

book shows conclusively that this was far being a period of stagnation in the development of institutional mental health provision.

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Aya Homei and Michael Worboys, *Fungal Disease in Britain and the United States, 1850–2000: Mycoses and Modernity* (Basingstoke: Palgrave Macmillan, 2013), pp. xiii, 225, \$23.00, paperback, ISBN: 9781137392633.

Fungi are all around us (and on us), whether in nature or the clinic. Patients experience athlete's foot, jock itch, and vaginal yeast infections. General practitioners regularly see such infections – and occasionally more concerning fungal disease – in the clinic. And yet, historians of infectious diseases (myself included) have largely ignored fungal diseases, choosing instead to focus on epidemic diseases like cholera and plague or such endemic Captains of the Men of Death as tuberculosis and pneumonia.

Aya Homei and Michael Worboys have sought to correct this collective oversight, focusing on the history of fungal disease in the United States and Britain from the nineteenth-century emergence of the germ theory through the late twentieth-century spread of chemotherapy and organ transplantation. But this is not merely an enumerative or chronological history. As the authors remind us, scientists and clinicians have long thought of infection (including, and perhaps especially, fungal) in the individual in terms of 'seed' and 'soil', or the relationship between a germ itself and the host conditions that allow it to proliferate and make itself visible in one way or another. Homei and Worboys have used the history of fungal disease to cleverly extend this dynamic to the social level, examining the conditions that have promoted the apparent emergence of fungal diseases – whether in absolute terms, or in the gaze of patients and clinicians – over the past century and a half.

They begin with ringworm, a superficial infection which, while hardly life-threatening, stigmatised those afflicted with it at the end of the nineteenth century as unclean and contagious, forcing children home from school (or to be sent to special 'ringworm schools'). Indeed, Homei and Worboys argue that the introduction of mass schooling in Britain from the 1870s onward not only brought children together (contributing to the spread of ringworm), but also raised the visibility and stigma of the disease itself. In turn, this thoroughly 'modern' disease was soon treated with the most modern of technologies, X-rays applied to the scalp, from the 1900s until the 1930s. By the 1930s, though, the most prominent dermatophytosis (as such fungal skin infections would come to be called) had moved, as the authors state, from children to adults, and from head to toe, manifesting as *tenia pedis*, or, more prominently in America, 'athlete's foot'. Epidemiologically spread by modern socks and shoes, the rise of sports facilities and their locker rooms, and the conditions of soldiers and miners, athlete's foot in turn spurred the 'chemical abuse' of the feet of the afflicted with a wide array of (well-marketed) topical remedies, before the introduction of the mold-derived, orally administered griseofulvin in the late 1950s.

And by this time, fungi had become ever more clearly linked to the antibiotic era, whether glorified as the source of such wonder drugs, or feared as 'superinfections' attendant to the alteration of the normal host microbial flora by such exogenously administered agents. Candidal (or 'monilial') superinfections could manifest as such

mild infections as oral thrush and vaginal yeast infection, or as more ominous systemic candidiasis in the bloodstream. And while conventional medicine would fear such rare candidiasis, especially in its most immunologically vulnerable patients, the public would eventually hear from alternative practitioners about the seemingly broader public health threat of ‘chronic candidiasis’, an apparent consequence of modern habits of diet and pharmaceuticals (though, ironically, to be treated in part with antifungal azole drugs). Indeed, within orthodox medicine itself from the 1960s onwards, modern technologies of chemotherapy and organ transplantation were producing ever more immunologically vulnerable patients, to the point where the formerly rare disease of aspergillosis could climb alongside systemic candidiasis as a truly feared affront to patients and modern medicine. Such diseases would achieve still greater prominence from the 1980s onward in the context of the AIDS epidemic, which would similarly increase the clinical significance of such regionally distributed mycoses as coccidiomycosis and histoplasmosis. Modernity has thus featured centrally in the story throughout the past one hundred and fifty years, even as notions of modernity themselves have changed.

Ringworm is often recognised through its ‘heaped-up edges’, and a critical subtheme of the book concerns marginality itself, whether related to the gaze of practitioners or historians, or to the professional careers of those engaged with fungal diseases. With respect to the former, as Homei and Worboys relate, most fungal diseases have been experienced by patients outside the domain of direct medical oversight. As such, they further draw attention to the wide domains of suffering and care that take place outside such professional purview. With respect to specialisation, the authors nicely problematise expected natural histories of inevitable differentiation and specialisation. They demonstrate how, in real time, those confronting fungal infections – whether dermatologists and surgeons in the nineteenth century, or mycologists and infectious disease experts in the twentieth century – have had to link their fungal interests to broader careers in practice or the laboratory. While forming more centralised organisations (though against differential backdrops in the United Kingdom and the United States), those engaged with fungal disease have had the common experience of local adaptation and ongoing evolution, in far from inevitable directions.

I do have a few minor quibbles. The chapter on endemic mycoses and allergies is a bit more enumerative than the others, and the discussion (in the chapter on candidal infections) of the fixed-dose combination antibiotic/antifungals *Mysteclin* and *Mysteclin-F* reverses the chronology of the introduction of *Mysteclin-F* and the forced withdrawal from the market of such remedies by the US Food and Drug Administration in 1969. But these are minor issues, and we should be grateful to the manner in which the authors have turned our attention to these microbes and diseases all around us. Such diseases should no longer be hidden from our gaze.

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Hoi-eun Kim, *Doctors of Empire: Medical and Cultural Encounters between Imperial Germany and Meiji Japan* (Toronto, Buffalo and London: University of Toronto Press, 2014), pp. xiv, 249, \$55.00, hardback, ISBN: 978-1-4426-4440-3.

In 1907 Aoyama Tanemichi, dean of Tokyo Imperial University’s Faculty of Medicine, gave a speech on the campus of that institution in which he declared, ‘when it comes