

debates about fossils in the seventeenth century is one of the most engaging parts of the book. From the premise that they were ‘games of nature’ (creatures wrongly imposed on the wrong form or material) to Leibniz’s claim that ‘nature does not play’, fossils brought up the question of spontaneity in nature and creation.

This aspect is also taken up in the final part of *Divine Machines* that tackles the question of species generation and classification. Again, in contrast to the common focus on the debate between Leibniz and John Locke on the philosophy of language, Smith explores here the particular problem of species boundaries within the context of Leibniz’s philosophy of biology. Ranging from animal language to monstrous births, from Leibniz’s views on the botanical method to his ‘species realist’ stance against contemporary nominalism, this part reveals once more Leibniz’s original contribution to natural philosophy.

Divine Machines does not exclusively focus on Leibniz; throughout his discussions of Leibniz’s writings and thoughts, Smith constantly invokes the work of other seventeenth-century (and earlier) natural philosophers. Identifying and engaging with the eclectic mix of theories and influences out of which Leibniz’s philosophy created something new, Smith thus offers a broader historical context than the title suggests. But with *Divine Machines*, Leibniz himself emerges as a fascinating example of the early modern obsession with the grand questions about life, and is for this reason certainly of interest to historians of science and medicine.

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REBECCA MESSBARGER, *The Lady Anatomist: The Life and Work of Anna Morandi Manzolini*. Chicago and London: The University of Chicago Press, 2010. Pp. xiv + 234. ISBN 978-0-226-52081-0. £35.00 (hardback).

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Messbarger’s account of the life of eighteenth-century anatomical modeller Anna Morandi Manzolini opens with an evocative description of her extraordinary self-portrait: a wax bust of the modeller adorned with jewellery and a fine dress, daintily dissecting an (equally waxen) human brain. Beneath the taffeta, the smile and the fake pearls, a restorer reveals the frayed fabrics, the model’s cracks and spills. As the portrait was restored, Rebecca Messbarger went on a mission to recover the life of Bologna’s lady anatomist. Like Morandi’s self-portrait, biographical accounts of her have seen various fortunes. The modeller has been presented in a range of narratives which accommodate chroniclers’ own assumptions about a woman’s proper place in science and art. For some of her eighteenth-century contemporaries, Morandi was merely the dutiful helpmate of her modeller husband, Giovanni Manzolini, plagued by melancholy and professional rivals. More recent histories have included her in the list of eighteenth-century female celebrity scholars such as natural philosopher Laura Bassi and mathematician Maria Gaetana Agnesi. However, Messbarger reminds us that Morandi’s situation was in many respects very different from those of Bassi and Agnesi, who were born into wealthy families. The biography carefully uncovers Morandi’s humble background, and her role as the sole breadwinner of the family as head of a private anatomy school and anatomical modelling workshop after the early death of her husband. *The Lady Anatomist* details Morandi’s struggle for recognition against local competition, most notably from rival wax modeller Ercole Lelli, and against popular theories of female intellectual inferiority. The biography shows that despite Morandi’s eventual local acceptance and international fame as an anatomist and modeller, she continued to be plagued by financial difficulties. These eventually led her to send her eldest son Giuseppe to an orphanage after her husband’s demise, and forced her in her declining years to seek the help of a noble patron, the enterprising Count Ranuzzi, who profitably exploited Morandi’s international acclaim.

Messbarger's research has uncovered several new documents which shed light on Morandi's everyday activities, her interactions with local scholars and authorities, and her international recognition, culminating in a standing invitation to the court of Catherine the Great. The account reveals valuable details of Morandi's practices of dissection and modelling, analysis and synthesis, based on primary sources such as her notebook and her catalogue of tools and instruments. The biography investigates central achievements of Morandi's career, starting with her early collaboration with her husband on the anatomy of the ear. A contemporary observer asserted that the couple's models and tracts 'put to shame' the recent work of the celebrated Bologna anatomist Antonio Valsalva. Morandi's own extensive work on the male organs of generation further challenged anatomical convention by omitting any comparison with their female counterparts.

Beyond relating Morandi's work to contemporary anatomical theories, Messbarger situates the modeller mainly in the local context of personal and institutional rivalries in Bologna, and in the national debate about the nature of female intellect and creativity, the subject of the author's earlier work. Messbarger highlights the fact that Morandi's previous biographers shaped accounts of her life and work to conform to contemporary assumptions on the proper role of women in scientific and artistic endeavours. However, her own account contains some assumptions about the nature of modern science that historians of science might consider outdated in the light of recent historiography. In her attempt to assert Morandi's status as a scientific expert, Messbarger posits a strong separation of household and laboratory, of science and spectacle, of verisimilitude and sentiment in anatomical representation, and she downplays the role of domestic skills, of spectacular practices and aesthetic considerations, in Morandi's work. However, recent scholarship in the history of science has highlighted that spectacle and display, domestic spaces and practices, were often constitutive of rather than detrimental to the emergence of modern science. Engagement with this work would have given Messbarger an opportunity to investigate more thoroughly the relationship between Morandi's domestic and professional activities, her simultaneous engagement with scientific and artistic communities in Bologna, and her role as the public face of the Morandi–Manzolini workshop. Messbarger's passionate, extensively illustrated biography and her deep exploration of the Bolognese archives offer an excellent basis for further investigations into recent concerns among historians of science with the role of the household, display and affect in the shaping of modern science. Meanwhile, *The Lady Anatomist* is a timely biography of a fascinating figure at the nexus between art and science in the eighteenth century.

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JOHN BENDER and MICHAEL MARRINAN, *The Culture of Diagram*. Stanford: Stanford University Press, 2010. Pp. xx+264. ISBN 978-0-8047-4504-8. \$60.00 (hardback).
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This book describes a gradual transformation in the way Western societies represent and understand the world. It argues that, from the eighteenth century onwards, direct sense perception and mimetic forms of representation have been replaced by others, which are based on the combination of outputs from recording devices and symbolic graphical mathematical expressions. Two more connected arguments are at the core of this book: that current virtual scenarios such as that of computer-aided open-eye surgery, the example its authors use to open the book, are the culmination of that historical process of gradual transformation, and that the origins of such virtual scenarios, currently conceptualized as those where different forms of knowledge inform action, are to be found in the pages of Diderot and d'Alembert's *Encyclopaedia*, a comprehensive treatise traditionally hailed by scholars as the Enlightenment's biggest print project.

According to Bender and Marrinan, the *Encyclopaedia* was a space where one of the central 'ambitions of Scholasticism' (p. 74), that of a single unifying vision, as informed by Renaissance