

[Review of the book *Science, Literature, and Rhetoric in  
Early Modern England*]

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tural context of “intellectual trends at work in the fifteenth and sixteenth centuries” (p. 285) and notes that this ancient work must be understood as a starting point for Renaissance geographers who at times were engaged in both “archaic” and “progressive” cartographic practices. In his brief but engaging essay on cartography in Scotland, Jeffrey Stone shows how the increasing confidence and unity of the country during the Renaissance led to a flourishing of accurate and detailed territorial maps—what the author calls, in fact, a “renaissance of cartography” (p. 1690).

In summary, this volume does an admirable job in terms of topical coverage, technical analysis, and historical exposition. Not only do the essays cover expected topics such as world maps and portolans; they also address less examined themes, such as Scandinavia and its cartographers, maps and rural land management, and the relationship between maps and literature in the period. The technical analysis is excellent, with very useful studies of Renaissance charts, navigation techniques, and map projections. As a whole, especially through David Woodward’s introduction, the complex nature of the Renaissance as a historical period is made clear—this was a time when, as Woodward puts it, there “arose an awareness of the representation itself and how it related to the world” (p. 23). This subtle statement captures perfectly the nature of cartography in the European Renaissance and suggests how masterfully the topic is presented in this volume.

BENJAMIN B. OLSHIN

### ■ Early Modern (Seventeenth and Eighteenth Centuries)

**Juliet Cummins; David Burchell** (Editors). *Science, Literature, and Rhetoric in Early Modern England*. (Literary and Scientific Cultures of Early Modernity.) 241 pp., illus., bibl., index. Burlington, Vt.: Ashgate, 2007. \$99.95 (cloth).

This collection of essays, which originated at an interdisciplinary symposium at the University of Western Sydney, has two laudatory aims: to demonstrate that natural philosophy was not distinct from literature in early modern England, but that both were part of an interrelated intellectual culture; and to examine the rhetorical and epistemological competition among those who claimed to be establishing true and useful knowledge, including figures who are not usually discussed by historians of science, like John

Milton and Margaret Cavendish. The essays in this volume reintegrate literature and science in a way that recalls the work of Marjorie Hope Nicolson and A. O. Lovejoy and contributes to the more recent interest in the literary dimension of early modern science. In emphasizing that many disciplines claimed a special relationship to nature and art, and found and made knowledge, these essays broaden the usual focus of the history of science.

The collection begins with an essay by Peter Harrison that treats the ethical dimension of both Renaissance humanism and the new science. Humanists assumed that traditional studies produced moral persons and citizens. Likewise, Harrison argues, the practitioners of the new science claimed moral worth for their studies, which inculcated virtuous habits, particularly the virtue of charity in the desire to make human life better. The role of rhetoric in science is also treated by David Burchell. He challenges the canonical interpretation of the antirhetorical position of Thomas Hobbes. Arguing that there was more than one type of rhetoric in the seventeenth century, he shows that Hobbes sometimes followed the Senecan model advocated by Justus Lipsius and Michel de Montaigne and was also influenced by the Mersenne circle, which taught that a philosophical language should embrace brevity and perspicuity. Continuing the discussion of rhetoric, Catherine Martin examines the rhetorical similarities between John Milton’s work and Abraham Cowley’s ode to the Royal Society, published at the beginning of Thomas Sprat’s *History of the Royal Society*, and notes Miltonian echoes in the *History* itself. She demonstrates that the two poets shared an antipathy to scholasticism and ornate writing and embraced a purified rhetoric based on “a concrete knowledge of language and nature” (p. 102).

Historians of science will be most interested in the essays by Peter Dear and Peter Anstey. Dear gives a fine summary of the natural philosophy of Margaret Cavendish, the duchess of Newcastle, which discounted the work of the Royal Society because it was based on fallible observation. Nevertheless, he argues that in her famous visit to the society in 1667 she wanted to be treated as “an honorary man, with the privileges that would go with it” (p. 140). Cavendish founded her authority in the fact that she was a duchess and the wife of a duke, a status that trumped her antiexperimentalism. The complexity of reactions to the work of the Royal Society is also reviewed by Anstey, who discusses Thomas Shadwell’s *The Virtuoso* and Jonathan Swift’s *Gulliver’s Travels*. He does a good job

of showing both denunciation of and support for the Royal Society in literary works.

The two last essays in the collection offer a more subtle analysis of the links between literature and science. Sophie Gee argues for homologies between Milton's vitalist materialism in *Paradise Lost* and Alexander Pope's critique of Grub Street in the *Dunciad*. Both sought ways to validate worth when treating seemingly uniform entities, be they matter, money, or best-selling books. Robert Markley recounts a different reaction to the correspondence between the scientific and the literary imagination. Aphra Behn rejected the projection of known characteristics onto unknown places, as writers like Fontenelle had done in imagining other worlds. Behn's skepticism was aimed at the rationales for imperialism in early modern Europe.

Two essays that try to link the methodological imperatives of the new science to literature and vice versa are less successful. Anne Sutherland argues that Shakespeare embraced an "empirical" approach to nature, and particularly an alchemical vocabulary, in *The Winter's Tale*. Sutherland does not make it clear what she means by empiricism; nor is her description of alchemy inclusive of all the types of that elusive practice. Angelica Duran's interest in methodology focuses on the model of the catechism, which she believes was exported into Milton's *Paradise Lost* and the scientific method of the new science. While this seems to make sense, Duran relies too much on the theories of modern critical theorists.

Some readers of *Science, Literature, and Rhetoric in Early Modern England* may find some of the essays tangential to the way history of science has been written in the last thirty years. In fact, many of the essays cite the work of intellectual historians of the early and middle twentieth century. This return to the preoccupations of the past is not simply reactionary; instead, it points to a more synthetic way of approaching the changing intellectual culture of early modern Europe.

LISA T. SARASOHN

**Jean-Marc Drouin.** *L'herbier des philosophes*. 315 pp., illus., bibl., index. Paris: Éditions du Seuil, 2008. €22 (paper).

The French word "*herbier*" means both a herbarium and a book about plants. To the extent that a herbarium can be a loose-leaf collection of material gathered over a botanist's—or, in this case, a historian of botany's—working life, *L'herbier des philosophes* is an apt title. Jean-

Marc Drouin is known for his thoughtful and comprehensive articles and books on the history of botany, notably the edited and annotated autobiography of Augustin-Pyramus de Candolle he and Jean-Daniel Candaux published in 2003. In this work, he takes a more reflective and somewhat playful approach to his métier.

The work is a history both of botanists' philosophical ideas and of philosophers' interests in botany. Drouin also discusses how botanists viewed botany as an intellectual activity, the use of botany as a model discipline for other sciences, and the trends that were influential at different times in the development of the modern discipline of botany. All of these philosophico-botanical perspectives contribute to Drouin's central argument that a great deal of thought has gone into botany, for a long time, and that the field's reputation as a mere dry collection of facts is undeserved. Drouin aims to restore botany to its former importance and stature among the sciences. The impact of this message, however, is lessened in that this work seems to be written for fellow historians of botany. Drouin is preaching to the converted.

*L'herbier des philosophes* is arranged thematically. Drouin often discusses examples from different historical periods, though most are from the heyday of French botany in the eighteenth and early nineteenth centuries. On occasion he ventures into the twentieth century—though not entirely successfully, because of the loss of continuity and context.

This work is at its best when discussing Candolle's investigations into plant physiology. For instance, a discussion of how botanists around the turn of the nineteenth century understood "monstrous" plants (pp. 135–139) and instances of what we now would call phenotypic plasticity (pp. 147–150) segues into a description of how the proto-evolutionary ideas inspired by these phenomena were suppressed (pp. 150–152). *L'herbier des philosophes* also contains many thoughtful insights on the reciprocal influences among botany, zoology, crystallography, and nosology, though they would have a greater impact if they were not scattered throughout the book.

As already mentioned, the book seems to be written for established historians of botany rather than for readers less familiar with the examples used. For instance, it does not include any diagrams to illuminate Drouin's discussion of genealogical ideas, complicated relationships that are difficult to visualize without illustrations (pp. 153–154). The technical word "taxon" is used without any introduction (p. 158). As well, though the "fantasy herbarium" presented at the end of the book is cute—each plant in it stands