

therapy. He seems to have been impatient and hasty in his endorsement of data. Gradmann also deals here with the development of an experimental therapy for sleeping sickness and once again a similar tale of rushed conclusions emerges. The bigger picture here seems to be that if, at this time, in the world of diagnosis it was difficult to move the laboratory into the clinic in the universe of therapeutics it was almost impossible.

The final section 'Traveling: Robert Koch's Research Expeditions as Private and Scientific Undertakings' is both revealing as case study of the exportation of the medical laboratory as a colonising instrument and more so as an instance of the allure of Africa at this time and, personally, Koch's love of hunting. Science in his later career seems rather like an excuse for bagging 'everything that moved, from hippopotamuses to crocodiles, from herons to eagles'. Koch's delight at having shot 'a beautiful blue heron' reminds us the past was a foreign country not very long ago (p. 223).

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Kathleen L. Hull, *Pestilence and Persistence: Yosemite Indian Demography and Culture in Colonial California* (Berkeley: University of California Press, 2009), pp. xiv + 374, £30.95/\$45.00, hardback, ISBN: 978-0-520-25847-1.

What was the impact of introduced disease on Native American communities? This enduring question in American ethnohistorical studies provides the frame for Kathleen Hull's *Pestilence and Persistence: Yosemite Indian Demography and Culture in Colonial California*. After outlining the scholarly debate surrounding the biological assaults of colonialism, she focuses on three issues: the timing, magnitude and cultural consequences of fatal epidemics. Hull distils the debate into three scenarios. One theory is that population collapse was early, catastrophic, preceded direct contact with newcomers, and resulted in

devastating cultural consequences including the loss of traditional knowledge and the collapse of social structures. The second scenario posits that population decline due to introduced disease was certainly early and devastating, but the event was neither unique nor did it result in significant cultural change. Over the long term, shifts in population size were common in small-scale societies; colonial-era depopulation was but one, and not the most significant fluctuation, resulting in cultural continuity not collapse. The third theory suggests that demographic change from introduced disease was neither early nor significant. According to this argument, depopulation occurred well after initial contact and was caused by the destructive forces of colonialism, and the loss of land and access to resources. Cultural change and depopulation thus reflected the economic, military and political impact of newcomers, not their pathogens. Not surprisingly, given her title, Hull argues for the second scenario, that in the case of the Yosemite 'Indians' epidemic disease was not sufficient to force abandonment of region or culture. Relatively distant from newcomers and with about fifty years to recover from the initial demographic impact of infectious disease (probably in the late eighteenth and early nineteenth centuries), the Yosemite 'were able to rebuild their traditional lives with continuity in tradition, story, and song' (p. 30). Despite the clumsy use of 'traditional' that historians (at least) eschew for its woolly reference to some unchanging past, Hull concludes that Non-Native economic and military assaults, rather than introduced disease as such, spelled fundamental change.

Pestilence and Persistence is organised around sources – historical, anthropological, and archaeological – rather than chronologically, and leads the reader back in time. After the first chapter's analysis of the theoretical approaches to the demographic and cultural consequences of introduced disease, the second chapter examines the interdisciplinary nature of the sources. Hull argues that ethnohistory with a long-term

(archaeological and ethnographic) approach counteracts the Eurocentric preoccupation with the arrival of newcomers and their artifacts. Thus the colonial encounter can be viewed as one of many events that affected the trajectory of Native American cultures and adaptation. Chapter three opens in 1851 with the Mariposa Battalion intent on removing the people from the Yosemite Valley. Increasingly violent conflict with Gold Rush miners and other Native groups led to the removal of the Yosemite from the valley into the growing Non-Native economy as wage labourers in the tourist industry. This is as close to a narrative as *Pestilence and Persistence* gets.

The next four chapters are the heart of the study and take us into deep time stretching back more than five thousand years. Much of the archaeological data is perforce tentative and to this historian seems a rather blunt instrument; indeed, one graph charts population fluctuations between 3625 BC and 1875 AD in half-century chunks. But Hull amasses considerable evidence to support her contention that demographic fluctuations were common enough in the people's past, and that strategies of survival and adaptability were fundamental to their history and culture. Her conclusion, by now familiar, is that in the Yosemite case depopulation from disease occurred before face-to-face contact and thus would have been interpreted as another episode in a very long history of change and cultural adaptation. The penultimate chapter ponders whether the Yosemite case was exceptional by comparing the experience of ten diverse Native groups from the American south-east to the north-west in order to test her hypothesis about the timing, magnitude, and consequences of introduced disease. Her analysis argues against continent-wide pandemics and suggests a much more complicated interaction between disease, depopulation and cultural responses. She notes that, despite the diversity of cultures, a recurring theme emerges of Native American persistence and adaptability in the face of upheaval; introduced disease was not the portent of profound cultural change. Hull

concludes by reiterating the point that cultural dynamism was the norm and that it is through a deep archaeological understanding of the unique history of groups such as the Yosemite that ethnohistory can finally move away from the Eurocentrism that privileges the agency of newcomers.

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Laila Williamson and Serinity Young

(eds), *Body and Spirit: Tibetan Medical Paintings* (New York: American Museum of Natural History in association with University of Washington Press, 2009), pp. xiv + 234, £28.99/ \$45.00, paperback, ISBN: 978-0-295-98869-6.

Body and Spirit: Tibetan Medical Paintings is a beautifully produced catalogue to accompany the identically named exhibition at the American Museum of Natural History to be held in New York in 2011. At its core are colour reproductions of the entire set of seventy-nine copies of Tibetan medical paintings crafted by the Nepalese artist Romeo Shrestha and his group in the early 1990s in Kathmandu.

The original set of *thankas*, or painted scrolls, were produced in late-seventeenth-century Lhasa, the newly established capital of the recently unified Tibetan state under the Fifth Dalai Lama. The Dalai Lama promoted scholarship in the healing arts, and invited to his court physicians from different parts of Tibet and from abroad so that they could teach and exchange knowledge with his own scholar-physicians and, not least, cure his ailments. Sangyé Gyatso, his close disciple and later prime minister, who shared the Dalai Lama's passion for the healing arts, became a medical scholar and continued state support for medicine after his death. He commissioned and oversaw the creation of the original set of seventy-nine medical paintings, which were to illustrate Sangyé Gyatso's new commentary, the *Blue Beryl* (*Baidurya Ngönpö*), on the twelfth-century fundamental Tibetan medical