pp. 176-177 Published by: The University of Chicago Press on behalf of <u>The History of Science Society</u> Stable URL: <u>http://www.jstor.org/stable/10.1086/599676</u> Accessed: 14/01/2014 10:48

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contemporary astronomy, fast becoming astrophysics, as exerting an equally powerful influence upon the human consciousness and imagination" (p. 55). The rest of the paragraph and, indeed, the rest of the book provide strong support for this view. That said, the "equally" in "an equally powerful influence" reveals a variant of Harold Bloom's anxiety of influence, with the antagonists being not individual rival poets but "two scholarly endeavors" (p. 3) laying strong claims to a writer (Hardy) and a reader/scholar/ teacher (Gossin).

ROBERT SHELTON

**Rebekah Higgitt.** *Recreating Newton: Newtonian Biography and the Making of Nineteenth-Century History of Science.* ix + 286 pp., figs., table, app., bibl., index. London: Pickering & Chatto Publishers, 2007. \$99 (cloth).

Reading this fine and fascinating book is a salutary experience. It serves as a potent reminder of what all historians know but too often suppress-namely, the fact that our attempts to recover the past are conditioned not just by the primary sources but by the historical succession of secondary sources leading up to our own efforts. Though we fondly hope, like Leopold von Ranke, that we can simply tell how it was in the past, this book reminds us that we cannot read the original sources without being affected by the way earlier historians have already read them. In the specific case of Newton, many of the familiar biographical details that we take to be particularly revealing of his personality, or his way of working, are shown here to have been forged in contesting attempts by rival biographers to present him in a particular light. We all know that the Enlightenment image of Newton as the embodiment of the Age of Reason is a far cry from Newton the alchemist and Church historian, but this book shows how much our image of him has also been colored by his nineteenthcentury biographers.

It is important to note that Rebekah Higgitt's concern is with biographers, rather than with professional historians. Indeed, it is part of her purpose in *Recreating Newton* to suggest that the discipline of history of science had its beginnings in the attempts of various nineteenth-century writers to present their contemporary readers with an account of the life and work of Isaac Newton. All of the writers discussed were scientists or mathematicians: Jean-Baptiste Biot, David Brewster, Francis Baily, Stephen Rigaud, and Augustus De Morgan. Although Higgitt is well aware of the fact that her protagonists are

biographers (and dilettante biographers at that) and makes some acute observations about this fact, she nowhere makes any attempt to see what, if anything, practicing historians in Victorian Grub Street, or elsewhere, were making of Newton or what their reactions were to these biographical accounts. My own knowledge of nineteenth-century accounts of Newton written by nonscientists, such as it is, leads me to suppose that they all relied heavily on the scientific writers, but even after Higgitt's book the issue remains unexamined.

Higgitt argues that there were two different responses among the scientist-biographers to the all-too-human failings in Newton's personality (as revealed, for example, in his treatment of Flamsteed, his rivalries with Hooke and Leibniz, and his relationship with his niece Catherine Barton). On the one hand, there was the transcendentalist view that Newton's human failings were insignificant, because only his scientific achievement was important. On the other, there was the view that great scientists are human too and that human failings should be acknowledged but should not be allowed to detract from the achievements. Higgitt convincingly shows that the distinction is more subtle than previous commentators on Brewster (representing the first option) and De Morgan (representing the second) have recognized (earlier commentators tending to see the De Morgan emphasis on Newton's human failings as an attempt to diminish his achievement).

If such biographical discussions really did lead to the establishment of history of science as a discipline, we might expect the author at this point to argue that the transcendentalist view (where science transcends all other considerations) led to what used to be called "internalist" history of science and the scientists-are-humantoo option to a more "externalist" approach. Wisely, however, Higgitt does not attempt this. Nor does she attempt to show a historical continuity between her biographers and later, more professional, historians of science; instead, she confines herself to a more impressionistic and rhetorical exposition of her claim. The result, as I have said, is always interesting and thought provoking, and the book deserves to be read by all those with an interest in the development of the public image of science in the nineteenth century. I couldn't help feeling, however, that a focus on the relevance of these biographies to nineteenth-century science itself, rather than to a putative incipient history of science, would have been much more revealing. Higgitt has only a little to say about the way Brewster used his biographical writing to defend the beleaguered

particulate theory of light; there is only a brief discussion of the value of Newtonian fluxions in comparison with Leibnizian differentials; and the discussions of the rivalry between Baconian empiricists and theoretical physicists (as shown, for example, in Baily's presentation of the relations between Flamsteed and Newton) could have been greatly expanded. *Recreating Newton* might have been about Newtonian biography and the making of nineteenth-century science, rather than the making of the history of science. JOHN HENRY

**Michael Hoskin.** *The Herschels of Hanover.* x + 182 pp., figs., index. Cambridge: Science History Publications, 2007. \$70 (cloth).

The Herschel family produced a number of accomplished scientists: William Herschel (1738– 1822), Caroline Herschel (1750–1848), John Herschel (1792–1871), and John's son Alexander Stewart Herschel (1836–1907). *The Herschels of Hanover* traces the family history of William and Caroline, their brothers and sisters and parents. It is most informative about the social contexts of William and Caroline, but at one remove also those of John. The only son of William was in fact surrounded by family during his early years.

This useful book complements several others on William and Caroline Herschel written and edited by Michael Hoskin. In fact, it should not be viewed in isolation or its value might be missed. Hoskin's *William Herschel and the Construction of the Heavens* (Norton, 1963) is his best-known book, but his *Caroline Herschel's Autobiographies* (Science History Publications, 2003) and *The Herschel Partnership: As Viewed by Caroline* (Science History Publications, 2003) must also be seen as background to this volume.

William Herschel, an immigrant to England from Hanover, Germany, looked more toward his assimilation and establishment in his new land than he did toward his humble beginnings. Still, the possible meanings of the origins of the Herschel family have long been underappreciated. The stories of William and Caroline, especially, are too easily told to fit narratives relevant to recent narrators. More useful would be a careful inquiry into the social and political contexts of their lives in England and Germany. This book provides a hint of an outline of that inquiry.

This is not a mere genealogy, but neither does it provide a single connected tale. A simple two-page spread in the front matter (pp. vi–vii) summarizes the life histories of William and Caroline's parents and siblings. Isaac and Anna (Moritzen) Herschel, of the Magdeburg and Hanover regions, respectively, parented William and his four sisters and five brothers. Four of Caroline and William's siblings died in infancy or childhood, but the others lived to between fifty-seven and seventy-five. Caroline lived to ninety-seven and William to eighty-three. After the first chapter tells the story of Isaac and Anna, subsequent chapters focus on each of the children in turn. The chapters necessarily vary from quite short for those who died in childhood to fifty-six pages for William, thirty-two for Caroline, sixteen for Alexander, and six each for Sophia, Jacob, and Dietrich.

The most interesting chapters for me were those on Sophia (1733–1803), Jacob (1734–1792), Alexander (1745–1821), and Dietrich (1755– 1827), the oldest sister and brother and the youngest brothers who lived to adulthood, respectively. Although the chapters on the parents, William, and Caroline reveal some new aspects of their social situations, Sophia and the three brothers have not received the same attention before.

Sophia and Dietrich were William and Caroline's only siblings to produce children. Hence, John Herschel's primary paternal relatives were their children, his cousins. Sophia married into the Griesbach family from Hanover and had seven children. The four sons lived near London for much of their lives. Dietrich married a Hanover woman (Catharina Maria Reiff) and most of their children stayed in that area, although one son moved to Charleston, South Carolina, where he died of yellow fever around 1805, aged about twenty-four.

Why are these details important? They tell a broader story. The Herschel family started quite low. Caroline and William's father, Isaac, was the son of a gardener on an estate. Hoskin's book does not mention Isaac's religion, but other sources claim that he was born Jewish and converted to Christianity, while still others maintain that even Isaac's father, Abraham, was persecuted because he was a Protestant in Moravia. In any case, Isaac married Anna Moritzen, the daughter of a baker, and they raised their children in the Lutheran church. If the family had ever been Jewish, this thread was lost or severed quite early. Isaac and Anna were buried in the Gartenfriedhof, Hanover, as was Caroline. William and Caroline's nieces and nephews were baptized and confirmed. When brothers Jacob and William seemed to be neglecting the religious education of their younger brother