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Swarming Infrastructures

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The first car on the roads of Malacca, a town in the British Straits Settlements colony on the Malay Peninsula, was reportedly nicknamed The Swallow. Images of the eponymous bird were painted onto the vehicle: an avian metaphor fitting for the new, emerging age of the automobile, with its associations with freedom, rapidity and the smoother flows of modern life (Hillier 1961: 99).[1]

The Swallow and its driver, however, were not the only ones taking advantage of the greater speed and smoothness promised by the spread of Malaya's transport infrastructure in the early twentieth century. So too, this article suggests, did Malaya's roads and railways facilitate the migratory swarming of locusts. The insects passed along these engineered pathways unobstructed by forest, basked on metal tracks, and bred among and ate the invasive grasses flourishing along the rail lines and roadsides. The Swallow was paralleled by the locust: a fellow, if unexpected, traveler on the infrastructures of British colonialism. These entanglements of roads, rail and locusts invite reflection on the more-than-human repurposing of infrastructure.

[1] Although The Swallow's fate itself fell short of this promise – ultimately it crashed and was put back on the market (Hillier 1961: 99).

According to colonial records, locusts had swarmed in Malaya for the first time in 1912, doing so again annually until 1919.[2] The swarms could be intimidating sights. They were "marching in an army" one colonial official wrote (Pratt 1913: 79). "Like a huge dark cloud," was how a newspaper reporter described them (Straits Times 1913a: 8). The locusts damaged crops – especially the padi farmed by Malays (Corbett and Miller 1936: i).

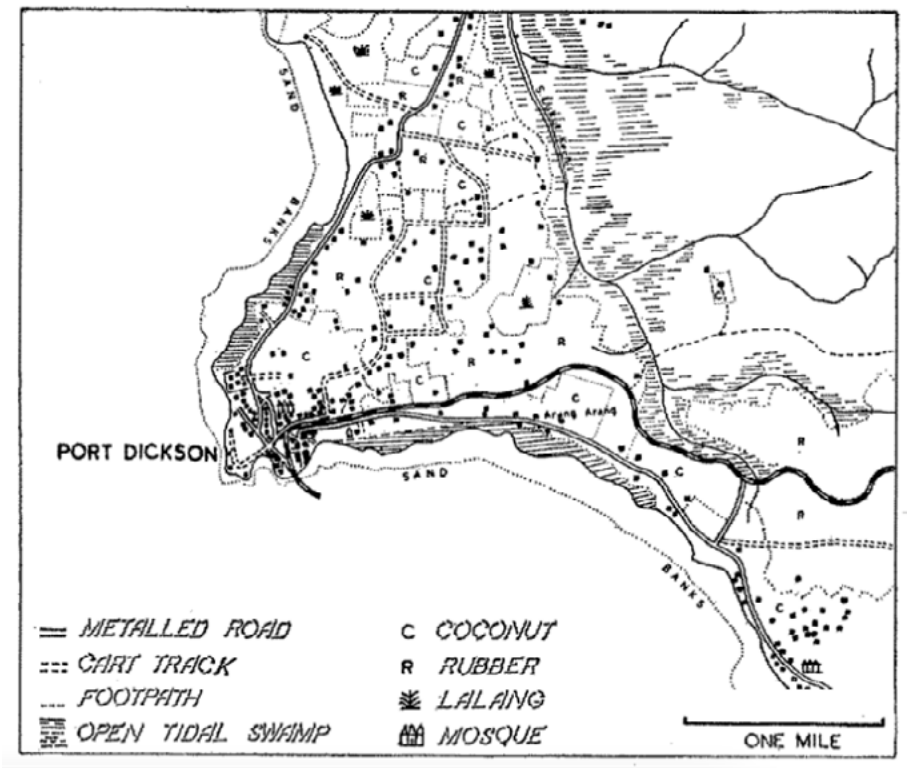
[2] Locust swarms were not recorded to nearly the same extent after 1919, for reasons not entirely clear and which are beyond the scope of this essay.

Locust swarming in Malaya in the 1910s traced the development of colonial transport infrastructure. Industries extracting such primary products as tin and rubber latex had developed in British Malaya since the late nineteenth century, leading to a network of railways and roads to service mines and plantations (Kaur 1980: 697). But just as this infrastructure had allowed investors and the colonial state to swell with profit, it had also created countervailing effects. Not only had it permitted tin and rubber to move, but locusts as well.

Malaya's locust–infrastructure nexus was reported repeatedly by colonial officials and residents. Locusts basked – an "irritating habit," one official wrote – on the metal railway tracks (Pratt 1913: 79). So too, they traveled – in 1912, a notice to officials in Selangor warned: "The hoppers often use the main roads to travel on" (ANMKLa: n.p.). In that year, the association between locusts and roads was so striking that it even led to ideas for controlling the insects: "Light rollers," one official suggested, "running about 8 miles an hour would probably crush millions if they were run up and down a road infested with locusts" (TNA 1912: 12). A "dense mass" of the insects was again found on roads the year after, with the swarm cannibalizing those locusts crushed by vehicles (Pratt 1913: 78–79). In 1916, frustrated officials reported how locusts had escaped destruction efforts by swarming along the railway line between Tampin and Gemas, while, in the same year, swarms were reported to have arrived in the state of Pahang for the first time by traveling along the Pahang Railway Line (ANMKLb: 1, 4–5). A map of the swarms produced by the Department of Agriculture in 1936 shows their distribution in green: spread across Negri Sembilan, they follow the railway lines to fork outwards, northwest to Ulu Selangor and northeast to Temerloh, Pahang (Corbett and Miller 1936: n.p.).

Of course, in some ways the road–locust nexus was an artifact of the limited scope of colonial vision. Roads and rail were spaces that made locusts visible to colonial eyes: such as for the resident who in January 1914 watched through the window of a train from Tampin to Malacca as "numbers of Malays fought to 'beat [locusts] off'" the padi fields to the sides of the railway (SFPMA 1914: 6). When the insects slipped away from roads and rail, or other sites of heightened visibility, they went beyond the vision and knowledge of the colonial authorities: as, for instance, the several swarms in Selangor which "at times disappeared in the jungle and were lost sight of for several days" (ANMKLb: 2).

Roads and rail, then, served as onto-epistemological apparatuses, making the locust knowable and visible (Barad 2014: 232). But not only helping set the limitations of colonial perception, infrastructures were also biogeographically significant for the living ones. As well as facilitating movement, roads and railways provided habitat for locusts, being among those sites in Malaya where previously dense forest had been substituted with profuse *lalang*.

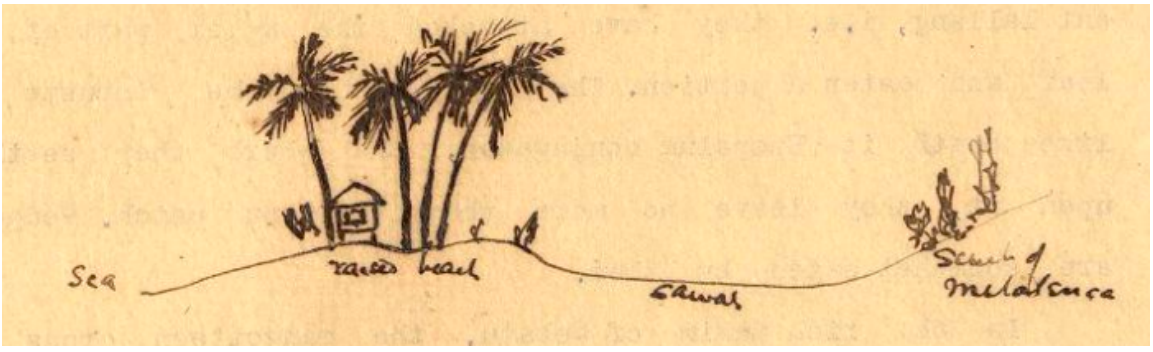


The town of Port Dickson in 1942.* Lalang *is one of the key symbols of the map and can be seen in the peri-urban north of the town.
Source: Dobby 1942: 230.

Lalang is the Malay name for a tall grass, Imperata cylindrica, which grows vigorously on recently cleared land in Southeast Asia; this species has a rhizomatic root-system, making it notoriously difficult to remove through weeding (CABI 2008). Although thought to be native to the region, the plant behaved as an "invasive" as the Malayan landscape was transformed fundamentally under colonial rule – as was the case with many new "vegetal geographies" linked to empire (Barua 2022b). Such landscape transformation obliterated many species and even whole ecosystems in Malaya, but *lalang* by contrast flourished amid the disruption. "Construction and decay," Joniak-Lüthi (2020: 9) has written, "are two sides of the same coin" – and, in disorderly boom conditions, *lalang* thrived on awkward sites in plantations, at urban fringes, and along roads and rail where rapid change met environmental neglect (Greatrex forthcoming). As it did so, it created emergent and recombinatory opportunities for other organisms (Kirksey 2015: 1; Barua 2022a: 14).

Locusts were one of the so-called pests to thrive amid *lalang*: they reproduced in its thickets, and they also consumed it. One of the most perceptive witnesses to landscape change in the Malaya of the 1910s was Isaac Henry Burkill, of the Singapore Botanic Gardens. On a tour of Malacca and Negri Sembilan, he noted how *lalang* had enabled locusts to thrive: "It is certain," he wrote of the insect, "that the past condition of the country – well forested – would be inimical to it," but now that "artificial wastes" had been created, patches of *lalang* had become "the strongholds of the locusts" (Burkill and Cowley-Brown 1916: 340). In his diary, Burkill described visits to Malayan villages and hillsides at a time of spreading rubber cultivation. *Lalang* was beginning to penetrate such areas, and he sketched squiggles of it and similar scrubby grasses as they encroached across the landscape.

Roadsides hosted *lalang* as well, Burkill noted: traveling between Tampin and Seremban, he describes how the road "soon gets into lallang [*sic*]" (Burkill 1925: 24). Others remarked on the links too. As the author of an irritated letter to a local newspaper wrote, journeying by train through Perak or Selangor revealed how the railway lines were "covered with a thick, matted, and rank growth of *lalang*" (Malaya Tribune 1915: 2). One motorist in 1913 noted the thirteen swarms of locusts he encountered while traveling between Rawang and Kuala Lumpur, and their preference for the *lalang* along the road (*Straits Times* 1913b: 2).



The encroachment of scrubby grasses towards a Malay kampong village. Hand-drawn sketch from Burkill's diary (1925: 22).

There was some irony to claims that road- and rail-side *lalang* wastes were facilitating locust swarming. Plantation production in Malaya had never been an exclusively British, or even European affair. Even before the British had arrived in Singapore in 1819, for instance, Chinese gambier-planters had already established plantations on the island (O'Dempsey 2014: 18–19) – a Chinese-dominated industry which expanded greatly across the nineteenth century before fading out with the advent of other cash crops, such as copra, coffee and, above all, rubber and later oil palm. Gambier-planting had also been associated throughout with the spread of *lalang* and "scrub" (O'Dempsey 2014: 22–28). Partly for this reason, colonial commentators had condemned Chinese gambier-planters using a racialized vocabulary of insectification (see Raffles 2007). "The Locust of Agriculture," was how Burkill denigrated gambier-planting (Burkill 1923: 39). Others damned Chinese planters themselves as being "locusts" (Kathirithamby-Wells 2005: 37). In elucidating the spread of *lalang* and locusts along transport infrastructures, however, colonial commentators were describing changes to the landscape under the British that were linked not with merely metaphorical locusts – but living ones.

This history of roads, railways, *lalang* and locusts provokes reflection on the more-than-human lives of infrastructures. Infrastructures shape mobility and structure everyday life – but so too, as Maan Barua (2021: 2–3) has suggested, must we consider how they do the same for more-than-human forms of life. Malayan locusts repurposed colonial infrastructures to their own ends. Designed as implements of extraction and transportation, roads and rail enabled swarming, becoming places for locusts to eat, breed and travel, just as macaques have transformed the highways of contemporary India into habitat (Barua 2021: 4). The colonial authorities prided themselves on engineering works which would "open up" Malaya to commerce, industry and modernity. "In no direction has the beneficent result of British influence in Malaya been more strikingly

manifest," wrote one leading official regarding the colony's railways, "than in the opening up of the territory … by the introduction of rapid means of communication" (Wright and Cartwright 1908: 303). Expedience and smoothness were the promises of colonial infrastructure – just as for The Swallow, with its name marrying technological progress and avian freedom. But these infrastructures had consequences beyond colonial intentions. Roads and rail were repurposed to serve not only as rapid means of communication – but so too, as rapid means of swarming.

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