uncovering enduring patterns despite the great changes in the meanings of disease.

Jones compares four different cases: responses to the decline of Aboriginal populations in the first decades of colonization in New England; efforts to control (and efforts to spread) smallpox on the western frontier from 1760s to the 1830s: tuberculosis among the Sioux in the late nineteenth century; and mid-twentieth-century health research among the Navajo. Each case is discussed over two chapters; the first chapter of each set examines how epidemics were explained at the time, the second chapter focuses on responses to the epidemics. This approach tends to decontextualize disease and removes it from its political and economic roots. Nevertheless, the comparative approach provides a longer view of the relentless assaults on Aboriginal health over four centuries. But what is most enlightening is Jones's focus on the responses to disparities in health status between immigrants and Aboriginals.

Rationalizing epidemics is a history of meanings. How did New England colonists explain dangerously high Aboriginal mortality while their own colonies flourished? Jones notes that there were more nuanced explanations than the Puritan belief in their own Providential mission. Colonists nursed the sick Massachuset. and fed the dying Wampanoag in 1621. Likewise in the nineteenth century when the Sioux, confined to reservations, suffered untold misery from tuberculosis, the federal government accepted limited responsibility and sent physicians to attempt to control a situation created by government policy. Were the Sioux suffering an inevitable demise, or were they passing through a so-called "stage of civilization"? Despite the changing understanding of disease, there has always been an effort to assign meaning to disparities in health. The meanings and responses have changed over time, but Jones tells us that certain patterns have endured.

Regardless of the disease, whether epidemic smallpox, endemic tuberculosis, or chronic heart disease and diabetes in the late twentieth century, Aboriginal people have suffered more severely than their European or American observers.

This constant disparity does not reflect an inherent susceptibility to disease, nor does it point to the biological determinism that historians such as William H McNeill or Jared Diamond have employed. Instead consistent disparities reflect the disparities in wealth and power that have endured since contact. Jones also argues that when one group rationalizes health disparities in another group discrete responses emerge. Rationalizations give way to assignment of responsibility which can fall on the sick, or the healthy, or on some outside authority such as government or even God's will. The choice of response tends to reflect the needs of the local community. Fur traders among the Mandan and other Plains groups in the early nineteenth century worked to vaccinate the people against smallpox to preserve the trade, while settlers suggested that Aboriginal people were doomed to extinction just like the bison herds that sustained them. Jones concludes that health policy flows from these rationalizations for health disparities. Decisions whether to extend or withhold financial and political resources depend on how disparities are rationalized.

This is an important book that will be welcomed by historians and their students. However, the focus on responses to epidemics privileges Euro-American voices to the exclusion of Aboriginal people themselves. Although Jones does attempt to include some Aboriginal responses, *Rationalizing epidemics* tells but one side of a tragic story.

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Ilana Löwy, Virus, moustiques et modernité: la fièvre jaune au Brésil entre science et politique, Histoire des sciences, des techniques et de la médecine, Paris, Éditions des archives contemporaines, 2001, pp. 363, illus., €25.92 (paperback 2-914610-00-9).

This book should be recommended to a variety of audiences. Besides those who are interested in the history of tropical medicine in Brazil, anyone concerned with the social study of science, with

the international dimensions of research ventures, with the politics of health campaigns, and with the relationship between universal principles and historical contingencies, as well as with another exemplary tale of the interaction between bugs, people, science, the state, and yet other social actors, will find compelling reflections, insights and formulations in Löwy's account. Löwy's approach to yellow fever in Brazil combines layers of understanding and lines of enquiry that are usually separated, like science studies and the social history of medicine. Moreover, the author uses a variety of sources that include the extensive Brazilian historiography on tropical medicine—one that, because it is mostly published in Portuguese, is less widely known (unfortunately, there are a number of spelling mistakes in the quotations). By studying how these fields interlink and overlap, the author creates an original perspective on the subject. In her words, "campaigns against yellow fever in Brazil were fashioned by the complex interactions between the knowledge and practices produced in laboratories by bacteriologists and virologists and those developed in the field by epidemiologists and public health experts, as well as by multiple interactions with the social, cultural and political environment of those practices" (p. 42). In other words there is no single "yellow fever" entity throughout time and place, nor is it appropriate to build a history of medicine based on stable scientific revelations regarding the etiology of the disease, its morbid forms, modes of transmission, therapeutics or public health strategies. Instead, the author notes, there are several entities and meanings involved in the perception and action upon yellow fever in Brazil, as there are several "Brazils" at once and through time.

Accounting for that complexity is no simple task. If juggling with multiple realities and multiple meanings is a familiar procedure in science studies, it is less so in the history of medicine—whether in conventional histories of diseases, or in works that look into the links between tropical medicine and colonialism. Löwy's affinity with both approaches allows her some degree of success in a work that accounts

for the interactions between international and local actors—which are not, in Brazil's case, about colonialism as we know it, nor just about centres and peripheries—and between health policies, biomedical developments and sanitation—which are not just about regulating the social body. Rather than associated with colonialism, the developments of tropical medicine in Brazil are at the core of nation-building; however, as in colonial settings, the body of the nation is fractured and asymmetries are displayed, perceived and approached in a singular way, one that deserves the dense description Löwy provides. We come to know the missions of the Pasteur Institute to Rio and the discussions on the role of the mosquito; the urban sanitation campaigns led by Pasteur Institute-trained Oswaldo Cruz; the missions of the Rockefeller foundation in Brazil and their role in the anti-mosquito campaigns; the accounts of yellow fever, particularly those concerning the higher incidence among European migrants; the impact of those accounts on further biomedical developments; the involvement of the sanitary association in a project of eradication; the interweaving between medical development, national politics and ideologies of modernity.

Though hard to surpass, this work provides inspiration for further research into the connections between science, culture, politics, history, structure and agency.

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Peter Keating and Alberto Cambrosio,

Biomedical platforms: realigning the normal and the pathological in late-twentieth-century medicine, Cambridge, MA, and London, MIT Press, 2003, pp. xiv, 544, illus., £35.95 (hardback 0-262-11276-0).

To convey even something of the flavour of this book requires rather more space than a review will allow; a reader's guide is perhaps necessary. The study is, at the minimum, technical, philosophical, historical, architectural