

Timothy P. BARNARD. *Imperial Creatures: Humans and Other Animals in Colonial Singapore, 1819–1942*. NUS Press, Singapore: 2019. 336 pp.; 23 illustrations. Price S\$36.00 (paperback). ISBN 9789813250871.

Singapore. There were museums, zoos, circuses, pet owners, jockey clubs, horses pulling carriages, animal dealers, even a legendary but short-lived Tiger Club. The Singapore-based historian Timothy Barnard takes us through this kaleidoscope of interactions between men and beast in the country's colonial past. This is what the author calls a multidisciplinary consideration of fauna found in an exotic port city to reveal the effects of establishing a colony on the biodiversity of a region. As in almost every city, animals were everywhere, in shops, in the street, in food markets, in people's houses, in racing grounds, and in specialized institutions to display living or dead specimens.

Singapore had three zoological collections open to the public before the present impressive Singapore Zoological Gardens opened to the public in 1973, which is, of course, outside Barnard's timeline. The Botanic Gardens opened in 1853 came under the umbrella of the Raffles Museum in 1871, and four years later a little menagerie was incorporated, maybe due to the gift of a rhinoceros to the governor Sir Andrew Clark (see K. Rookmaaker (2012), Two former zoological gardens in Singapore, *International Zoo News* 59: 368–372). Although Barnard must be correct that the menagerie operated until 1905, it is likely that the collection was confined to small mammals and birds in aviaries after 1879. A private zoo was maintained by William Basapa (1893–1943) largely in the suburbs, at Punggol, from 1922 onwards, and Barnard illustrates its most famous resident, the tame tigress Apay. Singapore's first aquarium, resulting from a legacy of the Dutch industrialist Karl van Kleef (1856–1930), opened in 1955 after 25 years of administrative struggles, and closed in 1991. Interested in the history and inventory of public and private zoological facilities, Barnard's book gives us just snippets of which animals were present at any given time, which are not meant to be exhaustive or to provide details about individual specimens. In a small country known for its animal trade and short-lived animal shows, this might have been the only approach.

In the last two chapters of this book, Barnard discusses two issues of the relationship between men and animals in Singapore. His chapter on the ownership and domestication of dogs talks about the struggles experienced in the relatively small colony to suppress rabies, which was prevalent in dogs in the 1880s, but remained a threat long afterwards. The dogs, which were often unsuitable for tropical climates, were an integral part of the colonial society, reinforcing power, class, wealth and science. Changing topic, the famously colourful tropical markets are shown to have offered a wide variety of goods necessary for the different sections of society. The history of abattoirs which developed in the city is discussed with interesting examples showing the triumph of a sanitary regime. The epilogue has the remarkable story of the botanist Edred J. H. Corner and his botanical monkeys, who were unexpected collectors of rare plants. At the time of the Japanese invasion in 1942, Corner had to make some difficult choices, releasing some of them, but the fate of the last one is the end of a plot which should not be revealed in advance.

The book is illustrated with contemporary images, unfortunately often without detailed provenance. There is a good bibliography repeating much of the information in the footnotes. There is a list of newspapers used in the research, most of which were probably found online, but no reference is made to the relevant websites. For anybody interested in the use of animals in a colonial setting, this book is worth reading.

DOI: 10.3366/anh.2020.0667

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Cécilia BOGNON-KÜSS and Charles T. WOLFE (editors). *Philosophy of Biology Before Biology*. Routledge, London: 2019. 220 pp. Price £120.00 (hardback). ISBN 9781138652873.

The history and philosophy of biology at the turn of the eighteenth to the nineteenth century, when the very word “biology” became used more widely, has gained some well-deserved attention again in the last few years, starting with John H. Zammito's magisterial *The Gestation of*