‘Washing up the Orient’: Colonial Responses to Epidemic Disease in Manila and Bombay, 1896-1904

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Introduction

Apolinario Mabini is a name famously associated with two sobriquets in the Philippines – *utak ng himagsikan*, the ‘brain of the revolution’, and *dakilang lumpo*, the ‘sublime paralytic’. The popularity of each title, reductive as they are, showcases the image of a man whose legacy as a revolutionary leader and the first Prime Minister of the Philippines is indelibly entwined with his experience of disease.[1] Mabini contracted polio in 1895 and had lost the use of his legs by the following year, mere months before the Philippine Revolution began. He earned both monikers through his contributions to the First Philippine Republic and his continual opposition to Spanish and American colonial rule in spite of his poor health, but this eventually led to his exile in 1901. Upon arrival in Guam on February 17th, he said in a letter to his brother:

> We are occupying a lot [of land] where, during the Spanish domination, once stood the hospital for lepers that has been burned down. This makes one say that the place is very appropriate, because the Americans, in the conviction that our minds suffer from an infectious disease, segregate us, like lepers, from social contact with our fellowmen.[2]

This colonial association of disease with Filipino identity would follow Mabini for the rest of his life. His health deteriorated over the next two years, particularly as a result of illnesses borne in the canned food provided to prisoners.[3] He was finally permitted to return to the Philippines in February 1903, arriving in the midst of a major cholera epidemic which had been raging since the year before. Historian Ambeth Ocampo describes how ‘Mabini

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Cover image shows the burning of houses in Manila’s Farola district during the Cholera epidemic in 1902. The original image can be found in the United States National Archives and Records Administration. This version from Carlito, ‘Burning of Ferola District during Cholera Epidemic of 1902, Manila’, BunnyPub, https://www.bunnypub.net/en/life/topics/102801 (accessed 25 July, 2020).

[1] Nick Joaquin, ‘Mabini the Mystery’, *Philippines Free Press,* July 28, 1962, https://newsinfo.inquirer.net/622449/mabini-still-sounds-painfully-familiar (accessed May 28, 2020).

[2] Apolinario Mabini, ‘Las Memorias de Guam’, *La Revolucion Filipina (con otros documentos de la epoca),* Teodoro M. Kalaw (ed) (Manila: Bureau of Printing, 1931), 226–5. Translated and quoted by Ambeth R. Ocampo, ‘Looking Back: Mabini in Exile’, *Philippine Daily Inquirer*, July 18, 2014, https://opinion.inquirer.net/76644/mabini-in-exile (accessed May 28, 2020).

[3] Lopaka O’Connor, ‘“America’s St. Helena”: Filipino Exiles and U.S. Empire on Guam, 1901–03’, *Washington University in St. Louis: Center for Humanities*, May 13, 2020, https://humanities.wustl.edu/news/“america’s-st-helena”-filipino-exiles-and-us-empire-guam-1901-1903 (accessed May 29, 2020).

indulged in Filipino fare with a vengeance' upon his return, having been deprived of it while in exile. Although it is unclear which food in particular was contaminated, it was not long before he had also contracted the disease.[4] By the 13th of May, he was dead.

Mabini was the most prominent victim of the first disease epidemic to hit the Philippines after America had established colonial rule.[5] Cholera arrived at Manila Bay in March 1902, borne on a ship from Hong Kong. From there it swept through the islands in two distinct waves until it was officially declared over by the Insular Government in April 1904. Having arrived in the wake of the Philippine-American war, the cholera epidemic devastated a vulnerable population that had already endured years of famine, disease, and displacement on a massive scale. Although many lives were also lost to endemic diseases in this period, the reaction to the 1902 cholera outbreak stands out both in its severity and as the first test of the burgeoning medical and public health apparatus of the American colonial government. Under Dean Conant Worcester, then Secretary of the Interior, the government adopted 'very energetic methods' in their response to the epidemic.[6] The draconian nature of their hygiene and disinfection campaign was criticised by the Filipino press and deepened distrust between the public and their new American government, especially as it failed to curb the climbing death rate in mid 1903.[7] Even as the number of infections began to drop towards the end of the year, cholera returned in earnest in May 1903 and continued into early 1904.[8] While the 1905 *Census of the Philippine Islands* initially claimed that 200,348 lives were lost,[9] Worcester amended this to 109,461 in his 1909 account of the epidemic.[10] Historian Warwick

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[4] Ambeth R. Ocampo, 'Looking Back: When cholera and war ravaged PH', *Philippine Daily Inquirer*, March 25, 2020, https://opinion.inquirer.net/128321/when-cholera-and-war-ravaged-ph (accessed May 28, 2020).
[5] For more on Filipino nationalism and identity, see Vincente L. Rafael, *White Love and Other Events in Filipino History* (Durham, Duke University Press: 2000); Renato Constantino, *The Making of a Filipino: A Story of Philippine Colonial Politics* (Quezon City: [s.n.], 1969); Renato Constantino, *Identity and Conscious: The Philippine Experience* (Quezon City: Malaya Books, 1974); and Patricio Abinales and Donna J. Amoroso, *State and Society in the Philippines* (Lanham, MD: Rowman & Littlefield Publishers, 2005).
[6] Dean C. Worcester, *A History of Asiatic Cholera in the Philippine Islands* (Manila: Bureau of Printing, 1909), 19.
[7] For more on the tensions between Filipinos and Americans during the colonial period, see Michael Salman, *The Embarrassment of Slavery: Controversies over Bondage and Nationalism in the American Colonial Philippines* (Berkeley: University of California Press, 2001); Christopher J. Einolf, *America in the Philippines, 1899-1902: The First Torture Scandal* (New York: Palgrave Macmillan, 2014); Ian Morley, *Cities and Nationhood: American Imperialism and Urban Design in the Philippines, 1898-1916* (Honolulu: University of Hawai'i Press, 2018); and Vincente L. Rafael, ed., *Figures of Criminality in Indonesia, the Philippines, and Colonial Vietnam* (Ithaca, NY: Cornell Southeast Asia Program Publications, 1999).
[8] Matthew Smallman-Raynor and Andrew D. Cliff, 'The Philippines insurrection and the 1902–4 cholera epidemic: Part II—Diffusion patterns in war and peace', *Journal of Historical Geography* 24, no. 2 (1998): 188-210.
[9] Ken de Bevoise, *Agents of Apocalypse: Epidemic Disease in the Colonial Philippines* (Princeton: Princeton University Press, 1995), 163.
[10] Worcester, *A History of Asiatic Cholera,* 20.

Anderson similarly puts the number of deaths at 'as many as 100,000' in the first (and worst) year of the epidemic,[11] while Reynaldo Clemeña Ileto quotes Worcester's data but recognises that it is likely a 'conservative estimate'.[12] Despite the aggressive interventionist methods taken by the American government, the death toll was significantly higher than any record of the cholera outbreaks under Spanish colonial rule.

Mere years before the Americans were struggling to keep cholera in check in the Philippines, the third pandemic of bubonic plague arrived at the Indian port of Bombay. It was first identified in a patient by Dr Acacio Gabriel Viegas in the Mandvi district of the city, and the Goan-born physician officially declared his diagnosis to the Bombay Municipal Cooperation on September 23rd, 1896. Although a 'mysterious disease' had been affecting slum residents near the docks for weeks, Viegas was the first to recognise it as plague.[13] It had likely arrived by boat from Hong Kong, where it had broken out in 1894. Most modern historians believe the pandemic's global death toll was between 10 to 15 million,[14] with Richard Harris and Robert Lewis citing 13 million deaths worldwide by 1938, of which 12.5 million were in India alone.[15] The death rate was particularly high in Bombay city, and it quickly radiated outwards into the Bombay Presidency. This reflected the city's significance as the nexus of the outbreak, and was exacerbated by the rapid movement of residents out of Bombay after the outbreak had been declared and the climate of panic set in. According to the data given by J. A. Turner and B. K. Goldsmith in their 1917 work *Sanitation in India*, which was compiled as a guide for sanitation students of the Bombay Municipal Government, there were 87,159 deaths in Bombay city in 1896 to 1898 (inclusive), of a total 172,320 in India (the majority of which were in the Presidency).[16] In addition to this, Mark Harrison claims that over 100,000 people left the city in response to the outbreak, most of

[11] Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Durham: Duke University Press, 2006), 68.
[12] Reynaldo C. Ileto, 'Cholera and the Origins of the American Sanitary Order in the Philippines', in *Imperial Medicine and Indigenous Societies*, ed. David Arnold (Manchester: Manchester University Press, 1988), 126.
[13] Rajnarayan Chandavarkar, 'Plague Panic and Epidemic Politics in India, 1896–1914', in *Epidemics and Ideas: Essays on the Historical Perception of Pestilence*, ed. Terence Ranger and Paul Slack (Cambridge: Cambridge University Press, 1992), 206-207.
[14] David Arnold, 'Disease, Rumor, and Panic in India's Plague and Influenza Epidemics, 1896–1919', in *Empires of Panic: Epidemics and Colonial Anxieties*, ed. Robert Peckham (Hong Kong: Hong Kong University Press, 2015), 111.
[15] Richard Harris and Robert Lewis, 'Colonial Anxiety Counted: Plague and Census in Bombay and Calcutta, 1901', in *Imperial Contagions: Medicine, Hygiene, and Cultures of Planning in Asia*, ed. Robert Peckham and David M. Pomfret (Hong Kong: Hong Kong University Press, 2013), 73.
[16] B. K. Goldsmith and J. A. Turner, *Sanitation in India* (Bombay: The Times of India, 1917), 456.

whom were workers crucial to Bombay's commercial interests.[17] The number Myron Echenberg gives is significantly higher – he repeats claims that 'literally half' of the 850,000 residents in Bombay 'fled the infested city'.[18] The early years of the epidemic were marked by the drastic and 'highly unpopular' interventionist measures taken to contain the disease, as Bombay's municipal authorities were granted 'extraordinary powers' to deal with it. This was taken even further by the colonial government's Epidemic Diseases Act in 1897, which historian David Arnold described as 'one of the most extreme set of measures ever employed by the colonial regime in India', particularly in light of the Rebellion forty years earlier.[19] As plague had primarily been confined to China before reaching India, the British feared that its entry into the subcontinent would enable it to spread into the Middle East and on to Europe. An emergency International Sanitary Conference in mid-February 1897 had also considered a trade embargo on India, which significantly threatened British financial interests and further urged them to reduce the plague's spread.

Many of the measures utilised by the government in Bombay were also taken in Manila half a decade later. In each case, their methods were most severe during the first year of the outbreak. While the plague had arrived in Manila during the Philippine-American war, its relatively minor impact gave the occupying Americans false confidence in their ability to swiftly quash outbreaks of disease.[20] With so few plague infections in Manila, there was little reason to adopt the same strict methods used by the British in Bombay. Even once the cholera outbreak began, the Americans were hesitant to acknowledge the similarities between their public health measures. Victor Heiser, the first Director of Health, described the Philippines as 'a huge laboratory in which my collaborators and I could work out an ideal programme', and they treated their new colony as a testing ground for the newest scientific research of the day.[21] They believed themselves to be uniquely forward-thinking and progressive in comparison to older colonial powers. This extended to all aspects of governance – the early years of the American colonisation of the Philippines were heavily characterised by their active attempts to differentiate themselves from their European contemporaries in other parts

[17] Mark Harrison, *Public health in British India: Anglo-Indian preventative medicine 1859-1914* (Cambridge: Cambridge University Press, 1994), 134.
[18] Myron Echenberg, *Plague Ports: The Global Urban Impact of Bubonic Plague, 1894-1901* (New York: New York University Press, 2007), 14.
[19] Arnold, 'Disease, Rumor, and Panic', 113.
[20] The number of bubonic plague cases in Manila remained low over the years it was present (1899 to 1906) – for example, in February 1900 there were 48 reported cases, and only 27 the next year. This was thanks to a strict quarantine on arriving ships and controlling the rat population in Manila (which was correctly believed to be connected to plague in some way). Anderson, *Colonial Pathologies*, 61-62.
[21] Victor Heiser, *An American Doctor's Odyssey* (New York, W.W. Norton & Company: 1936), 77.

of Asia, particularly the British in India.[22] This resulted in a strong push for sanitation and public health initiatives, spearheaded by government officials with mixed medical and military backgrounds. Writing in his retirement, Heiser described how he utilised 'dictatorial powers' to pursue the American sanitary mission of 'washing up the Orient'.[23] When cholera broke out in Manila in 1902, it gave them a chance to prove the effectiveness of their policies and their supposedly exceptional scientific modernism.

The responses of both the British and American governments were characterised by heavily interventionist and militarist sanitary methods. Health officials would burn down or lime-wash houses in infected areas, enter homes to find and forcibly quarantine sick individuals, dig up floors and destroy belongings, wash inhabitants with abrasive disinfectants, and sent the families of disease sufferers to detention or 'reconcentration' camps. This resulted in vocal criticisms from the Filipino and Indian populations, and each colonial regime encountered resistance to their policies. As these methods disproportionately affected the urban poor, families often chose to hide those with cholera or plague rather than reveal them and lose their homes in the process. Accounts of the epidemics by government officials often expressed surprise and incredulity at this defiance and the perceived 'ignorance' of these local populations. Each of these epidemics, though involving different diseases and occurring in separate Asian colonies, thus share striking similarities in the behaviour of each colonial government, the severity of their response, and the retaliation of the populations of Manila and Bombay. Both the British and American cases are unique within their own colonial contexts, and each caused their governments to reconsider and readjust their policies during future epidemics. While the influenza pandemic of 1918-1919 resulted in significantly more deaths in India (12.5 to 20 million) than the plague had in a period of four decades, it was plague rather than influenza that 'provoked full-scale panic, unleashed a spate of wild rumours, triggered mass migration from cities, caused riots, and incited state repression' according to David Arnold.[24] Influenza in the Philippines was

[22] For more on the role of medicine in Western colonial powers in Asia, see Norman G. Owen, ed., *Death and Disease in Southeast Asia: Explorations in Social, Medical and Demographic History* (Singapore: Oxford University Press, 1987); Mridula Ramanna, 'Indian Attitudes Towards Western Medicine: Bombay, A Case Study', *Indian Historical Review* 27, no. 1 (2000): 44-55; I. J. Catanach, '"The Gendered Terrain of Disaster"?: India and the Plague, c. 1896–1918', *South Asia: Journal of South Asian Studies* 30, no. 2 (2007): 241-67; Warwick Anderson, 'Scientific Patriotism: Medical Science and National Self-Fashioning in Southeast Asia', *Comparative Studies in Society and History* 54, no. 1 (2012): 93-113; and Nandini Bhattacharya, 'Disease and Colonial Enclaves', in *Contagion and Enclaves: Tropical Medicine in Colonial India* (Liverpool: Liverpool University Press, 2012), 1-17.
[23] Ibid., 60-62.
[24] Arnold, 'Disease, Rumor, and Panic', 112.

likewise dealt with less aggressively, but also resulted in slightly fewer deaths (approximately 89,000, according to Francis A. Gealogo).[25]

This thesis will explore and compare the plague and cholera epidemics, with an emphasis on what made each outbreak unique within its own context, and on their similarities despite the perceived difference between each colonial power. It will specifically focus on the cities where each disease entered the colonies (Bombay and Manila) and the initial wave of responses to them, and thus will cover the entirety of the cholera epidemic (1902-1904) but only the very beginning the plague epidemic (1896-1898). At the core of this thesis is the question of how colonial governance and indigenous responses to it were conceptualised in the context of the disease epidemics. In order to examine these themes, this thesis will analyse two comprehensive accounts of the disease epidemics – Dean Worcester's *A History of Asiatic Cholera in the Philippine Islands* (1909), and Robert Nathan's *The Plague in India, 1896, 1897* (1898). Each source was produced by their respective colonial governments as a record of their own public health campaigns, and they also note the reaction of the Filipino and Indian populations to their policies. While Worcester's work is consciously subjective by nature of his high position in government and direct participation in events, Nathan's was ostensibly written as an objective account of the epidemic for his superiors to provide to future bureaucrats, and his opinion is thus more subtly given. However, the personal opinions of both authors are themselves emblematic of these governments and their beliefs, values, and preoccupations. These epidemic accounts provide material through which to explore the comparison and what it meant for both the British Colonial Government and the Insular Government of the Philippine Islands.

The first chapter will draw on the existing historiography to outline what cholera and plague are and how the two epidemics unfolded in Manila and Bombay. This will highlight their similarities and demonstrate that the responses to each epidemic were influenced by similar colonial attitudes to local populations and each government's need to prove its scientific prowess to other imperial powers. The second chapter will use discourse analysis to look at Worcester and Nathan's works and focus on two central themes – how the writers portrayed their governments' responses to the outbreaks, and how they wrote about subjected populations and their resistance to these policies. The third and final chapter builds on these themes but considers them on a greater scale. The first section of this chapter looks at how

[25] Francis A. Gealogo, 'The Philippines in the World of the Influenza Pandemic of 1918-1919', *Philippine Studies* 57, no. 2 (2009): 278-9.

the authors placed their epidemics in the wider context of each colony, particularly in relation to previous outbreaks or those under other colonial powers. The second section examines how Nathan and Worcester used ideas of race and racial habits in their understanding of disease transmission. This particularly questions whether they considered these habits to be intrinsic to Indian and Filipino people, and what agency the authors ascribed to them in the spread of both cholera and plague.

The existing historiography on both epidemics is distinctly lacking in direct inter-imperial comparisons, except when it comes to histories of disease which take in a global view of their progress (chiefly in regards to the dissemination of the bubonic plague) or edited collections which include separate essays dealing with the themes of medicine and colonialism. In their paper 'Pairing Empires: Britain and the United States, 1857–1947' from the conference of the same name, Paul Kramer and John Plotz advocated for the study of different empires closely and comparatively, rather than allowing the 'dyad of metropole and colony' to regulate analyses of colonial functions. Specifically, they aimed to ask 'what might be gained by juxtaposing the British Empire and the United States within one analytic frame', particularly given the large difference in length of each.[26] This thesis draws upon their ideas but carries them into the field of epidemic disease and colonial public health. This approach is further demarcated by a focus on the initial outbreaks of diseases exclusively within major urban centres, namely the port cities of Manila and Bombay. This allows for an analysis of the cohesive efforts of one government body and rather than taking into account the actions of other municipalities and separate health campaigns within the same colony. By considering different diseases rather than the same outbreak, the emphasis shifts from an historical analysis of how two different governments dealt with the same pandemic to an analysis of the similarly draconian interventionist methods used in response to a threatening new epidemic entering each city.

There are several historians whose works loom large when it comes to disease and public health in either the American colonial Philippines or in British India.[27] For the former

[26] Paul Kramer and John Plotz, "Pairing Empires: Britain and the United States, 1857-1947", *Journal of Colonialism and Colonial History* 2, no. 1 (2001), doi:10.1353/cch.2001.0008.
[27] For more on scientific research and colonialism in Asia, see Brett M. Bennett and Joseph M. Hodge, ed., *Science and Empire: Knowledge and Networks of Science Across the British Empire, 1800-1970* (Basingstoke: Palgrave Macmillan, 2011); Harold J. Cook and Laurence Monnais, ed., *Global Movements, Local Concerns: Medicine and Health in Southeast Asia* (Singapore: National University of Singapore Press, 2012); Radhika Ramasubban, *Public Health and Medical Research in India: Their Origins Under the Impact of British Colonial*

there are Ken de Bevoise, Reynaldo C. Ileto (whose work often looks at the socio-political dimension), and more recently Warwick Anderson (who looks at ideas of race and racial difference). There is significantly more work written on diseases in colonial India, and notably more Indian contributors than there are Filipinos. David Arnold is especially formative, having been at the forefront of colonial epidemic history in the 1980s and 1990s with his own works and edited collections (which Ileto has contributed to). Robert Peckham has written and edited several of the most recent works on epidemic disease in Asia, with a focus on modern epidemics and the use of surveillance to monitor them. Rajnarayan Chandavarkar produced early research into health in the context of industrialisation in Bombay, while Prashant Kidambi has written recently on the plague from the perspective of urban history. Nandini Bhattacharya has published works on the burgeoning field of tropical medicine in India, and Mridula Ramanna has written extensively on colonial public health and the formation of medical institutions in India. These latter authors are especially useful in analysing popular resistance to public health measures as they have explicitly explored local engagement with Western colonial medicine. A greater examination of these themes in Filipino discourse would be ideal, particularly with consideration to factors such as urbanisation and class under colonialism.

Where the early works of Arnold and Ileto's generation laid the foundations for studying colonialism and disease together, the more recent works mentioned here have introduced new dimensions into the analysis of these epidemics by examining racial science, colonial surveillance, and national identity. Shared ideas of racial superiority and difference, as argued by Paul Kramer, played a significant role in how both the British and Americans similarly connected subjugated populations with ignorance, criminality, and as profligates of disease.[28] Through a comparative analysis of government accounts of the outbreaks, this thesis will contribute to the historiography of the epidemics by seeing the severity of each response in terms of the specific stressors on the colonies (the threat to British trade and the American desire to 'prove' themselves) and as a reflection of similar attitudes towards colonised populations. The portrayal of resistance in chapter two and the invocation of 'racial habits' in chapter three will particularly reveal how each government perceived Indian and Filipino people.

Policy (Stockholm: Sarec, 1982); and Charles Morrow Wilson, *Ambassadors in White: The Story of American Tropical Medicine* (New York: Henry Holt and Company, 1942).

[28] Paul Kramer, 'Empires, Exceptions, and Anglo-Saxons: Race and Rule between the British and United States Empires, 1880–1910', *The Journal of American History* 88, no. 4 (2002): 1315-1353.

Disease has always been a fundamental part of the human experience, and the proliferation of recent popular works of epidemic history demonstrate that this is not forgotten by the public and academia alike. J. N. Hays has argued that disease is 'both a pathological reality and a social construction': it is a biological fact that our immune systems and our scientific institutions contend with, but for our collective psyche it is also an ever-encroaching threat to our way of life.[29] Although the outbreaks in Manila and Bombay occurred in a colonial context, they can still shed light on how epidemics are handled in society at large. Despite the speed of scientific developments in the 21st century, the constant threat of epidemic disease has manifested itself once more with the spread of SARS-CoV-2, the coronavirus strain which causes COVID-19. At the time of writing, worldwide cases of COVID-19 have surpassed 17.3 million and are rising fast.[30] While the West has historically seen its public health systems as superior to those in the global south – a hangover from the scientific modernism of the enlightenment and the late colonial period – the coronavirus pandemic has demonstrated without a doubt that any and all societies are vulnerable to mass outbreaks of disease. The high number of cases in Britain and the United States has punctured myths of national exceptionalism in both countries. Perceived scientific superiority is ineffective if a government fails to respond to a pandemic quickly and appropriately on a social level, particularly when no vaccine or cure yet exists.

However, the alternative is equally problematic if handled poorly – while the governments of India and the Philippines imposed their containment strategies much faster and more drastically, the fallout echoed the mistakes of their former colonisers during the epidemics discussed in this thesis. India's strict nationwide quarantine was declared only four hours before coming into effect, so the huge number of migrant workers in major cities were unable to return to their homes in other parts of the country. Turned out from their places of work, millions were left vulnerable on the streets of cities and unable to isolate themselves, resulting in punishments from police and forcing people to walk or drive cross-country en mass to get home.[31] Similarly, the response to COVID-19 in the Philippines has exacerbated severe socio-economic inequalities and hit poor communities extremely hard. The

[29] J. N. Hays, *The Burdens of Disease: Epidemics and Human Response in Western History* (New Brunswick: Rutgers University Press, 2009), 1-4.
[30] 'COVID-19 Map', *Johns Hopkins Coronavirus Resource Center*, https://coronavirus.jhu.edu/map.html (accessed July 31, 2020).
[31] Hannah Ellis-Petersen and Shaikh Azizur Rahman, '"I just want to go home": the desperate millions hit by Modi's brutal lockdown', *The Guardian*, 4 April 2020. https://www.theguardian.com/world/2020/apr/04/i-just-want-to-go-home-the-desperate-millions-hit-by-modis-brutal-lockdown.

government's failure to provide adequate aid to struggling *barangays* (districts) and its use of extreme force against those breaking lockdown restrictions bears stark similarities to many of the abuses endured by Filipinos under colonial rule.[32] Both cholera and plague are diseases closely linked to wealth inequality through bad housing and poor sanitation, and as the pandemic continues it is consistently proven that COVID-19 is also exacerbated by these factors. But more than anything, COVID-19 and the outbreaks examined in this thesis demonstrate that prejudiced science, violent policies and a failure to communicate or work with a population are a volatile combination in the context of epidemic disease.

[32] Maheen Sadiq, '"Shoot them dead": extreme Covid-19 lockdown policing around the world', *The Guardian*, 2 April 2020. https://www.theguardian.com/world/video/2020/apr/02/shoot-them-dead-extreme-covid-19-lockdown-policing-around-the-world-video-report

1. Death in Black and Blue: The Modern Plague and Cholera Pandemics

Frantz Fanon argued in the 1960s that doctors were as closely tied to colonial process as any other Western 'dominator' – that in fact, as colonisation was 'built on military conquest and the police system', medical advancements provided it with 'justification for its existence and the legitimisation of its persistence in its works'.[33] Despite this work, the progressionist view of medical science was so totalising that postcolonial historians after Fanon often still made exceptions for medicine in their critiques of colonial rule. Even while they recognised the hollowness of the democratising and civilising claims of imperial powers, they still presented public health policies as improvements on the 'primitive' medicine of indigenous societies (which they rarely took much time to examine). Reynaldo C. Ileto noted this discrepancy in the writings of twentieth century Filipino historians, who still saw the work of American doctors as 'blessings' despite their mistreatment of Filipinos and their use of medical science to justify colonisation.[34] This scholarship often parroted the scientific condescension of the American government in the early colonial period. Two prominent nationalist historians, Teodoro A. Agoncillo and M. C. Guerrero, considered Filipinos to be 'superstition-ridden' and 'ignorant' prior to American arrival – as national identity was so tied to Western ideas of state-formation, they believed that Filipinos must embrace Western science in order to be a functioning modern nation.[35]

In the late 1980s, Ileto and fellow historians of colonialism began to look more closely at public health and medicine as part of the apparatus of empire. One of his contemporaries, David Arnold, spearheaded a new interest in disease and colonialism with collections such as *Imperial Medicine and Indigenous Societies* in 1988. Arnold's own influential writings on India in the nineteenth and early twentieth centuries provided the basis for other South Asianists to explore disease and public health during the British Raj. As the subcontinent had consistently been one of the regions worst-affected by endemic diseases and global pandemics in this period, it provided a wealth of material through which to study this relationship between epidemics and colonial governance. This chapter builds on the work of Arnold, Ileto and their peers to provide an outline of what plague and cholera were, how they

[33] Frantz Fanon, 'Medicine and Colonialism', in *The Cultural Crisis of Modern Medicine*, ed. John Ehrenreich (New York: Monthly Review Press, 1978), 230. First published in English in 1965.
[34] Ileto, 'Cholera and the origins of the American sanitary order', 125.
[35] This wave of historians tended to reject Catholicism as contributing to this superstition, so the Spanish were not considered part of the modernising force of medicine and health. T. A. Agoncillo and M. C. Guerrero, *History of the Filipino People* (Quezon City: Garcia Publishing, 1977) 425-426.

reached and spread through Bombay and Manila, and what measures were utilised in response to them. The colonial practice of science in Manila and Bombay was emblematic of the growing Western interest in tropical medicine and disease, which was fed by researchers and doctors working in colonies in Asia and Africa. By examining side-by-side how the Third Plague Pandemic and Sixth Cholera Pandemic operated in these cities, the similarities in the epidemics and the colonial responses to them are brought into relief. In order to explore the works of Worcester and Nathan in closer detail in the following chapters, this section will provide a description of both the outbreak of plague in Bombay in 1896, and the cholera epidemic of 1902-1904 in Manila.

1.1 Plague in Bombay, 1896-1898

There have been three major plague pandemics in recorded history, each of which occurred over an extended period and was comprised of multiple epidemics. The pandemics are distinguished by having a temporally unique zoonotic origin (generally the jump from a wild rodent population to rats and fleas living alongside human settlements) and are believed to each represent a distinct strain of *Yersinia pestis*.[36] The first pandemic began with the outbreak of the 'Plague of Justinian' in 541 CE, which affected the Middle East and part of the Mediterranean, possibly killing between 20 and 50 million people.[37] Exact records on subsequent smaller outbreaks are sparse, though this pandemic is believed to have gone through eighteen waves until it concluded in 755 CE. The second pandemic began six centuries later with the 'great pestilence', which over time came to be known more famously as the 'Black Death'. Although global numbers are unclear, it is believed to have killed 30 to 60 percent of the population of Europe between 1347 and 1351.[38] Historians have speculated on the exact origin of this outbreak, with one possible theory being that it jumped to humans from wild marmots living in the East or Central Asian Steppe.[39] After spreading across the region in the 1330s, it travelled along the Silk Road and reached Crimea in 1347. These infections of *Yersinia pestis* chiefly took the bubonic form (transmitted through flea bites and

[36] Echenberg, *Plague Ports*, 2.
[37] Frank M. Snowden, *Epidemics and Society: From the Black Death to the Present* (New Haven: Yale University Press, 2019), 35.
[38] The projected population of Europe prior to the pandemic is around 80 million, which means a death toll within the same approximate range as the Justinian plague. Hays, 40.
[39] Plague is endemic to these rodent populations and this continues to be the most frequent origin of human plague cases in the modern day. John Kelly, *The Great Mortality: An Intimate History of the Black Death* (London: Harper Perennial, 2005), 114.

causing buboes), but it likely also spread through the more virulent pneumonic (airborne) and septicaemic (bloodborne) forms. Epidemics of the second plague pandemic would continue to break out periodically in Europe and the Middle East well into the 17th century, then less frequently in some areas until the early 19th century.[40]

The third pandemic began in 1894, after plague jumped from rodent populations to humans in southern China in 1855 and slowly spread until arriving in Canton and Hong Kong in the South-East. It was not declared over by the World Health Organization until 1960, although plague was relegated to small pockets of infection for its last few decades. Seaborne trade meant that this pandemic was technically the most widespread of the three and eventually reached every inhabited continent, but with huge variations in impact. Unlike previous pandemics, plague was mostly relegated to a handful of port cities when it hit Europe. According to Myron Echenberg, it killed approximately 7000 people between 1899 and 1950.[41] The vast majority of cases were confined to China and India, and the death toll in India alone demonstrates this geographic disparity – 10 to 12.5 million lives were lost, most within the Bombay Presidency. This is further exhibited by the low mortality rate in the Americas – Echenberg writes that approximately 30,000 people died in Central and South America by 1950, and 500 in the United States.[42] The devastating effect of plague in India has therefore fascinated historians, particularly as the 'differentially severe impact in Asia and Africa heralded a division in international public health between rich and poor' that continues into the twenty-first century.[43] Since the publication of William H. McNeill's *Plagues and Peoples* in 1976 stirred up interest in the history of disease, scholars have often (regardless of other criticisms of colonialism) fallen into congratulatory language about the containment of plague once it reached Western ports.[44] But while this disparity is often attributed to superior bacteriological achievements and (only semi-effective) vaccine campaigns, it was mostly the result of poorer living conditions and overcrowding in the worst-affected cities. In fact, Bombay and Hong Kong were both at the forefront of scientific

[40] This includes other famous outbreaks such as the Great Plague of London in 1665.
[41] Echenberg, *Plague Ports*, 5. For more on the plague in Europe, see: Barbara Bramanti, Katharine R. Dean, Lars Walløe and Nils Chr. Stenseth, 'The Third Plague Pandemic in Europe', in *Proceedings Biological Sciences* 286, no. 1901 (2019): doi:10.1098/rspb.2018.2429
[42] Echenberg, *Plague Ports*, 5.
[43] Myron Echenberg, 'Pestis Redux: The Initial Years of the Third Bubonic Plague Pandemic, 1894-1901', in the *Journal of World History* 13, no. 2 (2002), 434.
[44] For more on the plague in Europe, see Barbara Bramanti, Katharine R. Dean, Lars Walløe and Nils Chr. Stenseth, 'The Third Plague Pandemic in Europe', in *Proceedings Biological Sciences* 286, no. 1901 (2019): doi:10.1098/rspb.2018.2429.

research into plague, but the identification of the plague bacillus by Alexandre Yersin in the latter in 1894 did not prevent it from infecting the local rat population in droves.

As a major trading port that had undergone quick industrialisation at the expense of a dense urban population, Bombay was ideal for the proliferation of plague. Despite recent advancements in laboratory-based science, the aetiology of plague was not yet understood well enough to halt its rapid spread through the city, where it persisted to infect substantial numbers of people until 1923.[45] Dr Viegas first recognised plague in September 1896, while treating workers in the grain warehouses of the Mandvi district. Locals had reportedly seen large numbers of dead rats over the previous weeks, particularly in the warehouses which served the port. As most workers and their families lived by the port in crowded and poorly built urban tenements called *chawls*, they were in close proximity to these rats and were especially vulnerable to infection.[46] After declaring his findings on September 23rd, Viegas had to struggle not only with the reality of a burgeoning health crisis in Bombay, but also to be taken seriously by the local government. Despite being a member of the Bombay Municipal Corporation himself, Viegas' diagnosis was questioned in the press and he was accused of 'scaremongering' until it was corroborated by the Ukrainian bacteriologist Waldemar Haffkine on October 12th.[47] The threat of China's plague outbreak spreading to India had been so great over the last few years that the impulse of many in Bombay was to deny their worst fears.[48] The *Bombay Gazette* even prematurely and confidently reported 'the sickness is rapidly being stamped out' the very day that Haffkine declared that the 'fever' was indeed bubonic plague.[49] Once it had been acknowledged, however, the government began to act fast to try and combat it.

The immediate response to the outbreak was largely focused on disinfecting or destroying 'diseased' environments, while also containing people who were known or suspected of being ill. Following on from Yersin's discovery, Haffkine and biologist Paul Simond would recognise that rats were a 'key vector' in 1897 and Simond would publish his findings on flea transmission in 1898, but these ideas were yet to be widely accepted and had

[45] Tim Dyson, *A Population History of India: From the First Modern People to the Present Day* (Oxford: Oxford University Press, 2018), 142.
[46] Echenberg, *Plague Ports*, 48.
[47] Harrison, *Public health in British India*, 133.
[48] I. J. Catanach, 'Plague and the tensions of empire: India 1896-1918', in *Imperial Medicine and Indigenous Societies*, ed. David Arnold (Manchester: Manchester University Press, 1988), 149.
[49] *Bombay Gazette*, 12 October 1896. Quoted in Echenberg, *Plague Ports*, 48.

little impact on the government's policies in the first two years of the outbreak.[50] Human-to-human transmission was suspected to be the main cause, although we now know that the outbreak was chiefly bubonic and thus required flea bites to cause infection. Pneumonic plague also occurred, but could not have been the chief cause as it was unable to sufficiently sustain plague infections within the population either geographically or temporally.[51] Scholars have often described the pandemic response exclusively in terms of 'contagionist' methods, which focused on halting the spread of the disease by segregating infectious people, but this does not explain why the destruction of 'infected' environs almost exclusively affected the urban poor despite the disease occurring in other communities as well (albeit to a lesser degree). Prashant Kidambi, a professor of colonial urban history, argues convincingly that this demonstrates how the 'anti-plague campaign in Bombay rested on the belief that the disease had an identifiable locus in the "slums" of the poor', and directly targeted their neighbourhoods and homes.[52] He combines this with the traditional contagionist view of disease transmission to describe a form of 'contingent contagionism', whereby the environment of the poor in Bombay was seen as inherently dirty and aided the production of more plague, which the inhabitants then spread. A statement given in January 1897 by Surgeon-General James Cleghorn, the Director General of the Indian Medical Service, confirmed this approach to the disease – he believed that the existence of plague was 'greatly due to local conditions', and that the disease itself was 'only slightly contagious'.[53] This declaration, which reflected old-fashioned 'miasmatic' and environmental determinist ideas of disease transmission, was endorsed by several major health professionals of the city.[54] Echenberg argues that the Indian Medical Service operated 'to satisfy the military and administrative needs of the British in India', which explains why they were keen to downplay the threat of the plague and present it as a disease of the poor.[55]

These attempts to maintain the status quo by minimising the epidemic's severity was emblematic of the government's attitude to disease in Bombay up until this point, but it could

[50] Echenberg, 'Pestis Redux', 437. Although this research did prove useful when plague briefly hit Manila in 1899, and the U.S. military began killing rats en masse.
[51] Pneumonic but especially septicaemic plague are more fast-acting and deadly than the bubonic form, and much like Ebola today they tend to kill before they can infect large numbers of people. Outbreaks of pneumonic plague can occur separately (the main example being the swift and deadly Manchurian plague of 1910-1911) but more often develop in populations alongside bubonic plague.
[52] Prashant Kidambi, '"An infection of locality": plague, pythogenesis and the poor in Bombay, c. 1896–1905', in *Urban History* 31, 2 (2004), 250-51.
[53] James Cleghorn, *Bombay Gazette*, 13 January 1897. Quoted in Catanach, 150.
[54] David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Delhi: Oxford University Press, 1993), 36.
[55] Echenberg, *Plague Ports*, 54.

not last in the face of increasing panic. As cases began to dramatically rise in late 1896, the Bombay Municipal Corporation was given what David Arnold calls 'extraordinary powers' to deal with the outbreak. This was unique in the history of public health in India, as the state had – since the Rebellion of 1857 – been cautious to avoid intervening too much in the lives of the general population (at all levels in the social hierarchy). However, the risk of plague reaching India from China had been well known since 1894, and the response (of those who accepted the reality of an epidemic) reflected the anxieties of the colonial administration regarding their economic interests in India. These 'powers' thus enabled them to use much harsher interventionist methods than had been possible before.[56] Following the logic of Cleghorn and his peers that 'damp, darkness, and dirt [were] conducive to disease', houses in Bombay suspected to carry plague were dismantled, covered in limewash or harsh disinfectants, or had their floors dug up.[57] These powers were then further expanded throughout the country when the colonial government brought in the Epidemic Diseases Act on February 4th, 1897. The Act granted 'power to take special measures and prescribe regulations as to dangerous epidemic disease', specifically stating that regional governments could exceed the 'ordinary provisions of the law' if they were 'insufficient'. This essentially allowed government officials in Bombay to take whichever measures they deemed necessary, but it specifically mentions allowing the 'segregation' of people suspected to be ill, and the 'inspection of persons travelling by rail or otherwise'.[58] As Bombay was heavily connected to other parts of India through the system of railways, it posed the risk of transmitting plague throughout the country. This was unfortunately the case regardless of controls on rail travel, as there was a 'panic exodus' from the city in the early months of the epidemic which carried the disease to Poona and the rest of the Bombay Presidency by all modes of transport.[59]

In response to the worsening situation in India, an International Sanitary Conference was called by concerned European powers and held in Venice on February 16th 1897. Cleghorn was in attendance as Sanitary Commissioner, but he was explicitly advised by the India Office in London not to mention his theories on plague transmission.[60] Several nations had already issued temporary bans on goods imported from India, and while the British successfully mitigated a blanket embargo on trade, certain 'susceptible' exports were subject

[56] Arnold, 'Disease, Rumor, and Panic', 113.
[57] Ibid., 114.
[58] Government of India, 'The Epidemic Diseases Act', *India Code*, February 4, 1897. https://www.indiacode.nic.in/handle/123456789/7799?locale=en
[59] Catanach, 'Plague and the tensions of empire', 151.
[60] Ibid., 152.

to restrictions.[61] This conference also contributed to the escalating severity of British anti-plague measures in Bombay – it was important to demonstrate, both to themselves and to their imperial rivals, that they were committed and capable of suppressing the outbreak. A member of the Colonial Medical Service named Dr James A. Lowson was dispatched from Hong Kong – where the army had been utilised to impose strict quarantine rules – in order to install similar plague measures in Bombay. Lowson declared in an early report of the epidemic that 'the plague bacillus is not influenced by diplomacy', which the Governor of Bombay took to heart by increasing the military presence in the city.[62] With the aid of soldiers, health authorities went on to systematically search Indian homes for plague victims and remove them to hospitals when found, remove or burn any items or even homes they believed were infected, inspect travellers and arrest anyone who appeared to be ill, and dispose of the dead in breach of any religious or familial protests.[63] These measures contributed to the climate of panic in the city, and unsurprisingly fostered criticism of the colonial government and resistance among both avowed nationalists and the general public. Bombay residents found new avenues of direct and indirect rebellion against these policies, which will be explored further in chapter two. By necessity, successive health policies focused more on re-housing the poor and improving the conditions they lived in, although by 1917 the Bombay Municipal Cooperation admitted this had been unsuccessful.[64] The governments of Bombay and India at large turned their focus to education and preventative measures, which did little to prevent plague's impact – by the time it waned in 1923, over 12 million lives had been lost.

1.2 Cholera in Manila, 1902-1904

For most people in the present day, the Black Death is the epidemic most often referenced when they consider the disastrous impact of disease. Despite it never having been eradicated entirely, any new cases of plague are often sensationalised in the press.[65] Its impact on the

[61] Harrison, *Public health in British India*, 134.
[62] James A. Lawson, 'Report on the Epidemic of Plague from the 22nd February to the 16th July 1897', 1897. Quoted in Catanach, 153.
[63] Arnold, 'Disease, Rumor, and Panic', 113-4.
[64] Radhika Ramasubban, 'History of public health in modern India 1857-2005', in *Public Health in Asia and the Pacific: Historical and comparative perspectives*, ed. Milton Lewis and Kerrie L. MacPherson (Abingdon: Routledge, 2008), 93.
[65] One very recent example was the *CNN* article 'The bubonic plague is back again in China's Inner Mongolia', which was later retitled after a backlash. Jessie Yeung, 'Chinese authorities confirm case of bubonic plague in

psyche of Europe cannot be overstated, even though the third pandemic had comparatively little effect on the continent. The biblical nature of the word 'plague' and all its ominous monikers also partly accounts for this. On the other hand, the 'blue death' does not carry nearly the same weight behind it, despite the fact that it continues to kill thousands of people each year.[66] The symptoms of cholera are less uniquely identifiable than the 'buboes' of plague, but are no less unpleasant – the disease is caused by the bacterium *Vibrio cholerae*, which infects the small intestine and causes severe gastric distress. This results in extreme dehydration, which can turn the skin of infected people a bluish colour and gives the disease its nickname. While plague outbreaks are usually viewed as a medieval or early modern phenomenon (even if that is, as we know, not the case), cholera is perceived as a disease of the nineteenth century. Historians believe that it was endemic in India well before the this period, but it did not enter Western consciousness until it first blossomed into a pandemic in 1817. Seven pandemics have struck in total, the final continuing into the present day – the World Health Organization state that 1.3 to 4 million cases still occur globally, largely in areas that have been destabilised by conflict.[67] With the exception of the present pandemic – which was at its height from 1961 to 1975, but has since re-emerged periodically as epidemics in Asia, South America, Africa and the Middle East – most cholera pandemics lasted between four and sixteen years, and occurred three to seven years after the previous pandemic had abated.[68]

Robert Peckham argues in *Epidemics in Modern Asia* that cholera was systematically 'Asianized' by Western scientists and governments in the nineteenth century, even though it also occurred in Europe (and often North America) during the second to sixth pandemics.[69] It was frequently referred to as 'Asiatic Cholera' in the nineteenth and early twentieth centuries, and was presented by American scientists in the Philippines and their colonial contemporaries throughout Asia as a disease that is distinctly suited to that region. This was not unusual for diseases generally – the colonial scientific and public health discourse of the day was full of references to Asian populations being racially or behaviourally susceptible to malaria, smallpox, parasitic infections, and leprosy. But cholera is the clearest evidence of how 'Western epidemic narratives frequently hinge on a geopolitical asymmetry', both

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Inner Mongolia', *CNN*, July 7, 2020, https://edition.cnn.com/2020/07/06/asia/china-mongolia-bubonic-plague-intl-hnk-scli-scn/i (accessed July 9, 2020).

[66] 'Cholera', World Health Organization, July 6, 2020. https://www.who.int/health-topics/cholera.

[67] The most pressing ongoing outbreak began in Yemen in 2016 as a result of the Yemeni Civil War. Ibid.

[68] For a list of the pandemic dates and places of occurrence, see Snowden, *Epidemics and Society*, 233.

[69] Robert Peckham, *Epidemics in Modern Asia* (Cambridge: Cambridge University Press, 2016), 7.

historically and in the present day. Peckham further explains how this applies to the treatment of these outbreaks – while their origins 'are tracked to the global South and East', it is the 'North and West' who hold the 'expertise to combat' them.[70] This was reinforced by advancements in combating cholera in Europe in the nineteenth century, such as the oft-heroized story of Doctor John Snow tracing an outbreak in London in 1854 to a water pump and making the connection between the disease and an infected water supply.[71] Although cholera had been the scourge of many major European cities for much of the nineteenth century, it had very little affect west of Russia from the beginning of the sixth pandemic in 1899 onwards. The United States had likewise been affected by cholera chiefly between 1832 and the 1873, so when an epidemic struck Manila in 1902 the American colonial government initially approached it with confidence. However, the epidemic of 1902-1904 would be disastrous for the Philippines, and cholera would return in waves until the end of the sixth pandemic in 1923.

The cholera outbreaks of the nineteenth century flourished in the conditions provided by the century's rapid industrialisation, and the sixth pandemic in Asia was no exception. The creation of urban areas to house workers and keep up with economic demand meant that large numbers of people were soon living in overcrowded neighbourhoods with poor infrastructure and non-existent sewerage systems. As *Vibrio cholerae* is transmitted by the faecal-oral route, it spread easily through contaminated water supplies and food in these areas.[72] Insufficient public sanitation meant that cholera could infect whole communities at once. Just as the substandard housing in the *chawls* of Bombay facilitated the spread of plague by bringing people into close proximity with rats, so too did similar conditions help spread cholera among the urban poor in the cities of Asia, Europe, and the Americas. These circumstances were significantly compounded in Manila in 1902, as the Philippine-American war had led to widespread population displacement. Many villages and rural communities had been deliberately destroyed during the conflict or had emptied after they lost most of their harvests and livestock to disease. Although numbers are indefinite, historian Paul Kramer suggests that as much as 90 percent of cattle and domesticated carabao may have been lost to rinderpest in this period.[73] This resulted in large-scale migration into cities like

[70] Ibid., 7-8.
[71] Steven Johnson, 'The Investigator', in *The Ghost Map: a street, an epidemic, and the hidden power of urban networks* (London: Penguin Books, 2008), 57-79.
[72] Snowden, *Epidemics and Society*, 234.
[73] Paul Kramer, *The Blood of Government: Race, Empire, the United States & the Philippines* (Quezon City: Ateneo de Manila University Press, 2006), 170.

Manila, which worsened the already poor living conditions for many inhabitants. Famines resulting from inadequate food supplies were likely also responsible for the transmission and severity of cholera, as people were forced to eat improperly prepared food and their bodies were more vulnerable to serious dehydration and death once they became ill.

Previous cholera pandemics had also struck the Philippines during the Spanish colonial period, but the outbreak in 1902 was significantly worse as a result of these conditions. During the war there were also outbreaks of smallpox, typhoid, plague, beriberi and tuberculosis – Ken de Bevoise believes they claimed 775,000 Filipino lives between 1899 and 1903, including the mortality from the first year of the cholera epidemic.[74] De Bevoise recognises that these diseases 'rode in on war's train of evils',[75] but he also argues that the Philippines was primed for an especially severe cholera epidemic that would 'scour the archipelago from end to end' by 1870.[76] Given that the intensity of the 1902 outbreak was partly the result of the immediate post-war period, this treatment of a major epidemic as inevitable is misjudged. The Philippines was affected by the fifth cholera pandemic (1881-1896) in 1882, but the disease primarily affected a handful of small cities and did not spread throughout the islands. This was largely thanks warnings from officials in other Asian port cities and the imposition of a strict fifteen-day quarantine on arriving ships. The Spanish board of health had learnt from the fourth cholera pandemic (which affected the islands in the 1860s) that quarantine was the best preventative measure available, as their sanitary methods would not be adequate to halt the disease once it did arrive. The new American government was not ignorant of these factors, as they were very vocal in their criticism of the Spanish system, but they were no more able to implement their sanitary methods to a satisfactory degree in time for the outbreak.[77] They were notified on March 3rd 1902 that Canton was seeing cholera cases, and then warned that it had reached Hong Kong on March 8th. Nine days later the Chief Quarantine Officer, Dr J. C. Perry, banned all incoming green vegetables from both ports, believing that they were at the highest risk of contamination since human waste was often used to fertilize them. He was too late however – at least one ship from Hong

[74] De Bevoise, *Agents of Apocalypse*, 13.
[75] Ibid.
[76] Ibid., 134.
[77] Willie T. Ong, 'Public health and the clash of cultures: The Philippine cholera epidemics', in *Public Health in Asia and the Pacific: Historical and comparative perspectives*, ed. Milton Lewis and Kerrie L. MacPherson (Abingdon: Routledge, 2008), 207.

Kong had already arrived bearing the disease by the 14th of March.[78] In the early afternoon of the 20th of March, Manila's San Juan de Dios Hospital saw its first cases of cholera.[79]

As the government was all too aware of the cholera threat, hospital staff had been warned to send word as soon as anyone was admitted with symptoms of the disease. Several senior members of the colonial government arrived within hours of the patients' admission – Paul Caspar Freer, Director of the Bureau of Science; his colleague Richard Pearson Strong, the newly appointed director of the bureau's biological laboratories; and the Commissioner of Health, Major Louis Mervin Maus.[80] Strong took samples and was able to positively identify the cholera bacillus. Cases quickly grew – Victor Heiser recounts how hospital staff were already overwhelmed with patients within forty-eight hours of the first sufferers being admitted.[81] Within another day there were 37 confirmed cases, which had nearly tripled to 102 by the tenth day of the outbreak.[82] Heiser describes how Dean C. Worcester quickly mobilised the department of health and took 'vigorous steps' to deal with the outbreak, particularly in order to 'protect their troops'.[83] The majority of cases were traced to the Farola district of Tondo in Manila, an area which sat (much like Mandvi in Bombay) right on the edge of Manila Bay, near the estuary of the Pasig river. Tondo was very densely populated and the majority of residents lived in nipa huts and shanties, which were poorly-built and lacked access to clean water. Soldiers were brought in by Worcester to quarantine the whole district, which led to panic from inhabitants who were not informed of the situation. Although a land quarantine was also put in place around the entire city, the disease began to spread to nearby provinces as people tried to escape. Reports came of Filipinos leaving the city through rice-fields or by small boats across the bay. American soldiers also contributed to the spread when a military boat carried cholera to the city of Nueva Cáceres in Southern Luzon, and other cases were traced to troops travelling to the province of Laguna.[84]

Emblematic of the militarism of public health, Worcester likened the government's attempts to contain cholera to the U.S. army's defence of Manila against Filipino republican

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[78] Ileto, 'Cholera and the origins of the American sanitary order', 127.
[79] Rodney Sullivan, 'Cholera and Colonialism in the Philippines, 1899-1903', in *Disease, Medicine and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, ed. Roy MacLeod and Milton Lewis (London: Routledge, 1988), 284-285.
[80] Ong, 'Public health and the clash of cultures', 209; Warwick Anderson, 'Richard Pearson Strong', *American National Biography*, February 2000.
[81] Heiser, *An American Doctor's Odyssey*, 104.
[82] Ong, 209.
[83] Ibid., 104-5.
[84] Ileto, 'Cholera and the origins of the American sanitary order', 127.

forces during the war. Believing that more severe measures were necessary, Worcester had the residents of Farola taken to the detention camp in San Lazaro and the homes of the district were burned on March 27th.[85] This exacerbated the climate of panic and led Filipinos to conceal ill family members or their bodies in order to avoid losing their homes. The Board of Health recruited seven thousand temporary workers to help the soldiers and police in carrying out their sanitary campaign – Heiser would later say that the lack of training likely led to 'discourtesy' and 'abuse[s] of power'.[86] Willie T. Ong describes how Filipino resistance 'incensed' health officials, who became increasingly aggressive, which in turn encouraged further resistance in a 'vicious cycle'.[87] More quarantine measures were put in place along the Pasig river and its tributary the Mariquina, but these badly affected many communities living along them and clashes with health officials and soldiers led to at least one Filipino death.[88] As the weeks went on, American teachers and Filipinos were employed to inspect houses on a massive scale. Sick inhabitants and their families were taken and isolated in detention camps, with special hospital sections for the former. The poor conditions and overcrowding of the camps had the inverse effect of worsening the spread of disease, and four-fifths of patients in hospitals died.

While the containment methods used were unpleasant enough, their attempts at treating cholera symptoms and disinfecting individuals were no less so. Freer developed a new drug called 'Benzozone', which was used as a 'germicidal' antiseptic and was either injected into patients or used as an enema.[89] The drug was painfully abrasive, burned the stomach and mouth, and was ultimately ineffective.[90] Freer would later admit that it was 'distressing and useless', although the initial reports celebrated its supposed success.[91] Cholera continued to spread through the Philippines and hospital treatments did little to prevent deaths. According to Warwick Anderson there were 15,275 cases in Manila by April, and at least 215 deaths (although the number was likely much higher).[92] The first wave of the outbreak was nowhere near abating by mid-1902, but Maus had abolished the detention

[85] Ileto, *Knowledge and Pacification*, 117.
[86] Heiser, *An American Doctor's Odyssey*, 105.
[87] Ong, 'Public health and the clash of cultures', 209.
[88] Ibid., 210.
[89] Edward A. Southall, 'Report of the Santiago Cholera Hospital to the Commissioner of Public Health for the Philippine Islands, July 2nd 1902', *Report of the Philippine Commission to the Secretary of War* (Washington: Bureau of Insular Affairs, 1907), 384.
[90] Reynaldo C. Ileto, *Knowledge and Pacification: On the U.S. Conquest and the Writing of Philippine History* (Manila: Ateneo de Manila University Press, 2017), 116.
[91] Paul C. Freer, 'A Consideration Of Some Of The Modern Theories In Relation To Immunity', *The Philippine Journal Of Science* 2, no. 2 (1907): 66.
[92] Anderson, *Colonial Pathologies*, 65.

camps by May once it became clear that isolating people in their own homes instead would reduce animosity towards the Americans. Other islands and provinces further south continued to become infected – in September, over 100 people were dying per day in Iloilo.[93] Although house-burnings were discontinued in Manila along with the camps, they were still utilised in other parts of the Philippines. Almost an entire town was lost in Pangasinan following the burning of an infected home.[94] By June 1902 cases had reduced in Manila, and they steadily lowered towards the end of the year throughout the islands. Believing cholera to have largely abated, Perry removed the maritime quarantine in Manila on February 4th 1903. Heiser was appointed to Perry's role as Chief Quarantine Officer in March, in time to report a rise in cases in late April and early May. This second wave would last for nine months, peaking in June and eventually killing at least 60,000 people before it was declared over in April 1904.[95] Although the colonial government did not approach the second wave as aggressively as the first, their experiences during the cholera epidemic galvanised the Bureaus of Health and Science and led to active disease research and sanitary campaigns throughout the early years of American occupation.

Both the plague and cholera outbreaks occurred at a point in time where the increasing interest in tropical medicine and the pressures of imperial competition pushed each colony to demonstrate their scientific proficiency through decisive health measures. Interventionist methods involving the isolation of communities, destruction of their homes and forceful removal of inhabitants were highly unpopular and only contributed to the spread of disease. Although we now know that both cholera and plague were directly worsened by urban conditions such as poor housing or unclean water, the measures of these governments focused instead on controlling their populations on a more direct and intimate level than during any prior epidemics. While scientific research in these colonies ultimately failed to provide any substantial relief to disease sufferers or their communities, both the British and American governments used this work to fortify their political approaches to disease and would eventually promote the same policies in official publications. This demonstrates that their measures were based less on scientific results than scientific arrogance, and particularly a shared antipathy for 'ignorant' Indians and Filipinos who they sought to control 'for their own good'.[96] The following chapter exhibits these shared attitudes by examining how

[93] Ong, 'Public health and the clash of cultures', 211.
[94] Kramer, *Agents of Apocalypse*, 181.
[95] Smallman-Raynor and Cliff, 'The Philippines insurrection and the 1902–4 cholera epidemic', 188-191.
[96] Heiser, *An American Doctor's Odyssey*, 105.

colonial governance and resistance were portrayed in accounts of the epidemics by the Insular Government of the Philippine Islands and the Government of India.

2. Colonial Governance, Indigenous Resistance, and the Epidemic Accounts

The field of 'tropical medicine' rapidly grew in the 1890s, fed by advancements in science and transport which enabled researchers to pursue their work in the tropics. In this period of 'high imperialism', tropical medicine became another tool by which Western powers could imbed 'otherness' into the study of disease and the pursuit of improved public health. As with the construction of cholera as an Asian disease, this research emphasised environmental and racial dimensions to health issues and justified the presence of colonial scientists.[97] A lucky consequence of this zeal for tropical medicine was the proliferation of scientific publications and bureaucratic accounts of public health initiatives. In the Philippines, the American colonial government's Bureau of Science founded the *Philippine Journal of Science* in 1906, which was edited by their director Paul Casper Freer. Scientists and doctors from within the colonial government and the military were regular contributors on subjects ranging from public health, medicine, geology, botany and anthropology. British scientists and their European peers also utilised their colony in India to conduct research and were frequently published journals like *The Indian Medical Gazette*, which had been established in 1866 and was closely connected with the Indian Medical Service. Scientists in Bombay and Manila were both working to discover cures for the disease outbreaks of the time and were fastidious in recording their work. The rise in enumerative methods of control (such as population censuses) meant that colonial governments also began to create elaborate records of the epidemics which then served as handbooks for future outbreaks.

The works analysed in this thesis cover both the clinical and social sides of the epidemics – that is, they recount the characteristics and treatment of the diseases, as well as how they spread and what measures were undertaken to deal with them. Dean Conant Worcester's *A History of Asiatic Cholera in the Philippine Islands* and Robert Nathan's *The Plague in India, 1896, 1897* were both commissioned by their respective governments as accounts of the epidemics in each colony. As products of both the scientific and bureaucratic dimensions of their colonial governments, the books demonstrate how each writer and his contemporaries experienced epidemic crises and the colonial tensions they exacerbated. Both were fed by the same attitudes to colonised populations, anxieties about each power's place in the greater colonial arena, and an obsession with what Mark Harrison calls the 'rhetoric of

[97] 'Tropicality' was not simply the region of the tropics, and tropical medicine specifically became about the health of those involved in colonialism or those who were subject to it. David Arnold, *The Problem of Nature: Environment, Culture, and European Expansion* (Oxford: Blackwell Publishers, 1996), 153.

"colonial efficiency"'.[98] This chapter examines each text by following two central themes – how they represented the colonial governments and their responses to the epidemics, and how they portrayed Indian and Filipino people and their resistance to these policies. This close analysis of the accounts enables us to explore the comparison between the two epidemics from the perspective of their governments, with key similarities in the texts highlighted to emphasise the greater similarities in the colonial epidemic experience.

2.1 The colonial careers of Dean Worcester and Robert Nathan

In order to understand the events of the cholera epidemic of 1902-1904, Worcester's account remains the key source used by his contemporaries and by historians to this day. It is the most comprehensive description of the government's actions during the epidemic, as most other sources from the time are journal articles which focus on medical research on cholera undertaken during and after the epidemic. As the title suggests, Worcester's account actually covers the history of cholera in the Philippines up until it was published, but the focus remains on the 1902-1904 epidemic. His description of cholera under Spanish rule is chiefly provided to bolster his argument that the American government had superior public health practices, and his account of smaller cholera outbreaks between 1905 and 1908 are explored in order to explain why cholera was not fully eradicated in 1904. He also splits his chapters between cholera in Manila and cholera the provinces, but this analysis will focus on the former.

Nathan's account, on the other hand, was written in the midst of the plague epidemic and focuses on the period from August 1896 to July 1897.[99] He does extensively cover the history of plague generally and its existence in India before 1896, but primarily looks at the first year of the outbreak. While the account was commissioned by the Government of India rather than the municipal government in Bombay, it primarily concentrates on the Bombay Presidency as plague was mostly affecting that region at the time (although one chapter is designated to the appearance of plague in other parts of the country). While Nathan's work was the first account of the epidemic attempted by the greater colonial government, there were also two smaller accounts compiled by the Bombay government around the same

[98] Harrison, *Public Health in British India*, 18.
[99] Robert Nathan*, The Plague in India, 1896, 1897,* Vol.1 (Simla: Government Central Printing Office, 1898), 1.

period. These were M. E. Couchman's *Account of Plague Administration in the Bombay Presidency* (1897), which chiefly outlines the policies of the first eight months of the epidemic, and James Knighton Condon's *The Bombay Plague: Being a History of the Progress of Plague in the Bombay Presidency from September 1896 to June 1899* (1900), which is a direct continuation of the account by Nathan but remains focused on Bombay. Such accounts became part of a growing corpus of books that were produced by the British to record and teach future bureaucrats about epidemics and public health in India.[100] Historian I. J. Catanach notes that the creation of these 'lavishly produced reports' was part of the British colonial government's commitment to improve their poor Indian health record in the wake of criticism from other colonial powers.[101]

A key difference between the two texts is that where Worcester is able to give his own opinions and recount the events of the epidemic on his own terms, Nathan is constrained by a significantly more junior position in the government. Neither Worcester nor Nathan were trained in medical science, but where the latter includes testimonies from doctors as evidence for his statements on plague, Worcester relies on his reputation. Worcester was a major figure in the Philippines at this time – having first travelled to the country as a junior zoologist on a scientific expedition in 1887, he had built up a career as an expert on the islands and a staunch believer in the American colonial mission. By 1892 he had undertaken two expeditions to the archipelago, which would serve as the basis for his book *The Philippine Islands and Their People* (published in October 1898). Alongside descriptions of the environment and diverse flora and fauna of the Philippines, he wrote at length about various Filipino groups, their ways of life, and their relationship with the Spanish. He provided descriptions of characteristics he argued were racially innate in Filipinos – their 'inborn gambling instinct', their tendency to lie, their 'lazy' and 'unoriginal' nature, their lack of agricultural ability and the belief that they would 'submit without a murmur to punishment'. Most crucially, Worcester considered them to be 'utterly unfit for self-government' and in need of the 'control of some progressive nation'.[102] His criticisms of Spanish rule left no doubt as to who he considered best placed to improve their circumstances. He published his book two months before the Philippines was ceded to the

[100] One major example is *Sanitation in India* by J. A. Turner and B. K. Goldsmith, first published in 1914 as a handbook for sanitation students and subsequently published in multiple editions.
[101] Catanach, 'Plague and the tensions of empire', 152.
[102] Dean C. Worcester, *The Philippine Islands and their people: a record of personal observation and experience, with a short summary of the more important facts in the history of the archipelago* (New York: Macmillan, 1898), 472-482.

U.S. through the Treaty of Paris, which preceded the outbreak of the Philippine-American War in February 1899. The book, which also emphasised the many natural resources of the Philippines, served to convince the American public that their support was needed for Filipinos to 'develop industry' and overcome their natural ineptitude.[103]

Following on from the success of his book, Worcester was able to formally influence and orchestrate the colonisation of the Philippines when he was appointed to the First Philippine Commission in 1899 by President William McKinley, and then reappointed to the Second Philippine Commission in 1900 (the only person to serve on both). The second commission was largely in charge of facilitating the transition from a military to a civil government in the Philippines, which cemented American control of the country. Worcester was also appointed as Secretary of the Interior that year, which gave him control of multiple areas of American governance in the Philippines – health, agriculture, 'non-Christian tribes', science, land, mining and forestry.[104] Most significant here was his sweeping control over public health and medical research, which meant that most government officials in these sectors were either swayed by his opinions or could be outright overruled by him. This control extended beyond just the professional – his appointee as Director of Health, Paul Caspar Freer, was Worcester's brother-in-law. The implication of this control for an analysis of *A History of Asiatic Cholera* is that the actions and decisions he described were largely his own, or at least made with his approval. Not only could he control the way that the epidemic was presented in the text, but he had a personal and vested interest in portraying the government's actions in a way which was favourable to him. All inclusions and exclusions were made on his own terms, as his work was not compiled under the gaze of a superior.

Worcester published his work in 1908 after the most recent of multiple resurgences of cholera in Manila since the first epidemic. It was not written principally as a summary of the events, but in order to respond to the 'demand that the responsibility for the present situation be fixed and that existing conditions be radically improved'. His account serves to explain what measures were taken to eradicate cholera during the 1902-1904 epidemic and subsequent epidemics, why they were taken, and why they failed. He considered this necessary at the time of writing due to the 'widespread attention abroad to the continued existence of cholera in the Philippines' – despite criticism from within the Philippines for

[103] Ibid., 75.
[104] Rodney J. Sullivan, *Exemplar of Americanism: The Philippine Career of Dean C. Worcester* (Michigan: The University of Michigan, 1991), 98.

years, it was the censure of other Western powers that required an explanation of their situation. He couches this defence in language that indicates his own recognition of their failings and his desire to improve – 'I am of the opinion that this demand is entirely just' – but in a close reading of the actual text it is clear that a justification of their actions was a primary motivator for writing.[105]

Worcester's business interests, which he had cultivated throughout his time in government, also affected his portrayal of the epidemic. He was involved in agricultural business ventures and maritime shipping, which led to repeated accusations in the Filipino press of corruption. Ambeth Ocampo notes that much of Worcester's work can be linked to schemes by which he could profit from the natural resources of the Philippines – his interference with remote indigenous groups was thought to cover his search for gold, and he was accused of illegally selling land and meat that he obtained through his management of both sectors.[106] During the cholera outbreak he and his colleagues were even accused (likely wrongfully) by the Filipino press of burning the homes in Farola to make room for American buildings.[107] This behaviour in a senior government official went directly against President McKinley's assertion that 'the Philippines are not ours to exploit, but to develop, to civilize, to educate'.[108] By the time that his book was published in 1909, Worcester had begun a libel case against the Spanish-Tagalog newspaper *El Renacimiento* for an article that insinuated he was akin to 'the vulture, the owl and the vampire' because of these rumours.[109] His antagonistic attitude to the press in *A History of Asiatic Cholera* was likely stoked by his repeated defence of his actions to the court, the public, and his own peers. He eventually retired from the government in 1913 to pursue his business interests, but he continued to publicly oppose bills that outlined the process towards Philippine Independence until his death in Manila in 1924.

In comparison to Worcester, Robert Nathan was writing from a very different position within the colonial bureaucracy of India. When *The Plague in India, 1896, 1897* was

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[105] Worcester, *A History of Asiatic Cholera*, 7.
[106] Ambeth R. Ocampo, 'Birds of Prey', *Philippine Daily Inquirer*, August 2, 2019, https://opinion.inquirer.net/123002/birds-of-prey (accessed July 13, 2020).
[107] Anderson, *Colonial Pathologies*, 66.
[108] Julian Go, 'Introduction', in *The American Colonial State in the Philippines: Global Perspectives*, ed. Julian Go and Anne L. Foster (Durham: Duke University Press, 2003), 11.
[109] Fidel A. Reyes, 'Aves de Rapiña', *El Renacimiento*, October 30, 1908. Translated by Mark Angeles, 'Aves de Rapiña (English translation)', Dakuykuyan Effect (blog), June 21, 2018, https://makoydakuykoy.wordpress.com/2018/06/21/aves-de-rapina-english-translation/ (accessed July 13, 2020).

published in 1898, Robert Nathan was working in the Home Department of the Indian Civil Service. According to the alumni database of Cambridge – where he had studied law – he had entered the civil service in 1885 and by 1898 he had held positions as Assistant Magistrate and Collector in Bengal and under-secretary to the Financial and Commercial Departments of the government.[110] Although he was in a relatively junior position while writing, his career progressed quickly at the turn of the century. In 1905 he would go on to become Private Secretary to the Viceroy of India, Lord Curzon. Three years later, as Police Commissioner of Dhaka, he played a leading role in uncovering and suppressing the revolutionary group *Anushilan Samiti*. He eventually returned to Britain in 1914 and began working as an intelligence officer specialising in Indian revolutionaries, particularly the anti-colonial Ghadar Movement. He pursued this work to the United States late in the First World War, before returning to Britain before his death in 1921. Although he had yet to deal directly with Indian revolutionaries when writing his plague account, Nathan's career trajectory may indicate a particular interest and early aggressive opposition to Indian resistance. This was by no means unusual for a member of the Indian Civil Service, but it worth noting in light of his comments on the reactions to measures taken in Bombay.

Nathan was charged to compile the account by the Government of India so that it may 'serve as a useful guide for future occasions, should such a guide unfortunately be needed'. He also noted that its use as a reference text necessitated the 'considerable detail' given into 'remedial and preventative measures'. This culminated in the final chapter of the book, which aimed to summarise 'the conclusions with regard to the best means of combating plague' – the presumption therefore is that Nathan intended for the text to be purely factual and to come to the most logical deductions from the events he describes.[111] Nathan had power over which judgements he eventually made, but he wrote them for governmental use and thus his conclusions had to be made within reason. They were presumably shared by his superiors at the government headquarters in Calcutta, which was separate from the Government of Bombay itself (and the Bombay Municipal Corporation, which controlled the city alone as opposed to the presidency as a whole). Nathan was not pressured to present the actions of city officials so positively. In fact, he detailed policy disagreements between the two governing bodies on multiple occasions – one such section, dubbed a 'detailed explanation of the

[110] A Cambridge Alumni Database, *University of Cambridge*, http://venn.lib.cam.ac.uk/cgi-bin/search-2018.pl?sur=&suro=w&fir=&firo=c&cit=&cito=c&c=all&z=all&tex=NTN885R&sye=&eye=&col=all&maxcount=50 (accessed July 13, 2020).
[111] Nathan, *The Plague in India,* 1-2.

difficulties made by the Government of Bombay', makes it clear that Nathan agreed (or at least presented agreement) with his own branch of government.[112]

2.2 Portraying colonial governance in the face of epidemic disease

Throughout his account of the cholera epidemic, Worcester constantly emphasises the speed and efficiency of the actions undertaken by the government once the disease broke out. He sets this up from the beginning by describing the 'very energetic measures' that were 'immediately adopted to prevent the spread of the disease'.[113] His record of the outbreak in 1902 begins with two brief paragraphs on the arrival of cholera in the Philippines, then launches into a defence of the government's methods before said methods are even outlined. He explains that 'these measures aroused hostility, and the officers of the Board of Health, as well as the Secretary of the Interior, were savagely attacked in the public press for saying that the disease was Asiatic cholera'.[114] He emphasises their multiple attempts to be believed by the public and both 'local physicians' and 'reputable physicians who had lived in the country for years'. The latter likely referred to Spanish doctors, who Worcester considered to be equally as 'superstitious' as Filipinos (Catholicism was often blamed for this, and the Spanish were generally portrayed as inept by Worcester).[115] He frames this experience as an American effort working (ultimately unsuccessfully) against disbelief and local irrationality:

> In order to convince the public of the true nature of the disease and of the necessity of vigorous and radical measures if a general epidemic was to be avoided, the official statement of the Director of the Biological Laboratory was widely published but this, too, failed of its purpose and for several months there were not lacking intelligent laymen and even physicians who insisted that there was no cholera in the Islands. Unfortunately, their belief was ill founded and the epidemic which began on March 20, 1902, did not terminate in Manila until February 29, 1904, prior to which time there were 5,581 cases and 4,386 deaths, while in the provinces it lasted until March 8, 1904, with 160,671 cases and 105,075 deaths.[116]

[112] Ibid., 141.
[113] Ibid., 19.
[114] Ibid.
[115] Anderson, *Colonial Pathologies*, 68.
[116] Worcester, *A History of Asiatic Cholera*, 20.

This tone of regret aims to absolve his colleagues and himself of their failures in containing the epidemic, as he emphasises their struggle against widespread scepticism. It implies that, in their ignorance, the Filipino public were themselves responsible for the spread of cholera and thus their own deaths. By expressing this through a detailed list of the exact deaths caused by cholera, he reinforces this dichotomy between American scientific rationality and Filipino ignorance. This is bolstered up in later sections where he condemns the Filipino press for printing criticisms of the cholera measures and spreading 'lying tales' about the government's intentions in order to 'alarm the ignorant and superstitious'.[117] On occasions when the policies were particularly successful, Worcester puts this down to the lack of Filipino criticism. When a Dr Frank S. Bourns was brought in temporarily to aid the new Commissioner of Health in August, Worcester claimed that his 'remarkable success… was largely due to his readiness to adopt measures which, while thoroughly effective, were less harsh and irritating to the public than were those which had been employed by his predecessor'.[118] This is very briefly mentioned, and indicates that Worcester was not faulting previous interventionist measures (particularly those that were criticised, such as house-burnings and hospital camps) but rather demonstrating the impact of the 'irritating' Filipinos and their refusal to cooperate. By nature of Worcester's narrative so thoroughly dominating the sources on this epidemic, many scholars have repeated his arguments. Most recently a Yale political scientist, Reo Matsuzaki, likewise blamed the 'insufficient' public 'voluntary compliance' for the lack of success in suppressing the disease, despite his otherwise clear condemnation of the colonial government's actions.[119]

Worcester's portrayal of the struggle to prove the existence of cholera can be directly contrasted with the converse situation when plague arrived in Bombay. While cholera had been confirmed by a team of Americans, plague was first diagnosed in Bombay by the Goan-born Dr Viegas and he had to fight to be believed by the city's government and British-run press. Nathan's first chapter on the characteristics of plague includes a section titled 'Difficulties of Diagnosis', which explains why plague symptoms are often mistaken for other diseases and vice versa. In this he recognises that 'in the autumn of 1896 the existence of bubonic plague in Bombay for some time escaped detection'.[120] However, this refers specifically to the unknown months preceding August when plague may have already been

[117] Ibid., 40.
[118] Ibid., 24.
[119] Reo Matsuzaki, *Statebuilding by Imposition: Resistance and Control in Colonial Taiwan and the Philippines* (Ithaca: Cornell University Press, 2019), 11.
[120] Nathan, *The Pague in India,* 16.

present. In his chapter detailing the measures taken in Bombay at the beginning of the epidemic, Nathan omits to mention the disbelief which Viegas personally encountered after announcing his diagnosis. Instead, Nathan notes the date on which Viegas made his discovery, then mentions that the Government of India 'at once deputed M. Haffkine, the bacteriologist, to Bombay to investigate the disease'.[121] Although historian Rajnarayan Chandavarkar argues that the colonial state as a whole was reluctant to admit the cases were plague, Nathan's account and newspaper articles from the time seem to indicate a discordance between the municipal authorities and government of Bombay Presidency on the one side, and the colonial government at large on the other.[122] Both were on high alert to the possibility of a plague outbreak, but in Bombay this manifested in a reluctance to publicly accept the evidence given to them, while the Government of India moved quickly to determine the truth. Nathan recounts that after the Bombay government telegraphed the Indian government of the suspected plague cases on September 29th 1896, the latter sent out Haffkine on 'the same day'.[123] Here he highlights speed and efficiency as a colonial virtue, much like Worcester previously. This separation between levels of government was not relevant in Philippine context – colonial control was more centralised, and the outbreak began in the same city that power was based in. But where Worcester portrays this issue of acknowledging an outbreak as being the result of local ignorance and a refusal to accept American scientific logic, Nathan entirely omits the period when Viegas struggled to be believed by the authorities of Bombay. The fact that Viegas was himself Indian does not enter Nathan's narrative – he only uses scientific facts about plague to explain the difficulty in acknowledging such diagnoses generally, and he repeatedly emphasises the efficiency of the Government of India. As Nathan cites Viegas's work on multiple occasions and Viegas was himself a member of the Bombay Municipal Corporation, Nathan may also have removed this moment of tension in order to portray a smooth working relationship between Western-trained Indian doctors like Viegas and the British government at all levels.

Using the prevailing misconceptions on plague transmission, Nathan is matter of fact in his description of the measures undertaken to prevent the spread of plague. Believing that it was spread through faecal matter, dirt floors, infected homes and personal belongings, Nathan explains that 'dirty and insanitary conditions favour the growth of the disease' and

[121] Ibid., 133.
[122] Chandavarkar makes little distinction between the actions of the Bombay Municipal Corporation and the Government of India. Chandavarkar, 'Plague Panic and Epidemic Politics in India', 207.
[123] Nathan, *The Plague in India*, 108.

emphasises that the segregation of residents and the disinfection or destruction of their homes was necessary in light of these factors.[124] Again, the difference between Nathan and Worcester's tone is exemplified in the comparison of these sections. Where the former outlines these measures concisely and explains how and why they helped prevent the dissemination of plague, Worcester jumps to a criticism of the Filipino reaction to them. Where Nathan mentions the 'demolition of insanitary and infected huts', Worcester describes how he 'suggested that this district [Farola], which was covered for the most part with filthy and almost worthless shacks, be burned over'.[125] He ignores, of course, that poor residents whose lives had been destabilised by war most likely saw the worth of their homes in terms of their providing permanence and shelter rather than any financial value. Although the measures used in both Bombay and Manila were equally harsh and traumatic for each city's residents, the careful objectivity of Nathan masks these measures as purely practical, while Worcester recognises the unpopularity of these policies but imbues his account with his prejudices against the Filipino population.

It should be noted that Worcester's tone is not exclusively defensive throughout his description of these actions – he does preface this section by saying that 'in criticising [the measures of the Commissioner of Health] I am, therefore, in many instances, criticising myself as well as him and shall endeavour to assume my full share of responsibility for the undoubted mistakes which were made'. This would suffice to demonstrate his recognition of these errors, if it were not for the fact that he follows it with a continual emphasis on the obstacles posed by the Filipino population. He also makes projections that if these methods (however harsh) were simply meted out in a slightly different way, they would have been worthwhile. The most glaring example is his assertion that 'if all the inhabitants of the Farola district had been removed at the outset to the detention camp and the district swept by fire and then drenched with disinfectants, the epidemic of 1902-1904 might have been avoided'.[126] He clearly perceives the mistakes in anti-plague policy as a matter of their implementation, rather than in the actions themselves. There is no recognition of how poor Filipinos felt beyond descriptions of their protests, which he thoroughly belittles:

> The people, entirely unaccustomed as they were to any sanitary restrictions, believing as many of them did that the disease was not cholera and firm in their conviction that they

[124] Ibid., 128.
[125] Worcester, *A History of Asiatic Cholera*, 28.
[126] Ibid.

> had a right to do whatever they liked so long as they kept to their own premises, bitterly resented the burning or disinfection of their houses and effects and the restriction of their liberty to go and come as they pleased, and, in spite of the fact that the number of cases was kept down in a manner never before dreamed of at Manila, there arose an increasingly bitter feeling of hostility toward the work of the Board of Health. *In fact the very success of the campaign proved an obstacle and we were assured that the disease could not be cholera, as if it were there would be a thousand deaths a day!*[127]

Worcester was noted by his contemporaries for being particularly dismissive of Filipino feelings – Heiser described how 'He was brusque, and did not ask for cooperation … in following out what he considered right, he paid no heed to Filipino public opinion'. But his attitude was by no means unique, although he was crueller in his paternalism than others like Heiser who saw Filipinos as 'terrified' and pitiable.[128] In comparison to Nathan, Worcester was more immediately dismissive of the local population in his work, and very quick to blame their 'irrational' beliefs for the spread and fatality of cholera among them. This placed them in direct contrast with the colonial government, who Worcester praised for its superior efficiency and scientific outlook. Nathan similarly lauded the Indian Government for their response to the outbreak, but he omitted the hesitance of the municipal authorities of Bombay in accepting Viegas's diagnosis as it went against these very values. As *The Plague in India* was written at a time when British health measures were under scrutiny, this omission was likely a deliberate choice to present all levels of colonial government in a positive light.

2.3 Filipino and Indian resistance in the epidemic accounts

Rodney Sullivan, an Australian biographer of Worcester, was relatively generous in his assertion that Worcester's policies were 'understandably admired by Americans for their scale and modernity', but he does acknowledge that 'less thoroughly explored is the question of how they were experienced by Filipinos'.[129] Though sympathetic to their mistreatment, Sullivan does not remedy this problem. Warwick Anderson, who is very conscious of this issue, demonstrates the imbalance inherent in presenting Filipino experiences of the cholera policies. Their narratives take two distinct forms – either the poor are shown resisting 'passively' (through concealment) in accounts by the colonial state; or objections are made

[127] Ibid., 21. Italics are Worcester's own.
[128] Heiser, *An American Doctor's Odyssey*, 105.
[129] Sullivan, *Exemplar of Americanism*, 106.

by the small number of Spanish-Filipino elite, either in the press, to their American social acquaintances, or in their capacity as doctors working under American control.[130] The majority of the urban Filipino population (to say nothing of indigenous groups living rurally) have little agency within accounts of the epidemic. Their resistance, when mentioned, is described with virtually no recognition of their own thoughts besides impulses of panic or fear. As Steven Johnson puts it: 'the primary way that ordinary people create this distinct genre of history is by dying'.[131]

The archival difficulties in tracing the feelings or opinions of colonised populations are well known in the study of colonial history, but they are exacerbated within the history of disease. The majority of Filipinos and Indians are portrayed in clinical descriptions of their symptoms or in death tolls. This dehumanising effect is worsened by the fact that both epidemics killed very few white residents or members of the local elite, so the diseases could be presented as an experience of the 'ignorant' poor. Since popular resistance was chiefly reported to superiors by employees of the colonial state, these actions have already been conceptualised in language which criminalises or at least demonises them. This is then recorded and entrenched by works like Nathan and Worcester's, whose accounts have subsequently provided the basis for many histories of the epidemics. As this thesis primarily focuses on colonial accounts and the opinions expressed in them, it is at risk of perpetuating these silences. However, examining how the authors present resistance is a useful way to highlight the actions of Filipinos and Indians, even when they are presented as inherently bad. Elites and members of upper castes were sometimes able to use their own voices and protest government policies in letters or the press, but they primarily represented the opinions of their peers and were themselves entangled with colonial power. Instances of resistance from the poorer residents of Bombay and Manila may be less obvious in textual history – as they primarily defied the colonial state by hiding sick individuals, secretly burying their bodies, or by absconding detainment – but the frustration of Nathan and Worcester is demonstrative of the issues this resistance must have posed.

While Nathan's later career primarily dealt with revolutionaries and nationalist groups, he does not describe their work in *The Plague in India*. However, Radhika Ramasubban notes that the uniquely violent measures undertaken in Bombay 'succeeded in antagonizing the nationalist political leadership and the common people alike', so such work

[130] Anderson, *Colonial Pathologies*, 67.
[131] Johnson, *The Ghost Map,* 32.

was clearly occurring.[132] The impact of plague and the severity of these measures led to the nationalist movement seriously concerning itself with public health for the first time. This was particularly exacerbated by the fact that the Bombay government utilised the epidemic to increase and enforce greater surveillance of the population.[133] In *Barbed-Wire Imperialism*, Aidan Forth describes how the militarised nature of India's 'plague camps' was also a core source of nationalist ire.[134] Rioting or the fear of riots eventually forced the government to reduce the interventionism of anti-plague policies in Bombay in 1897.[135] Although he does not explicitly engage with nationalist rhetoric, Nathan does describe the riots in a section entitled 'The opposition encountered and the manner in which it was overcome', which immediately portrays this as the government's victory.[136] He obscures the exact nature of this opposition from 'some sections of the native community', instead arguing that cases of resistance were the result of racial misconceptions:

> It is the habit of mind of Asiatic races, and especially amongst the more ignorant of the population, to regard events such as a plague epidemic as a visitation of fate, and as such, to submit to them with patience, but without an effort to do what is humanly possible to mitigate calamity. They are also ignorant or distrustful of the methods which Western science has pointed out as the most efficacious for the protection of the public health and the extirpation of epidemic disease … These habits of mind and dictates of religious and social custom greatly increase the difficulty of enforcing the precautions essential to check the virulence of an epidemic disease, such as plague. Both in the City of Bombay and elsewhere the authorities who bore the responsibility of the operations kept these matters constantly in view and the precautionary measures were always devised so as to interfere to the least possible degree with the feelings and the customs of the people for the protection of whom they were devised.[137]

He frames this resistance in ostensibly neutral language, but he implies that the government were well aware and accommodating of these issues when in reality they acted with virtually no consideration of them and were then forced to scale back after retaliation. He then includes extracts from the *Times of India* and letters from colonial officials on the subject to emphasise the 'tact, patience, and unremitting attention of the Plague Committee' in

[132] Ramasubban, 'History of public health in modern India', 93.
[133] Chandavarkar, 'Plague Panic and Epidemic Politics in India', 208.
[134] Adian Forth, *Barbed-Wire Imperialism: Britain's Empire of Camps, 1876-1903* (Oakland: University of California Press, 2017), 74-81.
[135] Ira Klein, 'Plague, Policy and Popular Unrest in British India', *Modern Asian Studies* 22, no. 4 (1988): 743.
[136] Nathan, *The Plague in India*, 146.
[137] Ibid., 147.

changing their approach.[138] By presenting resistance as a product of racial and cultural differences that were overcome through communication and compromise, Nathan suppresses the tensions caused by plague and portrays governance in Bombay as finely-tuned and largely amicable. He only briefly recognises the 'greatest fear' and 'widespread alarm' caused by the early plague policies,[139] and later mentions one case of workers 'assembling' in reaction to them.[140] His language minimises these actions and portrays Indians as nervous rather than determined, which is noteworthy as modern historians have described this assembly as the precursor to a riot. In Nathan's account, he reassures readers that this event was swiftly and easily quelled by a proclamation explaining that the government did not intend to remove sick people from their homes as widely as the policy had first implied.

Unsurprisingly, the antagonism which Worcester expressed when describing the burning of homes in the Farola district is extended in his accounts of resistance to government policies. Given that the epidemic occurred immediately in the wake of the Philippine-American war, this connection between nationalist rebellion and resistance to health policies was at the forefront of his mind. Worcester does not acknowledge the part that the war played in exacerbating the spread and severity of cholera, but he does invoke it in his section entitled 'Difficulties Encountered'. He begins by claiming that during the initial outbreak period 'there were at that time in Manila not a few evil-intentioned persons, both foreign and native, who welcomed every opportunity to make trouble'. Immediately, resistance to the government is framed as pre-meditated and wilfully malevolent. However, he does not ascribe to all Filipinos (and especially those living in Farola and similar neighbourhoods) the capacity to engage with revolutionary thought – they remain 'ignorant' in his mind, but their fear is triggered by 'false and malicious tales' by the Filipino press and unnamed dissenters.[141] He does not specify individuals, nor does he explicitly say that these 'evil-intentioned persons' were nationalists, although the press clearly condemned the American government. We know that Apolinario Mabini had returned to his revolutionary activities on arrival in Manila in early 1902, but he does not feature in Worcester's account. With the exception of certain members of the Filipino press, who he believes were 'guilty of homicide on a very large scale', Worcester portrays most resistance – namely the refusal to

[138] Ibid., 149.
[139] Ibid., 146.
[140] Ibid., 136.
[141] Worcester, *A History of Asiatic Cholera*, 22.

go to hospitals, the concealment of the sick, and escape – as the actions of the 'ignorant and superstitious'.[142]

Unlike Nathan, Worcester makes no move to emphasise compromises between the government and the population, but rather presents their protests as an irritant that inhibited the work of the Bureau of Health. Warwick Anderson notes that Dr T. H. Pardo de Tavera, one of the Filipino elite and a member of the Philippine Commission, did speak out for the public by informing Governor Taft that 'the people fear the Board of Health a great deal more than they fear the epidemic'.[143] However, complaints coming from important figures and Worcester's own peers are wholly excluded from his account. Worcester falls back on easy tropes to explain the criticism of him and his peers – he presents the majority of the population as gullible, unintelligent, and superstitious: easily swayed by a small number of malicious individuals who continue to undermine the government despite the war being (largely) over. He identifies the press as primarily guilty of this, but also implies that there are those living in the general population who spread and encourage discord. This draws on the idea of *insurrectos*, who were Filipino rebels against the American government during the war years. Coming from a man who believes Filipinos to be innately deceitful and lazy, it is unsurprising that even resistance to aggressive health policies is painted as both an ignorant nuisance and a dangerous act of martial rebellion. It also fits comfortably into his narrative of a logical and modernist government whose well-intentioned work is consistently thwarted. By contrast, Nathan's decision to exclude coordinated nationalist resistance from his account and to claim that the government was careful to 'interfere to the least possible degree' allows him to present a colonial society working relatively cohesively. As we now know that the policies of this epidemic were uniquely interventionist, widely disliked, and caused huge numbers of Bombay residents to flee the city, his portrayal is easily discredited.

Although they take very different approaches, both Nathan and Worcester actively obscure or present resistance in a way which allowed their governments to justify their actions – interventionist measures are acceptable not only because they are done for the sake of public health, but also because the government worked with them or because they needed to be controlled for their own wellbeing. This fits neatly into their use of the dichotomy between their rational policies and the irrational local responses. Nathan's decision to understate the resistance to anti-plague policies was caused by the pressure for the British to

[142] Ibid., 124.
[143] Anderson, *Colonial Pathologies,* 67. Original letter quoted by Anderson dated to May 5th, 1902.

prove their capability to those imperial powers who were critical of their public health measures. In contrast, Worcester's choice to highlight this resistance demonstrates the American colonial state’s disregard for Filipino people, but they remain useful to his narrative as scapegoats for the failures in containing cholera in Manila.

3. Colonial Reputations and the Racialisation of Disease

The British and the Americans had vastly different track records preceding the outbreaks of plague and cholera. Britain had been present in India for centuries and as the British Raj specifically for four decades, whereas the Americans had only just transitioned from a temporary military government to a civic one and were still finding their feet. The way that they viewed their own administrations were different, although they amounted to similar policies. Pressures from a poor public health record and direct criticism during the International Sanitary Conferences meant that the British had to prove to other imperial powers that they were organised and capable despite their past. The Americans, on the other hand, were proving to themselves and the world that they could overcome years of Spanish maladministration and teach modern medical and sanitary practices to Filipinos in preparing them for eventual self-rule.

Building on the previous chapter's analysis of governance and resistance in the epidemic accounts, this chapter examines these themes on a greater scale. The first section will explore how Nathan and Worcester viewed their government's handling of the epidemics in relation to other outbreaks within their colonies and those of other colonial powers in Asia. This considers how the authors themselves contextualised their public health measures and whether their accounts reflect their relationships with their imperial competitors. The second section progresses from the discussion of resistance in the previous chapter to examine how ideas of Indian and Filipino racial traits were used by Worcester and Nathan. David Arnold has argued that disease played an important role in how Western imperial powers conceptualised indigenous societies, and this is particularly clear in the context of the Third Plague Pandemic (which mostly affected Asia) and 'Asiatic' Cholera.[144] Both India and the Philippines had struggled with endemic diseases historically, which colonial powers perceived as proof that disease was an intrinsic aspect of 'the tropics'. Neither Manila nor Bombay saw significant numbers of infections among their white populations during the epidemics, which bolstered the colonial belief that Filipinos and Indians were incapable of managing disease and were themselves propagators of infection. In the epidemic accounts these ideas manifested in the ways Nathan and Worcester wrote about local people and disease, presenting both Indians and Filipinos as particularly susceptible to these illnesses on the basis of their behaviours and hygiene. This connection between disease, dirtiness and

[144] Arnold, 'Introduction: disease, medicine and empire', 7.

indigenous peoples was by no means unique to America and Britain as colonial powers, but the similarities between the two are very stark. They reflect the same mix of racism and medical ideas of disease which emerged out of colonial interactions in dense urban spaces like Manila and Bombay. The traits mentioned by Worcester and Nathan are reflected in their similar responses to both cholera and plague, despite the differences between each disease. Both colonies also understood their local populations in opposition to their own racial values, and the portrayal of these traits underwrote their perception of themselves and their own health in the colonial context.

3.1 Positively contextualising the epidemics

In order to understand how Nathan and Worcester contextualised their own epidemics, we must remember that they were fundamentally controlled by the time of their writing and the atmosphere they produced their work in. In the introduction of *The Plague in India* Nathan explains that he was first commissioned to write the account during a lull in plague cases, and he began his work with the expectation that the disease 'would soon disappear' in the Bombay Presidency.[145] It was clear by the end of writing that plague was again on the rise, and he recognised that another report on the continuing events of the epidemic would be necessary. His approach was therefore to present the first year of the outbreak as a point in time within an ongoing event – rather than as a complete report of the epidemic – which he contextualised with reference to other epidemics in history. He sets up the text with a brief history of plague through time, stretching from Justinian to the time of writing. Although the records on plague prior to the nineteenth century are scant, Nathan does include as many references as possible to indicate that this epidemic is the most recent of many, including prior to British arrival in India. He draws on accounts of British doctors and scientists to demonstrate 'the pertinacity with which plague will persist and the virulence with which it will prevail if left to work its way unchecked amidst insanitary surroundings'.[146] He regularly cites 'dirty and insanitary conditions of life' as the cause of repeated plague epidemics during the nineteenth century, in spite of the inconsistent records kept (particularly prior to Crown Rule in India).[147] Ultimately his narrative of prior epidemics serves to support the

[145] Nathan, *The Plague in India*, 1.
[146] Ibid., 80-1.
[147] Ibid., 92.

government's policies on sanitising and destroying infected homes, which he believes contained the disease and allowed it to spread within communities.

Notably, Nathan largely omitted the effect of famine and population displacement in worsening the plague outbreak, although those factors now make the epidemic stand out for historians. Increased colonial enumeration in this period meant that these high mortality rates were recorded clearly in the decennial census – between 1891 and 1901 in Bombay, the growth rate was negative 0.42 percent per year. Nathan does mention that plague broke out after 'unusual climatic conditions' caused a famine in 1896-7, though at the time of writing he would not have known how badly future shortages would contribute to the rate and spread of the disease.[148] However, the Bombay Plague Committee noted in 1898 that some 300,000 people had migrated to the city from struggling rural areas in the first three months of 1897, so the city was clearly feeling the effects of huge population movement even in the initial outbreak period (especially after the first wave out of the city when plague broke out).[149] David Arnold notes that British India had been the subject of 'repeated international censure' for the mortality rates under cholera, so the sanitary conference on plague pressured the colonial government to prove their success with this disease and uplift their reputation.[150] In the conclusion of his account, Nathan recommends that future sanitary officers approach the suppression of disease on two fronts – improve the 'crowded and filthy surroundings' and the 'insufficiency of air and light' within them, and halt the 'dirty habits of life' which fostered the disease.[151] These 'habits' were largely based on 'customs and prejudices' which the colonial government considered to be inherent to the Indian population.[152] They sought to amend them through education in the long term, but Nathan remained supportive of the interventionist methods utilised in Bombay, without recognising that these measures could only have a minimal effect if the greater problems of famine and food shortages were not also dealt with.

In contrast, four years had elapsed between the end of the cholera outbreak and the writing of Worcester's account, and he was thus able to judge the events of the epidemic as a single episode. However, he comes to a practically identical conclusion to Nathan. Beginning his text in November 1908, he recognises that the outbreaks that had occurred since 1904

[148] Ibid., 146.
[149] Ramasubban, 'History of public health in modern India', 92.
[150] Arnold, 'Introduction: disease, medicine and empire', 14.
[151] Nathan, *The Plague in India*, 435-6.
[152] Ibid., 436.

were likely connected with the initial epidemic, but he also uses them as a comparison to the first. Most importantly, he outlines from the beginning of the account that he seeks to address the 'numerous misstatements' made on the 'relative frequency and importance of cholera epidemics during the Spanish and American regimes'.[153] He immediately sets up the imperial comparison by beginning the text with a history of cholera during the Spanish period, and he continues to utilise it throughout the book. This was a calculated effort to underscore the American government's superior health policies by claiming that the outbreak was minor in comparison to those before it. While Worcester acknowledges that Spanish records were too irregular to present a direct statistical comparison, he argues that this lack of information is proof that cholera was much more widespread than people believed it to be:

> Let us have done then with idle talk about the good old days when cholera did not prevail in the Islands to any such extent as at present. *Let us remember that there was one day in 1882 when the number of deaths from cholera in Manila was thirty-four times the largest number that has occurred on any one day since the American occupation!*[154]

The paragraph which follows this statement includes an extended list of every confirmed year in which a cholera epidemic occurred during the Spanish regime. Just as Worcester gave the exact numbers of cholera deaths in his criticism of Filipino resistance, so too does he use quantitative data here to prove American scientific rationality.[155] As in the italicised section above, Worcester allows the statistics to speak for themselves. This bolsters his portrayal of both Filipinos and the Spanish as incompetent and superstitious, although the former is blamed on racial traits while the latter bases their failures on poor governance and Catholic superstition. This reflects the wider image that the American government promoted of itself. In the 1940s, former vice-governor of the Philippines Joseph R. Hayden would describe how 'an essentially scientific attitude [was] substituted for the unscientific ways of Spanish days' as 'one of the great achievements' of the early colonial period.[156]

In spite of the huge death toll during the 1902-4 epidemic and the recurrences of cholera since that time, Worcester continues to celebrate the American sanitary measures and concludes his description of the epidemic in Manila by saying that 'this is a record of which the Bureau of Health may well be proud'. He justifies this continuously through the text in

[153] Worcester, *A History of Asiatic Cholera*, 7.
[154] Ibid.,18. Italics are Worcester's own.
[155] See page 31 of this thesis.
[156] Joseph R. Hayden, *The Philippines: A Study in National Development* (New York: Macmillan, 1942), 644.

several ways. Firstly, he claims that they averted even greater mortality as they had kept cholera from contaminating the main city water supply, which 'would doubtless have resulted in the death of a third of the population'.[157] This would certainly have worsened the epidemic, but invoking a hypothetical situation does not negate the fact that their actual containment measures were largely ineffective. Secondly, Worcester claims that the handling of cholera during the Spanish administration was significantly worse than their own, and that from 1882 to 1897 'cholera was constantly present and conditions were far worse than at any subsequent time'.[158] He mentions this despite the poor records he says were kept in that period, which he partially blames on the 'well-known fact that under Spanish rule it was the custom to prohibit the dissemination of information as to the prevalence of dangerous communicable diseases'. He claims that under the Spanish there was a gulf between the 'official truth' and the 'real truth', which he contrasts with 'our own policy has always been to publish the exact truth'.[159] Not only does this cast aspersions on the credibility of Spanish data, but it also proclaims that the American colonial state upholds truth and scientific accuracy above their own interests. Finally and most significantly, Worcester argues in his conclusion that 'Asiatic cholera has long been endemic in the Philippine Islands'.[160] This places the blame on 'climatic and topographical conditions' – which imperial powers long argued were suited to hosting diseases in tropical areas – and on the 'ignorance and superstition of the common people'.[161] This belief that Filipino racial and cultural habits made them guilty of spreading and hosting the diseases which killed them in great numbers is a familiar colonial idea, and will be explored further in the following section. Each author argues that the diseases are endemic to the region, so the combination of racial rhetoric and the lengthy histories they give of both diseases thus allows them to contextualise their epidemics and minimise their severity. By extension, this allows them to present their colonial governments in a positive light to their imperial rivals, despite the ineffectiveness of their measures.

[157] Worcester, *A History of Cholera*, 24.
[158] Ibid., 58-9.
[159] Ibid., 13-5. This rhetoric has curiously been echoed by American politicians during the COVID-19 pandemic, who have emphasised their superior testing statistics and implied that other nations (such as China) have covered up or withheld their own case numbers.
[160] Ibid., 131.
[161] Ibid.

3.2 Racial habits and the transmission of disease

In his introduction to *Imperial Medicine and Indigenous Societies*, David Arnold argues that nineteenth century Europe was able to 'banish' epidemic diseases 'to the tropics' and 'free itself from its own epidemiological past'.[162] As Britain itself was virtually unaffected by plague during the Third Pandemic, it is certainly true that their experience of the disease was confined geographically to the colonial sphere. However, the constant anxiety about plague arriving in Europe through India and the Middle East demonstrates that they were fully cognizant of their own vulnerability to the disease, and actively sought reassurance against it. This was done in discourse around public health by blaming plague's existence on habits and traits ascribed to the Indian population, which allowed the British to alleviate this anxiety while also reinforcing their own racial superiority. Americans likewise saw Filipinos as a 'weak and feeble race' who were particularly susceptible to illness, and used this to justify their fitness to control the islands.[163] This idea had to be emphasised because of their own anxieties over their racial fitness,[164] both in their fear of diseases and their creation of pseudo-medical conditions like 'Philippinitis' (which described the lethargy experienced by white Americans in the tropics).[165] In their responses to both the plague and cholera epidemics each government invoked indigenous race and racial habits when it suited them, especially where it could ease their own fear of infection. However, they still maintained that these traits were mutable enough that they could educate these populations to behave according to the expectations of a modern sanitary nation. This was most explicitly the case in the Philippines, where self-rule was predicated on the improvement of public health, and hygiene was a fundamental part of the 'civilising process'.[166] This demonstrated the inherent hypocrisy of the American colonial mission – government officials like Victor Heiser would expound on their intention to uplift and educate Filipinos to become a 'strong, healthy and enduring people',[167] but would also express their frustration with their supposedly 'incurable' habits.[168] Racial traits were malleable when imperial discourse required it, but Filipinos were still inescapably marked out as inferior beings.

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[162] Arnold, 'Introduction: disease, medicine and empire', 7.
[163] Victor G. Heiser, 'Unsolved Health Problems Peculiar to the Philippines', *The Philippine Journal Of Science* 5, no. 2 (1910): 177.
[164] For more on this tension between racial superiority and racial vulnerability, see 'The White Man's Psychic Burden', in Anderson, *Colonial Pathologies*, 130-57.
[165] Francis A. Gealogo, 'Bilibid and Beyond: Race, body size, and the native in early American colonial Philippines', *Journal of Southeast Asian Studies* 49, no. 3 (2018): 377.
[166] This idea was famously Anderson, *Colonial Pathologies*, 1.
[167] Heiser, 'Unsolved Health Problems', 177.
[168] Ibid., 175-6.

This hypocrisy was most starkly expressed in the epidemic context, with all the pressures it added to existing colonial tensions. Both Nathan and Worcester presented these behaviours and traits as inherent to Indians and Filipinos, while also exclaiming their desire to improve them. In describing the poor housing and dirtiness of urban communities, both authors present these issues as the result of a local preference for such conditions rather than them being the result of poverty and overcrowding. The habits of these residents most clearly demonstrate what Warwick Anderson calls the 'racialisation of pathogen distribution', whereby cultural behaviours were 'organized fundamentally by race' and became part of an 'essentialized race culture'.[169] Worcester's portrayal of Filipinos as untrustworthy in *The Philippine Islands and Her People* is taken to another level in the cholera account, where they are dehumanised and presented as disease vectors who pose a danger to others. Although couched in scientific language, he claims that these 'bacilli carrier[s] of filthy habits' are 'the greatest menace to public health which can possibly exist'.[170] Here he focuses on Filipino toilet practises as a choice to defy American sanitary rules – the carrier 'refuses to avail himself of the public closets furnished to him', and becomes a threat to his community.[171] Although not explicitly labelled a rebellious act, Worcester implies that these actions are a conscious decision and frames them in a similar way to the methods of resistance explored in the previous chapter.

Each writer focuses his ire on a particular 'native custom', which enables them to conveniently blame the dissemination of cholera and plague on these supposedly racially-determined habits.[172] Nathan warns that the 'customs and prejudices' of Indian people may be an 'obstacle to the adoption of the measures which have been found best adapted to check the disease'.[173] He believes that residents of Bombay were infected through plague bacilli on the ground, which were easily transmitted to them as they walked barefoot. This is presented as a habit predicated on race – one of the military doctors he quotes, a Dr J. S. Wilkins, specifically describes Indians as a 'barefooted race'.[174] Rajnarayan Chandavarkar has pointed out that this was not only a racialised habit, but was also associated specifically with the lower classes.[175] As the urban poor were the group worst hit by plague in Bombay, this

[169] Anderson, *Colonial Pathologies*, 103.
[170] Worcester, *A History of Asiatic Cholera*, 190.
[171] Ibid.
[172] Heiser, 'Unsolved Health Problems', 176.
[173] Nathan, *The Plague in India*, 436.
[174] Ibid., 36.
[175] Chandavarkar, 'Plague Panic and Epidemic Politics in India', 215.

provided colonial scientists with circumstantial evidence for their hypothesis. It was originally based on the belief that plague was transmitted through lingering germs rather than through flea bites, as that had been their understanding of cholera. This was the logic behind the policy of removing 'four inches' of the earthen floors in homes suspected to be infected.[176] Nathan quotes another colonial official who claimed that 'plague gains entrance to the human body in the majority of cases through the skin of the feet and legs', and this rhetoric served the dual purpose of blaming Indian racial habits and protecting the British from being similarly infected as a result of their superior conduct.[177]

In the case of the Philippines, Worcester argues that the practice of eating by hand was the primary cause of cholera transmission. He is unwaveringly critical of this practice in his section exploring why the Philippines is susceptible to cholera:

> Furthermore, it might well be replied that there is no other *civilized* country where the customs of the inhabitants are so favorable to the dissemination of cholera and undoubtedly the worst of these, universal among the common people and by no means confined to them, is that of eating with the fingers.[178]

His use of italics makes Worcester's point clear – the Philippines is unclean and uncivilised, and this is the fault of Filipino nature (both 'common' and elite) above all else. In Worcester's case, there is a genuine scientific connection between this practice and the transmission of cholera. As the disease is spread through the faecal-oral route, people may unknowingly spread and ingest the cholera bacilli after eating with their hands. However, this still contributes to his racialised portrayal of Filipinos as 'disease-dealing' and a threat to both themselves and Americans.[179] Combined with their 'foolish or superstitious beliefs' Worcester creates an image of Filipinos who are suspicious, diseased, dirty, and too ignorant to know otherwise.[180] In his conclusion he further justifies the American colonial mission by invoking this practice, which he believes 'can be remedied only by a patient and persistent educational campaign'.[181] This is notably more conciliatory than his previous opinions on Filipino behaviour, and is similar to the recommendations of Robert Nathan in the Indian case. However, his frustration with this practice is still clear. This was a belief he shared with

[176] Nathan, *The Plague in India,* 147.
[177] Ibid., 240.
[178] Worcester, *A History of Asiatic Cholera*, 59. Italics his own.
[179] Anderson, *Colonial Pathologies,* 93.
[180] Worcester, *A History of Asiatic Cholera*, 59.
[181] Ibid., 131.

his contemporaries, as Victor Heiser similarly predicted 'years of discouraging struggle ahead of us before they can be broken of so fixed a habit, the menace of which as yet is entirely beyond their comprehension'.[182]

An engagement with local medical practitioners and the teaching of American medical science would presumably be the solution to this problem, but Worcester chiefly mentions Filipino work on cholera in order to criticise the practices of their doctors and sanitary inspectors. He says briefly that the government acceded to 'popular clamor' and opened a Filipino-run cholera hospital in 1902, but portrays this as little more than a passing fad – 'interest in it soon flagged and the Government found itself with this institution on its hands'.[183] In response to 'the claim that Filipinos alone should be employed to combat cholera', he says that 'the actual result of leaving the situation in certain provinces entirely to Filipinos is demonstrated by the statistical tables in this report'. He does not even attempt an explanation, but simple allows statistics to prove his point yet again. He eventually accedes that the 'best results [are] obtained by cooperation between Americans and Filipinos', but this essentially amounts to Americans controlling sanitary and medical practices with Filipinos working in junior positions or as intermediaries with the local population.[184]

In presenting plague and cholera as diseases which consistently struck India and the Philippines historically, Nathan and Worcester are able to deny the severity of the epidemics under their colonial governments. This was in keeping with the idea in tropical medicine that Asia was particularly suited to disease, and that all the epidemics of this era could invariably be traced to it. As the evidence actually pointed to both plague and cholera arriving in these cities as part of colonial trade networks, this rhetoric helped to redirect blame away from the colonial powers themselves. While Worcester and (to a lesser degree) Nathan witnessed the high mortality rates and swift spread of the diseases, both actively worked to portray them as endemic to the region and the result of racialised habits and 'hereditary proclivities' such as eating by hand and walking barefoot.[185] This further absolved them of guilt in the spread of disease, when in reality both epidemics were worsened by colonial conditions like poor housing and overcrowding, which had been caused by rapid industrialisation and the upheaval of recent war and famines. It also allowed them to assuage anxieties about white racial fitness in the tropics and reinforce their superiority as both physiological and habitual.

[182] Heiser, 'Unsolved Health Problems', 176.
[183] Worcester, *A History of Asiatic Cholera*, 22.
[184] Ibid., 60-1.
[185] Anderson, *Colonial Pathologies*, 163.

This ultimately contributed to the overall conclusions of both authors, where they presented the public health measures of their governments as scientific and effective despite criticisms levelled at them by local populations or their competitors in the imperial arena.

Conclusion

When people consider the relationship between disease and colonialism, their first thought will likely be of crowded ships and dirty blankets – the spread of 'old world' diseases to indigenous populations who had never encountered them. In these histories, responsibility for the ensuing deaths can be clearly pinned on those who arrived and introduced such diseases to these communities. However, this thesis has demonstrated that under administrative colonialism in the late nineteenth and early twentieth centuries, diseases similarly had a devastating impact. Maritime trade connections allowed disease to travel great distances, while rapid industrialisation and urbanisation increased community transmission. Colonial tensions and poor containment methods then negated public health policies, while famine and conflict lowered immunity so that these diseases could reach more people and kill an astounding percentage of them. The rhetoric around imperial development and civilising science cannot conceal the fact that plague and cholera affected millions in this era, and that relative to population they were most devastating in colonies like India and the Philippines.

The enthusiasm for 'tropical medicine' in this period enabled Western imperial powers to absorb scientific research even further into the machinations of the colonial state. The methods of disease containment used by the governments of India and the Philippines were outwardly portrayed as progressive and logical, even while they sprung from rhetoric that erroneously presented cholera and plague as a product of Asia and its inhabitants. David Arnold has described this 'new interventionism' as an 'assault upon the body of the colonized' – the measures utilised against disease were more aggressive than in the past, but they also took on an intimate dimension that had not been so systematically violated previously.[186] The most personal aspects of people's lives were suddenly threatened in the name of protecting them – homes were damaged, burned, and sterilised; people were quarantined, separated, and placed in detention camps; and their bodies were externally and internally subject to painful abrasive chemicals in order to disinfect them.

The analysis of both accounts in this thesis has demonstrated that colonial governance and indigenous responses to it were always conceptualised in ways that aided imperial powers and their reputations, even in the context of major disease epidemics. Although historians have often praised public health measures and scientific advancements in this period, it is clear that under the conditions of colonialism they never occurred within an

[186] Arnold, *Colonizing the Body*, 203.

objective vacuum. Where these policies provoked local resistance and made no material difference to the epidemics, official records by figures like Worcester and Nathan could reframe these histories to blame Filipinos and Indians. These works disregarded various factors of disease transmission in favour of linking the governments' failures with supposedly fundamental racial habits. The second part of chapter three shows that this rhetoric was inconsistently used by both authors and their contemporaries, as they only invoked it when it was convenient to them. They did so while still maintaining the façade of scientific neutrality and promoting their own colonial efficiency, as exhibited by the first two sections of chapter two. 'Native customs' had to be mutable enough that they could be replaced with modern sanitary education, but they also needed to mark Indians and Filipinos out in opposition to white British and American superiority. Race could be malleable, but it was still absolute – even local elites would never attain the status of their colonisers. No matter how much the U.S. may have emphasised its difference to European colonial powers (as seen in the first half of chapter three), its 'exercise in effective benevolence' in the Philippines was still fundamentally influenced by the same racial discourse as its imperial contemporaries.[187]

Despite their claims to the contrary, the epidemic accounts of Worcester and Nathan demonstrate that colonial thinking and discrimination always undermined the scientific values they so often espoused. The third section of chapter two particularly shows that each author could approach a topic differently but come to the same conclusions about their governments and colonised peoples. While Worcester explicitly mentioned indigenous resistance in order to reinforce negative racial stereotypes, Nathan would actively minimise tensions in his own narrative, but with the same result of presenting the colonial state as essential to govern the population. Both authors also exploited medical details and statistical data to reinforce the necessity of their colonial administrations. In admonishing a colleague for his ineptitude, Victor Heiser once claimed that whenever his work produced 'no results', then at least 'the blame could be put on religion, caste, and superstition'.[188] Whether or not he would have recognised identical behaviour in Worcester's account, this was certainly the latter's modus operandi. Both he and Nathan linked the transmission of cholera and plague with cultural customs like eating by hand or walking barefoot, and scientific ideas of the time backed them up regardless of accuracy. By simultaneously claiming that these diseases were endemic to India and the Philippines, each author could disregard the role of colonialism in

[187] Julian Go, 'Introduction', 2.
[188] Victor Heiser, *Diary of Dr Heiser's Trip Around the World*, March 27, 1928. Quoted in Anderson, *Colonial Pathologies*, 205.

spreading or worsening the epidemics, and instead present them as the fault of inferior race, irrational thought, and climate. They could also emphasise the racial dichotomy by highlighting the efficiency and rationality of their own colonial governments, which then served the dual purpose of ameliorating any anxieties surrounding the wellbeing of white people in the tropics.

Although Nathan and Worcester contextualised these epidemics in order to minimise their significance, both had a lasting impact on public health in each colony. This was not simply a result of their high mortality rates – in India the worst years of plague were followed by even more deaths due to the 1918 influenza pandemic, yet plague was not eclipsed by this event. This epidemic is remembered instead for the intensity of the response to it – the formation of plague committees, the introduction of the Epidemic Diseases Act in 1897, and the publication of accounts like Nathans reflect the new 'centrality of epidemic disease' to state medicine in India.[189] Nathan's work and those like it were part of this commitment to improve the existing public health record, particularly under the scrutiny of their imperial competitors. While the cholera epidemic arrived at a time when the Americans were already engaging with public health and eager to demonstrate their abilities, it likewise marked the beginning of widespread health initiatives and continuous research into preventative medicine. Neither Worcester nor Nathan were willing to fully accept criticism of the health measures developed during these epidemics, as both came to the conclusion that such methods should continue to be utilised in future.

The comparison between these epidemics has thus revealed that they were strikingly similar both in terms of how they unfolded and their long-term impact, despite both being exceptional in the histories of their own colonies. Even where the events of the epidemics or the official portrayals of them diverged, the responses of the governments were the same – to emphasise their rationality and reinforce their racial eminence. Studying these epidemics together has demonstrated more than ever the hollowness of the civilising rhetoric and exceptionalism of American imperialism, as their approach to containing this health crisis was practically identical to that of the British in India. The failure of these methods and the British mistreatment of Indian people during the epidemic has also exhibited the fallacy of their own imperial superiority. Although the British believed themselves to be leading the

[189] Arnold, *Colonizing the Body*, 202-3.

world in effective colonial administration, they required writers like Nathan to omit and adjust their history to uphold this image.[190]

Epidemic disease took on a political dimension during this era of 'high imperialism', and it continues to be seen as a fundamental marker of a nation's ability to govern and protect its citizens. Even while thousands of people are dying as a result of COVID-19, governments continue to present their health record as proof of their superiority. National rivalries and prejudices trump the actual wellbeing and health of their population. The four states involved in this thesis – Britain, India, the United States, and the Philippines – have taken significantly different approaches to containing the pandemic, yet they all reflect this preoccupation with reputation. Narendra Modi and Rodrigo Duterte, two leaders famed for their authoritarianism, both installed severe lockdown restraints on their citizens with harsh penalties for non-compliance. However, these measures have been rendered wholly insufficient due to their use of violent force coupled with their failure to adequately communicate with and support their citizens. Meanwhile, the populism of Donald Trump and Boris Johnson has barely affected the rapid spread of COVID-19 in the U.S. and U.K., as they were slow to implement lockdown rules or infringe on personal freedoms (such as the adequate enforcement of masks or isolation). Even as the severity of the disease has become increasingly difficult to deny, both nations have introduced their policies in hap-hazard and incomplete ways which have been relatively ineffective in halting cases. All four leaders, despite their differences, have learnt nothing from their political or colonial predecessors. Their obsession with upholding their international reputations and reinforcing their own sense of superiority has had a devastating cost. In the face of epidemic disease, national exceptionalism and fantasies of eminence are but temporary distractions from the threat of encroaching death.

[190] Catanach, 'Plague and the tensions of empire', 150.

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