

to harmonize with the prevailing musical aesthetics of its aspirational auditors' (p. 253). As it says on the cover, his book encourages us to rethink the role of music and sound within our greater understanding of the universe.

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MIRI SHEFER-MOSSENSOHN, *Science among the Ottomans: The Cultural Creation and Exchange of Knowledge*. Austin: University of Texas Press, 2015. Pp. 262. ISBN 978-1-4773-0359-7. \$55.00 (hardback).

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Is it possible to state that the history of Ottoman science has by now become a mature field of research? While Miri Shefer-Mossensohn's meticulous *Science among the Ottomans* does not exactly allow us to answer this question in the affirmative, it does demonstrate that much distance has been covered, and we are closer to leaving some unproductive approaches behind. Shefer-Mossensohn is overt about her intention to challenge earlier views that represented science in the Ottoman Empire essentially as non-existent, especially after the sixteenth century, and the cultural transformations of the nineteenth century as entirely due to European influence. Similarly, in line with the general tendency in contemporary Ottoman studies, she is critical of the 'decline' narrative, noting that science remained vibrant in Ottoman society throughout its history. The main question concerns where to look to find Ottoman science, and, as the title of the book implies, Shefer-Mossensohn suggests exploring Ottoman culture itself. Understanding the specifically Ottoman ways of understanding, producing, assessing and disseminating knowledge is essential, in her view, in order to discover not 'science' as a supposedly universal phenomenon, but a 'uniquely Ottoman' science (p. viii).

Science among the Ottomans is organized around some of the popular themes in recent history and sociology of science, rather than chronologically. Chapter 1 explores Islamic perspectives on the meaning and sources of credible knowledge, also dwelling on the status of philosophy in Muslim societies. A key argument of the book is also made clearly in this section: to Shefer-Mossensohn, Ottomans were particularly skilful at adopting and adapting ideas and tools from different knowledge traditions. Next, a chapter on the transmission of knowledge analyses the ways in which educational institutions operated in the Ottoman Empire, as well as the efforts to systematize and reform education in the nineteenth century. Chapter 3 looks at processes of knowledge transfer, with discussions on reading, writing, translation and the role of travellers in the 'transfer of knowledge to, from, and within' (p. 87) the empire. The final substantive section focuses on the patronage of scholars, as well as the nineteenth-century developments that entailed significant involvement by the state in infrastructural work, with the emergence of a new governmentality. The introduction and the conclusion provide helpful discussions on recent theoretical approaches in science and technology studies, and on the special qualities of Ottoman science.

This thematic approach is a strength of *Science among the Ottomans*, offering insights about aspects of the Ottoman case that researchers may utilize in comparative studies. Shefer-Mossensohn's use of biographies is also helpful, as the colourful biographies she presents support her emphasis on the complex and eclectic nature of scientific practice and practitioners in the Ottoman Empire. Similarly, it is commendable that the account is not Istanbul-centric, consistently reminding the reader that the Ottoman Empire was, indeed, an empire. In these respects, it would be appropriate to see *Science among the Ottomans* as a first-rate overview of the existing research on Ottoman science, providing helpful ideas for framing and integrating findings on disparate issues. Readers relatively unfamiliar with the topic would benefit considerably from this book, and Shefer-Mossensohn's accessible and engaging style is certainly an asset.

While it is thus a concise but very rich book demonstrating the variety of new and promising approaches to Ottoman science, *Science among the Ottomans* does not tackle some of the important points it raises in sufficient detail and rigour, perhaps due to its brevity. Shefer-Mossensohn rightly notes the problems with seeing ‘science’ as a self-evident concept denoting a single, universal practice, and stresses that understanding Ottoman science is also a matter of understanding Ottoman mentality. However, in the substantive chapters of the book, the reader encounters discussions on many topics, such as Ottoman views on childhood and education, calligraphy and Ottoman gardens. These discussions do include valuable information on Ottoman cultural attitudes and practices, and the context within which knowledge production and dissemination occurred. Yet then it becomes somewhat unclear whether the term ‘science’ is even needed; a more rigorous discussion would be helpful to clarify why ‘science’, rather than, say, ‘knowledge’, is the term used in the book. Similarly, when the use of the term ‘scientist’ is contested even for much of the history of science in Europe, its use for Ottoman scholars of different types is a question worth confronting.

A comparable issue stems from the terms ‘culture’ and ‘mentality’ – terms with much significance for the book’s framing of the question. Obviously, neither the former nor the latter can be treated as a monolith existing outside history, independent of social, political and economic factors and struggles. Otherwise very much attentive to detail and complexity, Shefer-Mossensohn’s account could benefit from a more focused discussion on how ‘mentalities’ are made and transformed, and the degree to which they are shared in stratified societies. Here a chronological narrative could have been more effective as well, since thematic chapters can give the impression that ‘Ottoman culture’ and ‘Ottoman mentality’ were static, coherent and consistent totalities. Overall, social, cultural and institutional changes that occurred before the nineteenth century deserve more attention.

Science among the Ottomans indicates that the history of science in the Ottoman Empire is close to becoming a mature field of research, but not exactly there yet. That it is so devoted to demonstrating the existence of a ‘uniquely Ottoman’ science (p. viii) in the Ottoman Empire, and not as interested in analysing how knowledge practices, the status of the practitioners and the conditions in which institutions operated changed over the centuries, is telling, suggesting that the aim to counter the narratives of ‘decline’ and of the ‘backward Orient’ still unduly influences even sophisticated studies in dialogue with the new approaches in science and technology.

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DONALD L. OPITZ, STAFFAN BERGWIK and BRIGITTE VAN TIGGELEN (eds.), **Domesticity in the Making of Modern Science**. Basingstoke: Palgrave Macmillan, 2016. Pp. 320. ISBN 978-1-137-49272-2. £63.00 (hardback).

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To anglophone ears (and noses), ‘domestic science’ carries a whiff of the school kitchen: but is it time to reclaim the term from the cake makers and bread bakers? As this welcome recent work shows, through a series of case studies on ‘domesticity, households, and families’ (p. 1), domesticity and the modern sciences have enjoyed a close and evolving relationship. A helpful introduction to the volume sets up its diverse methods of analysis united by a domestic theme. The many potential and historical conceptions of ‘domesticity’, as ‘space, practice, ideology, [or] object of enquiry’ (p. 12), underpin the work, lending it its tripartite structure: site, experience, community. The scholarly approaches and topics range from contemporary interviewing to archival scouring, a cultural geography of rain gauges (in Carol Morris and Georgina Endfield’s chapter) and a Bourdieuan analysis of Greek familial relationships (by Konstantinos Tampakis and George Vlahakis).