calls the "British model" of the disease. However, the danger of eating tuberculous meat was probably exaggerated. Like rabies, the threat from bovine tuberculosis existed more at a rhetorical than an epidemiological level. Explaining the alarm, Waddington discusses the new cultural meaning of meat at a time when consumption was increasing, and the role of medical officers of health and veterinarians who were staking out their professional grounds, seeking ways of making concrete contributions to the public health.

By 1900 the focus of attention had shifted from infected meat to milk. Part of the reason for the shift, Waddington tells us, was a sense that "the problem of diseased meat was on the way to being solved". He notes that the abolition of private slaughterhouses, the establishment of public abattoirs, and efficient meat inspection were thought sufficient to prevent the sale of tuberculous meat "because it would no longer be remunerative to keep tuberculous cows until they become seriously diseased" (p. 154). Further reassurance stemmed from the belief that cooking rendered diseased meat safe. This explanation is not entirely convincing. Uncertainty persisted about what constituted diseased meat as late as 1914, and the failure to prevent the sale of diseased meat led to a focus on eradicating tuberculosis in cattle, and yet compensation remained a thorny issue. Waddington's discussion of the effects of cooking meat also reveals ongoing doubts about its efficacy. He perhaps comes closer to providing an explanation for the shift when he relates it to the mounting concern for child health around the turn of the century. Tuberculous meat primarily affected adults while tuberculous milk affected children and was seen as damaging to the future strength of the nation.

Waddington argues that the part played by the public in shaping concerns remains "uncertain", with limited evidence of public involvement. "Unlike other contagious diseases, fears of bovine tuberculosis were essentially fashioned by elite veterinarians and doctors who defined the problem, drove debate and lamented that the public were not more interested in the threat they believed the disease represented" (p. 188). This conclusion surprised me, for elsewhere he states, "By the late 1880s . . . the medical profession *and lay public* were alarmed about alleged danger of transmission through eating infected meat and milk" (emphasis added, p. 92), and "By the Edwardian period, public opinion was in favour of concerted measures to check the spread of bovine tuberculosis as an integral part of the crusade against consumption" (p. 188). He also notes that the National Association for the Prevention of Consumption, a lay organization set up in 1898, held local conferences to discuss measures to control bovine tuberculosis, and convened the 1901 Congress on Tuberculosis, intended as a "venue for public education" (p. 113). There were also clean milk campaigns by voluntary bodies, including the National League for Physical Education and Improvement, and the National Health Society. The "uncertainty" about the public's role perhaps reflects the sources he chose to focus on.

In his conclusion, Waddington engages with historians who have suggested that social intervention played an important part in mortality decline, and argues that "the history of meat and milk inspection indicates that not all areas of public health work progressed at the same rate, or were equally successful" (p. 189). Indeed, with local opposition and scientific uncertainties prevailing, he demonstrates that public health initiatives to eliminate bovine tuberculosis were not at all successful in the period under discussion. Waddington's study amply fulfils his goals of filling a gap in the historiography of tuberculosis and contributing a new dimension to more recent debates about the safety of food supplies.

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Werner Troesken, *Water, race, and disease*, Cambridge, MA, and London, MIT Press, 2004, pp. xviii, £22.95, $35.00 (hardback 0-262-20148-8).

In 1971 a group of African Americans living in Shaw, Mississippi, sued their town for failing to meet the standards of the fourteenth amendment

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of the US Constitution (which requires equal protection of the laws for all Americans). The plaintiffs argued that since 20 per cent of black homes lacked access to sanitary sewers and only 1 per cent of white homes were similarly bereft, a clear pattern of racial discrimination in government services existed. Further, the pipes supplying water to black homes were narrower than those to white dwellings, creating much lower water pressure in black neighbourhoods. The African American citizens group won the case, and civil rights activists hailed it as a watershed decision, of the order of *Brown* v. *Board of Education*, the 1954 Supreme Court decision that outlawed discrimination in school assignments. Commentators expected a flood of similar discrimination suits about water and sewer rights to follow.

But, as it turns out, they were wrong. Shaw did not set a huge precedent precisely because the town's water and sewer pattern was highly unusual. In fact, as Werner Troesken argues in this tightly reasoned and deeply researched monograph, discrimination with regard to these civil services was rare, and even from the early twentieth century blacks received comparable water access. Most public water and sewer systems were installed in American cities during the nineteenth or early twentieth century. During that period cities in the US were far less segregated than is the case today, as both working and affluent classes lived in town, with poor dwellings interspersed with more elegant establishments. This proximity made it easier to engineer uniform systems serving both races than to segregate pipes by household colour. Further, there was considerable fear of "spillover" disease, contagion from the poor to affluent, especially with regard to typhoid fever. These two factors meant that municipal water and sewer systems installed in the two to three decades on either side of 1900 rarely discriminated, and even in the more segregated towns, black access lagged behind white by only a few years.

The result was of great benefit to black citizens. Typhoid rates dropped 55 per cent among black people after water filtration equipment was installed, for example; this contrasted to a decline of 16 per cent in whites. The author explains this discrepancy by pointing out that the poverty of black citizens had prevented them from taking measures of protection open to whites, such as buying bottled water, or having the education, time and fuel to boil water for drinking. Troesken argues that black life expectancy rose from 30 in 1900 to 44 in 1940 mainly because of the impact of water-borne disease reduction. He also finds that in some southern towns black malaria rates dropped remarkably with the introduction of water purification systems, suggesting that typhoid had often been misdiagnosed as malaria among the black population.

Troesken supports his theses with statistical and econometric methods, a style of argumentation somewhat out of favour among historians of late. Troesken asks clear questions of his data, and offers interesting answers. He finds that the Shaw case was important because it was so atypical; although schools, hospitals, churches and other institutions had been rabidly segregated in the Jim Crow south, water supplies and sewers had not. Any historian who would challenge his findings will have to meet data with data, eschewing the random quotation or text analysis for maps, vital statistics, and records of public improvements. This is a landmark book which speaks directly to the Thomas McKeown controversy—to paraphrase a catch line from the 1992 US Presidential election, "It was the water, stupid."

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Sarah W Tracy, *Alcoholism in America: from reconstruction to prohibition*, Baltimore and London, Johns Hopkins University Press, 2005, pp. xxiii, 357, £32.00, $48.00 (hardback 0-8018-8119-6).

With this book, Sarah Tracy has undertaken to revisit a subject that has already attracted considerable scholarly attention. Her main contribution to this vast and ramified historiography consists in a detailed analysis of the various, intricate, and by no means all-powerful processes subsumed under a seemingly

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