Maurits Bastiaan Meerwijk, A history of plague in Java, 1911-1942 (Ithaca: Cornell University Press, 2022, 258 pp., ISBN 9781501766831).

Epidemics reveal aspects of the social, economic and political configuration of a society that may be less salient during 'normal' times. As the American historian of medicine Charles Rosenberg argued in a 1966 essay, responses to major health crises offer a unique context to analyse prevailing cultural values and institutional practices. A History of Plague in Java, by Maurits Bastiaan Meerwijk, provides an excellent example of the relevance of Rosenberg's idea by studying how the Dutch colonial state attempted to control plague between 1911 and 1942. Meerwijk identifies home improvement, in this case the rebuilding of traditional Javanese homes according to colonial principles of sanitation and hygiene, as the flagship prophylactic measure of the Dutch and he argues that therefore plague control was about more than health alone. Protecting colonial interests and justifying imperial presence in national and international circles played a key role in how responses to the epidemic were designed and portrayed to the outside world.

A History of Plague in Java belongs to an established academic literature linking state medicine and colonial expansion. In this regard, international studies on the third plague pandemic (1850s-1950s) have either paid substantial attention to British colonies, as exemplified by the ample work of David Arnold, or focused predominantly on (port) cities, as illustrated by Myron Echenberg's Plague Ports (2007). Meerwijk offers an in-depth analysis of a region that has been less studied, with a focus on rural contexts over a long period of time when plague became endemic. In addition, the effective combination of visual sources with a broad range of archival material and published primary sources offers a solid empirical basis to assess the evolution and motivations of plague control measures.

The book first introduces the reader to the epidemiological context of the third plague pandemic, which is thought to have started in Southwest China in 1855 and acquired a global dimension via colonial trade routes after reaching Hong Kong in 1894. When plague entered the district of Malang in 1911, Dutch officials were barely prepared for the challenge ahead. Initially, access to infected villages was restricted and in some cases whole communities were relocated. In a quest to find the culprit behind human contagion, authorities carefully scrutinised the homes of the Javanese until they found rats in traditional bamboo-made houses. Photographs, Meerwijk argues, played an important role in linking the home environment with plague ecology by, for instance, depicting rat cadavers inside bamboo beams.

The second chapter discusses the monumental effort of the Dutch to 'colonise' the homes of the Javanese. Various measures were tested at the outset of the pandemic – such as rat extermination, fumigation or vaccination – but they proved to be ineffective. Increasing the distance between the host and the vector, authorities thought, was essential and for this purpose they saw a targeted program of home improvements as promising. This approach was also convenient, since rebuilding homes was technically a feasible enterprise that could at the same time improve the reputation of the colonial government. In addition, blaming the local population redirected the attention of government critics and foreign health experts from structural problems afflicting Java, such as persistent poverty or lack of state capacity to effectively react to public health threats. Ultimately, home improvement proved to be difficult to implement due to the vast amount of state and local resources required. In addition, this policy presented important limitations in containing the epidemic because rebuilding houses took time.

The third chapter describes how images were used to depict home improvement. Before-and-after photographs, in particular, were powerful in showing the transition from a house susceptible to plague to a sanitised home according to contemporary colonial standards. Meerwijk presents powerful illustrations of the architectural transformation of villages and the colonial hierarchies underlying this process. These images, in turn, were shown to national and international audiences to convey the scientific and engineering prowess of the Dutch as well as the expansion of colonial influence into rural areas.

The role of education, a crucial aspect of this health intervention, is discussed in the fourth chapter. The Dutch were aware that home improvement alone could not be effective if the behaviour of the population with regard to disease prevention did not change. To achieve this, visual materials – such as drawings, films or pictures – were used to create an understanding of the disease that was in line with state-of-the-art medical knowledge. Promoting a particular type of behaviour in line with the colonial understanding of the disease had another convenient outcome, namely the reduction of popular opposition to public health measures. However, it is unclear from the available sources whether these education initiatives really reached large swathes of the population and had actual consequences.

The story of how plague was conquered is narrated in chapter five. Unsurprisingly, home improvement alone was not enough. Instead, the development of an effective live vaccine and its large-scale deployment in the 1930s turned out to be the decisive factor. The capacity of the colonial state, built up over the preceding decades, was so significant that it could reach remote populations during epidemics and distribute vaccines providing temporary immunity. This (late) public health achievement was soon overshadowed by evidence linking home improvement to malaria, indicating

that 'improved' houses with greater openings to facilitate ventilation exposed dwellers to mosquitos and therefore contamination with malaria.

Overall, Meerwijk has written an interesting, engaging and insightful book. At the same time, its ambitious thematic, spatial and temporal scope means that certain elements could have received greater attention. For instance, a reader might wonder about the relative importance of plague efforts as compared to other public health interventions dealing with other diseases such as cholera or influenza or urban hygiene. In addition, I would have liked to see a more focused analysis of how the influence of foreign initiatives to control plague in colonial settings may have shaped Dutch public health responses throughout the analysed period. The case of British colonial India, where the disease took millions of lives, would have been interesting in this regard. Finally, the likely correlation between home improvement and malaria deserves much more attention. The possibility that an ultimately faulty policy may have led to major malaria epidemics in places that were previously unaffected has enormous implications for how we understand and frame the colonial period in Indonesia.

These points aside, Meerwijk has written an excellent book. He considers dimensions that are key to any study of public health interventions, such as the private interests of those in power as well as how epidemiological knowledge is created and transmitted. In addition, though incredibly complex in a colonial setting, I appreciate the efforts of Meerwijk to discuss the (lack of) representation of Javanese agency in the sources, which are suspiciously silent about popular reactions to public health responses. I am sure this book will be relevant to anyone interested in how colonial powers could extend their influence into the most intimate aspects of a society as well as the challenges associated with public health interventions in colonial and non-colonial settings. I hope this work inspires others to apply his approach of combining rich visual material with other archival sources to other settings.

Daniel Gallardo-Albarrán, Wageningen University