

information and without much originality is being replaced by a view that pays attention to the role of experience and adaptation in the production of the very same texts. Bouras-Vallianatos' meticulous analysis of John Zacharias' composition and presentation methods as well as Zacharias' incorporation of 'oriental' *materia medica* into his work proves that late Byzantine physicians updated their material according to contemporary needs and interests. The sixth and final chapter before the conclusion is an *exposé* of how John Zacharias defines psychic pneuma and connects it to the soul, which Galen did not attempt to do. In his treatise *On Psychic Pneuma*, John Zacharias presents his theory of pneuma and, with a clearly practical purpose, a method for purifying the soul through a specific regimen to attain spiritual perfection.

A definite strength of *Innovation in Byzantine Medicine* is the attention given to context. Bouras-Vallianatos places John Zacharias in late Byzantine society, Byzantine medicine and the wider Mediterranean medical traditions. Throughout the book, a picture emerges of a late Byzantine physician who was well connected to the intellectuals, spiritual leaders and physicians of Constantinople within the framework of a politically declining but culturally flourishing Byzantine society. Bouras-Vallianatos' discussion of John Zacharias' cultural milieu would be much clearer if he gave more information on the status of physicians in late Byzantium. Before delving into the specific subject matter in each chapter on John Zacharias' works, such as uroscopy, medical case histories and pharmacology, Bouras-Vallianatos provides his reader with an introduction to the larger medical tradition surrounding that subject matter (under the subheadings of 'The Art of Examining Urine', 'Clinical Narratives in History' and 'Pharmacological Manuals in Late Byzantium'). These windows into the various contexts, plus comparisons of John Zacharias' approach to those of ancient, medieval European and Islamic writers, gives the reader the chance to see John Zacharias not only in the setting of Byzantine medicine, but also in the wider context of the Mediterranean medical traditions.

As is well known, meaning is a process that is in constant formation in the triangle formed by the author, text and audience. Bouras-Vallianatos addresses each member of this triad very astutely, giving the chance to even the most humble reader to grasp the spirit of John Zacharias' works fully. While demonstrating how John as an author showed originality and cared to include his experience in his works, Bouras-Vallianatos traces the vast network of medical texts, which John Zacharias borrowed and modified. However, the most innovative aspect of *Innovation in Byzantine Medicine* pertains to the discussion of the audience of John's literary output. Examining John's statements as well as the way he structured and presented his work, Bouras-Vallianatos wonderfully shows how the early-fourteenth century physician targeted different types of audiences in his various works, ranging from specialised professionals to *philiatroi* (amateur physicians); from his inner circle including his patients to physically distant readers. The various registers of the audiences become even more multi-layered when Bouras-Vallianatos presents in detail the later medieval and modern reception of John's work.

As a reviewer – a member of the modern scholarly audience who has the mission of introducing *Innovation in Byzantine Medicine* to you – I am not only convinced by the argument that John Zacharias used various epistemological and literary means to make his texts original, practical and accessible; but I am also pleased to note that Petros Bouras-Vallianatos as a writer is as original, practical and accessible as the subject of his research.

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Harold J. Cook, ed., *Translation at Work: Chinese Medicine in the First Global Age* (Leiden: Brill; Boston, MA: Rodopi, 2020), pp. xii + 214, \$144.00, hardback, ISBN: 9789004362741.

With three dedicated *Isis* Focus sections, one special issue of *Annals of Science*, and a spate of related monographs, translation has in the past decade emerged as a key theme in histories of science and medicine, in no small part propelling their ongoing 'global turn'. Formative in the rise of these studies has

been the work of Harold Cook, whose oft-cited *Matters of Exchange* elaborated a masterful account of how the Dutch commercial empire's networks shaped early modern medicine and natural history. There already, Cook had dedicated a chapter to the pathways by which knowledge of acupuncture, moxibustion and pulse diagnosis circulated from East Asia to Europe. The six case studies collected together by Cook in this tidy edited volume – the result of a workshop at Brown University in 2014 – thus serve as a logical extension to his prior efforts, richly documenting the plurality of early modern engagements with Chinese medicine.

That plurality of Chinese medicine is consciously at the volume's core. A global approach informed by translation, Cook tells us in his introduction, reveals first and foremost, that 'Chinese medicine,' far from being a monolithic entity, was diverse and malleable, transformed over and again through a 'variety of adaptive responses' (p. 9). Exploration of these adaptive responses begins with two chapters treating Jesuit brokerage. Marta Hanson and Gianna Pomata examine the translation of the *Tuzhu maijue bianzhen* (c.1510) pulse treatise, comparing its Persian translation during the Ilkhanate with Michael Boym's Latin translation in the *Specimen medicinae sinicae* (1682) and Julien-Placide Hervieu's French translation included in Du Halde's *Description géographique* (1735). Beatriz Puente-Ballasteros then examines Manchu palace memorials in order to recreate Jesuit attempts – unsuccessful – to introduce chocolate as a general restorative to the Qing court. Thereafter come a series of three essays focussed more explicitly on the responses of practitioners themselves, primarily in Japan, but also in Germanophone territories. Wayne Tan uses Ten Rhijne's *De acupunctura* (1683) to tease out Japanese divergences in acupunctural practice, centred on the contested site of the abdomen, while Daniel Trambaiolo shows how mid-seventeenth century Chinese treatises on epidemics inspired Japanese physicians to develop novel techniques of scraping and bloodletting. A parallel process is described in Margaret Garber's study of the 'interpretive domestication' of moxibustion by the Academia Naturae Curiosorum: contending humoral and iatrochemical understandings, as well as the application of local substances, transformed *moxa sinensi* into *moxa germanica*. Finally, Motoichi Terada's chapter unpacks the merging of Chinese sphygmology with neo-Hippocratism in works by Jean-Joseph Menuret and Henri Fouquet in particular, highlighting the role of Chinese pulse diagnosis in the development of Montpellier vitalism.

Critiques of circulation have stressed the need to account for what failed to travel, and the volume's contributors are keenly aware of this question. Specific remedies and techniques from East Asia elicited the greatest interest, while underlying cosmological and theoretical systems proved far less mobile – ignored, misunderstood or else consciously discarded in favour of local systems. Yet, ironically, this may precisely have been what allowed translation to thrive. Hanson and Pomata place special emphasis on the availability of 'commensurable textual forms' in overcoming the incommensurability of content (p. 56). One might suggest that formal structures more generally created a mansion for housing the tremendous substantive variability of Chinese medicine on display in these chapters. Extracted from the broader systems in which they were embedded, specific techniques entered, in Garber's words, into a 'liminal space' of the 'multiple, heterogeneous and particularly ambiguous' (p. 156), susceptible to constant reinterpretation and reinsertion into new frameworks.

Insights as above render this volume essential for researchers interested in the globalization of Chinese medicine, complementing such earlier works as Linda Barnes' *Needles, Herbs, Gods, and Ghosts* and Roberta Bivins' *Acupuncture, Expertise, and Cross-Cultural Medicine*. More undecided is how precisely the volume wishes to add to debates in global history. The Jesuit mission in late imperial China, for instance, has long received attention, as have Tokugawa medicine's negotiations with continental influence. Is global history merely the sum of these pre-existing fields, now unified under a flashier new banner? Or does the sum offer a greater whole – perhaps a new picture of the early modern world? Concepts of brokerage, circulation, mediation and translation purport to disrupt both Eurocentric narratives of science and medicine as well as the civilizational units of comparative world history. But all too often, they remain within conventional geographies. The result, in this volume and others like it, is an equally problematic duocentrism: we are ultimately caught within the worn ellipse of East Asia and Europe, the former defined still by China and Japan, the latter primarily by western European nations. Glimpses of a more motley and subversive geography are scattered throughout these essays. We see

mention of an 'Indian doctress' in Batavia engaged in moxibustion (p. 137); we are told of Mongolian surgeons and Tibetan healers at the Qing court (p. 65). Hanson and Pomata do, to their credit, offer sustained treatment of the late medieval Persian translation of the *Maijue*, but one wonders about the continued early modern interactions between Chinese and Arabo-Persian natural philosophy explored by scholars like Dror Weil. Puente-Ballesteros briefly discusses New World knowledge of chocolate, but one wonders about those Chinese practitioners in Mexico City, armed with their 'nine needles', of which Spanish barbers complained (p. 12). Related to this is the question of the 'first global age' raised in the volume's title. How are we going to understand the capacious hybridity and pluralism of the early modern in relation to the globalised modern biomedicine that would follow? Terada's concluding chapter teases one possibility, suggesting that one might trace Chinese sphygmology through vitalism into 'the theoretical basis of biology' (p. 205). The exploration of these unexpected geographies, actors and afterlives offers promising leads for the future as the global history of medicine matures. Although this erudite and informative volume does not fully explore them, it plants the seeds of inquiry, making it a heartily welcome contribution.

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Su Jing, *西医来华十记 [Ten Essays on Western Medicine in China]* (Beijing: Zhonghua Book Company, 2020), pp. vi + 380, ¥68.00, hardback, ISBN: 9787101142501.

Su Jing is well known in the academic circle of mission studies in China for his knowledge of English missionary manuscripts. Evangelical activities were closely linked with missionary enterprises in medicine. Su's latest book, *Ten Essays on Western Medicine in China*, is a selection of essays in Chinese, which mainly concerns the medical activities in China of the London Missionary Society (LMS), the American Board of Commissioners of Foreign Missions (ABCFM), the American Presbyterian Church (PC) and Chinese assistants during the late Qing and early Republican periods.

Two essays go beyond missionary medical activities, covering 'The East India Company and the Western Medicine to China' and 'William Wykeham Myers and the Earliest Western Medical Education in Taiwan'. Although missionaries and mission hospitals were the most significant players in the early history of western medicine in China, the medical activities of The East India Company and William Wykeham Myers cannot be neglected. The East India Company was the impetus behind the introduction of the Western Medicine to China before missionary medical activities (44) and Mayer's achievement, as the British Customs doctor was unique in China's history of western medicine where missionaries predominated (222). Hence, these two essays are complementary to an account of the medical activities of missionaries and highlight the importance of the latter within any kaleidoscopic overview of western medical activities in China.

The Ophthalmic Hospital at Canton established by Peter Parker, missionary of ABCFM, was the first mission hospital in China (46). The essay 'Medicine and Evangelization-Peter Parker and Chinese in Singapore' investigates the free medical service provided by Parker to Chinese people of different social strata in Singapore, which won him their recognition.

The essay 'William Lockhart: The Founder of Lester Chinese Hospital in Shanghai' is a biography of Lockhart, which outlines how Lockhart resolved to work as a medical missionary for LMS in China, founded Lester Chinese Hospital in Shanghai and the Charity Hospital in Beijing. Lockhart was more than just a founder of hospitals: he introduced vaccination to Shanghai, compiled *The Medical Missionary in China: A Narrative of Twenty Years' Experience*, raised funds for the Charity Hospital and cured cholera patients in Beijing.

Lester Chinese Hospital was the first western hospital in Shanghai. The activities of another medical missionary of LMS, Cecil John Davenport, a long-serving director of the hospital, are explored in the essay 'Cecil John Davenport and Lester Chinese Hospital'. This provides a detailed account of