

date of publication and extends from the mid-seventeenth to the mid-nineteenth century (467). Appendix three is a six-page discussion of midwifery printing and design, a topic tangentially touched on in Chapter 2. Six case notes from François Mauriceau, with alternating French and English translations, make up Appendix four – a curious inclusion, since an English translation of these notes could easily have appeared in Chapter 6 with the smattering of other case notes from British and continental writers. Admittedly, the book's preface, written by Galley, claims that readers do not have to read the book sequentially and, since 'each chapter is intended to be self-contained', content of the chapters does overlap (4). Intentional repetition of content, however, does not explain some choices of content organisation such as the one just described concerning Mauriceau. Moreover, if one does not read the book from cover to cover, important information can be overlooked. Appendix five, for instance, consists of 'notes on eighteenth-century prescriptions' but some of the case notes in Chapter 8 also discuss prescriptions given to women in labour (489). After the six appendices, there is a glossary of terms associated with eighteenth-century obstetrical practice. The book ends with yet another bibliography; this one combines primary and secondary sources and includes some of the same sources found in Appendices one and two.

All told, *Mrs Stone & Dr Smellie* overreaches in its aim, but patient readers who take the time to understand how the book is organised and where targeted bits and pieces of information can be found, will be well rewarded for the effort.

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Michael Zeheter, *Epidemics, Empire, and Environments: Cholera in Madras and Quebec City, 1818–1910* (Pittsburgh: University of Pittsburgh Press, 2015), pp. ix + 325, Maps, index.

Michael Zeheter, of the University of Trier, has written an engrossing tale of two cities, Madras and Quebec, which, like many other cities, were confronted the ravages of cholera in the nineteenth century. Cholera is an intestinal disease caused by a bacterium (*Vibrio cholerae*) that, in serious cases, leads to diarrhoea, dehydration, and electrolyte imbalance. If untreated, cholera brings coma and death in roughly half of sufferers. Its course is swift: from first symptoms to death can take only hours. It is typically transmitted from person to person via food and water contaminated by human faeces, and thus depends on poor sanitation for its survival. Although the bacterium is found in other creatures, only humans suffer from it.

Before 1817, cholera rarely, if ever, escaped its native haunts, the area around the Bay of Bengal. Since 1817, it has erupted into more or less global pandemics at least seven times. It is a classic disease of globalisation: because it disables and kills people so quickly, to spread far, it needs efficient transportation networks of the sort that came into existence only with steamships and railways.

In the course of the nineteenth century, one of the obstacles to the consolidation of British power was cholera. It haunted port cities and flourished in the unsanitary conditions of military life. With the widespread outbreaks after 1817, British authorities concluded that they needed to do something about it. Just what to do was unclear, because no one knew what caused cholera. Zeheter explores the measures, at first fruitless but eventually effective, taken in two cities of the British Empire.

Quebec and Madras, at first glance, had little in common. Madras, in the nineteenth century, was much larger than Quebec, much warmer (warmth helps the bacterium to survive) and contained a population governed as a subject people with no noticeable political rights. But both cities were provincial capitals, home to British garrisons, with ports in constant contact with countless other ports and thus easily infected and re-infected by cholera. By comparing Quebec and Madras, Zeheter is able to analyse the differences in approach taken in a colony of European settlement (Quebec) and one of – to use Zeheter's term – exploitation. His study is squarely one of governmental responses to recurrent epidemics.

The first two chapters introduce the two cities; the British colonial, medical and military establishments there and the first struggles with cholera (in 1818 in Madras and 1832 in Quebec). Medical authorities did not know what to make of cholera but feared that untreated epidemics might undermine what legitimacy British rule enjoyed. So they collected data, hired doctors, installed quarantines and so on. Cholera faded away despite the lack of any effective measures. But, in both cities, the colonial state emerged from the crises with enhanced powers.

Chapter Three details Quebec's struggles with cholera in 1849–54. By this time, medical opinion had come round to the view that good sanitation might control cholera, and British authorities in Quebec had sufficient power to impose some improvements in the city's water supply. After 1854, cholera never returned to Quebec. These developments in Quebec were not contingent upon the simultaneous isolation of the bacterium by the Italian researcher Filippo Pacini or the famous work in London of John Snow on the sources of cholera (mentioned only in passing by Zeheter).

Cholera control came a bit later to Madras, as Chapters Four and Five explain. Colonial authorities did not wish to invest in sanitary infrastructure for cost reasons, and it took multiple epidemics and the dangers of the 1857 'mutiny' before they began to change their minds. Eventually, they concluded that the health of the garrison was imperilled by ill health among the Indian population and, by 1872, Madras had a new water system that reduced cholera mortality substantially. Unlike Quebec, Madras was often subject to drought and flood, each of which made provision of clean water more difficult. Cholera kept returning to Madras into the twentieth century.

The last chapter considers the development of public health infrastructure in both cities in the final decades of the nineteenth century. The discoveries of Koch and Pasteur gave rise to what we now call bacteriology, and this science filtered into colonial outposts and gradually captured the imagination of health officials. Anxieties about cholera remained in the case of Quebec and epidemics persisted in Madras. So, in both cities, colonial authorities had sufficient reason to improve the public health apparatus.

In both cases, the story is one of colonial mission creep. Authorities found in cholera a compelling reason to expand their reach, to try to regulate the sanitation habits of ordinary people, extending even to their consumption of water and food. This is not an unusual story in the annals of epidemics and disease control. What is perhaps most surprising here is the brief lag between the two cities in making the effort and investment to combat cholera. The explanation lies not in an unexpectedly high level of concern over Indian lives on the part of colonial officials in Madras, but, rather, concern over the health of a garrison and its significance for the political management of India, especially after 1857.

The book is well organised and clearly written. It is very detailed, at times proceeding almost day by day, neighbourhood by neighbourhood and health board by health board. In some sections, the larger picture recedes from view for many pages, obscured by the

fast flow of information about internal struggles within this or that sanitary commission or the preferences of one or another official. But, on balance, the book is a useful account of nineteenth-century public health, in general, and cholera control, specifically, in two important outposts of the British Empire.

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