

BOOK REVIEW

## Stig S. Frøland, *Duel without End: Mankind's Battle with Microbes* (trans. John Irons)

London: Reaktion Books, 2022. Pp. 632. ISBN: 978-1-78914-505-2.  
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In the midst of the global COVID-19 pandemic, there is, perhaps more than ever, a demand for histories of epidemics that speak to their biosocial nature. Historians have increasingly called for studies that retell traditional epidemic histories to include genetic, biological and ecological information alongside more traditional cultural and social analyses. At first glance, this is precisely what veteran infectious-disease doctor Stig Frøland seeks to do in *Duel without End* – a sweeping overview reminiscent in ambition and scope of Roy Porter's *The Greatest Benefit to Mankind* (1997). From content, to organization, to basic issues of accessibility, however, Frøland's book falls short of that charge.

Frøland pitches the book as a popular history and offers no firm thesis. The text is instead intended to serve as a panoramic, non-specialist survey of 'the eternal duel between man and microbes and the many factors that influence its outcome' (p. 8). It pursues this ambitious goal through ten thematic chapters, the organization of which is somewhat opaque. The first three chapters provide some discussion of historical methodology and actors. It first offers a quick history of the 'duellists' and their first encounters. Frøland locates the origins of human engagement in the duel in ancient Greek and Mesopotamian texts, with major changes in the conflict arising through microscopy in the sixteenth century, and germ theory and bacteriology in the nineteenth century. The other participants in the duel, microbes, are described through a brief summary of the biology of bacteria, protozoa and viruses, and a discussion of immune functions of the body that mediate human-microbe interactions. Frøland then posits a 'third factor', a brief nod towards the ecology of infectious disease, and proceeds into a 'bird's-eye view' of the history of disease in five major themes.

The rest of the text is split into an uneven examination of different epidemic diseases, organized under a series of broad, somewhat confusing, conceptual categories, including 'major pandemics' (the longest, comprising 226 pages), 'mysterious epidemics in history' (roughly twenty-four pages), 'the contributions made by epidemics to the fall of empires' and 'new infections, new challenges,' among others, each of wildly varying length and depth of treatment. Although idiosyncratic thematic divisions are not necessarily a fatal flaw in a book, the organization within and between chapters muddies the waters even further. Subsections within chapters briefly summarize an extensive list of key epidemic diseases (e.g. plague, syphilis, tuberculosis), providing an overview of the traditional history of the disease blended with a brief description of its biology. No real temporal, spatial or scalar logic links these stories (though they broadly follow the 'great-

man' narrative of history, focusing on famous monarchs, artists and scientists associated with each disease).

The book is strongest when Frøland works within his own expertise, namely in the description of the pathology and ecology of organisms, the genetic findings and their implications for historical work. The section on 'New infections, new challenges', for example, offers valuable insights into the biology of and responses to emerging infectious diseases, like prion diseases, fila viruses and spillover diseases. These observations contain some original biological and policy insight that would be absent in a traditional history of disease. Indeed, if it were a text focusing primarily on the medical and biological interpretation of historical diseases using scientific evidence, it would be captivating – though the reader might still need to be wary of the occasional questionable claim, including that there is 'still no agreement in the research world that the [lab] leakage theory can be dismissed' (p. 440).

For a non-specialist audience, the length of the book, as well as the weakness of its narrative and its haphazard organization, will make it a challenging read. The text jumps across historical time periods, geographic contexts and types of evidence from section to section, with few connecting threads. The text thus requires a fair bit of specialist knowledge of both history and epidemic disease to make sense of. However, those who do persevere will likely enjoy Frøland's encyclopedic knowledge of infectious disease, the odd entertaining narrative and a reasonably good example of a 'traditional' narrative of the history of epidemics (rather than an 'up-to-date' account, as the blurb suggests) – with all its accordant biases and norms.

Specialists both in the history of medicine and in infectious disease research, meanwhile, will find a mix of generally useful discussions of the above themes, but will face a substantial challenge in locating or referencing them in the text without a detailed table of contents or substantive index. Where there are original insights or useful syntheses of the histories of individual diseases – for example, Frøland's description in the first chapter of the role of the immune system in managing infectious disease is reasonably detailed, as are his discussions of the history of syphilis and plague – their impact is muted by their lack of context. Furthermore, academic researchers may find Frøland's often uncritical treatment of several disease-related narratives – for example, the claim that STDs spread due to 'casual, uncritical sex' (p. 88) or the defence of William Gorgas's hereditary theory of yellow-fever immunity among African American populations (p. 238) – a troubling revival of heavily criticized and dated historical lenses.

As it stands, the book exemplifies why historical training and facility with critical narratives of disease are so important. It largely fails to provide a balanced interpretation of epidemics using historical research (made evident by the thin set of references, comprising just forty pages of a 632-page book), and in doing so, often runs the risk of perpetuating stereotypical, outdated or downright harmful narratives that historians have long sought to undo. Although several passages provided new insight into the biology of disease both past and present, and facts that even specialists in the history of disease may not know, these insights come at a heavy cost. If you are looking for a bird's-eye view of the history of disease that is useful, informative and accessible, and balances historical and biological information, it might be best to stick to Porter.