

BOOK REVIEW

## Nicole Howard, *Loath to Print: The Reluctant Scientific Author 1500–1750*

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Eileen Reeves

Princeton University

In the autumn of 1612, when sunspots were in fashion, the English astronomer Thomas Harriot offered a conjectural account of their substance. Interested parties would, and still do, find access restricted: we learn of the anagram whose solution was a Latin hexameter ‘brilliantly explaining what the spots appearing in the sun might be’ only in Robert Burton’s manuscript notebook. For students of early modern science, Harriot is typically presented as the unsung double of Galileo, the former publishing too little, the latter, at least in the eyes of the faithful and the sceptical, too much. Why publish? Why not? Which readers to summon and which to exclude? How to avoid both the chilly indifference of an overcrowded market and furious accusations of ignorance, ineptitude or appropriation? These and other questions animate Nicole Howard’s *Loath to Print*, a brisk study of the strategies that such writers, and their correspondents, translators, illustrators and editors, adopted in the uneven but inevitable transition from a manuscript and oral culture to that of print.

Howard addresses five major topics, showing the range of options available to early modern scientific authors: their attitude, often shifting, to the newish medium of print; the prefaces they or their confederates concocted; their efforts to manage the distribution of their works; their interest and investment in various copying machines; and their dependence upon those who ensured that the messiest, most complex of manuscripts would emerge as legible books and pamphlets. Although this is an account of individuals – the entrepreneurial London empiric William Salmon, the print-savvy Christiaan Huygens, the heroic Edmond Halley, among others – it also includes corporate bodies distinguished by their energy and importance. We encounter a gradual shift from vast networks of manuscript letters, frequently excerpted and copied, to official publications financed by learned academies and societies, but the crucial intermediate node is the journal. This arena provided feedback from a well-informed community, summaries, translations, reviews and norms of scholarly decorum.

Howard also envisages forceful phantom presences – the ideal reader conjured up by a preface, or, as William Gilbert put it, undesirable audiences ‘oath-bound to others’ views, or those absurd eradicators of the arts, learned illiterates, grammar-masters, sophists, windbags, and the perverse populist’ (William Gilbert, *De Magnete*, 1600, fol. ii). A womanly spectre of sorts also haunts this mostly male world: not just the convenient target of the superstitious old wife or female medical practitioner, but rather the ‘midwives’ who oversaw the difficult ‘births’ of these texts, proclaimed their legitimacy, occasionally ‘clothed’ them in a different idiom, promoted their ‘adoption’ by sympathetic readers and

reviewers and so on (Matthias Bernegger, *Tractatus de proportionum instrumento*, 1613, p. 148). This capable female persona is a corrective to smutty puns about matrices, coupled letters and ‘pressing’, and to the easy equation of publishing with indiscriminate availability and unsavory interest in economic gains: prostitution, in a word (p. 56).

*Loath to Print* generates several domains for further inquiry. Throughout the study, Howard attends to the relationship between manuscript activity and print, arguing that the inexorable shift from the one medium to the other was accompanied by numerous feedback loops. Her fourth chapter examines experiments in etching and with the pantograph, both efforts fusing the singularity of drawing and handwriting with mechanical reproduction. Although the focus is on authors rather than artists, one might investigate alongside the emergence of the scientific image the rise of the pseudo-print, or those fetishized hand-drawn facsimiles of engravings and etchings, which both acknowledged and resisted the transition to print culture. The talented artisan who produced Christoph Scheiner’s first sunspot images, for example, finished his career with a meticulous manuscript copy of an earlier woodcut featuring a woman with a rooster and eggs, a tacit gesture to a cyclical rather than unidirectional system.

Howard’s discussion of the emphasis of the order and pace adopted by the reader – both in prefaces and within texts, particularly those offering not isolated bits of information, but rather an apprenticeship in mathematical techniques – also suggests a useful means of approaching the paratextual apparatus. The presence or absence of indexes and elaborate tables of contents has surely to do with financial constraints, formatting requirements and time pressures, but these elements contribute to one’s experience of the text, and to one’s willingness to follow the directives of the author or editor. And although they do not offer a rigorous quantitative sample, such investigations of reader reception would be enhanced by the always increasing number of early modern texts adorned with manuscript annotations, corrections, calculations, diagrams and idle unrelated doodles now available online.

Finally, as Howard notes, scientific authors gestured frequently to print’s presumed contribution to the erosion of social hierarchies. Not only did elite writers risk their standing by pandering to the public, but medical personnel and artisans, among others, stood to lose if their trade secrets were available to any and all readers. We might view the bewildering mass of dedicatory poems in the vernacular, Latin and Greek – many of slender literary merit – that accompany so many early modern scientific books not just as the occasional expression of who understood what about the work at hand, or who had witnessed its development, but also as a symptom of such social anxieties. These contributors, with their knowingness, erudite and otiose manner, and seeming proximity to the author, re-established the high threshold of a world, even as the body of the work threatened to destabilize such boundaries. A large-scale study of when this folderol emerged, and which scientific genres and national traditions most frequently incorporated it, might further nuance our understanding of the scientific author.

Howard’s careful elaboration of the major lines of inquiry in early modern book history and in the history of science, her close attention to a range of individual case studies, and the precision, persuasiveness, and originality of her account all make for a compelling monograph, and one of value to specialists and generalists alike.