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Big-game hunting in the history of epidemics

Frank Snowden, historian at Yale University, is an established expert of the history of epidemics, in particular through his work on cholera and malaria in Italy. He has now taken his career-long passion for epidemics into a new book, *Epidemics and Society: From Black Death to the Present*. Covering roughly a millennium on about 550 pages is no small task. Snowden does it by focusing on landmark epidemic infectious diseases, such as the plague, cholera, and HIV/AIDS, rather than giving a comprehensive overview of historical epidemiology. Doing so, he is in line with the traditions of a specific genre of medical history that organises epidemics as a historical big-game hunting, focusing on conditions with high prevalence and high death toll that appear in violent epidemics.

We can assess this textbook on the history of epidemics by looking at three ways in which Snowden approaches the subject. First, Snowden inserts systematic chapters providing important background on epidemics of individual diseases. We find a chapter on antique humoralism that shaped the understanding of epidemic disease in medieval days, and another chapter on the germ theory of infectious disease, which, if we follow Snowden, unfolded in the 19th century. The second approach taken is a radical limitation in the number of diseases treated in depth (at least until the late 20th century, when the perspective widens), covering plague, smallpox, cholera, yellow fever, tuberculosis, typhus, and dysentery. Remarkably, most of the conditions either correspond to the image of infections as invaders (such as cholera and the plague) or are diseases of war. The only real exception is tuberculosis. Still, the selection does not include diseases like pneumonia, influenza, or infectious meningitis, where explaining seasonal epidemics is more important than watching out for invaders from far away. Syphilis is surprisingly absent.

Snowden is at his best when he writes on the political side of epidemics. It is a pleasure to read his analysis on how for instance yellow fever outbreaks in Haiti were entangled with the politics and economy of this former French colony. However, his use of sweeping concepts, such as humoral medicine, sanitarianism, or germ theory, prevents an analysis of epidemics from the angle of its contemporary medical thinking with the same depth provided for the political side. This limitation becomes evident in his third line of approach, a rigorously presentist analysis of the subject. Each chapter on a disease starts with a few pages on the basic facts of the epidemic disease in question, but prevents a historical approach. For example, it is far from certain that 18th century views on phthisis can be elucidated by using 21st century knowledge on tuberculosis.

Instead, this approach obscures the historicity of disease concepts of the past and skates over the problem that we usually do not have sufficient information to wage a modern diagnosis based on flimsy historical evidence. Occasionally, the approach results in questionable conclusions, such as when Snowden claims that it has now finally been pinned down that the so-called Plague of Athens during the Peloponnesian War (after having been obscure in its nature for millennia) was typhoid. The chapter on the germ theory of infectious disease has a similar shortcoming, presupposing that a unified theory with that name existed, and that the theory was proven by Lister, Koch, and Pasteur. In the past 20 years, authors who wrote about that matter have found numerous discrepancies between what these lead scientists thought, even within their own work. Studies have also shown that the notion of a unified germ theory is a 20th century invention in praise of 19th century science. Interestingly, this problem is less virulent in the chapters covering the late 20th century and the treatment of emerging infectious diseases, severe acute respiratory syndrome, or Ebola, where Snowden allows for a sense of openness and instability of scientific knowledge.

Finally, there is the question of geographical perspective. Snowden openly states that he writes a history of epidemics seen from an Anglo-European perspective. Thus, nobody should expect too much on, for example, Indian or Chinese stories. However, in some of the epidemics chosen, a wider perspective would have been necessary: cholera, which is mostly treated through its Indian or Chinese stories. However, in some of the epidemics chosen, a wider perspective would have been necessary: cholera, which is mostly treated through its Italian history, has become an epidemic of sub-Saharan Africa lately. The disease has not, as Snowden claims, been absent from sub-Saharan Africa until 1971. Instead, 19th century outbreaks spreading for instance with costal trade along the Indian Ocean to Africa are well documented. Further examples of incorrect statements can be seen in relation to tuberculosis. It is wrong to claim that directly observed treatment, short-course (DOTS) had not been tested for efficacy before it became the basis of a global tuberculosis control strategy in 1994. Instead, DOTS was employed and evaluated in several national control programmes previously.

The overall conclusion on *Epidemics and Society: From Black Death to the Present* is mixed. The book is very readable and assembles a huge amount of mostly accurate information into a narrative that flows well. The text about epidemics and politics is lucid and presents interesting material. However, the book ultimately falls short as a medical history of the subject and hardly engages with the most recent publications on the matter.

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