People in Peril, Environments at Risk: Coolies, Tigers, and Colonial Singapore's Ecology of Poverty

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In the mid nineteenth century, on the jungle-cloaked island of Singapore, a Malay man marched along the road from town to his home in Seletar village. On his shoulders sat his young son, munching contentedly on *jagong* (maize). They rounded a bend, and we can imagine the man’s mind turned to home. He would have to replace the thatched *kajang* (dried grass) roof soon, for nothing lasted long in Singapore’s humidity. And then he could not breathe.²

Tiger! The creature crouched in front of them, muscles vibrating in anticipation of a pounce. The stunned parent gasped out an utterance, which seemed to give the beast pause. Never breaking eye contact with the feline, he backed cautiously to a tree, so that his boy could climb into the safety of its branches. But now the man was trapped. He could not turn his back on the tiger to scale the tree, and he would not abandon his son with the big cat still lurking.³

The father drew his *parang*, a woodcutting knife resembling a machete, and advanced slowly towards the tiger. As the man progressed, though, the tiger stood its ground. Malayan tigers hunted wild boars and sun bears. What threat was a human? The father proceeded for fifty yards towards an obviously hopeless struggle with a cat weighing well over 200 pounds, with claws like knives, and jaws that could shatter a deer’s neck. The tiger crouched, shifted its weight on its hind legs, and exploded into the air. Before the man could move, a flash of orange had disappeared into the jungle.⁴

If we are to believe this story, recorded by a Briton in 1865, the unidentified Malay man was as lucky as he was courageous. In nineteenth-century Singapore, encounters between people and tigers were deadly affairs, and until late in the century the giant cats claimed far more human lives than people killed tigers. This carnage owed largely to two interrelated causes: 1) the felling of forests in which tigers could persist in seclusion from humans; and 2) the vulnerability of the Chinese coolies, Malay and archipelagic South-east Asian workers, and Indian convict labourers who carried out the dangerous work of clearing the tigers’ jungle abode.

In recent years, scholars have demonstrated that affluent, hyper-consuming societies take a disproportionate toll on the environment. Researchers have also identified an emerging global ‘environmentalism of the poor’ that deviates from mainstream wilderness preservation by seeking ways for people to live and work in nature sustainably. These discussions, although commendable, can obscure how poverty also sometimes intensifies and entrenches ecosystem destruction, particularly when combined – as in Singapore – with uncaring administrators, profit-driven investors, and the ruthless logic of imperialism. In this colony, poor Chinese, Malays, archipelagic South-east Asians, and Indians struggled to eke out a living by razing rainforest at the behest of government officials and financiers, because these toiling people possessed no better options. Chinese coolies and Malay and island South-east Asian workers relocated to the settlement to escape conditions of indigence owing largely to the poor governance of the former’s sovereigns and the latter’s colonial masters. For their part, Indian convict labourers had no choice in the matter. They went because their British rulers sent them.⁵

These labourers were among the most vulnerable members of their societies. In testament to their unenviable predicament, they ventured into the dangerous jungles of

Singapore's interior, a space Europeans seldom dared enter. As these workers struggled within the strictures of a market-oriented colonial economy to transform forests into farms, houses, and roads, they inadvertently created an ecology of poverty that had catastrophic consequences for humans and tigers alike. Finding ever less forest in which to hide from humans, some of the mighty cats instead began to regard people as prey. Trapped in place by debt peonage and exploitative penal policies – and receiving little assistance from their colonial rulers – poor Chinese, Malays, archipelagic South-east Asians, and Indians sought to protect themselves by killing tigers. In the end, the humans vanquished the cats, but not without enduring hundreds, if not thousands, of fatalities. Colonial Singapore's environmental history reminds us that the people who carry out the work of eradicating nature often do so because the dictates of market and government have provided them with limited alternatives for survival. In these instances, effective environmental advocacy is inseparable from social reform.⁶

The notion of an ecology of poverty derives from an emerging insight among environmental historians that most landscapes – even supposed 'wilderness' areas – are partly products of human labours, ranging from intentionally-set brush fires to industrial-scale mining. Scholars are also becoming increasingly aware of how people come to know their environment bodily through work in nature. In truth, these are not entirely new insights, for Marxist adherents to historical materialism have long contemplated the ways that capital reorganizes labour and the land. Whereas Marxist scholars have tended to see nature as static and passive, though, environmental historians perceive it as active and dynamic. By conceiving of the workplace as a shifting ecological system, we can begin to reflect on which labour conditions favour sustainable interactions with the land, and which do not. As environmental justice scholars have revealed, unhealthy environments endanger not just wild plants and animals, but human beings as well, with poor people and minorities disproportionately enduring these effects. Researchers have primarily made such arguments with reference to industrial pollution or other anthropogenic hazards, but as colonial Singapore's tiger-filled history reminds us, nature can also imperil marginalized peoples, especially during periods of disruptive ecological change. This paper uses the term 'ecology of poverty' to refer to a situation in which human activities resulting partly from indigence have rendered the interactions between some organisms and their environment untenable.⁷

Stressing the role poverty played in colonial Singapore's environmental history raises important questions surrounding subaltern agency. Most pressingly, how do we grant Chinese coolies, Malay and archipelagic Southeast Asian peasants, and Indian convict labourers a degree of control over their historical experiences without, in effect, 'blaming the poor' for obliterating much of Singapore's rainforest? Indeed, the prevailing narrative of Chinese pioneer agriculturalists in Singapore appears to do just that, depicting these people as greedy and short sighted in a manner that risks perpetuating colonial-era racial tropes and understates the desperate poverty these individuals faced. As noted by preceding scholars, historicizing subaltern agency requires us to acknowledge and connect the economic, governmental, and environmental constraints under which these people acted, while nonetheless crediting them with making difficult choices between less-than-ideal alternatives. Eminent scholar of subaltern environmental practices Ramachandra Guha has identified two models for making sense of the history of the poor and marginalized: 1) a *structural-organizational* paradigm that examines how

major historical processes, such as the spread of capitalism or imposition of imperialism, affected various classes; and 2) a *political-cultural* paradigm that recognizes that additional forms of power must have been at work to prevent economically oppressed people from continuously rebelling. Following Guha's lead, this paper attempts to combine both approaches, appreciating not only how merchant capital and exploitative colonial regimes trapped Singapore's subaltern classes in particular activities, but also how cultural and political systems of power – including clan loyalties and externally-imposed racial hierarchies – helped perpetuate these environmentally-destructive modes of subsistence. At the same time, this article strives to grant Singapore's poor people a level of agency by highlighting instances of what influential political scientist James C. Scott has dubbed 'everyday resistance,' such as fleeing to Singapore from more exploitative colonial regimes, or locating farms deep in the interior to avoid land fees from a generally neglectful government.⁸

Despite the fact that Malayan tigers (*Panthera tigris jacksoni*) played a central role in Singapore's early environmental history, and even though the majestic cats have become extinct on the island and endangered elsewhere, historians have written little on this subject.⁹ Peter Boomgaard has authored the definitive work on the history of tigers in South-east Asia, but his path-breaking *Frontiers of Fear: Tigers and People in the Malay World* (2001) devotes only a few pages to Singapore, and pays scant attention to the Chinese coolies who provided the bulk of labour for remaking the island's environment, and – not coincidentally – were the principle victims of tiger attacks.¹⁰

Singapore's early social history also remains relatively unexplored. Prominent historian of South-east Asia James Warren has put out a call for more works that look beyond the settlement's ruling elite to its poor masses. He has filled much of this historiographical gap himself with books centring on the city's rickshaw coolies and prostitutes. But whereas Warren emphasizes the urban environment, this essay shifts the focus to the hidden settlements in the island's interior, seeking whenever possible to let its inhabitants speak for themselves.¹¹

This paper begins with a critical analysis of the frequency and extent of tiger attacks in nineteenth-century Singapore. It then examines the environmental transformations that precipitated this rash of deadly human-tiger encounters, consistently highlighting the key roles that capital and labour played in changing the land. This discussion demonstrates that the organization of labour in colonial Singapore not only had dire environmental consequences, but also rendered particular groups especially vulnerable to the depredations of tigers that were struggling to survive in a rapidly transforming landscape. Finally, this paper examines how various ethnic groups responded to tiger attacks by hunting and killing these cats in a war on nature that culminated with the local extinction of Malayan tigers.

Singapore's modern history began in 1819 when Sir Thomas Stamford Raffles established a British East India Company (EIC) port on the island's southeast coast. Such a Eurocentric periodization raises warning flags, but Singapore had lacked a sizeable human population since the collapse of the site's Malay trading post in the fourteenth century. By 1824, the British had secured recognition of their claim to the island from both the local Malay nobility and the rival European power in the region, the Dutch. In

1826, the EIC combined Singapore, Penang, and Malacca to form the Presidency of the Straits Settlements. Following a brief period of relative autonomy, these settlements took their orders directly from EIC officials in Calcutta until 1867, when the British crown took control. Seeing the Straits Settlements as relatively insignificant, the EIC provided them with a skeleton administration incapable of providing their inhabitants with order or security. Crown administrators also consistently chose the least costly path, even if at the expense of perpetuating poor social conditions. Despite this neglect, Singapore rapidly increased in significance as a port and shipping centre, owing largely to its policy of free trade, which contrasted with the Dutch system of fees and duties. By the late nineteenth century, Singapore had become the Straits Settlements' centre of governance and commerce.¹²

As Singapore gained renown as a trading hub, it also gained celebrity of a more macabre variety. By the mid nineteenth century, Singapore had become famous for tiger attacks, with many contemporaries reckoning fatalities at one per day. In 1843, *The Asiatic Journal and Monthly Register (AJMR)* reported that Singapore's tigers carried off 'more than three hundred natives' annually. In 1856, shortly after gaining fame for 'opening' Japan to Western commerce, American Commodore Matthew Perry avowed that in Singapore, 'not a day passes without the destruction of one human being... by these ferocious beasts.' Thirteen years later, prominent naturalist and co-discoverer of natural selection Alfred Russell Wallace reported that in Singapore, '[tigers] kill on an average a Chinaman every day.' Considered in isolation, these observations might appear anecdotal, even fanciful, but the sheer quantity of the claims is striking.¹³

Observers did not base these numbers strictly on body counts, for many Europeans in Singapore believed that Chinese planters underreported and even concealed deaths caused by tigers. White Singaporeans noted that word of fatalities forced plantation operators to pay higher wages. Europeans added that planters were loath to transport a body many miles from the island's interior to town for a coroner's inquest. In seeming confirmation of their suspicions, white Singaporeans did succeed, at least on occasion, in catching Chinese planters clandestinely interring bodies that bore clear signs of tiger attacks. Because Chinese plantations dominated the interior, where deaths by tiger were most frequent, Europeans felt confident liberally extrapolating the number of casualties far beyond those reported.¹⁴

Multiple factors may have driven Chinese planters to underreport deaths, but Europeans might have overstated fatalities for reasons of their own. Singapore's journalists needed to sell newspapers, and tiger attacks made for good headlines. Foreign periodicals certainly suspected that Singapore papers were exaggerating. The *London Punch* of 27 October 1855 observed, 'If the population of Singapore is really being converted into food for tigers... we think they show... moderation in taking only two inhabitants per week.' The Londoners suspected that 'our Eastern contemporary [is] indulging in a little romance.' Likely steeped in currents of Orientalism, European visitors to Singapore might also have exaggerated the danger of tigers. Sending back reports of insatiable man-eating beasts would make the travellers' adventures seem all the more daring and exotic.¹⁵

Tigers may not have claimed a human life per day in Singapore, but abundant evidence exists for shocking numbers of fatalities. A summary of coroner's records at the notoriously violent settlement over a period of months in 1855 recorded thirteen verdicts

of ‘Death by Tiger,’ as compared to five for ‘Wilful Murder,’ and two for ‘Natural Causes.’ In their official correspondences, Straits Settlement leaders lamented the frequent ravages of tigers, which the skeleton administration felt powerless to prevent. Finally, a perusal of Singapore’s major English language newspapers between 1831 and 1890 reveals at least 159 reported fatal tiger attacks, with authors consistently emphasizing that the overwhelming majority of cases remained concealed. We are thus left with a range of between just under 160 and several thousand fatal attacks in the nineteenth century, with the actual number likely measuring in the hundreds.¹⁶

Not everyone in Singapore was at high risk of encountering a tiger. Although Western visitors wrote of their exhilaration at braving a tiger-infested island, records reveal no instances of fatal attacks on Europeans. Instead, Chinese Singaporeans bore the overwhelming brunt of tiger assaults, with Malays a distant second. Between the first reported attack in 1831, and the last known incident in 1890, Chinese Singaporeans consistently made up approximately three-quarters of the victims (see Figures 1 and 2), despite representing just 40 percent of the population in 1830, and 65 percent in 1867. Thus, although the relationship between population size and attacks became closer with time, during the mid nineteenth century when tiger attacks were most frequent Singapore’s Chinese community disproportionately endured these ravages.¹⁷

Figure 1: Ethnicity of Tiger Attack Victims, 1831-1860¹⁸

Figure 2: Ethnicity of Tiger Attack Victims, 1861-1890¹⁹

Although some Europeans speculated that the giant cats preferred the taste of the ‘Chinaman,’ this disparity actually resulted largely from the organization of labour in colonial Singapore. Looking back at the activities people were engaged in when attacked, we find that the majority of Chinese fatalities occurred while toiling on gambier (*Uncaria gambier*) and pepper (*Piper nigrum*) plantations (see Figure 3). Not a single member of another ethnicity perished while engaged in this type of work. By contrast, Malays most frequently fell victim to tigers while clearing jungle. These statistics reflect the fact that Chinese pioneers dominated the interior plantations, while Malays provided much of the drudgery required to clear land. More broadly, these numbers speak to the highly racialized labour system that prevailed in nineteenth-century Singapore, an arrangement based partly on demographic realities and the application of familiar skills, but also on economic constraints and evolving ideas concerning innate aptitudes.²⁰

Figure 3: Activity at Time of Death²¹

Singaporeans recognized that certain forms of labour disproportionately exposed workers to fatal encounters with tigers. In 1843, the *AJMR* reported that when it came to the depredations of the giant cats, ‘Gambier planters... are the principal victims.’ Many Singaporeans believed that their government was not doing enough to protect them from tigers, and at least one observer suggested that this neglect owed to the victims’ low social standing. In 1851, an anonymous writer for the *SFPMA* openly wished a tiger would ‘intercept one of [the town’s elite] on their morning ride,’ so that administrators would finally take adequate measures to address this threat.²²

Conveniently for Europeans, though, many of them believed, or at least tried to convince themselves, that Chinese and Malays were racially better suited to the dangerous work of clearing and settling Singapore’s interior. In the mid nineteenth century, British writer T. Oxley informed aspiring white Singaporean farm owners that the Chinese were ‘the best of field labourers,’ while Malays were better adapted to clearing land. British engineer John Turnbull Thomson agreed with his countryman that Malays were naturally fitted for clearing forests. He added that, compared to Europeans, the Chinese were far better adapted to manual labour in Singapore’s tropical climate. The colony’s tiny population of Westerners would thus have to remain safely nestled in the most developed areas, miles away from the claws of tigers.²³

As subaltern studies scholars have amply demonstrated, European colonists in Singapore and elsewhere did not simply describe inherent differences they perceived between themselves and their non-white subjects. Rather, these imperialists constructed categories of Otherness that entrenched and legitimated European rule. Indeed, in this part of the world a sense of innate ethnic or racial distinction likely did not exist until Europeans fostered it to help structure colonial life. In so far as colonists established racial hierarchies to justify particular labour relations, though, the organization of

production also shaped racial thought. In Singapore, this reciprocal interaction between economic realities and ethnographic theory helped entrench environmentally destructive practices that endangered marginalized peoples and tigers alike.²⁴

Although nineteenth-century Anglo-Saxons perceived themselves as spreaders of civilization and conquerors of wilderness the world over, in Singapore Chinese coolies, poor Malay and archipelagic Southeast Asian workers, and Indian convict labourers (as well as some Indian indentured servants) completed nearly all the work of transforming jungle into farms, houses, and roads. Of all these groups, Chinese pioneer agriculturalists played the greatest role in transforming Singapore's environment.²⁵

Until early in the twentieth century, the overwhelming majority of Chinese immigrants to Singapore were young men from the lowest stratum of society. They came predominantly from their nation's south, escaping conditions of hopelessness and poverty that owed both to a period of sustained political chaos, and to the region's environmental history. In response to population pressures, farmers had pushed into the hillsides. The resulting deforestation had produced erosion, siltation, and intermittent flood-induced famines. Although some of Singapore's 'coolie' immigrants paid their own passage with family assistance, most lacked capital, and relied on loans in what came to be known as the 'credit ticket' system. Under this arrangement, an agency based in town financed the workers' transportation, and then passed this cost on to the employers. To repay their headman – who was typically a member of the coolies' home clan, making a shaming breach of contract less likely – the newly arrived worker laboured for little if any salary for a specified period, often measuring one year. If a coolie paid off his debt, he would typically open a small plantation of his own with financial backing from Chinese merchants in town, who demanded a share of future crops. While some workers did succeed in sending money home, the bulk of their profits went to these financiers, and many labourers found themselves trapped in a system of debt peonage either to their initial employer, or to the town's Chinese merchant elite.²⁶

Chinese cultivators in Singapore primarily operated gambier and pepper plantations. Impoverished young men intent on returning to China with some savings after a sojourn of three or four years at most, these planters engaged in a merchant-dominated system of agriculture that required little initial investment, and quickly produced commercially valuable export-oriented crops – all at the expense of the long-term health of the soil. When Raffles established modern Singapore in 1819, Chinese cultivators already operated a small number of plantations on the hills surrounding town. These farms initially catered to Chinese markets, but with Singapore's rise as an international port in the 1830s, planters could now access more valuable European markets. By the 1840s, Chinese planters managed 600 plantations and employed 6,000 Chinese labourers. Although Europeans tried to enter the gambier industry in the 1880s, they soon gave up on competing with poor Chinese planters willing to carry out gruelling labour for minimal returns. Gambier farms, inter-planted with pepper, remained the primary agricultural pursuit on the island until the late nineteenth century, when rubber plantations superseded them in significance.²⁷

In part, then, colonial Singapore's environmental history reveals a standard declensionist narrative, in which population growth and the spread of markets propelled

the destruction of nature. Although there is no denying the enormous role demographics and expanding markets played in this history, we might ask ourselves why Chinese pioneer agriculturalists found themselves so dependent on advanced merchant capital, and so bounded to the fluctuations of global commerce. Put another way, why did Europeans quickly abandon gambier plantations as unprofitable, while Chinese farmers persevered in this industry for decades? The extreme poverty these individuals faced, and the limited options for subsistence that resulted, played a key role. Desperate for income of any kind, these pioneer agriculturalists easily fell into debt peonage to advanced merchant capital. They thereby became trapped in an environmentally destructive practice that placed both themselves and the island's tigers in peril.

Seeking to evade land-leasing fees from a largely neglectful government, Chinese pioneers primarily located their plantations deep in the inland jungle, one or two miles from the closest road. They cleared a patch of land generally measuring 30 to 50 acres, setting the wood aside as fuel. Chinese cultivators planted gambier and pepper at a ratio of ten to one. These crops were complementary, since the waste from gambier refinement provided fertilizer for pepper vines, which required nutrient-rich soil. Agriculturalists harvested gambier leaves three to four times a year, and boiled them in large cauldrons to produce a soap-like substance with applications as a dye and an astringent in leather tanning. They dried pepper in wood-fuelled kilns, and sometimes soaked it in seawater to produce the more valuable white variant of the spice.²⁸

Chinese pioneers carved farms out of dense rainforest through tenacity and backbreaking labour. Too poor to afford ploughs and harrows, the majority of Chinese farmers relied on simple hoes to break up the jungle soil. Their bodies changed the land through work, even as the environment transformed them. In 1848, wealthy Chinese merchant Siah U Chin described the toil of his compatriots in the interior. 'The Chinese in the jungle having daily to work very hard, are much oppressed by the heat,' he observed. Because the majority of labourers went about barefooted, Siah stated that, 'Those who plant gambier... get their legs and feet hurt with splinters, the broken skin being disregarded, large ulcers are formed.' Compounding their hardship, very few coolies were able to marry in the overwhelmingly male settlement.²⁹

As they struggled in a generally futile effort to escape poverty by creating plantations out of jungle, Chinese pioneers found themselves in grave peril, for every acre put under cultivation was one fewer where tigers could persist in isolation from humans. In the three decades following the founding of the British port, Chinese planters speedily increased their land base. With no investment in the land, save for their labour, and with financiers constantly demanding payment on loans, these farmers relocated once their crops exhausted the soil, a process that typically took fifteen years. The result was a rapidly expanding agricultural frontier and mass deforestation. In 1836, they cultivated 2,350 acres; by 1840 they had put 4-5000 acres to the hoe; and by 1850, Chinese pioneers had planted 24,220 acres of gambier and 2,614 of pepper. These agriculturalists claimed an equal amount of forestland, which they logged for fuel to boil gambier and dry pepper. These figures represented only the currently occupied outer edge of the plantation frontier. In 1862, Straits Settlement Governor William Cavenagh reported that nearly as much land (43,690 acres) lay abandoned and treeless in Singapore as remained under forest cover (54,000 acres). While European ventures, such as failed nutmeg plantations in the 1830s and 1840s and more successful coastal coconut orchards, also reduced

forested land, Chinese pioneers – struggling to survive within the strictures of a market-oriented colonial economy – were the primary instruments of change.³⁰

The Chinese cultivators who levelled the jungle likely saw their work as the best among limited options imposed by economic, governmental, and environmental constraints. Many white Singaporeans, though, unsympathetically condemned what they perceived as wasteful land use, and this colonial perspective continues to influence popular histories of the era. As early as the 1840s, British administrators placed partial protection over forestlands on the island's highest hill, Bukit Timah. But it was not until 1884 that Singapore's government established formal forest reserves, after Botanist Nathaniel Cantley determined that only 5,000 acres of old growth remained on the island.³¹

While Chinese agriculturalists provided most of the labour for transforming Singapore's environment, other groups also scratched out meagre existences by venturing into, and razing, the tigers' home. Poor Malays (including indigenous *Orang Laut*) and archipelagic South-east Asians provided the next most significant source of labour in Singapore's interior. When Raffles established the British port, a few hundred *Orang Lauts* and Malays already resided at the town site. Within five years, the population had swelled to 11,000 people, most of whom were Malays. The first Peninsular Malays to arrive came from the Dutch settlement of Malacca (later ceded to Britain in 1826). Here, the Dutch had established a tribute system called *leveringen*, requiring Malay nobility to send the Dutch East India Company (*Vereenigde Oostindische Compagnie*, or VOC) fixed amounts of produce at predetermined rates. This arrangement placed a major strain on Malay peasants, convincing many to try their luck in Singapore.³²

Archipelagic South-east Asians also relocated to Singapore from the Dutch-controlled islands that would become Indonesia. These settlers included Bugis from the island of Sulawesi, but Javanese were a more significant source of labour. Like early immigrants from Malacca, the Javanese fled Dutch exploitation. Beginning in the 1830s, the VOC in Java introduced the *cultuurstelsel* (culture system), which forced peasants to devote one fifth of their field, or 60 working days to the production of cash crops. Mass famines ensued, prompting numerous Javanese to flee.³³

Malay and island South-east Asian labourers arriving in Singapore discovered that the British considered them ignorant people, who lacked initiative and were best suited to clearing brush. As early as 1822, administrators employed Malays to clear undergrowth. The notion that these peoples were naturally fitted to cutting wood prevailed through at least the mid nineteenth century. Besides hiring themselves out to clear land, Malay and archipelagic South-east Asian peasants also practiced small-scale slash and burn subsistence farming, propelling further deforestation. Like Chinese coolies, Malay and island South-east Asian labourers in Singapore took dangerous jobs felling the rainforest largely because their imperial masters presented them with no better options.³⁴

Malays and archipelagic South-east Asians would have had a hard time accessing forests to clear, and Chinese planters would have struggled to bring gambier and pepper to market, in the absence of roads, bridges, and harbours. For these improvements, the settlement typically relied on the drudgery of Indian convict labourers. In India, as in England, nineteenth-century Britons considered forced labour abroad an especially efficacious form of punishment, while at the same time prizing the captive workforce it created. Always parsimonious concerning the Straits Settlements, the EIC relied on

Indian convicts to provide much of its labour in the region. By 1861 Singapore possessed 2,173 convict labourers, most of whom were Indian. Convicts remained a cherished source of labour in the settlement until 1873 when white and Chinese Singaporeans began to perceive mounting numbers of prisoners as a threat to public safety. Engaged in forced labour, Indian convicts differed from their nominally free East Asian counterparts, but historical correlations between poverty and incarceration meant that in this instance too, indigence helped trap people in dangerous, often environmentally destructive work.³⁵

Overwhelmingly Indian, but also including small numbers of Hong Kong Chinese, convict workers were the primary builders of Singapore's early infrastructure. In 1862, Governor Blundell stated that these labourers had constructed the 'whole of the existing roads... every bridge...all the existing canals, sea walls, jetties, piers, etc.' To complete these improvements, these men (and a few incarcerated women also) worked extremely hard under appalling conditions. Their small population meant that convict labourers did not suffer similar numbers of tiger attacks to their Chinese or Malay counterparts, but this was still exceptionally dangerous work. In 1860, the government of the Straits Settlement reported that of the 2000 or so convicts in Singapore, 201 had died in the last year. The administrators defended themselves by claiming that many of these individuals arrived 'in a sickly and exhausted condition.' But gruelling work conditions, poor housing, and inadequate medical care contributed to the mortality rates – as did tigers. Although Indian indentured servants became an increasingly significant source of labour in the second half of the nineteenth century, they did not play as central a role in building up infrastructure in the interior, and hence did not encounter tigers as often as their imprisoned compatriots.³⁶

While Chinese coolies, Malay workers, and Indian convict labourers hacked away at Singapore's jungles, fiery yellow eyes looked on apprehensively from the shadows. In a sense, it is appropriate that tigers only now fully emerge in this narrative, for they prefer to remain out of sight. Although the giant cats have since become extinct in Singapore, the island once supported a substantial population of Malayan tigers. First identified as a genetically distinct subspecies in 2004, Malayan tigers are among the smallest of these mighty cats. But that fact must have offered little comfort to their victims, when a full grown male was approximately eight feet long and could weigh nearly 300 pounds. Malayan tigers are powerful swimmers, and numerous accounts record that Singapore's population paddled to the island from the nearby Malay Peninsula.³⁷

Most tigers are not man-eaters. Under normal circumstances, so long as humans leave tigers to their own devices, and the animals retain abundant vegetative cover and wild prey, they can live alongside people, and remain invisible and undetected. In nineteenth-century Singapore, though, this arrangement broke down catastrophically. Although the precise explanation for tiger attacks on humans remains subject to debate, the more common hypotheses include depletion of prey, an inability to hunt natural quarry due to old age, illness, or injury, and learned behaviour, whether through individual experience or the tutelage of a mother.³⁸

The spatial distribution of tiger attacks in nineteenth-century Singapore closely followed the progression of deforestation across the island from the southeast to the northwest (See Figure 4). We might therefore perceive these attacks as a straightforward

tale of habitat loss, but the story is more complicated than that. Why, after all, would tigers that swam to the island not swim back to the still relatively well-wooded Malay Peninsula in response to the clearing of Singapore's jungle? Indeed, as nineteenth-century observers wondered, why did the tigers swim to Singapore at all, when many of the forests across the strait remained 'virgin'?³⁹

Figure 4: Spatial Distribution of Tiger Attacks⁴⁰

An itinerant species, tigers most likely swam to Singapore in pursuit of their prey, which included sambar (*Cervus unicolor*), barking deer (*Muntiacus muntjac*), and wild pig (*Sus scrofa*). But this does not explain why the cats stayed. Perhaps the answer is that gambier and pepper plantations were not such poor tiger habitats after all. Ecological studies have demonstrated that Malayan tigers actually reside in greater population densities in selectively logged forests, where cleared areas and edge habitats allow for the growth of underbrush preferred by prey animals. Similarly, observers in nineteenth-century Singapore noted that both deer and wild pigs clustered to the young shoots growing on the gambier plantations. Moreover, both gambier and pepper plants grow to substantial heights, providing ample concealment for tigers, which prefer to pounce on their prey from cover.⁴¹

British authors long maintained that at the time of the establishment of modern Singapore in 1819, the island had been free of tigers, with 'the absence of this ferocious animal' being one of the site's greatest attractions. According to these accounts, swelling

ranks of tigers began swimming to the island in the 1830s. Although settlers and surveyors pushing into the interior may have encountered previously undetected populations, it is also possible that increasing numbers of tigers chose to remain on the island due to the concentrations of prey animals on disturbed land. Supporting this interpretation, in 1902 amateur historian Charles Buckley wrote that, 'It was when the gambier and pepper plantations began to extend beyond the town that tigers commenced to be so dangerous.'⁴²

Perhaps, then, the problem was not so much habitat loss, as the creation of new habitat that tigers found enticing, but in which they could no longer remain isolated from humans. Unable to maintain their normal strategy of avoiding people, some of the cats instead incorporated them into their diets. Those poor Chinese, Malay, archipelagic South-east Asian, and Indian workers who ventured into the interior, a tiger-luring ecotone where jungle met plantation, suffered the consequences of this new behaviour.

Whatever the cause of nineteenth-century Singapore's tiger attacks, they certainly terrified the island's human inhabitants. Yet, each settler community understood these ravages in a different way. And although virtually all of Singapore's major ethnic groups responded by killing tigers, these people did so for disparate reasons, and with varying degrees of enthusiasm. While English colonists left ample records of their thoughts, we will likely never fully uncover the attitudes of Singapore's subaltern peoples towards nature or tigers. Indeed, as a leading thinker on this subject, Clare Anderson, has noted, subaltern histories are by their very definition all but absent in the colonial record. As a solution, she advises perceiving subalternity not as a "category of identity," but as a "socially contingent process," so that we can chronicle fleeting glimpses of subaltern peoples as they appear, disappear, and reappear in the archives. Acting on Anderson's insights, this paper recognizes that the people we define as subaltern possessed wide ranging and constantly renegotiated levels of power. There were, for instance, major differences in purpose and meaning between sport-hunts pursued by urban Chinese merchant elites, and trap-hunts carried out by coolies in the interior. All of these stories are significant, though, for they speak to the complex tapestry of environmental values that competed and coexisted in colonial Singapore.⁴³

As numerous researchers have demonstrated, whether in Africa, America, or Asia, nineteenth-century genteel Anglo-Saxon men hunted to demonstrate and maintain their virility. In Singapore, Britons had the added incentive of acting as manly protectors to their subjects. Rather than sallying forth into the jungle to track and kill tigers, though, in the 1840s British Singaporeans established a Tiger Club that paid Chinese planters for the 'sport' of killing tigers already trapped in pits. These outings earned Singapore's Anglo community international mockery, and even some locals thought it would be more sporting to at least lift the heavy wooden lids from over the pits, rather than taking turns shooting between the cracks. With time, and improvements in rifling technology, colonial Singapore did come to possess more adventurous sportsmen. Yet these figures, such as Carol, the American 'backwoodsman,' frequently earned scorn in the press for their unsuccessful hunts and inability to rid the island of tigers. Incapable of extirpating tigers themselves, British administrators placed a bounty on the cats, which fluctuated between

twenty and one-hundred Spanish dollars (the common currency on the island), depending on how frugal the government was feeling at any particular time.⁴⁴

This bounty no doubt appealed to the poor Chinese planters of the interior, but they also possessed their own unique motivations for hunting the animals. Unlike the British, the Chinese had a millennia-long history of interacting with big cats. Many Chinese feared and revered the tiger, which they considered ‘the king of the wild beasts.’ They perceived images of tigers as powerful talismans, and placed them on soldiers’ shields and babies’ hats to protect them from danger. Some also believed that tiger body parts possessed medicinal qualities, and could provide individuals with courage and sexual potency.⁴⁵

Many Chinese considered tiger attacks evidence of poor governance. In Chinese state religion, magistrates were nexuses between heaven and earth, meant to maintain a harmonious balance between people and nature through their piety. Chinese subjects expected their rulers to prevent tiger attacks, through petitions to heaven, or failing this, through government-sponsored hunting. The persistence of tiger attacks revealed that an official had failed in his or her duties. Whether such beliefs persisted in Singapore’s interior is unclear, but they likely would have retained currency among educated Chinese merchants in the city.⁴⁶

Oral histories offer a rare glimpse of Chinese coolie interactions with tigers in Singapore. Former Singapore athletic star Ong Poh Lim recalled his elders telling him about interior settlements, where ‘Nobody dared to come out at night,’ because of ‘howling’ tigers. But such testimony lacks the visceral impact of first-hand accounts. Additional archival research allows us to hear the stories of these attacks told by the coolies themselves. Coroner’s records for the period in which these ravages took place are fragmentary and incomplete, but do include two full reports, preserving translated accounts of tiger attacks from coolie witnesses. Their experiences were bloodcurdling.⁴⁷

In March of 1887, Chinese labourer Tong ah Tong fell victim to a tiger while cutting gambier leaves in interior Singapore. The coroner took testimony from two coolies, Lo Lun Chee and Lieu Ah Joon. Of the two, Lo provided the more vivid description: ‘At 7:30 am we...were just getting ready to go home when I heard a tiger roar and I turned around and saw a tiger spring on deceased... It knocked [him] down then took hold of him by the neck and dragged him away.’ Lo added, ‘I am afraid and do not want to work there anymore.’ Similarly, when the search party had set out to locate the deceased, Lieu had chosen to remain behind. ‘I did not go with them for I was afraid,’ he confessed.⁴⁸

In June of that same year, the coroner went to investigate another tiger attack on a plantation coolie, this one named Lieu Kye Choon. His co-worker Lee ah Hoo recounted the incident. ‘At 4 pm I heard... a tiger’s roar,’ he recalled. ‘I turned around and saw the deceased was attacked by a tiger. The tiger had hold of his neck. It took him away.’ Local physician F. Thompson determined that the tiger had already begun consuming the body before the search party apparently frightened the cat off. ‘His [Lieu’s] right thigh is about completely denuded of flesh,’ Thompson reported. These first-hand accounts help convey the terror these attacks instilled in interior Singapore’s Chinese community.⁴⁹

Chinese planters initially responded to the attacks by appealing to British administrators for assistance. When the British offered no aid save for the bounty, some Chinese elected to protect themselves by killing off the tigers. Tiger assaults in Singapore

owed largely to deforestation and plantation building, carried out by impoverished workers struggling to make ends meet within confines dictated by market forces and colonialism. But for numerous traditional-thinking Chinese settlers, these ravages would have also demonstrated an imbalance between culture and nature that they must correct by reducing tiger numbers. Initially, the Chinese primarily hunted tigers by building pit traps, and this remained the most popular method well into the 1900s. As Chinese merchants grew in wealth, though, some began to engage in more elaborate hunts. In the early twentieth century, Chinese Singaporean Tan Ah Mui conducted a successful tiger expedition involving eleven guns, hunting dogs, and hired beaters to frighten the cats from cover.⁵⁰

Like the Chinese, Malays had a long history of interacting with tigers, resulting in vibrant cultural understandings of the cats. Malay rulers demonstrated their authority by engaging in ceremonial tiger hunts, but the majority of the population did not kill tigers, unless they had attacked humans or livestock. In part, Malays maintained this respectful relationship because they perceived tigers as reincarnated ancestors or perhaps even shape-shifting weretigers. Certain that many tigers possessed human souls, Malays believed most of these animals would not attack so long as you faced them, showed courage, and advised them that they could ‘get plenty of food’ elsewhere.⁵¹

When tigers did attack, however, as in Singapore, Malays endeavoured to slay the offending creatures. British bounties added a further incentive. Like the Chinese, the Malays primarily hunted tigers with covered pit traps. Perhaps feeling that Singapore’s tigers had violated a relationship of mutual respect, Malays made a spectacle of vanquished cats. In the 1850s, British Admiral Sir Henry Keppel recorded, ‘There is a procession and much parade in bringing these tigers to the Government office [for the bounty]. They are... made to look as fierce as possible, propped up in a standing position by a piece of bamboo, the mouth open, and tail on end.’ By making puppets of tigers, Malays stole some of the giant cats’ power to intimidate. As with the Chinese, Malays would not have hunted tigers with such zeal if not for attacks on humans, incidents that were rooted in ecological transformations stemming in large measure from indigence and the logic of empire.⁵²

Indian convicts also arrived with rich traditions surrounding tigers. Recognizing the giant cats as formidable adversaries, Indian rulers had long perceived the ability to hunt them as a symbolic demonstration of power. By the nineteenth century, the British had also introduced to India a policy of deliberately exterminating tigers. In their efforts to eradicate the cats, administrators relied on village-based *shikaris*, who were typically lower-caste hunters. Britons in India also employed these *shikaris* to serve as trackers and guides on sport hunting expeditions.⁵³

Some of these *shikaris* wound up joining the ranks of Singapore’s convict labourers, prompting administrators to use the prisoners to kill tigers. These workers proved up to the task, and by the 1860s, the government had formed special convict units to pursue tigers in the interior. Indian convicts strove as much as possible to distance themselves from the label of *bandwars* (prisoners), preferring to identify instead as *Company ke naukars* (servants of the company). By engaging in a familiar occupation, they could re-imagine themselves as reputable labourers, free of the stigma of criminality. However the convicts’ understood this activity, the British never would have armed

prisoners and sent them into the jungle, if not for the frequency of tiger attacks, which largely owed to Singapore's ecology of poverty.⁵⁴

With some members of Singapore's British, Chinese, Malay, and Indian communities all seeing the killing of a tiger as a symbolic display of power, a heated dispute emerged in January of 1904. Late that month, Ong Mah Poh's pet tiger escaped from its cage on Rochor Road and made a desperate dash down Brunei Lane. As word emerged of a tiger within the city limits, armed men took to the side streets and rooftops, forming a gauntlet of smoking gunfire that we might associate with a Wild West movie. In the end, the tiger desperado suffered a fatal wound, and slunk away to die under a bunk in a coolie's house. But who had dealt the killing shot? Initially, the English presses reported that two Europeans, the 'intrepid... brothers Arianna,' whose names 'should go down to posterity' had fired the coup de grace. The following day, though, an Indian Singaporean named Akbar wrote to the paper to explain that a Chinese man, Lim Chin Hin, had been the first to wound the animal seriously, before Akbar put it out of its misery. Unwilling to relinquish his newfound glory, Darco Arianna wrote to the same publication to explain that he and his brother had fired the first three shots, at which point 'the beast was fatally wounded.' This prompted Lim to ask Darco why, if he was so convinced he had mortally wounded the cat, had 'he and his brother beat such a precipitate retreat after firing?' No one will ever know for certain who killed that poor tiger, but in a settlement in which multiple ethnic groups vied for status and power, recognition as a tiger slayer was a prized currency.⁵⁵

By the time of this incident, tigers were already in decline on the island. Between 1830 and 1910, there had been fifty-seven reported instances of humans killing, or more rarely capturing alive, tigers. Many other cases surely went unreported. Malayan tigers typically exist in densities of fewer than three per hundred square kilometres, so on an island just over five times that size, these were devastating losses. Popular legend in Singapore holds that a Briton shot the island's last tiger beneath the billiard table of the Raffles Hotel in 1902. But this was yet another escaped domestic tiger, and it actually met its sad fate under the iconic building's floorboards. In reality, a large multi-ethnic hunting expedition killed Singapore's last tiger in October of 1930 near Choa Chu Kang village, deep in the island's interior (see Figure 5). In the end, Singapore's colonial subjects protected themselves from tigers when British rulers proved incapable of doing so.⁵⁶

Why did no 'environmentalism of the poor' arise to mediate subaltern interactions with tigers in colonial Singapore? As pointed out by one of the leading scholars in this field, Joan Martinez-Alier, participants in these movements tend to be more concerned with defending their livelihoods and the environments that sustain them from encroaching capitalist economies than with preserving some sacred conception of nature. In contrast, Singapore's pioneer agriculturalists were from the beginning participants in a market economy, and likely would have seen no direct connection between their subsistence and the maintenance of tiger populations. Moreover, environmentalisms of the poor often involve indigenous peoples who have worked out sustainable relationships with their environment over centuries and even millennia. Malay peasants outside Singapore may have developed such an understanding with endemic tiger populations, but on this island the overwhelming majority of people arrived after 1819, providing little time to acquire and act on local ecological knowledge. Under these circumstances,

instead of giving rise to an environmentalism of the poor, colonial Singapore produced an ecology of poverty, one that imperilled marginalized peoples and tigers alike.⁵⁷

As Singapore's tiger populations declined, a number of the island's human inhabitants began to view the cats less as a threat and more as icons of a romantic past and symbols of national identity. By the 1870s, genteel crowds could view caged tigers in Singapore's botanic gardens alongside exotic plants and an aviary of rare birds. With time, some in the crowd began to identify with the constrained yet still-wild beasts. In the early twentieth century, Singapore's most popular newspaper reminded its readers that, 'We must acknowledge that within ourselves scarcely concealed by the veneer of education the spirit of the tiger still lurks.' Shortly thereafter, a Chinese entrepreneur created a factory on the island to manufacture Tiger Balm pain relief ointment. In 1931, a year after Singapore's last tiger perished, local financiers began producing another of the island's most iconic exports, Tiger Beer. Today, many visitors to Singapore arrive via Tiger Airways.⁵⁸

Although tigers adorn labels, packaging, and jet fuselages in Singapore, they no longer glide stealthily through the country's moonlit jungle, and the Malayan tiger has become increasingly rare off the island as well. While not to the same extent as Singapore, Peninsular Malaysia has experienced massive deforestation, with tree cover declining from 90 percent at the beginning of the nineteenth century to 47 percent today. Besides habitat loss, tigers in Malaysia must contend with poachers looking to profit by selling the cats' body parts for their supposed medicinal purposes. The IUCN Red List presently classifies the Malayan tiger as an endangered species, estimating the adult population at between 493 and 1,480 individuals. This rating mirrors the precarious status of wild tigers more broadly. Yet, as conservationists around the world strive to preserve the endangered cats, they face opposition from those who believe the animals pose an unacceptable risk to humans. Adding a further wrinkle, as in Singapore's early history, the people most imperilled by tigers tend to be poor villagers striving to eke out a living in government-owned forests.⁵⁹

Could Singapore's tigers have endured? Perhaps. As Malay villagers had long recognized, tigers could peacefully coexist with humans – at least so long as the cats possessed sufficient natural cover. As early as the 1840s, British administrators were attempting to protect some of the island's forests, and these might have provided places of refuge for dwindling tigers, at least those that could resist the attraction of the game-rich plantations. The economic and governmental conditions under which Chinese coolies and Malay and archipelagic South-east Asian peasants toiled, though, made it almost impossible for tigers to persist. Impoverished, indebted to merchants, and reliant upon a neglectful, market-oriented government, poor Chinese planters and Malay peasants could not realistically heed British calls to abandon the forests these labourers drew on for income and subsistence. With deforestation and plantation construction propelling tiger attacks – and colonial officials doing little to improve safety – the island's various ethnic communities responded by eradicating the majestic cats. The history of human interactions with tigers in Singapore demonstrates that, although wealthy consumerist societies tend to have a more pronounced environmental impact, poverty can also embed and intensify ecologically destructive practices. Narrating such

stories poses a challenge for environmental historians, as we strive to acknowledge subaltern agency, while also recognizing the hegemonic impacts of market forces and various manifestations of imperialism. Those of us who care about the environment must remember that many of the people engaged in the work of destroying nature – the peasant slasher and burner of forest, the indigenous fisher of dwindling stocks, and even the impoverished poacher of endangered species – do so, in part, because prevailing economic and political conditions have left them with few better options. If we want to protect the environment, we need to assist and empower people. The world’s tigers, and the poor villagers who most frequently interact with them, both deserve compassion.⁶⁰

Figure 5: The Last Singapore Tiger, Killed in 1930

¹ Miles A. Powell, Assistant Professor of Environmental History at NTU, Singapore, wishes to thank Timothy Barnard, Evelyn Hu-Dehart, Ari Kelman, Joseph Taylor, Louis Warren, my colleagues at NTU, *E and H's* editorial team, and two anonymous reviewers.

² John Cameron, *Our Tropical Possessions in Malayan India* (London: Smith, Elder and Co, 1865) p. 100.

³ Cameron, *Our Tropical Possessions*, p. 100.

⁴ Cameron, *Our Tropical Possessions*, p. 100.

⁵ For the disproportionate environmental impact of wealthy nations, see Alf Hornborg, et al. (eds.) *Rethinking Environmental History: World-System History and Global Environmental Change* (NY: Altamira, 2007), pp. 1-7. For keen discussions of the 'environmentalism of the poor,' see Ramachandra Guha, "Radical American

Environmentalism and Wilderness Preservation: A Third World Critique” *Environmental Ethics* 11(1) (Spring, 1989): 71-83; Joan Martinez-Alier, *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation* (Northampton, MA, USA: Edward Elgar, 2002), pp. 1-14; Paul S. Sutter, “When Environmental Traditions Collide: Ramachandra Guha’s *The Unquiet Woods* and U.S. Environmental History” *Environmental History* 14(3) (July 2009): 543-550; Marco Armiero and Lise Sedrez, “Introduction,” in Armiero and Sedrez, eds., *A History of Environmentalism: Local Struggles, Global Histories* (London: Bloomsbury, 2014), pp. 1-13. This paper uses ‘jungle’ and ‘rainforest’ interchangeably, but they are value-laden terms; see Candace Slater, ‘Amazonia as Edenic Narrative’ in *Uncommon Ground*, pp. 114-131.

⁶ For white fears of Singapore’s interior, see Charles Wilkes, *Narrative of the United States Exploring Expedition, During the Years 1838, 1839, 1840, 1841, 1842* V. 5 (Philadelphia: [publisher not specified], 1849), p. 380. For useful discussions of the historical relationship between class and environment, see Andrew Hurley, *Environmental Inequalities: Class, Race, and Industrial Pollution in Gary, Indiana, 1945-1980* (USA: University of North Carolina Press, 1995), pp. 3-15; Louis Warren, *The Hunter’s Game: Poachers and Conservationists in Twentieth-Century America* (New Haven, CT: Yale University Press, 1997), pp. 1-18; Ramachandra Guha, *The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya*, Expanded Edition (Berkeley: University of California Press, 2000), pp. 1-8.

⁷ For useful discussions of the historical relationship between labour and environment, see Richard White, “‘Are You an Environmentalist or Do You Work for a Living?’: Work and Nature’ in William Cronon, (ed.) *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W. W. Norton and Co., 1996), pp. 171-185; Richard Rajala, ‘Clearcutting the British Columbia Coast: Work, Environment and the State, 1880-1930,’ in Jeremy Mouat and Cathy Cavanaugh, (eds.) *Making Western Canada* (Toronto: University of Toronto Press, 1996), pp. 104-132; Thomas D. Rogers, *The Deepest Wounds: A Labour and Environmental History of Sugar in Northeast Brazil* (USA: University of North Carolina Press, 2010), pp. 1-8; Janis Bailey and Ross Gwyther, “Red and Green: Towards a Cross-Fertilization of Labour and Environmental History” *Labour History* 99 (November 2010): 1-16; Stefania Barca, ‘Laboring the Earth: Transnational Reflections on the Environmental History of Work’ *Environmental History* 19(1) (Jan 2014), 3-18; Armiero and Sedrez, ‘Introduction,’ 3-10. Anthropologist Susan Stonich uses the term ‘ecology of poverty’ in a similar vein; see *I am Destroying the Land! : The Political Ecology of Poverty and Environmental Destruction in Honduras* (USA: Westview Press, 1993), pp. 1-3. Without using the same term, Renata Marson Teixeira De Andrade-Downs describes similar processes at work in contemporary Brazilian deforestation; see “The Human Side of Deforestation” *Environmental History* 12(2) (Apr., 2007): 280-282.

⁸ For the prevailing historical narrative of Chinese pioneer agriculturalists in Singapore, see James C. Jackson, “Chinese Agricultural Pioneering in Singapore and Johore, 1800-1917” *Journal of the Malaysian Branch of the Royal Asiatic Society* 38(1) (July, 1965): 3; James C. Jackson, *Planters and Speculators: Chinese and European Agricultural Enterprise in Malaya, 1786-1921* (Singapore: University of Malaya Press, 1968), p. 5. C. M. Turnbull, *A History of Modern Singapore, 1819-2005* (Singapore: NUS Press, 2009), p. 63. For Guha’s categorizations, see *The Unquiet Woods*, 2. Also see James Scott,

“Exploitation in Rural Class Relations: A Victim’s Perspective” *Comparative Politics* 7(4) (Jul., 1975): 489-532; James C. Scott, *Weapons of the Weak: Everyday Forms of Peasant Resistance* (New Haven: Yale University Press, 2006), pp. xv-xvi, 33.

⁹ A rare exception is Timothy Barnard and Mark Emmanuel’s brief but very interesting chapter, ‘Tigers in Colonial Singapore’ in Timothy Barnard, (ed.) *Nature Contained: Environmental Histories of Singapore* (Singapore: NUS Press, 2014), pp. 55-80. Scholars from other disciplines have also examined the cultural significance of tigers in Singapore; see Kevin Chua, ‘The tiger and the theodolite; George Coleman’s dream of extinction’ *Forum on Contemporary Art and Society* 6 (2007): 124-49; Lilian Chee, ‘Under the Billiard Table: Animality, Anecdote and the Tiger’s Subversive Significance at the Raffles Hotel’ *Singapore Journal of Tropical Geography* 32 (2011): 350-364.

¹⁰ Peter Boomgaard’s book is, however, an excellent resource for historical Malay understandings of tigers; see *Frontiers of Fear: Tigers and People in the Malay World, 1600-1950* (New Haven: Yale University Press, 2001), pp. 107-186.

¹¹ James Francis Warren, *Rickshaw Coolie: A People’s History of Singapore* (Singapore: Singapore University Press, 2003), p. 3. See also James Warren, *Pirates, Prostitutes, and Pullers: Explorations in the Ethno- and Social History of Southeast Asia* (Crawley: University of Western Australia Press, 2008); Maurice Freedman, “Immigrants and Associations: Chinese in Nineteenth-Century Singapore” *Comparative Studies in Society and History* 3(1) (Oct., 1960): 25-48.

¹² Jackson, *Planters and Speculators*, xiii; Warren, *Rickshaw Coolie*, xii; Turnbull, *A History*, 6, 47, 54.

¹³ ‘Singapore’ *The Asiatic Journal and Monthly Register* (hereinafter *AJMR*) 40 (Jan-April, 1843): 46; Sir Henry Keppel, *A Visit to the Indian Archipelago*, V. 1 (London: Richard Brentley, 1853), p. 9; Commodore Mathew C. Perry, *Narrative of the Expedition of an American Squadron to the China Seas and Japan: Performed in the Years 1852, 1853, and 1854* (New York: D. Appleton and Co, 1856), p. 154; Cameron, *Our Tropical Possessions*, p. 91; Alfred Russel Wallace, *The Malay Archipelago: The Land of the Orangutan, and the Bird of Paradise* (New York: Harper and Brothers, 1869), p. 36. See also Turnbull, *A History*, 63; Barnard and Emmanuel, ‘Tigers,’ 62-63.

¹⁴ As Singapore possessed a transient and transnational population, I use ‘Singaporean’ to refer to anyone residing on the island at the time they appeared in the historical record. Untitled, *Singapore Free Press and Mercantile Adviser* (hereinafter *SFPMA*) (26 October 1843): 2; Perry, *Narrative*, p. 154; Untitled, *The Straits Times* (hereinafter *ST*) (27 June 1846): 2; Untitled, *ST* (14 Aug 1855): 5; ‘Decrease of Tigers’ *ST* (16 April 1864): 1.

¹⁵ Untitled, *SFPMA* (14 March 1839): 3. ‘If the population...’ quoted in Charles Burton Buckley, *An Anecdotal History of Old Times in Singapore* (Kuala Lumpur: University of Malaya Press, 1965 [1902]), p. 622. Also see Barnard and Emmanuel, ‘Tigers,’ 62-63.

¹⁶ For summary of coroner’s records, see Untitled, *ST* (14 Aug 1855): 4. For official correspondences regarding tigers, see ‘The Number of Deaths Caused by Tigers’ No. 3 of 1855, Straits of Malacca – Miscellaneous Department, Narrative of the Proceedings of the Government of the Straits of Malacca for the Third Quarter of 1855, National Archives of Singapore (hereinafter *NAS*), mf. NAB 1671; ‘From the Commissioner of Police, Singapore to the Honorable Governor of the Straits Settlement,

Singapore, No. 107, dated 28 October 1858' *ST* (5 Feb 1859): 3. By 'major English language newspapers' (hereinafter collectively MELN), I refer to *The Free Press* (hereinafter *FP*), *Malayan Saturday Post* (hereinafter *MSP*), *Singapore Chronicle and Commercial Register* (hereinafter *SCCR*), *SFPMA*, *Straits Observer* (hereinafter *SO*), *ST*, *Straits Times Overland Journal* (hereinafter *STOJ*), and *Straits Times Weekly Issue* (hereinafter *STWI*).

¹⁷ Straits Settlement, 'Population of Singapore: Expediency of Ridding the Settlement of Vagabond Chinese' (1830) NAS, mf. NAB 197; Turnbull, *A History of Modern Singapore*, p. 55.

¹⁸ Based on reports, in which ethnicity of victim is specified, in MELN.

¹⁹ Based on reports, in which ethnicity of victim is specified, in MELN.

²⁰ For the tiger's alleged preference for Chinese flesh, see Perry, *Narrative*, p. 154.

²¹ Based on reports, in which race and activity of victim is specified, in MELN (1830-1890).

²² 'Singapore': 46; Untitled, *SFPMA* (26 December 1851): 3.

²³ T. Oxley, 'Some Accounts of the Nutmeg and Its Cultivation,' *Journal of the Agricultural & Horticultural Society of India* 6 (1848): 185; J. T. Thomson, 'General Report on the Residency of Singapore, Drawn Up Principally with a View of Illustrating Its Agricultural Statistics' *JIAEA* III (1849): 747, 751.

²⁴ Charles Hirschman, "The Making of Race in Colonial Malaya: Political Economy and Racial Ideology" *Sociological Forum* 1(2) (March 1, 1986): 330-363; Anna Laura Stoler and Frederick Cooper, "Between Metropole and Colony: Rethinking a Research Agenda" in Stoler and Cooper, eds., *Tensions of Empire: Colonial Cultures in a Bourgeois World* (Berkeley: University of California Press, 1997), pp. 1-56; Syed Hussein Alatas, *The Myth of the Lazy Native: A study of the image of the Malays, Filipinos and Javanese from the 16th to the 20th century and its function in the ideology of colonial capitalism* (London: Frank Cass, 2006), pp. 2-19

²⁵ For Anglo-Saxon self-identification as spreaders of civilization, see David M. Wrobel, 'Global West, American Frontier' *Pacific Historical Review* 78(1) (February 2009): 1-26.

²⁶ For environmental factors encouraging Southern Chinese emigration, see Ta Chen, *Chinese Migrations, with Special Reference to Labour Conditions* (Washington: Government Printing Office, 1923), p. 81; Robert B. Marks, *Tigers, Rice, Silk & Silt: Environment and Economy in Late Imperial South China* (Cambridge: Cambridge University Press, 1998), p. 277, 278, 307-308, 311, 321. Also see T. J. Newbold, *Straits of Malacca, viz. Pinang, Malacca, and Singapore; with a History of the Malayan States on the Peninsula of Malacca* V. I (London: John Murray, 1839), p. 282; Siah U Chin (for non-English names, I have retained spellings in primary sources), 'General Sketch of the Numbers, Tribes, and Avocations of the Chinese in Singapore' *JIAEA* 2 (1848): 284-286; J. Balestier, 'View of the State of Agriculture in the British Possessions in the Straits of Malacca,' *Journal of the Agricultural & Horticultural Society of India* 6 (1848): 142; Maurice Freedman, 'Immigrants and Associations: Chinese in Nineteenth-Century Singapore' *Comparative Studies in Society and History* 3(1) (Oct., 1960): 26; James C. Jackson, 'Chinese Agricultural Pioneering in Singapore and Johore, 1800-1917' *Journal of the Malaysian Branch of the Royal Asiatic Society* 38(1) (July, 1965): 81-82; Anthony

Reid, *Southeast Asia in the Age of Commerce, 1450-1680 V. 2* (New Haven: Yale University Press, 1993), pp. 34-35; Gregg Huff and Giovanni Caggiano, 'Globalization, Immigration, and Lewisian Elastic Labour in Pre-World War II Southeast Asia' *The Journal of Economic History* 67(1) (Mar., 2007): 40-41, 42, 44; Tony O'Dempsey, 'Singapore's Changing Landscape since c. 1800' in *Nature Contained*, pp. 20-21.

²⁷ Ng Swee Chiang, 'Oral History Transcript' (translated from original Chinese by Racheal Mathies), Chinese Dialect Groups (hereinafter CDG), OHC, reel 3 of 4, accession # 000222, 42; Soh Seng Keng, 'Oral History Transcript,' (translated by Mathies) CDG, OHP, Reel 2 of 2, accession # 000603, 28; Jackson, 'Chinese Agricultural Pioneering,' 78; Barnard and Emmanuel, 'Tigers,' pp. 60-61; O'Dempsey, 'Singapore's Changing Landscape,' p. 42.

²⁸ For a firsthand recollection of gambier processing, see Soh, 'Oral History Transcript,' 33-34. Also see John Crawford, *Journal of an Embassy from the Governor-General of India to the Courts of Siam and Cochin China; Exhibiting a View of the Actual State of Those Kingdoms V. II* (London: Henry Colburn and Richard Bentley, 1830), pp. 353; Cameron, *Our Tropical Possessions*, pp. 82-83; Balestier, 'View,' p. 142; Thomson, 'General Report' (1850): 136-137; Jackson, 'Chinese Agricultural Pioneering,' p. 80; Barnard and Emmanuel, 'Tigers,' pp. 60-61.

²⁹ Quotes from Siah, 'General Sketch': 287. Also see Balestier, 'View,' p. 140.

³⁰ For a misguided promotion of nutmeg, see Oxley, 'Some Accounts,' 176-189. J. Moniot, 'Survey' in *General Report on the Administration of the Several Presidencies and Provinces of British India During the Year 1858-59 V. I* (Calcutta: F. F. Wyman, 1860), p. 75; Orfeur Cavenagh, 'Annual Report on the Administration of the Straits Settlement for 1860-1861' in *Statement Exhibiting the Moral and Material Progress and Condition of India, During the Year 1860-61* (London: George Edward Eyre and William Spottiswoode, 1862), 313; Jackson, 'Chinese Agricultural Pioneering,' 79-80; Richard T. Corlett, 'The Ecological Transformation of Singapore, 1819-1990' *Journal of Biogeography* 19 (1992): 411-413; O'Dempsey, 'Singapore's Changing Landscape,' p. 21-23; Barnard and Emmanuel, 'Tigers,' p. 62.

³¹ Nathaniel Cantley, 'Report on the Forests of the Straits Settlements' (1883), *Straits Settlements, Reports on the Forests of the Straits Settlements, 1882-1888*, Staff Library, Singapore Botanic Garden, 1-8. For an interesting discussion of the role of colonialism in the rise of conservation, see Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860* (Cambridge: Cambridge University Press, 1994), pp. 1- 7. For the role British understandings of Straits Settlements forests played in the development of modern conservation, see Jeyamalar Kathirithamby-Wells, *Nature and Nation: Forests and Development in Peninsular Malaysia* (Singapore: NIAS Press, 2005), pp. 1-48.

³² Straits Settlements, 'Population' (1830); Elinah Abdullah, 'Malay/Muslim Patterns of Settlement and Trade in the First 50 Years' in Khoo Kay Kim et al. (eds.) *Malays/Muslims in Singapore: Selected Readings in History, 1819-1965* (Singapore: Pelanduk Publications, 2006), pp. 88-89; Turnbull, *A History*, p. 46; D. R. SarDesai, *Southeast Asia: Past and Present* (Boulder, CO: Westview Press, 2010), p. 63.

³³ Syed Hussein Alatas, *The Myth of the Lazy Native: A study of the image of the Malays, Filipinos and Javanese from the 16th to the 20th century and its function in the ideology of colonial capitalism* (London: Frank Cass, 2006), pp. 61-64; Abdullah

'Malay,' 88-91; Charles Hirschman, "The Making of Race in Colonial Malaya: Political Economy and Racial Ideology" *Sociological Forum* 1(2) (March 1, 1986): 345-347.

³⁴ As Alatas notes, the British frequently depicted Malays and archipelagic South-east Asians as lazy and unmotivated in order to justify putting them to work; see *The Myth of the Lazy Native*, pp. 2, 39, 41, 44-45. Also see Thomson, 'General Report' (1849), 747; Abdullah, 'Malay,' 89, 92.

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³⁷ Ida Pfeiffer, *A Woman's Journey Round the World, From Vienna to Brazil, Chili, Tahiti, China, Hindostan, Persia, and Asia Minor* (London: Office of the National illustrated Library, 1852), p. 125; Perry, *Narrative*, p. 154; Untitled, *ST* (25 Dec 1875), 3; 'Singapore 35 Years Ago' *STOJ* (14 November 1878): 5; H. N. Ridley, 'The Mammals of the Malay Peninsula: Part II' *Natural Science* 6(36) (Feb 1895): 89; Edwin A. Brown, *Indiscreet Memories: 1901 Singapore Through the Eyes of A Colonial Englishman* (Singapore: Monsoon Books, 2007 [1935]), 26; Kae Kawanishi, et al., 'The Malayan Tiger' in Ronald Tilson and Philip J. Nyhus, (eds.) *Tigers of the World: The Science, Politics, and Conservation of Panthera Tigris*, 2nd Ed. (Boston: Academic Press, 2010), pp. 368, 374; Barnard and Emmanuel, 'Tigers,' p. 60.

³⁸ Mel Sunquist, 'What Is a Tiger? Ecology and Behavior,' in *Tigers of the World*, p. 20; Philip J. Nyhus and Ronald Tilson, 'Panthera tigris vs Homo sapiens: Conflict, Coexistence, or Extinction' in *Tigers of the World*, p. 129; Andrew J. Loveridge, Sonam W. Wang, Laurence G. Frank, and John Seidensticker, 'People and Wild Felids: Conservation of Cats and Management of Conflicts' in D.W. Macdonald and A. J. Loveridge, (eds.) *Biology and Conservation of Wild Felids* (Oxford: Oxford University Press, 2011), pp. 172-177.

³⁹ Cameron, *Our Tropical Possessions*, p. 97.

⁴⁰ Based on Reports, in Which Location of Attack Is Specified, in MELN.

⁴¹ 'Summary of the Week' *STOJ* (5 Aug 1879): 1; Ridley, 'The Mammals,' 91; Boomgaard, *Frontiers of Fear*, p. 352; D. Mark Rayan and Shariff Wan Mohamad, 'The Importance of Selectively Logged Forests for Tiger *Panthera Tigris* Conservation: A Population Density Estimate in Peninsular Malaysia,' *Oryx* 43(1) (2009): 48-51; Reuben Clements, "Trio under threat: can we secure the future of rhinos, elephants, and tigers in Malaysia?" *Biodiversity Conservation* 19 (2010): 1122; Sunquist, 'What Is a Tiger?,' 23.

⁴² 'The absence...' from Wilkes, *Narrative*, 379. Also see Crawford, *Journal*, 351; J. Crawford, 'Agriculture of Singapore' *JIAEA*, III (1849 [1824]): 508; Buckley, *An*

Anecdotal History, 220. Others have noted the tigers' preference for ecotones; see Boomgaard, *Frontiers of Fear*, 352; Barnard and Emmanuel, 'Tigers,' pp. 64-65.

⁴³ Clare Anderson, *Subaltern Lives: Biographies of colonialism in the Indian Ocean World, 1790-1920* (Cambridge: Cambridge University Press, 2012), 6-10.

Whether we can comprehend subaltern environmental perspectives through the lens of modern Western understandings of ecology and economics is also debatable; see Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (USA: Princeton University Press, 2007), pp. 1-16. For a related discussion of cultural understandings of wolf killing in North America, see Jon T. Coleman, *Vicious: Wolves and Men in America* (New Haven: Yale University Press, 2004), pp. 8-12.

⁴⁴ 'Backwoodsman' from Cameron, *Our Tropical Possessions*, p. 103. For genteel Anglo-Saxon understandings of hunting, see William K. Storey, 'Big Cats and Imperialism: Lion and Tiger Hunting in Kenya and Northern India, 1898-1930,' *Journal of World History* 2(2) (Fall, 1991): 16; Warren, *The Hunter's Game*, p. 14; Joseph Sramek, "'Face Him Like a Briton": Tiger Hunting, Imperialism, and British Masculinity in Colonial India, 1800-1875' *Victorian Studies* 48(4) (Summer, 2006): 659; Karen Jones, "'My Winchester Spoke to Her": Crafting the Northern Rockies as a Hunter's Paradise, c. 1870-1910' *American Nineteenth Century History* 11(2) (June 2010), 183-203. For the activities of the tiger club, see Turf, 'To the Editor of the Singapore Free Press' *SFPMA* (16 November 1843): 3; A Sportsman, 'To the Editor of the Singapore Free Press,' *SFPMA* (16 November 1843): 3. For accounts of Singapore's sportsmen, see Untitled, *FP* (22 August 1844): 3; 'Another Tiger to Mr. Maw' *SFPMA* (5 January 1894): 2; Untitled, *STWI* (9 January 1886): 2; Untitled, *ST* (28 Dec 1861): 1; Untitled, *ST* (6 Nov 1875): 4; Brown, *Indiscreet Memories*, p. 27; Barnard and Emmanuel, 'Tigers,' 70. For debates over the appropriate bounty rate, see 'Summary of News,' *SFPMA* (5 October 1843): 2; 'Tigers' *FP* (3 August 1843), 2.; Buckley, *An Anecdotal History*, pp. 220, 338, 346; Untitled, *SFPMA* (17 march 1842): 3. For improvements in rifle technology, see Ezra D. Rashkow, "Making subaltern shikaris: histories of the hunted in colonial central India" *South Asian History and Culture* 5(3) (2014): 295. For a related discussion of environmental obstacles to nation building, see David Biggs, *Quagmire: Nation-Building and Nature in the Mekong Delta* (Seattle: University of Washington Press, 2010), 3-21.

⁴⁵ Quote from 'Art. IV: Notices in Natural History: 1, the sze tzse; 2, the hoo or tiger; 3, the maou or cat, and other feline animals. Taken from Chinese authors' *The Chinese Repository* 7 (March 1839): 597. Also see Chris Coggins, *The Tiger and the Pangolin: Nature, Culture, and Conservation in China* (Honolulu: University of Hawaii Press, 2003), pp. 2, 7; Marks, *Tigers*, pp. 2, 134-135, 326; Robert B. Marks, 'Asian Tigers: The Real, the Symbolic, the Commodity' *Nature and Culture* 1(1) (Spring 2006): 67; 'John Chinaman's Medicine' *SFPMA* (26 Feb 1908): 10; George Finlayson, *The Mission to Siam and Hue, The Capital of Cochin China, in the Years 1821-2* (London: John Murray, 1826), p. 263; Mark Elvin, *The Retreat of the Elephants: An Environmental History of China* (New Haven: Yale University Press, 2004), p. 310.

⁴⁶ Coggins, *The Tiger*, pp. 65-68, 70.

⁴⁷ ONG Poh Lim, 'Oral History Transcript' (30 July 1997) Sports Personalities of Singapore. Oral History Centre (hereinafter OHC). NAS. Reel 1 of 12. Accession No: 001932.

⁴⁸ T. Chaninsky [?], Coroner, 'Investigation,' (10, March, 1887), Coroner's Court (hereinafter CC). NAS. mf. AD 005.

⁴⁹ T. Chaninsky [?], Coroner, 'Investigation,' (19 June 1887) CC, NAS, mf. AD 005.

⁵⁰ 'Tigers,' *FP* (3 August 1843): 2; Fair Play 'To the Editor of the Straits Times' *ST* (23 May 1849): 6; Live and Let Live, 'Sportsmen' *ST* (14 Aug 1928): 10; Shikari, 'The Singapore Tiger' *ST* (16 August 1928): 10; 'Tiger Shot in Singapore' *MSP* (18 August 1928): 5.

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⁵⁴ 'Tigers' *FP* (3 August 1843): 2; Untitled, *ST* (21 October 1846): 3; Untitled, *ST* (16 Jan 1864): 10; 'Deaths by Tigers' *ST* (20 Aug 1864): 1; Yang, 'Indian Convict Workers,' 183. For a superb discussion of how Indian convict labourers understood their experience vis-à-vis incarceration and confinement, see Clare Anderson, "Convicts and Coolies: Rethinking Indentured Labour in the Nineteenth Century" *Slavery and Abolition: A Journal of Slave and Post-Slave Studies* 30(1) (2009): 93-109.

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⁵⁷ Martinez-Alier, *The Environmentalism of the Poor*, 12-14. See also Guha, 'Radical American Environmentalism,' 71-83; Armiero and Sedrez, 'Introduction,' 8-10; Lise Fernanda Sedrez, 'Rubber, Trees and Communities: Rubber Tappers in the Brazilian Amazon in the Twentieth Century' in *A History of Environmentalism*, 147-161.

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⁶⁰ Sunquist, 'What is a Tiger,' 20.