of town and country, Raber eschews the exploitation of animals in the service of purportedly higher human concerns, such as literary explication.

Not surprisingly, Edward Topsell looms large in Raber’s study, and she relies heavily on his History of Four-footed Beasts (1607) to speak for the general English experience of, say, burrowing moles and barking dogs. But this is preferable to the over-reliance on Ovid that features in so many studies of animals and Renaissance culture; indeed the Metamorphoses are mentioned only once in Raber’s study, a conspicuous marginalization of a literary source that exemplifies her methodological critique of materialist criticism that is not sufficiently material. Raber is generous in acknowledging the work of her predecessors and colleagues in the field; and minor disagreements on points of interpretation are discretely stowed in the endnotes. The book is thoroughly researched, meticulously edited, and handsomely illustrated with more than two-dozen figures. And Raber’s conclusion is genuinely moving, as it surveys the mourning practices of elephants to demonstrate how animals command language, display complex social organization, and exhibit collective memory—further undermining the grounds on which Cartesian dualism and human exceptionalism are built. In myriad ways, she concludes, animals share “those attributes of the mind—reason, emotion, moral judgment—that define the category ‘human’” (185), and her fascinating study consolidates the place of our shared embodiment in early modern studies.

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Ray, Meredith K.
Daughters of Alchemy: Women and Scientific Culture in Early Modern Italy.

This book represents a significant step forward in our appreciation of the role early modern women played in the understanding and development of natural philosophy and alchemy in Italy. Daughters of Alchemy: Women and Scientific Culture in Early Modern Italy is a pioneering text that brings together unheard, forgotten, or simply unexamined voices of intellectual women who operated
as practitioners, authors, and patrons of science—that is, women who gave themselves the opportunity to “philosophize with their hands”—before the Enlightenment.

The pages convey topics as yet not given full—and in some cases even partial—academic treatment. Who were the women who participated in scientific and medical inquiries in the early modern period? And how did they partake in this burgeoning field, considering their lack of a sound education and the bias against female inroads into most areas outside the household? In Meredith Ray’s lucid and perceptive reading, we are offered a scholarly excursus into protoscientist women who were practitioners of the art of distillation and maceration, who exploited the medical interest in the functions of bodies through books of secrets, who organized and presided over salons in which scientific inquiries were being debated, and who integrated science into narrative literary forms.

*Daughters of Alchemy* is divided into four chapters, each offering new names and new ways of mining the field. Chapter 1 focuses on Caterina Sforza (1463–1509), whose experimentations with herbs and alchemy, through more than four hundred recipes, existed in manuscript form before being published as *Experimenti de la Ex.ma S.ra Caterina da Furlj* in 1894 by Pier Desiderio Pasolini. He judged the work as “the most complete and important known document on medicine and perfume” of the early sixteenth century. Notwithstanding Pasolini’s assessment, the book went unnoticed and has been recovered only recently. Sforza’s *Experimenti* is chock-full of recipes, mostly written in Italian, some in Latin, and a handful in a code easy to decipher. They range from medical remedies to cure fever, lice, and wounds to cosmetic methods to lighten the skin and bleach hair. She also offers alchemical formulas for converting mercury and preparing tinctures of gold. Throughout, Sforza is aware of the use of metals, solvents, and stones, and of the practical use, say, of saltpeter, which in the past was essential for the manufacturing of gunpowder. Although Sforza is mostly known today for a mention of her ample political capacities made by Machiavelli in his *Discorsi*, the fact that she was an experimenter who was in communication with a number of courts (especially Mantua), and whose opinion on cures was solicited in writing, meant that she was a recognized voice in the firmament of medical practitioners at her time.

Chapter 2 centres on “books of secrets” and in particular on Isabella Cortese’s *Secreti*. Books of secrets—allegedly all written by men—were so fashionable in the early modern period as to be continuously reprinted. They were
not meant to be secret of course, but to share common as well as arcane information on how to take care of the body, how to solve household issues related to cleanliness or food preparation, and how to address conditions and diseases at a time in which herbal medicine could often offer better results than the ubiquitous vomitories, fastings, and blood lettings. One of the most reprinted of such manuals appeared in 1561 with the name of a woman, I secreti della signora Isabella Cortese. Cortese’s authorship has repeatedly been contested by none other than the encyclopaedist Tommaso Garzoni, who suggested in La piazza universale that the Secreti were written perhaps by the well-known and widely circulated natural philosopher Girolamo Ruscelli. (There are indeed some correspondences in Cortese’s recipes with those of this prolific writer.) Ray carefully—and rightly, I surmise—tiptoes on the issue of authorship. Her archival reconstruction here, as elsewhere, is sound.

The next two chapters show that women engaged in scientific inquiries even in literary texts. Ray’s intelligent reading of book 2 of Moderata Fonte’s Worth of Women, for example, proves that some early modern women not only were familiar with common therapeutic remedies and knowledgeable about natural phenomena, but could also present Aristotle, Pliny, and Galen in their writings as a way to highlight that they were learned, and could participate in the logical ordering and control of nature. Here, Ray explores the repeated use in three chivalric romances of the fictional character of the witch. The enchantresses Circetta in Fonte’s Thirteen Cantos of Floridoro, Erina in Lucrezia Marinella’s Enrico, and Calidora in Margherita Sarrocchi’s Scanderbeide upend the stereotypical characterization of the maga as a negative, dark, and castrating figure of womanhood, instead embodying the educated, inquiring experimenter absorbed in alchemy, astrology, and natural philosophy with constructive and legitimate aims.

The most significant addition to this history of new science au féminin that Ray cogently reconstructs is that of Camilla Erculiani, a Paduan speciala whose name was unknown until Virginia Cox made a case for the significance of her work by including it in her Women Writing in Italy (2008). Ray recuperates Erculiani’s work, Lettere di philosophia naturale (1584), embeds it within the then current writing on alchemy, astrology, and Paracelsian medicine, and reconstructs the intellectual climate that allowed this writer to publish in Krakow rather than in Venice. Erculiani was interrogated by the Inquisition on suspicion of heresy, because in her published work she appeared to conflate philosophical
and theological opinions. She was acquitted, but her case demonstrates in subtle ways how difficult it was in a society run by men to accommodate the fact that women had a capacity for scientific observation, could deliberately foster their ideas by participating in academic discussions, and could circulate new scientific concepts through experimental practice and through the use of the artisan marketplace—all without being university-trained or belonging to any guild.

This is a learned book with a well-argued thesis, convincing research, and lucid writing, where even footnotes are bursting with valuable information. Ray elegantly opens the way for further and wider investigations into the methods that allowed intellectual women to participate in the culture of their time, thus establishing a critical link with the work of eighteenth-century women scientists such as Laura Bassi, Maria Gaetana Agnesi, and Anna Morandi Manzolini. *Daughters of Alchemy* should be required reading for anyone interested in discussing scientific work of the early modern period in Italy.

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Ruggiero, Guido.
*The Renaissance in Italy: A Social and Cultural History of the Rinascimento.*

Guido Ruggiero’s textbook on Italy helps fill a gaping void. We who teach Italian history are painfully aware of how hard it is to offer students a book with both breadth and vision. The Oxford series—good essays by fine scholars but with little guiding hand—remains scattershot and uneven. Hay’s old textbook suits well-schooled Britons, but overshoots our students. Hanlon’s taut survey takes up where many a course trails off. Ruggiero, meanwhile, aspires to cover Italy, and the Renaissance, in clear, uncondescending prose—his direct language enabling a student’s ready grasp. As befits our day he presumes little knowledge but, unlike many textbook writers, treats readers with condign respect.

This is a teacher’s book. Reading it, one senses the lectures, long on good yarns and cameo biographies and patient enough to unsnarl the hideous tangles of fifteenth-century alliances and double-crosses.