

It is evident that this volume contains a rather diverse collection of chapters, dealing with varied topics from different historical periods, and approached with different methodologies and agendas. Nevertheless, my personal impression is that the editors have managed to efficiently organize and present their overall thesis in a compelling manner, thus transforming an apparent disadvantage of the volume into a convincing argument. Having said this, one has to record that the volume is not a complete history of the historians of mathematics. However, this is perhaps some unfair criticism given the enormous amount of work that such an enterprise would require.

To conclude, the edited volume *Historiography of Mathematics in the 19th and 20th Centuries* includes a collection of chapters that may prove an excellent resource for scholars and students intrigued by mathematics and its history. Therefore I would strongly encourage the interested reader to have a look at it.

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ANNE R. HANLEY, *Medicine, Knowledge and Venereal Diseases in England, 1886–1916*. London and New York: Palgrave Macmillan, 2017. Pp. 318. ISBN 978-3-319-32454-8. £66.99 (hardcover).
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In recent years, historians have begun to tell a different story about venereal disease (VD). Early analyses focused on the state, linking its repressive anti-venereal campaigns against prostitutes and other marginalized groups to the construction of syphilis and gonorrhoea as diseases of the ‘other’. Building on this work, more recent scholarship looks at VD from the standpoint of medical practice, shifting the locus of inquiry from the state to the clinic. Anne Hanley’s book furthers this historiographical shift, and in the process makes a substantive contribution to our understanding of the myriad factors that influenced social responses to VD in generations past.

Hanley’s account unfolds during the late nineteenth and early twentieth centuries – a period marked by the British state’s first attempts to control the spread of VD. Rather than enter into existing debates about the Contagious Diseases Acts or other facets of these campaigns, Hanley charts new terrain, looking at how new ideas and practices pertaining to the diagnosis and treatment of VD entered into the daily lives of medical students, general practitioners, nurses and midwives. Admittedly, this is a difficult task, as much of the available source material is silent on the question of how new venereological knowledge and techniques were implemented within the clinic. Despite this limitation, however, Hanley makes effective use of the documentary record, marshaling medical texts, hospital records, patient case notes, student examination papers and the expert testimony provided to the Royal Commission on Venereal Diseases (RCVD, 1916) into a new interpretation of the era’s ‘venereal peril’.

Key to that analysis is the author’s insistence that ‘professional and scientific forces’ (p. 3) had a tangible impact on England’s response to VD. According to the received wisdom on the topic, what made the era’s anti-venereal efforts so unsuccessful was the fact that syphilis and gonorrhoea were seen as moral problems rather than medical ones. Hanley contends that ‘professional self-interest’ (p. 195) also played a role here. For example, when discussing the training of general practitioners, she argues that the rudimentary instruction provided in medical schools stemmed from ‘anxieties over specialist training’ (p. 33). The evidence here is solid, but in documenting venereology’s fragmented place within the medical curriculum, Hanley sometimes reads her sources anachronistically. For example, when looking at medical exams, she notes that ‘only’ twenty-one out of 552 questions dealt with VD (p. 40). What does ‘only’ mean? This is a slightly ahistorical interpretation; in order to understand the development of VD education, it would help to compare this to earlier and later periods. Moreover, given the fact that venereologists were a marginalized

group looking for ways to promote their field, should we be surprised when specialists claimed that hospitals for treating VD were too few in number? Here Hanley appears to take her sources at face value, neglecting the question of ulterior motives. This prevents us from understanding the realities of English venereology's 'educational limitations' (p. 76).

Because of the compartmentalized nature of English venereology, Hanley argues, both the Wassermann test and Salvarsan resisted attempts at standardization. In an insightful chapter on these technologies, Hanley furthers existing debates regarding the supposed 'laboratory revolution' in turn-of-the-century Western medicine. Like many other recent studies on the subject, Hanley's analysis of the era's bench–bedside dynamic shows that laboratory techniques remained subordinate to more traditional diagnostic and therapeutic practices. For many doctors, the Wassermann's value lay in its ability to shore up existing diagnoses rendered on the basis of symptomology. And interestingly, as they experimented with this novel procedure, VD specialists found that instead of resulting in more scientific methods of diagnosis, the Wassermann actually demanded new levels of intuition – what Ludwick Fleck long ago termed 'the serological touch'. The same was true of Salvarsan, a drug whose use 'varied according to each patient's response' and was administered largely on the basis of 'personal impressions' (pp. 119, 115). On account of these developments, Hanley rejects the notion that the relationship between clinicians and bacteriologists during this period was a primarily adversarial one. Even laboratory devotees approached their work as an art; as Hanley writes, 'intuitiveness was in fact becoming integral to the application of new laboratory technologies' (p. 114).

The work's final two chapters examine how gender dynamics within the English medical profession prevented nurses and midwives from more effectively contributing to the country's struggle with sexually transmitted disease. Even more so than aspiring doctors, these female practitioners had few opportunities for learning about VD. This lack of instruction was intentional, and stemmed from two sources: first, a belief that their interactions with VD patients would prevent them from purifying society, and second, doctors' fears that educated nurses and midwives would threaten their own medical livelihoods. With regard to the latter, Hanley argues that midwives' restricted access to venereological information prevented them from properly caring for newborn babies with ophthalmia neonatorum, an inflammation of the eyes caused by gonorrhoea. While intriguing, this argument is somewhat speculative, and overlooks the fact that doctors themselves were often unsure about the connection between *gonococci* and ophthalmia neonatorum. Thus what Hanley sees as an attempt to restrict knowledge could have simply been a reflection of uncertainty. Moreover, given that midwives generally found their clientele among the poor and working classes (not demographics the average general practitioner was interested in), it is unclear why doctors would have felt threatened by this 'perceived encroachment ... into their professional territory' (p. 226). On this point, the evidence is a little thin, and would have benefited from a broader analysis of gender dynamics in turn-of-the-century English medicine.

These problems aside, Hanley's book makes an invaluable contribution – not only to VD historiography, but also to the literature on the histories of professionalization and specialization, medical standardization and medical education. At times, the author's argument would have benefited from more contextual analysis, but for works as original as this, details sometimes have to be sacrificed in favour of breadth of coverage. While there is more to do with regard to the clinical history of STDs, Hanley has opened the doors to subsequent research, and shown that this is both possible and important.

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