

outstanding pharmacopeia manuscript in respect of text and paintings, the *Carrara Herbal* manifested Francesco's active involvement in advancing the science of medicine.

As a second line, Kyle construes the herbal as a key element in Francesco's strategy to strengthen his power by resuming his ancestors' tradition of collecting and commissioning prestigious books. The complete spoliation of the court bibliotheca during Padua's occupation from 1388 to 1390 had equaled a collapse of identity for the Carrara dynasty, an annihilation Francesco started to repair by reestablishing a new book collection. As part of the new library, Kyle concludes, the *Carrara Herbal* ultimately "served as an attribute for the prince, recorded for posterity an idealized aspect of his knowledge, taste and sense of familial identity" (189). Other Carraran book and fresco commissions with a political tenor credibly confirm this view, which Kyle discusses.

Some of the author's points are debatable. The iconic variation of the miniatures—similar examples may be detected in posterior illustrated herbals until Brunfels's print of 1530—should also be related to the artist's pictorial samples as well as to his available plant material and not exclusively to his intention to create a "pleasurable reading experience" (46) for an elite circle. This aspect is related to the hitherto unanswered question whether physicians, acquainted with illustrative patterns and specific user experiences, were among the herbal's readership, as the marginalia may indicate. There is in the *Carrara Herbal*, without doubt, an aesthetic transfer from a handbook to a cimelium. However, it may be inaccurate to assume that readers were solely members of the gentry. At least, it probably would have run counter to Francesco's intentions to exclude the medical-scientific community.

In summary, Kyle's study provides a novel insight into understanding the *Carrara Herbal*'s genesis from the ideologies of court culture and medicine as well as its status within them. In particular, it generates perspectives for a better understanding of similar health book commissions, to name only the *Tacuina sanitatis*, created for the rival court of the Visconti dynasty at Milan. It will therefore find readers among those interested in art history and history of the book as well as in the history of sciences and medicine.

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*Medicine, Trade and Empire: Garcia de Orta's "Colloquies on the Simples and Drugs of India" (1563) in Context.* Palmira Fontes da Costa, ed.

The History of Medicine in Context. Farnham: Ashgate, 2015. xxiv + 280 pp. \$134.95.

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*Medicine, Trade and Empire* exemplifies the most recent scholarship on science and medicine in the service of empire. The collection of essays produced by experts from across the world provides a global context for the life and work of Garcia de Orta, as well as new methodological approaches to the formation, dissemination, and long-term influence of his work, the *Colloquies*.

Jon Arrizabalaga explores Garcia de Orta's Jewish roots and places his career, and that of his extended family, within the context of the second Sephardic Diaspora from the Iberian Peninsula. Orta's Jewish roots were completely ignored in nationalist historiography until some sixty years ago. His Jewish ancestry, however, like that of many of the great Iberian physicians, provided networks for professional success as well as an environment of intolerance. António Manuel Lopes Andrade's chapter further engages the Jewish connection. He compares Orta's life and work with that of a contemporary, Amato Lusitano. Orta and Lusitano shared a deep interest in materia medica as well as Jewish ancestry. Lopes Andrade argues convincingly that even though the two men walked the same intellectual path, fear of persecution and a climate of intolerance in Europe informed Orta's decision to demonstrate only limited knowledge of Lusitano's work.

Michael Pearson presents Garcia de Orta as a cosmopolitan scholar living in a climate of increasing intolerance in Goa. As a center of exchange among various networks throughout the Indian Ocean, Goa provided Orta with a diverse network of peoples and places through which he collected medicine and other commodities. Those exchanges allowed Garcia de Orta to secure the reliability of the knowledge he was presenting, according to Hugh Cagle. Verifying facts of knowledge through exchanges among many different peoples and communities was crucial to his endeavor. As Cagle argues, Orta's methodological eclecticism (his own experience, texts by ancient and modern authors, and the testimony of others) allowed him to ensure the veracity of knowledge claims and was his most innovative contribution to natural history and medicine. Harold Cook furthers this approach to Orta's lifework, arguing that he was a truly revolutionary figure in the fields of medicine and natural history. Through an engaging analysis of the place of chinaroot in the *Colloquies*, Cook argues that Orta was clearly moving away from Galenism and toward methods associated with iatrochemistry.

Ines G. Županov explores Orta's presentation of the *Colloquies* as a dialogue. While this was not the typical genre for medico-botanical texts in sixteenth-century Europe, Orta chose to place his work directly within the broader culture of European humanism at the very moment that Counter-Reformation forces in Europe and Portuguese India closely monitored all publications. Yet the text abounds with historical and political digressions and even veiled criticism of the Holy Office. Županov argues that it was "only in a dialogue and put into the mouth of a 'fictional' character" that Orta could get away with such commentary in a medico-botanical text (55).

Analyses of the dialogic format continue in the contributions of Inês de Ornellas de Castro and Isabel Soler and Juan Pimentel respectively. Ornellas de Castro explores the didactic virtues of the text in Orta's choice of a number of therapeutic and alimentary uses of the flora and fauna of the Portuguese Indies. She suggests, intriguingly, that some of the culinary habits presented in the text reveal traces of Jewish ritual practices. Soler and Pimentel focus their attention on Orta's repudiation of errors throughout the *Colloquies*. Here, the dialogic format was ideally suited to the essential unpacking of errors

in knowledge from the origins of Eastern plants to their proper identification. Orta's expertise in ancient and contemporary materia medica is demonstrated through a comparative framework that highlights his textual and experiential mastery.

Orta's influence was far-reaching. Egmond explores the Dutch connection, arguing that Carolus Clusius, in effect, appropriated the text and reconstituted it as a work of European botanical science through years of editions, corrections, and additions to the original work. Through careful textual analysis Egmond reveals much about the emergence of botanical science in Europe and the uneven exchange of knowledge within empire. José Pardo Tomás explores Orta's work and influence in Spain. He places the *Colloquies* within the growing interest of both Crown and intellectuals in stimulating trade and the exchange of knowledge from America. Spanish experts like Monardes and Frago sought plausible substitutions for Eastern materia medica and fueled commercial exploitation of the Americas. Timothy Walker concludes that the business of empire had long-term implications throughout the Portuguese sphere in the field of medicine. Orta helped create a culturally blended, hybridized medical culture that thrived for centuries. Orta's experiential cross-cultural inquiries fully informed the *Colloquies*, and he embraced the values of experimentation and cultural adoption. Those practices, techniques, and values can be seen throughout the Lusophone world for more than two centuries. The volume is rich in content, yet contributes most significantly to methodological and historiographic trends in the field. The contributions are of the highest caliber and it is a must read for anyone interested in the culture of empire.

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*Forgetting Machines: Knowledge Management Evolution in Early Modern Europe.*  
Alberto Cevolini, ed.

Library of the Written Word 53; The Handpress World 40. Leiden: Brill, 2016. xii + 390 pp. \$185.

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This volume brings to life early modern knowledge management and filing systems. Complementing abstract theories about excerpting, the essays deal with the practice and the importance of the material bearers of knowledge. Through their focus on both the transformation of cognitive habits over time and the significance of not only storing but also generating knowledge, the essays manage to capture the vibrancy of excerpting and filing.

Change over time is the focus of the introduction, in which Alberto Cevolini sets out an evolutionary theory of knowledge management. Though the contributors do not directly engage with this evolutionary theory, the broad chronological scope of the volume invites reflection on continuity and change. The core of the essays ranges from the late Middle Ages to the eighteenth century. These are bookended with an opening essay on the origins of excerpting in antiquity and two modern essays. These chronological