

geographically is well recognized in the volume, but relational periodization is not enunciated so well. While the distinction between lowland and highland, on the one hand, and lowland and maritime, on the other, comes out clearly, the tacitly accepted division between modern and contemporary Myanmar and the Myanmar of the past (before World War II) is not challenged with the same vigour.

Overall, the volume contributes much important work on borderlands. It also provides an important overview of what might be called a "borderlands" paradigm through an insightful introduction. On the other hand, opening up scholarly debate to local areas increases the range of case studies to be explored that are not so clear when Myanmar is read through a singular, lowland framework. The diversity of coverage and the many different directions in which the contributions go demonstrate just how much work potentially there is to do. It is in this regard perhaps that more work on local areas within the lowlands might now be mobilised to question or modify some of the assertions made about just how distinct the lowlands are compared to the "diverse" highlands presented here.

Feeding Manila in Peace and War, 1850–1945.

By Daniel F. Doeppers. Madison, WI: University of Wisconsin Press, 2016. Pp. xx + 443. ISBN 10: 978-0305109; ISBN 13: 978-029930513.

Reviewed by Willem G. Wolters, Radboud University

E-mail willemwolters@me.com

doi:10.1017/S1479591417000298

Doeppers characterizes his study as "a first scholarly exploration of the critical analytical problem of provisioning the 'megacity' in Southeast Asia, and, to a degree, a serious social history of one of the world's dozen or so largest cities (...)" (p. 4). As a professor emeritus of geography and Southeast Asian studies at the University of Wisconsin-Madison, the author has an outstanding record as a geographer, social and economic historian, as well as demographer and is pre-eminently qualified for this undertaking.

The book covers the period between 1850 and 1945. These years have been carefully chosen. By the middle of the nineteenth century the Spanish government had given up attempts to dominate and monopolize trade in the colony, the last one being the notorious trade monopoly of the provincial governors (alcaldes), and private business had come to dominate the scene, both in foreign and domestic trade. The Spanish government had introduced a number of reforms, one of which was somewhat closer attention to statistical monitoring of the economy and data collection, although Spanish bureaucrats remained notoriously indolent and negligent in that respect. The last date, 1945, was chosen because it allowed the author to discuss in detail what happens to a mega city when the Japanese occupation and the war had cut off the food supply resulting in hunger and starvation and misery for the urban population.

Doeppers has organized his study on a commodity basis, dividing his presentation into three parts, viz., (1) rice production, trade and supplies to Manila; (2) the supply of additional dishes (ulam), i.e., vegetables, fruits, fish, fowl, swine and beef; (3) fluids: water, milk, coffee, cocoa and finally the supply of flour. Within each of these commodity studies, the author then presents his material in a historical exposé. This commodity-based presentation allows him to pay close attention to particular commodity features, which are important determinants of production and trade of each of these foodstuffs.

The part on rice trade is the most elaborate and detailed in this study (more than one hundred pages), a brilliant piece, revealing the author's long and deep affinity with the subject, as well as

is thorough research in archival and historical sources. The author has made good use of a source of statistical material hitherto somewhat neglected in Philippine historical research, viz., the Spanish records of ships arriving in Manila harbour, both foreign and domestic vessels. These daily records were published (since 1861) in the official newspaper, *Gaceta de Manila* and later (since 1869) in the private newspaper *El Comercio*. Unfortunately the *Gaceta* lists only give detailed information about the incoming ships, and almost none about the outgoing ships. A second limitation is that the Spanish officials only recorded ships coming in from the sea and anchoring in the harbour, not the much more numerous small boats arriving in Manila from the hinterland, via the numerous creeks and rivers, in this low-lying delta, and delivering their cargo straight to the warehouses in the greater Manila area.

On the basis of the available data the author divides the rice supply areas into an inner zone and an outer zone. The inner zone is made up of the rice-producing areas around Manila, and the neighbouring provinces of Pampanga, Bulacan, Cavite and Laguna. A vast network of esteros, canals and rivers (Pasig River, Marikina River) connected the hinterland with the markets in Binondo and Tondo. Rice and other commodities were brought to Manila by small boats called cascos. Although Spanish officials have not recorded this transportation system, Doeppers has unearthed a lot of information to at least shed some light on this part of domestic shipping. He has made good use of historical maps, and, for instance, as a well-trained geographer, identifies dots on an 1849 map of the area north of Manila as rice storage structures along the waterways (p. 25).

The outer supply zone consists of the ports on the northwest coast of Luzon, i.e., in the provinces of Ilocos Norte and Sud, La Union, Pangasinan and Zambales, transported to Manila by coastal shipping. As the typhoon period and its associated rainy season, from about June through November, made navigation along these coasts dangerous, most of the coastal shipping took place during the dry season. The author has carefully researched the evolving geography of this region, the rice areas in the interior of the province of Pangasinan, the trading practices, and he gives fascinating portraits of the largest rice traders.

As a reader I found two problems a bit puzzling. The first problem is that the author is not very specific about what constituted the city of Manila geographically in the nineteenth and early twentieth centuries. He has made it clear that the city was more than the walled city of the Spaniards (Intramuros) and that the suburbs (arrabales) should be included. However, while the present-day megacity Metro Manila can be more or less clearly delineated on the map, the historical city is much more difficult to pinpoint. The second problem is that the author does not specify the size of the urban population that needed to be fed, in other words the demand side of the equation. I hasten to add that these problems should not be seen as shortcomings of the author, but as deficiencies in the statistical material which the Spanish colonial administration had left behind. If an accomplished demographer as Doeppers does not like to speculate or play with available (and scarce) demographic data, he probably knows that he does not get very far with the available material either. Still, I would have appreciated some rough calculations.

For instance, the problem shows up when Doeppers compares the amount of rice supplied to Manila in 1862 (based on detailed statistics about domestic shipping), a total of 400,000 cavans (sacks of about 56 kilograms) of clean (husked) rice from the outer zone (mainly the province of Pangasinan). He then adds (p. 36): "This was almost enough to feed the entire population of the city for a year at an average consumption rate of two cavans per capita." This statement implies that the population of the Manila area at the time was about 200,000 persons. That number is plausible; it is not very different from De la Cavada's count of 266,333 souls in the early 1870s.<sup>1</sup> Two

I D. Agustín de la Cavada y Mendez de Vigo, Historia Geográfica, Geológica y Estadística de Filipinas. Tomo 1, Isla de Luzon (Manila: Imp. de Ramirez y Giraudier, 1876), pp. 48–49.

comments: first, this leaves out the unknown rice supply from the inner zone (Pampanga, Bulacan, the Laguna area), which may also have amounted to a few hundred thousand cavans of clean rice. Second, it leaves out rice production in the Manila area itself. In his description of Manila province, De la Cavada (I, p. 48 ff.) mentions seven pueblos, with a total population of more than ro6,000 persons) as urban, with mainly non-agrarian economic activities (artisans, traders, shopkeepers, clerks, etc.), and nine pueblos as largely rural, which he characterizes as producing enough rice for the consumption of the local population and sometimes enough to ship the excess to the centre. In other words, the number of non-rice-producing consumers in the wider Manila area was lower than the total number of inhabitants. Secondly, not all the foodstuffs supplied to Manila may have been destined for the local population, as the city had an important function as a transit port, although this trade cannot be adequately reconstructed from the available statistical records.

A related question is whether the constant flow of foodstuffs, and especially of fruits and vegetables, to the Manila area has been sufficient for the growing population. Doeppers alludes to this question with his remarks that it might be possible that this may not always have been the case: 'Evidently the supply had not kept up with population growth' (p. 126). It would be interesting if this issue could be explored in future research.

The second and third parts of the study, the provision of other foodstuffs, in more than 180 pages, are equally well-researched and full of interesting details which makes them not only informative but also good and entertaining reading matter. A long chapter is devoted to cattle husbandry and the supply of beef to Manila, with an excellent discussion of the "changing geography of supply" (pp. 231–34). During the Spanish period most of the cattle came from surrounding provinces on the island of Luzon; under the American administration the supply areas shifted to the Visayas and Mindanao. Doeppers gives a detailed account of the rinderpest which has ravaged the bovine population of the islands from the mid-1880s until the 1920s. The disease reduced the numbers of carabao by approximatively 40 per cent and the numbers of cattle by 77 per cent. The death of large numbers of carabao, indispensable in wet rice cultivation, caused a significant decline of rice production in the decades around the turn of the twentieth century, necessitating large rice imports.

The fourth part of the study, "Subsistence and Starvation in World War II, 1941–45" is a short (23 pages) but very detailed chronicle of the decline of the supply system during the war and especially during the last phase of the war, the battle around Manila. The author has based this analysis on oral history from survivors, having conducted more than one hundred interviews in 1985 with Filipinos who were working and forming families before and during the war. In addition the author has used the growing number of historical studies on that period. This material enables him to paint the picture of massive starvation in 1943 and 1944. As the Japanese army continued to fight the American forces in this densely populated city, more than 100,000 people were killed. After the liberation of the city in February 1945 the supply system of the city was slowly restored.

Doeppers has consulted an impressive list of archival and published sources, extensively referenced in endnotes. However, the systematic and alphabetical bibliography of these sources is not included in the printed version of the book; the author has made it accessible on the internet. It is regrettable that the University of Wisconsin Press apparently was not willing to add these sixty-eight pages to the published volume. One can only hope that a reader in 2050, who finds the book in a library, can still locate the bibliography on the internet.

Doeppers's well-researched and well-written study sets a standard for future studies of megacities. The book is in my opinion nothing less than a masterpiece.