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seventeenth century. Precisely because experimental natural philosophy was thought incapable of becoming “scientific”, as John Locke remarked, it was more accessible to women than were some other disciplines.

As a venture into relatively unexplored territory, this book is extremely useful. Although there is still much work required in order to reconfigure the field, the need to include a wider range of activities and participants is clear. The next tasks will be to compare early modern English women with their European contemporaries, and to integrate gender history, social history, and current work in the historiography of science, as is already happening for other periods.

**David Harley**, Oxford

**Frances Willmoth** (ed.), *Flamsteed's stars: new perspectives on the life and work of the first Astronomer Royal (1646–1719)*, Woodbridge, Boydell Press in association with the National Maritime Museum, 1997, pp. xiv, 271, illus., £45.00, \$78.00 (0-85115-706-8).

Deriving from a conference on ‘Flamsteed at Greenwich’ in October 1995, this is a collection of papers of a uniformly high standard which constitutes a fitting tribute to its subject as well as an invaluable starting point for further research on Flamsteed. The rather odd title turns out to be very well chosen; instead of presenting the reader with a motley collection of articles trying to cover all aspects of the subject’s life and work, this anthology focuses fairly sharply on Flamsteed’s proprietary concern with his observations of the stars and the relevance of this to his own self-image and the image which he wished to project to the world at large. With the exceptions of Mordechai Feingold’s study of Flamsteed’s relations with the Royal Society before Newton’s presidency and Rob Iliffe’s study of Samuel Pepys’s efforts to choose a suitable teacher of navigation for the Royal Mathematical School (in which Flamsteed plays an incidental role), all the articles seem

concerned to endorse Adrian Johns’ nifty suggestion that “a dispute over what Flamsteed could *see* was at one and the same time a dispute over who Flamsteed should *be*” (p. 96).

The collection begins with a superb scene-setting account of Flamsteed’s brand of astronomy by Jim Bennett, in which we discover Flamsteed’s concern to emphasize the importance of practical observational astronomy over more theoretical cosmological concerns. The editor herself shows how Flamsteed’s personal choice of heroic astronomical predecessors, culminating in Tycho Brahe, owed much to these efforts to emphasize practical observational astronomy. Although Adrian Johns’ piece introduces Flamsteed’s concern with the theory of dioptrics, it is abundantly clear that Flamsteed’s main concern is to show that his observations are reliable. Hester Higton shows the considerable practical difficulties Flamsteed and his contemporaries had to face in setting up astronomical instruments for accurate observations, while Ian Stewart considers the various strategies which Flamsteed used to establish and assert his public identity. Alan Cook draws upon his knowledge of Edmund Halley to provide a history of the relations between Flamsteed and his eventual successor from friendly beginnings to embittered rivalry. Owen Gingerich’s short study of Flamsteed’s markings of “faults” in a copy of Halley’s first edition of Flamsteed’s star catalogue adds a fascinating footnote to Cook’s story. The collection closes, apart from an interesting account of the fortunes of Flamsteed’s Papers by Adam Perkins, Archivist to the Royal Greenwich Observatory, and a summary catalogue of the papers by Frances Willmoth, with William J Ashworth’s study of Francis Baily’s attempted rehabilitation of Flamsteed in his *Account of the Rev. John Flamsteed* of 1835. Fittingly, Ashworth shows that Baily, a leading light of the newly founded Astronomical Society of London, used Flamsteed and his emphasis on meticulous observation to assert the importance of the methodical observational agenda of the Society, at the expense of the “holy alliance”

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that had developed between Newtonianism, the Church and the State. Frances Willmoth has brought together an excellent set of papers which go a long way to establishing Flamsteed's importance for our understanding of his role in the history of astronomy. It will no doubt serve scholars well until a more multi-faceted study of Flamsteed appears.

**John Henry**, University of Edinburgh

**J Worth Estes and Billy G Smith** (eds), *A melancholy scene of devastation: the public response to the 1793 Philadelphia yellow fever epidemic*, Canton, MA, Science History Publications/USA for the College of Physicians of Philadelphia and the Library Company of Philadelphia, 1997, pp. xii, 212, illus., \$35.95 (0-88135-192-X).

During the past two decades the fear of infectious epidemic diseases has resurfaced. The appearance of AIDS as well as familiar bacterial infections that have become resistant to antibiotic therapy has undermined the post-World War II optimism that epidemic infectious diseases were under control and no longer posed a threat to humanity. Moreover, growing recognition that potentially deadly viruses from virgin areas could spread throughout the world within a matter of hours has also added to public apprehensions. Under such circumstances it is not surprising that scholars would once again begin to explore the experiences with and social responses to past epidemics.

In *A melancholy scene of devastation* a group of scholars have turned their attention to the Philadelphia yellow fever epidemic of 1793. Although the outbreak of 1793 did not have the highest mortality rate, it nevertheless has fascinated both contemporaries and subsequent scholars. Mathew Carey's *A short account of the malignant fever, lately prevalent in Philadelphia*, published in late 1793, sold over 10,000 copies, an extraordinary figure for that period. John H Powell's classic *Bring out your dead: the great plague of yellow fever in*

*Philadelphia in 1793* (1949) offered a dramatic portrait of an epidemic that resulted in perhaps 5,000 deaths and brought the mechanism of government to a virtual halt. Powell delineated a struggle between villains and heroes. The former included the disease as well as Benjamin Rush and his irrational therapeutic approach (bloodletting) that elevated theory over experience. The heroes were those members of the pragmatic middle class who took over from the nonfunctioning public authorities and ensured that vital services would be restored and care provided for the sick and dying. Powell's story was one of tragedy and redemption; in the end human heroes prevailed.

All historical interpretations, at least to a certain extent, reflect the milieu inhabited by their authors. It is not surprising that contemporary scholars choose to de-emphasize Powell's heroic themes and to offer quite different analyses. In the opening chapter J Worth Estes delineates the manner in which yellow fever was understood and treated in the context of late eighteenth-century medical humoral and solidist thinking. David Paul Nord argues that the *Federal Gazette* provided a window into the thinking of ordinary people and therefore served to reconstruct the community bonds nearly severed by the epidemic. Sally F Griffith's study of Mathew Carey's tract suggests that his tale of disaster and community redemption became a model that shaped the ways in which future Americans responded to natural disasters. Jacquelyn Miller maintains that Rush's therapeutic approach reflected his political ideology that emphasized balance and harmony and his fear of fragmentation. Michael McMahon notes that the preoccupation of historians with physicians has led them to overlook the role of public officials and others in dealing with urban public health problems. Phillip Lapansky details the role of the African-American community in the crisis and the dramatic rebuttal of Carey's allegation that many of its members engaged in profiteering. The volume also reprints (with a postscript) Martin Pernick's classic essay in 1972 dealing with the relationship between political ideology