

and argument and the thorough nature of its research. Moreover, there is much to commend the aim of re-examining this short yet key period of English history, as well as the claims regarding the “regenerative capacity of English republicanism,” and of “the fluidity and creative possibilities of this moment” (275). Nevertheless, that irrevocable divisions existed within the ranks of English republicans and could only be set aside for a limited period after the collapse of the protectorate still seems to be the best guide to this phase of the Rump Parliament and the most plausible explanation of its collapse.

Londa Schiebinger and Claudia Swan, eds. *Colonial Botany: Science, Commerce and Politics in the Early Modern World*. Philadelphia: University of Pennsylvania Press, 2005. vi + 346 pp. + 54 illus. \$55.00. Review by LUCIANO BOSCHIERO, JOHNS HOPKINS UNIVERSITY.

The editors of this volume certainly faced a formidable task selecting papers to comment on the very wide-sweeping topic of botanical studies during the age of exploration and colonization. It is a topic that encounters several political, religious, economic and intellectual issues in a variety of settings and across a large period of time. Schiebinger and Swan do not shy away from attempting to have all these issues represented in this volume. They bring together sixteen short articles about various scientific figures and events, and settle for an aim in their introduction which reflects the wide scope of the topic: “It is our thesis that early modern botany both facilitated and profited from colonialism and long-distance trade, and that the development of botany and Europe’s commercial and territorial expansion are closely associated developments” (3).

All of the contributing authors comfortably fulfill this general objective by focusing on a variety of case studies. For example, while Andrew J. Lewis examines the relationship between natural historians and private entrepreneurs in early nineteenth-century America, Judith Carey focuses on the technologies and knowledge systems brought to the Americas by enslaved Africans from the Rice Coast mainly during the eighteenth century. Meanwhile, Kapil Raj examines the relationship between south Asian and European traders, especially with regard to an unpublished early eighteenth-century manuscript

by French botanist, Nicolas L'Empereur. These three papers, as examples, illustrate the variety of case studies explored in this single volume. Furthermore, each author uses his or her work in order to construct a broader argument: Lewis concludes by commenting on the authority that natural historians attempted to command in the marketplace; Carney argues that "rice culture" (219) in the American colonies should be considered as a legacy of West African slaves; while Raj uses his work as a case study for historians of Western science to consider: "science in Europe . . . when observed from the vantage point of the Indian Ocean, moved in spaces bounded by national, political, and economic interests, and shaped by different regimes of performativity within which alone the meaningfulness of knowledge can be determined" (268).

Other papers in this collection also introduce various figures and events in the history of botany that provide for a highly entertaining and educational read, such as Michael T. Bravo's study of the botanical skills of the eighteenth-century Moravian missionaries; as well as Claudia Swan's analysis of how the Dutch trading companies assimilated information about plants and plant products at the turn of the seventeenth century; and Anke te Heesen's account of how German physician Daniel Gottlieb Messerschmidt used bookkeeping techniques to record botanical information he acquired from his expedition in Siberia in the 1720s.

While readers might find this array of stories illuminating, the very broad aim of this volume limits the individual papers from reaching any great heights. Each paper is so short that the authors do not have the opportunity to explore important historical, as well as historiographical, complexities of their case studies and readers are left with many unanswered questions. As an example, Chandra Mukerji provides an interesting account of the role of botanical gardening in French political culture in the seventeenth and eighteenth centuries. The *Jardin du Roi* in Paris, established primarily for academic functions, became a symbol of royal power, as a prominent medical facility as well as a site for public ceremonies. Through this study, therefore, Mukerji raises awareness amongst historians of the importance of botanists and garden designers in the French royal court. However, readers may be left wondering how this story relates to the status of seventeenth-century knowledge makers: how did botanical gardeners contribute to the rise of their discipline? Were they forced to persuade the king of the utility of their work? If garden

designers were also skilled in mathematics and engineering, how did this contribute to the status of their work? In turn, how did this effect the status of mathematicians in general?

Another example of the loose ends created in these short chapters is Harold J. Cook's paper on the process by which authorship was attributed to the volumes of information arriving from the Dutch trading companies. In his early seventeenth-century exploration of Asia, Jacobus Bontius converted indigenous knowledge about plants, which he believed to be superstitious, into factual information easily digestible by his Dutch audience. According to Cook, this exemplified Bontius' commitment towards the accumulation of "universal matters of fact" (117). But was this a deliberate attempt to employ an inductive method? Was Bontius drawing from the methodological work produced by his contemporary in England, Francis Bacon? Or is Cook simply borrowing terminology from Steven Shapin and Simon Schaffer's work on the London Royal Society? If so, is he suggesting that some sort of gentlemanly culture of trust existed within the botanists of the Dutch East India Company that was similar to the environment that Shapin and Schaffer claim existed in mid-seventeenth-century London? While relevant for a complete understanding of the topic, such questions are not addressed.

Despite this shortcoming, some streams of thought can be found that link some papers together and provide for a more thorough historiographical approach to the topic of colonial botany. In particular, Daniela Bleichmar, Antonio Lafuente and Nuria Valverde, and E. C. Spary discuss issues of authority and persuasion that situate their case studies in an intellectual, as well as cultural, context not discussed by the other authors.

Bleichmar examines the case of late sixteenth-century Spanish author, Nicolás Monardes. Living in the port city of Seville, Monardes received minerals and plants from travelers arriving from the Americas. Bleichmar points out that Monardes became an authority on New World medicine without even crossing the Atlantic Ocean once. Part of his success depended on his unwillingness to accept indigenous explanations of the properties and functions of the plants he received. Instead, he interpreted his work in accordance with the traditional Galenic and Hippocratic conceptions accepted in Europe. This is what assisted his colleagues in other parts of Europe to understand and apply his writings.

Meanwhile, in their analysis of Spanish imperial botanical policies, Lafuente

and Valverde argue that in the late eighteenth century, Spanish kings attempted to standardize the categorization of botanical findings arriving from the New World, allowing them to take full medical, political and economic advantage of these new resources. The main authoritative tool for this standardization was Linnaean taxonomy. According to Lafuente and Valverde, Linnaean tables carried such authority, that they mediated “between the sensations of the subject and the object toward which they are directed. . . . Nature, then, is a world that distances itself from common experience. As things are geometrized, tabulated, and named, as order is given to data (soon called ‘facts’ by the supporters of this cataloging system), scientists proclaim themselves the only reputable witnesses” (137). The parallels between Lafuente’s and Valverde’s work, and that of Bleichmar, are clear: scientific claims are only determined as valid and true if they are framed within the accepted knowledge structures established by the scientific community, whether that is in regard to Galenic medicine, or Linnaean taxonomy.

This becomes a recurring theme in Spary’s analysis of the eighteenth-century disputation between Pierre Poivre and his rivals about his claims to possess a true nutmeg plant. Spary’s study of this dispute shows how rivals in this episode discredited each other in print and through rumors, in an attempt to destroy one another’s reputation and to ensure that they failed to secure public support for their claims. That is to say that the claim was acceptable only when the community of botanists could be persuaded of the authority of Poivre’s work; this is the intellectual and cultural context in which the nutmeg dispute must be considered by historians.

This collection of papers, therefore, makes some significant contributions to the history of colonial botany. Despite the brevity of each chapter, some important historiographical issues lie just beneath the surface of each case study, promising that future lengthier analyses will prove fruitful for historians in this field.

Massimo Ossi. *Divining the Oracle: Monteverdi’s Seconda Pratica*. Chicago: University of Chicago Press, 2003. xviii + 280 pp. \$60.00. Review by STEVEN SAUNDERS, COLBY COLLEGE.

The central aim of *Divining the Oracle* seems modest: to explicate a single