

Ann Jannetta, *The Vaccinators: Smallpox, Medical Knowledge, and the 'Opening' of Japan*, Stanford: Stanford University Press, 2007, 245 pp.

C. Michele Thompson

[Dr. C. Michele Thompson holds a Ph.D. in Southeast Asian History from the University of Washington. She is Professor of Southeast Asian History in the Department of History at Southern Connecticut State University. Her recent publications include co-editing *Southern Medicine for Southern People: Tradition, Modernity, and the History of Medicine in Vietnam*, Cambridge Scholarly Publications, 2012, "Setting the Stage: Ancient Medical History of the Geographic Space that is now Vietnam", in *Southern Medicine for Southern People: Vietnamese Medicine in the Making* and "Jean Marie Despiau: Much Maligned Physician in the Service of the Nguyễn Dynasty", in Wynn Wilcox (ed.), *Vietnam and the West: New Approaches*, Ithaca: Cornell Southeast Asia Publications, 2010. Contact: thompsonc2@southernct.edu]

One can tell from the title alone that Ann Jannetta's *The Vaccinators: Smallpox, Medical Knowledge, and the 'Opening' of Japan* is a must read for historians who study vaccination and for scholars who study medicine in Japan. It is less obvious that Jannetta's work has the potential to have a profound impact on Japanese studies in general if it finds the wide readership that it deserves. *The Vaccinators* takes the complex history of the introduction of Jennerian vaccination to Japan as a case study to refute the simplistic, primarily Amerocentric, notion that Japan was almost completely closed to foreign contact when U.S. Commodore Matthew C. Perry and his fleet arrived in March of 1854. Although this book is catalogued by the Library of Congress under "Smallpox—Vaccination—Japan—History" and under "Smallpox vaccine—Japan—History" and under "Smallpox—Japan—History" it is also a highly sophisticated addition to works on the 'political' history of nineteenth-century Japan, a rather important time period.

Jannetta begins *The Vaccinators* with an overview of the Japanese political situation in the decades leading up to Perry's arrival. This includes detailed information on Japan's 'openness' to western medical knowledge transmitted from the Dutch through a select group of Japanese scholars, many of whom were physicians. Jannetta continues with a sweeping overview of the impact of smallpox, worldwide, in the late eighteenth century. The author then moves on to a discussion of Edward Jenner's experiments with cowpox, the publication of his findings, and a number of international efforts designed to diffuse *Variolae vaccinae* and to teach the techniques necessary to use and propagate it. Among these international

efforts was the introduction, from French held Île de France (Mauritius), of cowpox to the Dutch colonial city of Batavia, today's Jakarta. Smallpox vaccine (cowpox) was first successfully imported into the Dutch territories in what is today Indonesia on the arms of young children. At the time, young, usually male, children were used as living carriers of smallpox vaccine because arm to arm vaccination was the best method to transport the rare, in most of the world, and delicate cowpox virus and ensure that it would survive long enough to reach its destination.

From Batavia information on vaccination reached the Dutch trading post near Nagasaki in August 1803 (p. 57). Thus, information on vaccination first reached Japan, from the Dutch, over fifty years before Perry's arrival. However, it took another forty-six years for the Dutch, after numerous failed attempts, to successfully import viable cowpox into Japan. By that time, 1849, a network had developed among Japanese physicians who had contacts of various sorts with the Dutch. Because of this network there were enough Japanese physicians with knowledge of vaccination that, once they had a source of viable vaccine, within a mere six months they were able to introduce vaccination to "all major regions of Japan" (p. 145). Jannetta provides an admirably detailed account of the development of this network.

Prior to this successful introduction however the Dutch had, repeatedly, attempted to send cowpox lymph by methods other than arm to arm vaccination. All of these efforts were unsuccessful, the cowpox did not survive and the vaccinations performed in Japan failed. However, in the 1840s, Japanese physicians who practiced Chinese style inoculation for smallpox, using attenuated smallpox virus, theorized that since smallpox scabs preserved the viability of the smallpox inoculum perhaps the same was true for cowpox. They requested that the Dutch send cowpox scabs from Batavia rather than continuing to send lymph. The Dutch cooperated with this novel, to them, request. The cowpox scabs provided efficacious smallpox vaccine and Japanese physicians immediately began propagating cowpox through arm to arm vaccination.

However, one wonders why the Japanese had not requested that the Dutch bring cowpox from Batavia using the arm to arm method years before this? Or why the Dutch had not tried this. Although the author discusses how cowpox was brought to Batavia by arm to arm vaccination, how the arm to arm method was used to produce *vaccinia* on Java, and how after viable cowpox arrived in Nagasaki arm to arm vaccination was used to spread vaccination throughout Japan, the question of why the Dutch did not try to bring vaccine to Japan through arm to arm vaccination during over forty years of failed efforts is not addressed. Perhaps this question cannot be answered with the evidence available, but it is surprising that

this question is not even raised within *The Vaccinators*. There are a few other points that mar this very fine book. For example, there are a few points in the text where the term cowpox is transposed when what is clearly meant is smallpox. For example “Chinese physicians had found cowpox scabs to be less fragile and more easily stored than cowpox lymph” (p. 130). If Chinese physicians did indeed find this out about ‘cowpox’ rather than ‘smallpox’ this reader would be very interested in this information and would appreciate a reference for it.

On a more positive note this book is particularly user friendly with a number of clear, appropriate, and well explained maps, tables, illustrations, and appendices which truly add to the scholarly value of the book. Ann Jannetta has done a wonderful job of presenting not only the medical and political but also the artistic, intellectual, religious and social context of the introduction of Jennerian vaccination to Japan. Further, her evidence and examples firmly support her assertion that Japanese physicians were “important agents of change” in contact with scientific information from Western nations long before Commodore Perry’s arrival (p. 182). *The Vaccinators* is a wonderful addition to the scholarly literature on the Dutch enclave in Japan, on nineteenth-century Japan, on the history of medicine in Japan, and on the history of the worldwide diffusion of vaccination.