

Insensitive to the epidemiological perils of irrigation, ‘he remembers that he used to dig, and dig far and wide. He is sympathetic to anyone digging’ (K. Dimissas, 1933, quoted p. 175).

Oddly enough, the absent character is the state. The author is well aware that, despite all the calamities suffered under the ‘*Tourkokratia*’ (Ottoman domination), the conduits of the lakes were never neglected, and canals were opened and kept clear by corvée labour; while ‘the political distractions’ of the nascent independent state saw blocked canals cause flooding, the loss of agricultural revenue and disease. For all that, the very issue raised in the introduction, ‘Did nationhood increase or reduce the suffering of the Greeks?’ (p. 12), remains unanswered. Again, Gardikas notices ‘a sense of national emergency’ among leading army physicians during the Greco-Turkish war of 1897, when 45% of the armed forces were hospitalised for endemic fevers and marshland malaise. Yet, rather than following up on the way the Anti-Malaria League, for instance, failed to ‘go to the people’, as did its Italian elder, it’s the draftee’s *experience* that commands the author’s undivided attention. The tremendous rate of quinine consumption (one-fifth to one-quarter of world production), its integration into local culture (peasants rated it as equal to bread) and, above all, the passiveness or Stoic ataraxy (*oblomovtchina* would be an accurate term) of a people prone to endure an ever-threatening prospect as ‘a natural phenomenon’ (M.D. Mackenzie, 1929, quoted p. 280): these are the ground-level topics addressed in a medico-social and cultural frame, without reference to the top-down ‘perspective of the state’ (p. 73).

As reported by a League of Nations committee, the two main health problems facing Greece in the early 1920s were malaria and the health machinery itself (portrayed as ‘clinically dead’). But these two issues – the ubiquity of the scourge and the inability of a stateless state to deal with it – cannot be neatly separated. In contrast to Maria Vassiliou’s pathbreaking ‘Politics, Public Health, and Development: Malaria in 20th Century Greece’ (unpublished PhD thesis, Oxford, 2005), Gardikas side-steps politics. Nor does she pay much attention to Yugoslav or Bulgarian developments. Nevertheless, *Malaria in Modern Greece* will remain as a masterpiece on the dynamics of the disease within a century and half, and the cultural adaptations or failures to adapt of a given population to environmental pressures.

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Hugh Cagle, *Assembling the Tropics: Science and Medicine in Portugal’s Empire, 1450–1700* (Cambridge: Cambridge University Press, 2018), pp. 382, £35.99, hardback, ISBN: 9781107196636.

Portugal and its empire are attracting a growing interest among scholars interested in the contributions of Catholic nations to the history of early modern science and medicine. This trend is confirmed by Hugh Cagle’s fine book, *Assembling the Tropics*. The overarching objective of this book is to historicise an aspect of our planet’s geography that we tend to take for granted: the tropics. This is, then, in one way an exercise in the history of geographical concepts and metageography, following up on Dennis Cosgrove’s seminal thoughts about tropicality. Cagle argues that the tropics emerged as a coherent spatial unit in the minds of Lusophone botanists and medical specialists in the late seventeenth and

eighteenth centuries, after a very long period of confusion regarding the salubrity – or otherwise – of equatorial regions for Portuguese travellers.

When Portugal began its equatorial explorations in Africa in the mid 1400s, the early impressions were positive: a lush, fertile landscape seemed to indicate that the lands lining the Gulf of Guinea would be welcoming to Portuguese traders, travellers and potentially even settlers. Over the following decades, it gradually emerged that this was not the case, and that the region was in fact rather prone to giving Europeans vigorous fevers. Mortality rates were staggeringly high and ended up leaving a deep imprint on Portuguese minds. A similar association between the climate of the lands close to the equator and the profusion of mortal diseases emerged across Maritime Asia after 1498.

The ‘discovery’ of Brazil from 1500 onwards, Cagle then argues, prevented botanists and medical specialists sitting in Lisbon, Goa and other centres of knowledge production from merging the various experiences falling between the tropics of Cancer and Capricorn into a single unit of analysis. For Brazil, according to most authors writing about it during the sixteenth century, was a salubrious land. An edenic perception of the region and its climate, as inaugurated in 1500, found the force to perpetuate itself for many decades – indeed, almost two full centuries (p. 174). Jesuits, settlers and sugar-producers maintained in their writings that diseases were not an issue in Brazil in comparison with other parts of the world. Fascinatingly, Cagle shows how the various strands of knowledge about diseases and cures in Africa, Asia and Brazil could only merge into a larger, coherent strand of thinking about the tropics from the mid to late seventeenth century onwards. For this to happen, Brazil itself needed to be understood at last as the unhealthy place it really was for European travellers and settlers.

To make his case, Cagle mobilises an impressive array of printed and manuscript sources ranging from the fifteenth to the eighteenth centuries. Three central chapters dissect the writings of Garcia da Orta, offering a valuable addition to the ongoing mini-boom of works on this Goa-based botanist. Orta relied on a ‘recursive empiricism [...] shuttling back and forth between textual claims and long-authorized forms of somatic encounter’ (p. 120). He navigated very carefully between bookish erudition, intercultural dialogue and the sheer materiality of his encounters with *materia medica* available in the markets of India. Cagle’s argument is a forceful reminder of how medical knowledge was not only profitable, conducive to great intellectual adventures and highly rewarding in terms of social prestige, but also dangerous – especially for anyone not fully in line with the Catholic orthodoxy demanded by parts of the Goan elite, soon supported by an Inquisition tribunal introduced in 1560.

In the chapters where Cagle ventures beyond Orta, we are offered valuable insights into little known medical writings such as those of the physician António de Abreu, with whom the ‘pathologization of Brazil’ (p. 215) began after 1600, and the sugar-planter Ambrósio Fernandes Brandão. Abreu, in his engagement with the problem of tertian fever, was the one who started to draw connections between diseases occurring ‘in Lisbon, Luanda, and Bahia alike’ (p. 226). Crucially as well, in his *Tratado de las siete enfermedades*, Cagle identifies an Asian dominance of the ‘imperial curative repertoire’, regardless of the specificities of the Atlantic: to treat fevers anywhere, Abreu recommended cinnamon, rhubarb, cardamom, opium, tamarind and aloes, among others.

This is a beautifully written, passionately researched book. A few bibliographical absences will strike some readers, although without diminishing the overall pertinence of the argument: Catarina Madeira Santos’ *Goa é a chave de toda a Índia* (1999) and Ângela Barreto Xavier’s *A Invenção de Goa* (2008) would have proven helpful in establishing a

more authoritative panorama of the social and religious landscape of Goa throughout the period studied (pp. 78, 129). Luís Filipe Thomaz's *A questão da pimenta* (1998) would have given political and intellectual context for the fascinating discussion of the qualities of pepper in the middle of the sixteenth century (p. 99). Jorge Santos Alves' new edition of Pinto's *Peregrinação* (2010) supersedes the *Hobson-Jobson* (1886) when it comes to identifying toponyms. The political and material framework in which scientific and medical discoveries took place appears brittle at times – Luanda was not a port approached by Portuguese vessels on their way to India (p. 216), and Dom João de Castro was not the 'illustrious conqueror of Diu' (p. 93). Spanish 'influence' in Portugal cannot be said to have 'brought [. . .] an aversion to trade [. . .] [and] merchant capitalism' (p. 247) without qualification – and the Cantino map is not an 'atlas' (p. 260).

But the latter remarks are the inevitable quibbles of a Lusitanist, and they do in no way diminish the value of this remarkable book, especially to historians of science and medicine. This book will further be of value to students of early modern history as it tells a neglected story with passion and intellectual verve. Last, but not least, Cagle avoids romanticising the history of knowledge exchanges, rightly asserting the bleakness of the outlook by the late 1700s: 'if the deadliest fevers were located in the tropics', the author asserts, 'expertise about them could no longer be' (p. 308). Europe increasingly fashioned itself as the epistemic centre of the world, and this book helps us understand how it came to that.

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Keith Andrew Stewart, *Galen's Theory of Black Bile: Hippocratic Tradition, Manipulation, Innovation*, Studies in Ancient Medicine, vol. 51 (Leiden: Brill, 2018), pp. x + 178, €94/US\$113, hardback, ISBN: 9789004382787.

The famous affection of melancholy derives its name to the Greek notion of black bile (μελαϊνή χολή), one of the bodily humours that was believed to determine health and disease. The Hippocratic treatise *On Human Nature* lists black bile alongside blood, phlegm and yellow bile, thus stating a quartet that was destined to have a long career in the history of medicine. But this would not have happened were it not for Galen of Pergamum (129–c.216 CE), who championed the authenticity of *On Human Nature* (or, to be more precise, its first eight chapters) and its theory of the four humours as innate components of our nature. It should therefore be taken into account by scientific, or philosophical, medicine in relation to the physical qualities and elements. The Hippocratic author associates black bile with two qualities in particular, the cold and the dry, and one of the four seasons in particular, viz. autumn as marked by the predominance of the same qualities. As Stewart points out in this book (a slightly revised Exeter dissertation), Galen has been and still is influential in presenting his particular view on black bile and related diseases, most notably melancholy, as the original Hippocratic one adopted by all the best doctors (e.g. Praxagoras, Diocles, Herophilus and, more recently, Rufus of Ephesus) and philosophers (Plato, Aristotle) after Hippocrates. This is of course just one example of Galen's general influence on the subsequent interpretation of the history of ancient medicine, his 'fatal embrace' as it has been called somewhat dramatically if not inappositely by Vivian Nutton, who also refers to the theory of the four humours as