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Retelling Railway Histories

Centring Labour

Foregrounding Labouring and Nonlabouring Lives

The birth of the railways transformed traditional patterns of movement and altered existing travel routes, enabling the rapid movement of freight, animals and people over large distances. Globally, the development of the railways was intertwined with the boom in demand that followed the Industrial Revolution as well as European colonial projects. Specific features of the first Industrial Revolution – such as the introduction of steam power and the exploitation of coal and iron mines – facilitated the birth of the earliest railways. Britain was a major player in pioneering the building and management railways in parts of Europe as well as in Africa, South America and Asia, including India, Malaya, Burma, China and Japan. At the same time, nineteenth-century European colonial incursions and the establishment of colonial economies in parts of Asia, Africa, the Middle East and Latin America fuelled industrialization in Europe by providing raw materials and other resources – not to mention access to a cheap and readily available labour force.

Any attempt to historicize the railways is inevitably a retelling and a selective one at that. Scholars have long asked how to recount transport and railway histories without resorting to top-down narratives (Gourvish 1993; Mom 2003; Pirie 2014; Strangleman 2002). Speaking in the context of the Indian railways, Kerr observed: 'Railway labour has received surprisingly little attention given the size and importance of the railway workforce' (2007: xxxix). In a similar vein, Samaddar noted:

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> People speak of the monumental engineering tunnelling feat amidst snow and rare air at the heights at Sierra Nevada (1867); there are now films, museums, and archives on the railway line construction … [they] involved companies, and the enterprise of the businessmen, yet not much on the details of the immigration of labour, labour forms, labour conditions, etc., except what we get from very few books on the Irish and Chinese labour in railway construction in the United States. (Samaddar 2015: 7)

Buier (2017) notes the same gaps in the case of the Spanish Railways, where, she argues, there has been limited recognition of railway labourers as social and political actors. However, there has been considerable research on railway labour in colonial contexts and its role in constructing and maintaining railways (Buier 2017; Kaur 1990; Kerr 1985, 1991, 2006a, 2007; Lockman 1993; Ruchman 2017; Sunseri 1998). There is also some rich historical material on the Chinese railway builders of the Canadian and American railway networks. This includes, for example, Cowen's (2019) work on the contribution of Chinese and Black labour to the construction of the Canadian Pacific Railroad and the building of the transcontinental railways by Chinese labourers (Ambrose 2001; Chang 2019; Chang et al. 2019; Karuka 2019).

The colonial penchant for collecting detailed information about colonized subjects and analysing, reporting, archiving and, above all, acting upon data to control and regulate populations – all in the name of rational and efficient governance – is mentioned in the scholarship on colonial and imperial rule (Hawksley 2001). Here, I add my voice to those who have argued for centring railway labourers as historical actors with agency when narrating the history of railways (Bear 2007; Wolmar 2017). This emphasis on the neglected constituency of railway labouring communities neither denies nor diminishes the roles of railway builders, designers, engineers and surveyors, financiers and capitalists, railway companies and state and government departments. All of these have, in any case, been credited as pioneers for conceiving and constructing the railways. Yet, in much of conventional railway historiography, the work undertaken by labour is marginalized, if not obscured, and also remains unrecorded in official archives. When remembered, railway labour is spoken about in a very specific and selective mode in government records and official railway archives. Expectedly, such portrayals view labour primarily as economic units, and related issues of labour capacity, cost, and scarcity are raised in purely commercial terms. Here, questions of *labour welfare* are confined to the basic provision of health, wages, housing and sanitation, but all with the intention of extracting maximum labour productivity at minimum cost. Not surprisingly, labour discipline is a concern that often crops up in these records as officials express anxieties about worker involvement in unions and fear that this might lead to demands for higher wages and better living and working conditions.

Globally, the construction of railway lines is reported to be physically demanding, not to mention fraught with the dangers and risks associated with working in harsh, punishing conditions. A survey of the scholarship on railway labour in railway studies and labour histories reveals two related strands: a focus on unions, strikes and industrial action on the one hand, and an emphasis on labour welfare and labour rights on the other (Alderman 1971; Cooper 1996; Ingleson 1981; Kaur 1990; Kerr 1985; Pandian 2008; Sherlock 1989; Sinha 2008; Wyse 1981). Kerr observes: 'One finds discussions of railway unions and strike action within broader studies of the labour history … analytical writing about railway workers is limited' (2007: xxxix). Ironically, even narratives on railway construction, operation and maintenance side line the central role played by railway labour. To address these gaps, I take up the challenge of narrating a social history of the railways in Malaya by firmly placing railway labour at the core of my inquiries. As such, in an alternate rendition of Malaya's railway history, I foreground railway labour and accord visibility and priority to the foot soldiers of the railways and their labouring and nonlabouring lives. These were ordinary men and women who cleared the land, laid the lines and maintained them in treacherous terrains using basic tools and technologies, but they built and sustained cultural-religious worlds too.

In contrast to colonial railway labour constituencies, the lives of British railway navvies have not only been well documented, but they have also been memorialized in popular culture and fiction. The English word 'navvy', derived from the words 'navigator' or 'navigational engineer', refers primarily to manual labour associated with civil engineering projects in Europe and North America. In eighteenth-century Britain, the term appears to describe those who built and navigated canals, the forerunners of the railways. Railway navvies and colonial labour alike played a key role in building railways globally. I argue that positioning British railway navvies as capitalist labour alongside other forms of railway labour (contract labour, convict labour and prisoners of war) and in the *same* narrative is analytically productive. This makes it possible to see the convergences between these labour communities in the face of obvious differences and simultaneously recognizes both as key players who built railways. Interestingly, a comparative lens reveals uncanny parallels between the working lives and living conditions of British railway navvies and colonial railway labour.

Interestingly, substantial work has also been undertaken on the religious lives of navvies in Britain. In the case of the British navvies, the conscious and deliberate emplacement of religious organizations in secular locations (factories and railway premises) speaks of the intriguing connections between religion and railway infrastructures. Religion was used by British railway companies such that ministering and missionizing to navvy souls was developed into a system for disciplining industrial labour (Cohn 1979). Standards of Victorian morality were used to produce habits and lifestyles conducive to industrial-capitalist activity amongst the navvies, one prominent example being the 'temperance movement' (Harrison 1967). Groups like the Navvy Mission Society (formed in 1877) and the Christian Excavator's Union (formed in 1875) were a big part of the temperance movement, with Elizabeth Garnett promoting 'tea as a wholesome alternative to the demon drink and hymn singing – especially hymns with uplifting choruses – as a counter to alehouse rowdyism' (cited in Richardson 2011: 204). Notably, through the involvement of the Church of England and missionary societies, institutionalized religion was involved in this effort. Likewise, Bleasdale (2018) has documented the presence of Protestant missions as moral regulators on railway lines in North America and Canada as advocates of temperance, given the stereotypes about navvies' propensity to work and play hard and drink copiously (ibid.: 156). These navvies were also seen to have no regard for law and order or authority and to undermine virtues, discipline and 'sober hard work necessary to moral, social and economic advancement' (ibid.: 286). In a different vein, Major (2015) notes that railway companies promoted their services to the industrial working classes by encouraging them to take leisure trips on weekends. The railway companies often found themselves embroiled in disputes and debates amongst churches, trades unions, town councils and secular societies, and faced considerable public criticism. Collectively, the available scholarship has registered the use of religion to regulate the labour force and working classes to produce morally acceptable social, cultural and economic behaviours.

However, similar works that deal with colonial railway labourers 'making religion' or labour building religious infrastructure in European colonies are practically non-existent. A survey of railway studies uncovers limited scholarly work on the railways and their interaction with religion. In the Indian context, Ahuja (2004) and Kerr (2001) have theorized the historical relationship between railways and pilgrimages,[1] while Prasad (2016) has noted that the British tried to introduce the notion of the Sabbath as a day of the Lord by trying to institute changes in railway timetabling and preventing the running of trains on Sunday for leisure purposes. However, this 'was a challenge to the tradition of the Christian Sabbath' as this was also 'a day of religious observance' (Valentine 2014).

In my account of Malaya's railway history, rather than begin with the oft-cited railway luminaries, I start instead with the seldom visible colonial railway labourers and the work they performed. I argue that their labour carried tremendous import and not only produced economic and religious structures in the colonial period, but, indeed, also shaped the course of history itself. In this context, I do not invoke the discourse of emancipatory politics, social justice and empowerment; instead, I find Wolf's (1982) notion of 'active participation' (Roseberry 1989: 130) to be relevant and meaningful. I approach railway labourers in Malaya as history making agents through their routine, everyday acts and those with labouring and nonlabouring capacities. They not only materialized railway infrastructure in the region, but also laid the foundations for future transportation networks therein. Furthermore, by building places of worship near their work and living spaces, railway labour also shaped sociocultural and religious landscapes that have had enduring impacts on the lives of their descendants settled in these regions. This point is further aligned with scholarship that seeks to privilege 'history from below' (Bahl 2003; Hitchcock 2004; Thompson 1966; Wolf 1982) and 'everyday history' (Brewer 2010; Chakravarti 2012; Luedtke 1995; Steege et al. 2008; Zinn 1980) as opposed to what has been called 'macro history' (Wells 2002). The unprecedented, enforced mobility of labour across the world in the nineteenth century was a complex phenomenon that I will describe briefly in the next section. This discussion provides a crucial context for presenting historical and ethnographic details of railway building in Malaya in subsequent chapters.

Nineteenth-Century Global Labour Flows

Migration scholarship has demonstrated that human flows across the globe have been the norm rather than the exception over the course of history (Amrith 2011, 2013). Despite this, as McKeown comments, 'historians have been slow to acknowledge their global extent' (2004: 155). Since the sixteenth century, explorers, adventurers, traders and merchants have travelled from Europe to Asia and vice versa, as well as within Asia and from Asia to Africa and the New World. However, the historiography of global labour migration has been dominated by 'Atlantic-centrism' and 'North-Atlantic centrism' (Mohapatra 2007), and a focus on migration from Europe to the New World. Using historical data, McKeown (2004) for Northeast Asia, and Amrith (2011) for South Asia and Southeast Asia, have demonstrated the historicity of global labour flows across these interconnected and integrated regions, arguing against nationalist, segmented and regional histories of movements of populations. McKeown and Amrith argue persuasively that European migrations to the Americas and Australia were intricately entangled with movements to, and within, Asia and Africa, and that they were part of the same world economy: both were framed by European colonial hegemony, but in some moments also transcended it. These authors invoke the trope of interconnected, globalized, transnational and commercial economic networks and grids to make sense of moving populations, further highlighting that a vast majority of those being moved globally were migrants with labour potential.

Between the seventeenth and nineteenth centuries, there were multiple, intersecting waves of the global movements of 'unfree/involuntary/forced' labour, even as there are also records of 'free/voluntary' migrations during this time. Cohen observed that: 'Slavery and indenture-ship were two predominant forms of migration in the first 300 years of the world system' (1995: 2). African intercontinental slave migration was a universal method of securing labour from 1550 to the end of the eighteenth century, while indentured/contract labour emerged as a new mode of labour recruitment between 1834 and 1917. Drawing attention to convict labour as constitutive of the global system of forced migration, Yang (2003, 2021) makes the point that labour under contract, obligation and dependency, and indeed all labour – slave, wage and so-called 'free' labour (indenture, convict and *kangany* or 'overseer') – were directed and thus 'unfree'. He speaks of 'the punitive and economic objectives of transportation' (Yang 2003: 191) in light of its role in moving 'convict labour to penal colonies across the world. As such, Indian convicts 'were part of a larger traffic pattern in South and Southeast Asia that transported different peoples in different directions across these regions' (ibid.: 181). According to Anderson: 'For over three hundred years during the seventeenth to twentieth centuries, around 380,000 transportation convicts journeyed to and around locations across the British Empire' (2016: 381). He argues that penal transportation – an example of coerced labour migration – was a mode of 'labour extraction and governance within the larger British imperial world' (ibid.: 397). This logic recognizes the labour utility of convict workers – i.e. their labouring capacity – not to mention the fact that they were a cheap and readily available pool of productive and pliable workers. Countries sent convicts overseas to penal colonies in order to rid themselves of political opponents and criminals; meanwhile, receiving countries transformed convicts into workers. Yang (2003) documents that the convicts thought of themselves as 'Company *ke naukar*' (Hindi, 'servants of the Company') and focused on their labour service and utility rather than the fact that they had been punished in being exiled.

The slave trade was abolished in the United States in 1807 and in the British colonies in 1834. Yet official proclamations ended forced migrations only on paper, as the need for slave labour kept the system of slavery intact and alive for several more decades. Its eventual end led to the resurgence of contract labour, especially for plantation and mining work in the European colonies. Upon the formal abolition of slavery in the British Empire in 1833, European-controlled territories needed cheap and docile contract labour to serve the burgeoning needs of industrial capitalism. The answer was a turn to Asia, from where Indian, Chinese and Japanese labour[2] were sourced, with 'a return to an earlier means of financing migration – indentured servitude or contract labour' (Chiswick and Hatton 2003: 71). The forced migration of convicts and later migrations of indentured labour (from the mid-nineteenth century to 1917) were replaced over time by the *kangani* (Tamil, 'overseer') system (Anderson 2009; Yang 2003).

Transatlantic and inter-Asian labour movements intensified in the nineteenth century, leading to the unparalleled movement of unfree labour under the system of indenture. Mohapatra (2007) highlights that non-European labour flows across Asia and Africa were comparable in magnitude, scale, timing and importance to movements across the Atlantic Ocean. He also credits McKeown with opening 'new areas of investigation of the under-researched aspects of global migration studies without the blinkers of Eurocentrism' (2007: 115). Together with Mohapatra and others, McKeown (2004) and Amrith (2011) highlight the limits of a Eurocentric perspective. Amrith (2011) and McKeown (2004) demonstrate that from the mid-twentieth century onwards, there was considerable mobility of labour from India and China to other parts of Asia as well as to other areas around the globe. Speaking of European empires as global systems, Frost observes: 'During the nineteenth and early twentieth centuries empires and diasporas functioned as powerful "motors" of globalisation, generating traffic in goods, peoples and ideas that integrated vast portions of the planet' (2005: 29). He argues further that 'a rapid expansion in steam navigation, railways and telegraphic communication brought many of the territories bordering the Indian Ocean, the China Seas and the Pacific into closer contact with one another' (ibid.: 30). Exponential industrial growth and development in European countries under colonial capitalism saw a surge in demand for raw materials and cheap labour, resulting in mass movements of coerced and contracted colonial labour, with a small proportion who moved voluntarily. Investors, capitalists and entrepreneurs from Europe moved to parts of Africa, Asia, the Caribbean and South America, while Indian, Chinese, Javanese, Filipinos, Japanese and Pacific Islander workers were moved to the British and other European colonies. Chiswick and Hatton identify the period from 1600 to 1790 as the era of 'contracts and coercion' and the years 1850–1913 as the time when forced labour movements were at their peak, as 'the age of mass migration'. Allen provides these startling figures that register the scale and extent of migration:

> The migration between the mid-1830s and early 1920s of more than 2.2 million Africans, Chinese, Indians, Japanese, Javanese, Melanesians, and other colonial subjects who worked under long-term written contracts had a profound impact on social, economic, cultural, and political life in many parts of the 19th- and early 20th-century colonial plantation world. (Allen 2017: 1)

Citing staggering statistics, McKeown also marks the predominance of the Chinese (19 million) and the Indians (29 million) moving 'to Southeast Asia and lands around the Indian Ocean and South Pacific' in the nineteenth century (2004: 156). The period between 1830 and 1920 saw the forced global displacement of large numbers of Indians, largely to the British Empire, but sometimes also to other European colonial economies – for example, German, Portuguese and Dutch colonies. Indian indentured labour was exported to British Guiana (now Guyana), Trinidad, Dutch Guiana (now Surinam), South Africa, Fiji, Mauritius, French-occupied La Reunion (in the Indian Ocean) and as *kangany* or *maistry* labour to Burma, Malaya and Ceylon (now Sri Lanka). Interestingly, Roy observes 'Indians' propensity to migrate' and flags the nineteenth century as a historical moment when 'India supplied several million migrant workers to plantation societies in the New World' (2018: 263). Aiyar surmises further:

> Between 1830 and 1930, approximately 29 million Indians dispersed across the empire on which the sun never set. Over a million of them arrived in British colonies, including Fiji, Mauritius, Natal, and settlements in the Caribbean, as indentured labourers to work on sugar plantations after the abolition of slavery. (2011: 988)

Behal corroborates the scale of this migration, noting that 'massive mobilization of Indian agrarian communities' was triggered by colonial capitalism:

> Modern industrial capitalism and the consequent colonisation by the British of Asia, Africa, the Caribbean and other parts of the world triggered a massive mobilisation of Indian agrarian communities across these diverse geographical localities … Between 1834 and 1937, an estimated 30 million migrants from India went to the overseas colonies of the British Empire, such as Burma, Ceylon, British Malaya, Mauritius, Fiji, the Caribbean and East Africa. (Behal 2017: 1)

Other estimates suggest that between 1830 and 1916, over a million Indians were placed around the world as indentured labour (Thiara 1995), a system that Tinker calls 'a new system of slavery' (1974: 4). According to Chiswick and Hatton, large numbers of Indians were dispersed globally under the system of indentured labour:

> Over one-half million Indian indentured servants went to Mauritius, and another half million went to the Caribbean (primarily the South Caribbean, Trinidad, British Guiana, and Surinam), with smaller numbers going to Fiji in the Pacific Ocean, Natal in southern Africa, and East Africa. (Chiswick and Hatton 2003: 72)

In comparison to Indian labour, the Chinese did not typically migrate to work in the colonies *under* Europeans; rather, they were largely contractual labour in Chinese employment (Chiswick and Hatton 2003). Eleven million Chinese workers migrated from the provinces of Fujian and Guangdong in South China to the Straits Settlements (SS), the Dutch Indies, Borneo and Burma. Despite the fact the Chinese government officially opposed migration, McKeown documents the global movement of Chinese labour who ventured out, given the political instability, conflict and unemployment at home:

> Up to 11 million Chinese travelled from China to the Straits Settlements, although more than a third of these transhipped to the Dutch Indies, Borneo, Burma, and places farther west. Nearly 4 million travelled directly from China to Thailand, between 2 and 3 million to French Indochina, over 1 million to the Dutch Indies (for a total of over 4 million if transshipments from Singapore are included), less than 1 million to the Philippines, and over 500,000 to Australia, New Zealand, Hawaii, and other islands in the Pacific and Indian Ocean. (McKeown 2004: 158)

In the age of high imperialism, a significant proportion of the global labour population on the move was in the service of colonial capitalism. The astounding scale of these human movements was driven by the desire to create colonial infrastructural projects to deliver imperial profits. Migrants from China, India, Java and parts of Africa, from agricultural and artisanal backgrounds, who were perceived as economic, productive units, were deployed in coal and tin mines and sugar, coffee, tea and rubber plantations as *labour*. These populations also built ports, bridges, roads, railways, prisons, hospitals, places of worship, government buildings and housing in the colonies. A key element in these projects entailed the making of migrants into *colonial labour*, resulting in a fundamental transformation of their very being. Colonial capitalism sought cheap labour and raw materials for its sustenance and thrived on the consumer market created – both in the colonies and at home – for the goods and commodities it produced. The construction of communication and transportation infrastructural projects in the colonies exposed the relationship between industrial capitalism, globalization and European colonialism. In this context, roads and railways were designed predominantly to transport cheap raw materials (extracted by colonial labour to supply industrial production in Europe) from the interiors of colonies to ports and then onto ships sailing to Europe. In arguing that European colonial infrastructural schemes and industrial development projects were not disparate but deeply entangled, I narrate the global emergence of the railways here as an intersecting thread of the *same* story.

Navvies and Colonial Labour Building Railways

The building of railway lines in the nineteenth century across different continents further intensified global labour flows. The opening decades of the nineteenth century saw the proliferation of railway lines across Europe and North America, followed rapidly by their expansion in European colonies starting in the middle of the century. In France, several short mineral railway lines operated from 1828 and in Germany from 1841; both imported railway knowledge and hardware from Britain (Harter 2005). In Canada, the railways operated from 1836 and in the United States from 1830, when a 13-mile (21-km) section of the Baltimore & Ohio Railroad launched the first public railway with horse traction (Chang 2019). The Victorian 'Age of Steam' saw many firsts, including the advent of steam engine railways in Britain – the first steam locomotives operated in the Liverpool and Manchester Railway in September 1830 (Wolmar 2009). George Stephenson (1781–1848) was christened the 'Father of the Railways', given his pioneering role in railway construction in Victorian England (Rolt 2016). His Stockton and Darlington Railway, which built a 40-km track, was the first railway to be approved by the British Parliament and was opened in 1825 (Kirby 1993). On 27 September 1830, a steam locomotive hauled loaded wagons along a track of metal rail width of 4 ft 8½ in. This was famously termed the Stephenson gauge; it became the standard gauge in railways and was used in railway tracks in many countries around the world (Kirby 1993), including the colonies.

The development of the railways was fuelled by the scientific and technological discoveries of the Industrial Revolution. By the 1830s, Britain was in the middle of an industrial boom and the growth of the railways facilitated commercial and industrial activity. The 'railway age' saw the decline of canals and coaches as preferred modes of transportation (Bagwell 1974; Pollins 1971) and led to the substitution of animal power with mechanized power. Between the 1830s and 1840s, Britain's railways played an important role in energizing the Industrial Revolution. The introduction of steam power for vehicular transportation and the exploitation of coal and iron mines impacted the development of the railways in Britain. The reciprocal three-way relationship between coal, iron and steam heralded the age of the steam engine railroad, which revolutionized transportation globally (Harter 2005; Maggs 2018). The history of conventional railways, which is understood as 'guided movement of the wheel through a metal to metal contact' (Profillidis 2014: 1), emerged in the 1850s. Profillidis notes that between 1800 and 1850, the era of steam railways was impacted by changes in steel, coal and inorganic chemistry, whereas from 1900 onwards, oil and electricity produced dramatically altered transportation technologies in the form of diesel and electrified railways (ibid.: 1–5).

The expression 'railway mania' (Wolmar 2009) captures railway-related speculative frenzy in Britain in the 1840s. The enthusiasm of private enterprise for the railways culminated in extensive railway construction, inspired by the promise of profit. However, the railway boom was short-lived and as railway shares fell and investments in the railways declined sharply, only the largest of the railway companies survived the end of the boom (Odlyzko 2012). Despite this: 'By 1870 Britain had about 13,500 miles (21,700 km) of railroad. At the system's greatest extent, in 1914, there were about 20,000 miles (32,000 km) of track, run by 120 competing companies' (*Encyclopaedia Britannica* 2019). According to Harter: 'By 1886, the rail network in Britain had grown to a total of 19,169 route miles. Operated over this system were 15,196 locomotives, 33,656 passenger carriages and 464,139 goods wagons' (2005: 24). Remarkably, in 1890, British railways carried over 817 million passengers (ibid.: 25). The railway age had arrived and trains were transporting both freight and passengers, with over 1,000 million travellers buying tickets for trains in Britain by 1899 (Mitchell 1992: 682). By 1939, the total length of railway lines in Great Britain grew to well over 1,500 km compared to the less than 90 km in 1829 (ibid.: 656). In the 1850s, railways were developed by private companies, which not only provided the capital to build the railway infrastructure but also operated these by securing rolling stock and manpower (Gourvish 1980). However, from the 1930s onwards, there was far greater state involvement in managing and operating the railways, with the nationalization of several railway companies. In comparison, by the 1880s, railways in France had expanded considerably with a track length of 37,494 km, exceeding Britain's 29,828 km in 1899 (Mitchell 1992: 657). Meanwhile, in 1880, Germany had 20,891 miles (33,620 km) of railways and was the second-largest railway system in the world at the turn of the twentieth century (Harter 2005: 159).

Notably, railway construction in some British colonies overlapped temporally with railway building efforts in Britain itself, while in others, it commenced within decades of British rail construction. For example, Wiseman (2020) notes that 'the railway system of Jamaica was built only twenty years after the British government started to build railway system in the United Kingdom itself'. In India, the British planned and built railways relatively early (Kerr 1995, 2007) as part of their imperial imperative. As Hurd and Kerr note, 'the railways of India were colonial railways conceived as a colonial project built primarily to serve the needs of the Anglo-Indian connection … The colonial connection colours the entire history of India's railways' (2012: 3–4). Governor General Lord Hardinge argued in 1843 that the railways of India would be beneficial 'to the commerce, government and military control of the country' (cited in Truscello 2020: 194). Between 1850 and 1947, the railways were crucial for the infrastructural development of India. Famously, Lord Dalhousie a great advocate of railway building in India, drove this project predominantly to further Britain's colonial ambitions (Harter 2005: 219). He declared 'the important role that India could play as a market for British manufacturers and as a supplier of agricultural raw materials' (Harter 2005: 219) if the railway project was to materialize. In India, the first railway line was proposed to be built in Madras in 1832, but the first train operated there only in 1837. Under the auspices of the Red Hill Railway, a rotary steam engine locomotive manufactured by William Avery operated the stretch from Red Hills to Chintadripet Bridge in Madras in 1837 (Darvil 2011). Two railway companies that dominated the market here were the East India Railway (EIR), formed in 1845, and the Great India Peninsular Railway (GIPR), formed in 1849 (Debroy et al 2017). On 16 April 1853, the first passenger train (operated by GIPR) in India was dedicated to Lord Dalhousie; it covered a short distance of 34 km between Bori Bunder and Thane on a broad gauge of 5 ft and 6 in (ibid.).

Over the next few decades, the phenomenal growth of the railways across India completely altered – and destroyed – traditional transportation methods and mobility practices (Das 2016). In 1870, India's rail network stood at 5,000 route miles (about 8,047 km); by 1893, it had reached 18,042 route miles (29,036 km), making it the sixth-largest railway system in the world at the time (Harter 2005: 220–21). The years between 1832 and 1852 saw the rise of industrial railways, while the years between 1853 and 1924 saw the expansion of railways for the carriage of passengers. The electrification of passenger trains between Victoria Terminus and Kurla in India happened as early as 1925, even as steam and diesel engines remained dominant.[3] In another example from the Indian Subcontinent, in Ceylon, the British colonial government first introduced railways in 1861 – a 54 km stretch of tracks from Colombo to Ambepussa. The main function of this railway network was to transport tea and coffee from the plantations to the port in Colombo (Munasinghe 2002). The first railways in the British colony of Lower Burma appeared soon afterwards and were operational from 1877, running trains between Rangoon and Prome, on a 262 km track built on metre-gauge.

Railways were built in European colonies to serve specific colonial interests. Here, moving passengers by rail was not, in the beginning, a priority. Building roads and railways in the colonies was part of the global, colonial, capitalist enterprise. These new modes of transportation ensured crucial connectivity between sites where raw materials were located and produced and the ports through which they were exported (Kaur 1985). Strong links existed between plantation economies in the colonies and industrial capitalist development in various parts of Europe, including Britain, Germany and the Netherlands. For instance, railways were constructed on the islands of Java, Sumatra and Sulawesi primarily to connect the interiors with the coastal ports in order to serve the economic and military needs of the Dutch colonial power (Gotz 1939). Indonesia was the second country in Asia to build a railway network (India being the first) and its first railway line was laid in 1864 and operations began in 1867. The closing decades of the nineteenth century also saw railway lines being laid in a range of regions from the Caribbean to the South Pacific to Africa, the Middle East and Asia, all in the service of colonial plantation economies.

A timeline of the sugarcane railways, typically built in narrow-gauge rails as part of the colonial project, is instructive and illustrative. The Colonial Sugar Refining Company (CSRC) opened Fiji's first railways, built on a gauge of 2 ft 6 in in 1882. The company also built several lines across the islands in the South Pacific for the sole purpose of supporting the sugarcane industry – they moved sugarcane from plantations to mills ('The Railways of Fiji' n.d.). In British Guyana, the first railway line opened in 1848, spanning a short run of 8 km between Georgetown and Plaisance. This was the first section of the East Coast Demerara Railway, which provided an export route for the sugarcane industry (Williams n.d.a). In Mauritius, the first railway line opened in 1864, running a 50 km stretch between Port Louis and Grand River South East (de Kervern and Martial 2013), while in Martinique, the sugarcane railway, Les Rails de la Canne Sucre, was built in the 1870s ('The Railways of Martinique' n.d.). The Trinidad Railway Company was formed in 1846 but the first lines were only laid in 1873. The first railway lines in Trinidad and Tobago were opened in 1876, with a run of 16 miles (26 km) from the Port of Spain to Arima, which served the sugarcane industry in the Caribbean Islands (Brereton 2002: 14–15). In Jamaica, the first railways opened in 1845 and operated between Kingston and Spanish Town – it was a mere 21 km line, serving the sugarcane industry (Satchell and Sampson 2003) – while in the Philippines, numerous narrow-gauge railway lines were constructed from the 1890s to transport sugarcane from Luzon, Cebu, Negros and Panay (McCoy 2019).

By the middle of the nineteenth century, the global sugarcane industry rested on the backs of indentured labour from India, China and Java as Asia had displaced Africa as the source of cheap labour (Galloway 2005: 126). Among this large pool of Asian labourers, 'Indians were to make a major contribution to solving the labour problem of the sugar plantations' (ibid.: 126). Indian labour was imported to the French-controlled island of La Reunion as early as the 1820s, followed by Mauritius, British Guiana, Trinidad, Jamaica, Martinique and Guadeloupe – a flow that was stopped by the Indian government only in 1917, with the end of indenture (ibid.). Notably, Cuba and Peru turned to Chinese labour for their sugar plantations (ibid.: 127), which was also used in Peru for 'building railways' (ibid.: 129). The cane sugar railways in the West Indies and the Caribbean were also built by predominantly Indian indentured labour and local labouring communities, as was the case with the laying of railway tracks in Malaya. These narrow-gauge plantation railways, meant entirely for transporting sugarcane to factories, were designed as freight and not passenger trains. Not surprisingly, few of these sugarcane railways have survived: the railways in Trinidad and Tobago were unprofitable and closed in 1968; in Jamaica, the British-built railways ran from 1845, but finally closed in 2012. Today, there are no railway systems functioning in Jamaica, Trinidad and Tobago, as most of them have fallen into disuse and disrepair, and those that remained, which were underdeveloped as both freight and passenger trains, ran financial losses (Wiseman 2020).

In contrast to the almost exclusive reliance on immigrant and colonial labour to build railways in the colonies, the railways in Britain were built by British navvies, as well as by Scottish and Irish workers. These navvies who built canals, roads, dams and railways were engaged for their physical strength. The emergent metaphor 'to work like a navvy' meant to work hard at manual labour. Additionally, they had a reputation for being rowdy, uncouth, lacking in good manners and morals, and for being heavy drinkers and womanizers, which raised concerns among Christian groups about the state of their spirituality, or lack thereof (Brooke 1975; Coleman 1965; Handley 1970; Treble 1972). However, some positive and celebratory accounts and their everyday experiences, anxieties, thoughts and sentiments can be found in British and American fiction and popular culture.[4] The navvies were employed in a range of public works in Britain through the nineteenth century, including in the railways (Coleman 1965; Cowley 2001).

Portrayals of British railway navvies typically reflect not only the harsh and hazardous nature of their work but also the attendant negative stereotypes about them. From the inception of the first railways in Britain, a sizeable navvy workforce was employed in construction works. Early railway construction was labour-intensive, involving physical strength and manual labour, with a primary reliance on hand tools, like shovels, picks and wheelbarrows. Brooke (1989) observes that navvies who worked in the railways were drawn largely from the English countryside; they returned to their farms when the railway work was done. He also highlights that in addition to these 'former farm labourers … from the earliest years of the railways there were groups of peripatetic workers who went about the country from one contract to another' (ibid.: 39). In nineteenth-century Britain, railway navvies lived in shanty towns built specifically for them. Typically, these rural neighbourhoods carried transient, makeshift structures, shared accommodation and overcrowded, squalid conditions that were far from comfortable or sanitary (Barrett 1883), quite like Victorian working-class living conditions. However, the situation did improve as poor accommodation gave way, by the end of the nineteenth century, to better housing for navvies:

> Contractors were reluctant to accept the burden of housing their employees, and where navvies didn't sleep either in lodgings or the open air, they inhabited squalid communal dwellings, or shanties, fashioned from a variety of materials quite often only metres from the line. These shanties were damp, unsanitary, overcrowded hovels with little or no ventilation. They were clearly unhealthy places in which to live, and it was not uncommon for a navvy community to be overtaken by cholera, dysentery or typhus. Following a wave of concern, these appalling conditions began to improve. It was thought that better housing would not only improve the life of the navvies themselves, but would also serve as a civilising influence that would curb their notoriously immoral behaviour. ('Where the Navvies Lived' n.d.)

The navvies worked in hazardous terrains for long hours and without safety considerations, using their bodies without protection. Serious injuries, diseases, accidents and deaths were common as navvies worked on – and often lived in the proximity of – the lines. The Select Committee on Railway Labourers (1846) acknowledged the high rate of navvy mortality and recommended reforms to redress the situation:

> For the ten thousand navvies at work on the London Extension, contractors *erected temporary hutted camps* that consisted of a range of cabins made of wood and corrugated metal. The camps were built beside the contractor's depots and at strategic locations along the route, such as Quainton Road, Charwelton, Helmdon and East Leake. *Unmarried navvies lived in dormitories of perhaps fifteen men, whilst foremen and those with families were given a hut to themselves.* ('Where the Navvies Lived' n.d., emphasis added)

These observations are striking given the accommodation arrangements of colonial railway labour in Malaya, which I will elaborate in Chapter 3. Scholarly efforts to map the everyday lives of railway navvies focus on how they worked and how and where they lived; to their group subculture, family life and even spiritual life (Brooke 1975: 37) as well as their economic worth. The mode of payment to the navvies for railway work varied and was a combination of daily wages or payment for piece work. Although they are typecast as manual labourers, railway navvies were not necessarily a cheap source of labour. This was especially true when they travelled overseas for work. Richard Solomon, the Commissioner of Railways, in a 1903 letter to the Secretary to the Intercolonial Council in Johannesburg, discloses the results of 'the experiment made by importing English navvies for the work in this country upon the railways'

(Great Britain, Colonial Office 1905: 159). After working with the navvies on the railways for several months, the chief engineer declared that the experiment was 'financially a hopeless failure' and that 'it would be financially impossible to construct railways by imported English navvy labour' (ibid.). Based on these calculations, there were two proposed solutions: first, to end the navvies' twelve-month contract prematurely by giving them one month's notice, thereby saving £40,000; and, second, to import 'Indian labour for new construction', as this was perceived to be the 'most desirable measure' (ibid.).

The railway navvies in Britain were itinerant, mobile and experienced labour bands, who not only organized themselves, but were also 'free' to move from one contract job to another within the country, which they did. They also ventured overseas in pursuit of higher wages and work in the twentieth century. Coleman details the mobility of the navvies beyond British shores for contract work. He says: 'They spread all over the world' (1965: 273), travelling to build railway lines in Spain, Belgium, Switzerland, Canada, Gibraltar, Sudan, Siberia, Buenos Aires and Australia, and were already present in France and Italy in the 1840s. Some British navvies travelled as far as New Zealand in the 1870s. The colonial government recruited the English contracting firm, John Brogden and Sons, to build railways across six contracts in New Zealand. The firm contracted 2,200 English immigrants for two years to complete this project. According to a New Zealand digital history website: 'They worked by hand using simple tools – picks and shovels, horses and carts, and dynamite – and endured primitive living conditions in isolated camps' ('Building Vogel's Railways' 2020). Burton writes of not just navvies from Britain, but also engineers and contractors who 'were in demand all over the world' (2012: 123). He argues that: 'The obvious locations for navvy involvement were those where British influence was strongest, and paramount among them was India' (Burton 2012: 133). Thus, unsurprisingly, British navvies travelled as far as India, where, Coleman says, 'they were well paid and greatly privileged' (1965: 275). Lieutenant Gibbon of the Royal Engineers, an officer of the Military Works Department at Harnai, observed that while the English navvies were paid INR 450 per month in 1888, local labourers were only paid INR 25 per month. He explained that this wage differential was due to the 'character' of the English navvies rather than their skills, which he admitted could also be found among the native labour (Burton 2012: 275).

Railway studies scholars have borrowed the term 'navvies' from the British case when speaking of Indian and Chinese navvies[5] who worked on railway projects at home and abroad. Chinese labour was used to construct large-scale railway projects, such as the railroads in the British Columbia mountain ranges in North America (Silverman 2006). Chinese immigrant labour was also used in the construction of the American Transcontinental Railway. This massive project relied on immigrant labour to lay down 1,800 miles (2,897 km) of tracks across arid plains, deserts and rugged granite walls in Sierra Nevada and the Rocky Mountains ('East and West' n.d.). In addition to building railways in Uganda (Kaur 2012), Sikh indentured labour contributed to the building of the Canadian Pacific Railway. Scholars have noted that 'Railway agents from India and Hong Kong recruited the workers in Punjab' (Mazumdar 1984: 332; Tatla 1995: 72). Irish workers were also used early in this project, but labour shortages were a recurrent problem. Subsequently, Chinese labourers were recruited directly from China:

> In February, 1865, the Central Pacific decided to try a new labour pool. Charles Crocker, chief of construction, persuaded his company to employ Chinese immigrants, arguing that the people who build the Great Wall of China and invented gunpowder could certainly build a railroad. ('Chinese Immigrants and the Building of the Transcontinental Railroad' n.d.)

The Chinese labourers employed in railway construction were especially vulnerable to exploitation by railway companies. Employers found them submissive and efficient, not to mention cheaper, more readily available and more willing to work in arduous and treacherous working conditions than the English workers. The pattern of dangerous, harsh working and living conditions, discrimination and low wages for railway workers recurred here. The Chinese workers were paid less and had to source their own food and accommodation, while local workers were provided with food and housing:

> Chinese workers often had to live in the underground tunnels they were constructing, and more than one thousand died in accidents and avalanches while labouring in the mountains. (Ibid.)

The railways in India were built by local Indian labour, which was neither readily available nor easy to negotiate with. Kerr records the presence of 'Indian navvies' in Madras, which merits some attention here:

> In 1770, a British official in Madras observed groups of men, women and children who formed 'a kind of travelling community of their own under a species of Government peculiar to themselves, with laws and customs which they follow and observe wherever they go'. These itinerant, coveted groups of earth and stone workers – 'even courted by Princes' – circulated from worksite to worksite where they dug tanks (small reservoirs), ditches, and built wells, and roads and fortifications. They lived close to their worksites in 'temporary hutts' [*sic*] which they throw up for the occasion, and always choose a spot distinct from any

> village, wandering from one place to another as is most convenient. (Kerr 2006a: 85)

Given issues with labour availability and their accessibility to British officials, railway construction in India was inevitably seasonal and competed with other sources of manual work – mainly agricultural and government public works projects. Bubb reports:

> Railwaymen favoured instead itinerant, specialist communities that would often be best understood not as 'migratory' but as 'circulating' groups: either returning from the ganger's to the farmer's life only at uncertain intervals, or indeed shifting continually between construction projects with no fixed village … Such groups had long served the needs of tank-digging and irrigation work in Southern India and the Deccan, and aligning their programme with this established labour economy during the early 1860s was a significant step by which engineers upped their efficiency through, as Kerr makes clear, 'adapt[ing] to Indian conditions'. (Bubb 2017: 1386–87)

One prominent example of such a labouring group known as the 'Wuddarees', 'Woddaries' or 'Woodaries', 'Vadar', 'Vadda' or 'Odde' (ibid.: 1387), who were portrayed as 'a close-knit, inscrutable, aboriginal community, "old as the hills", with set habits … They keep their own hours and will only take task work' (ibid.). They were renowned stoneworkers and commanded more respect than the earthworkers, and were known as the 'navvies of India' (ibid.). Kerr observes that it was challenging to induce these itinerant clusters of 'circulating labour' to take up part-time, labouring tasks, as for them, work was seasonal, structured around agricultural cycles:

> Earthworkers in their cumulative millions had to be mobilized, among whom were certain hereditary earthworking groups the British described as the navvies of India. Where the demand for labour was especially great – as at the major inclines or great bridges – mobilization required considerable effort and spatially far-flung recruitment. Advances often had to be provided to induce gangs of workers to go to a worksite. (Ibid.: 39).

While Indians built railways in their backyard, in the colonies too, there was a considerable global demand for labour from India in plantation economies and colonial infrastructural projects, including in the building of roads and railways. Indians were moved across the British Empire to build railways in the then colonies of Trinidad and Tobago, Fiji, Uganda, Kenya, Mauritius, British Guyana, Malaya, Ceylon and Burma. Although the railways came to Fiji in 1882, sugar had been made there since 1862, and the island received its first cohort of Indian indentured labourers in 1879 to work on cotton, sugar, coffee and other plantations (Dyer and Hodge 1961). Birmingham confirms the preference for indentured Indian labour in Africa too:

> Indian labour had a much longer history of service in Africa than Chinese labour. Indian navvies, who were much cheaper than African workers, were used extensively to lay railway lines in Africa. Unlike Africans, Indians were unlikely to escape from building sites, since they could not expect to be welcomed as refugees in African villages. The contracting of indentured *servicais* from India prompted complaints both from the colonial government in British India and from the Indian middle class. (Birmingham 2006: 21)

Indeed, Indian elites back home expressed concerns about the exploitation of indentured Indian labourers employed in colonial projects, such as mining work and railway construction. This led to greater restrictions on the movement of Indian labour, even those deployed in the British Empire. For example, Burton writes that ‘Indian railway workers were given the opportunity to emulate their British counterparts by going to overseas to work’ (2012: 136) to help in the construction of the Kenya and Uganda Railway from Mombasa to Lake Victoria (Hill 1977 [1949]; Mills and Yonge 2012; Miller 2017 [1971]). This was because:

> the company found the Africans had very little interest in the work; even those who did sign up were liable to wander away if they decided they needed to plant or harvest crops at home, so advertisements for workers were placed in Bombay. The Indian government only allowed recruitment if assurances were given that the men would receive a regular, decent wage and at the end of a three-year contract they had to be paid the expenses to get home. (Burton 2012: 131)

The first railway in Kenya was the Uganda Railway, beginning at the port of Mombasa and intended to connect Uganda to coastal areas. This 930 km stretch of railways from Mombasa to Port Florence opened between 1898 and 1901 (Miller 2017 [1971]; Mills and Yonge 2012). Peter Kimani’s *Dance of the Jakaranda* (2017) documents the construction of the ‘Lunatic Express’ in British East Africa. This covered 600 miles (966 km) of tracks and was originally named the Mombasa-Nairobi-Lake Victoria Railway. A racially divided railway construction team was charged with building this railway across difficult terrains. Most of the railway workers were British Indian indentured labour, specifically from Punjab – both Muslims and Sikhs – who worked with African workers and British engineers (Gupta 1998; Mills and Yonge 2012). As Kimani writes in his novel, 'the rail was the product of their collective efforts – of black and white and brown hands' (2017: 9). Relying on workers' narratives and drawing from oral histories as well as formal, official memos and letters from officials of the British Civil Service, Kimani weaves a fascinating tale of the everyday lives of those who built this railway.

In South Africa, the Natal Railways operated from June 1860. It was the first public railway between Durban and The Point (Natal), built on a 4 ft 8½ in gauge and extending to the mining areas of Witwatersrand (Cottrell 2010). However, there was an earlier railway quarry line on wooden rails at The Bluff, which had been operational since 1856 (Hutson 1997). In Sudan, the railways operated in the 1870s; the 54 km tracks running parallel to the River Nile were meant to be a trade route. However, Cecil Rhode's grand plan of running continuous rail lines from the Cape of Good Hope to Cairo failed (Williams n.d.b). In Nigeria, the first railways opened in 1898, running a 96 km stretch between Lagos and Abeokuta on a 3 ft 6 in gauge, as in the other British colonies in Africa (Ayoola 2008).

In the middle of the nineteenth century, the British recruited Sikhs to the police force, security operations and railway projects. This took them to Fiji, Hong Kong, Malaya and East Africa, where they constructed the Ugandan Railway (Purewal and Lallie 2013: 385). However, the role of Indian Punjabi labour in global railway construction projects has received limited scholarly attention. Railway building in Kenya and East Africa relied heavily on immigrant Indian labourers, who worked under harsh conditions and often died during construction. Zajontz elaborates: 'According to a parliamentary report on the railway, 31,983 labourers from India were involved in the construction; 6,454 of them were invalidated and 2,493 died' (Hill 1977 [1949]: 240; Zajontz 2022). Some lost their lives to a terrorizing pair of the notorious Tsavo man-eating lions in 1898 (Patterson 1908). These Indian workers were largely Punjabi peasants from Sikh, Hindu and Muslim communities, recruited through the system of indenture (Whitehouse 1948). According to Aiyar, '40,000 Indians from Punjab provided labour for the construction of the Uganda railways' (2011: 991), of whom one-fifth 'remained in Kenya at the termination of their contracts, becoming masons, mechanics, and carpenters' (ibid.). Younger remarks that the construction of the railways in Kenya and Uganda saw the importation of '37,747 workers, mostly Punjabis from northwest India where a great deal of railroad building had already taken place' (2010: 201). Tatla states that in Uganda: 'Most of the Indian labour on the railways was comprised of Punjabis, a majority of them Muslims with the rest being Sikhs and Hindus' (Tatla 1995: 71). This was true for the construction of the railways in Kenya as well (Tatla 1995). In Malaya too, Indian workers were preferred as labour, including as railway labour, for several reasons – not least because railways already had a presence in India, and it was presumed that Indians would have a familiarity with railway work (Kaur 2006; Raja 2021; Sandhu 1967). But in Malaya, labour was drawn largely from South India, not North India. This is not a historical puzzle given the earlier movements of migrants from the latter globally, including to parts of Africa (Datta 2021).

Carter (2006) lists other labour communities, such as prisoners of war (POWs), who built the Thai-Burma Death Railway, and political prisoners, who constructed the Baikal-Amur Mainline (BAM) lines in Siberia, as non-capitalist labour. The British had already discussed the idea of a permanent rail link between Burma, Thailand and China in the 1880s. The building of the Japanese-led Thai-Burma Railway (TBR), known notoriously as the 'Death Railway' and built by forced Indian and Chinese labour and American and British prisoners of war, remains one of the grimmest accounts of railway construction (Hall 1981). About 240,000 railway labourers from Burma, Java and Malaya, known as the 'sweat army' (Kratoska 2002: 28), were also secured, many by force, to build this railway along with Allied prisoners of war after the fall of Malaya, Singapore and Indonesia to the Japanese in 1942. A large number of Tamil plantation and Sikh workers in Malaya were either abducted, tricked or 'volunteered' for railway work with the promise of 'a dollar and a pound of rice per day' ('A Brief History of the Thailand-Burma Railway' n.d.). The construction of this railway involved laying 415 km of railway tracks from Bang Pong in Thailand to Thanbuyuzayat in Burma in order to link the Thai and Burmese railway systems; work began at the same time on both ends. This project was conceived by the Japanese Imperial Army during the Second World War. The TBR, for which work started in 1939, was planned to move military troops, personnel and equipment to Burma's frontier regions in order to enable the Japanese to ultimately invade India. The actual construction of the railways only began in June 1942, and about 60,000 POWs were transported to the building sites in 1942–43. The Thai-Burmese lines were connected in October 1943. The 16-month project is remembered for the atrocities and cruelties of the Japanese towards the labourers and the harsh working conditions they suffered. Workers were housed in jungle camps as they maintained the tracks and performed exacting manual labour for prolonged periods without rest in dangerous and unforgiving terrains, while disease and death were rampant. Scholars and survivors alike note the horrific hardships endured by the workers as well as the ghastly diseases and deaths they experienced (Gill and Parkes 2017). These narratives are graphically and evocatively memorialized in the personal eyewitness accounts of British (English 1989; Evers 1993; Reminick 2002) and American POWs (Crager 2008; LaForte and Marcello 1993).

Writings about British railway navvies do not typically feature in accounts of railway construction in the colonies. In this project, bringing these two labour constituencies into the singular narrative of global railway construction provides a critical comparative lens for examining the commonalities, as well as the differences, between them. While there are important overlaps in the lives of the British railway navvies and colonial railway labour, such as their living and working conditions, the contrasts are not insignificant. In contrast to British railway navvies, colonial railway labourers were contracted servants of the empire, at the mercy of labour recruiting agents, railway companies and governments. They were organized into working units, known as gangs, which were closely regulated and supervised, so the workers were neither free nor mobile. They were poorly paid, disempowered and had few options for negotiating better working conditions and higher wages. Interestingly, however, the formula for organizing British navvies to perform railway work, and the practice of housing them in rudimentary, makeshift accommodation close to railway tracks and railway premises in Britain, is a template that the British transposed and replicated in the colonies as well. The discussions in Chapters 2 and 3 confirm that the British continued to allow poor working and living conditions of colonial railway labourers in Malaya. Chapter 2 details the laying of railway tracks in Malaya by colonial labour as one strand of the global story of Indian labour migration and railway building – both of which were key drivers in the project of materializing colonial capitalism. The discussion further delivers on the commitment to prioritize labour, especially those who built and maintained the railways, in narrating a railway history of Malaya.

Notes

1. The historical relationship between pilgrimage and railways in different cultural contexts has been well theorized. See Eade (2015) and Bowman (2015) for the role that railways played in promoting a pilgrimage site at Glastonbury at the end of the nineteenth century. The Hejaz Railway (1980–1920) between Damascus and Medina was important in performing pilgrimages to Mecca (Blake and King 1972).
2. It is less well known that ‘Japan too, was a source of emigrant labour’ (Chiswick and Hatton 2003: 72) and ‘Japanese workers went to Hawaii and the mainland United States, as well as to South America, primarily Peru and Brazil, as indentured servants or as recruited free immigrants’ (ibid.).
3. https://indianrailways.gov.in/Indian%20Railways%20Whistling%20Ahead-%20%20Story%20of%20Growth%20and%20Modernisation-Booklet.pdf, 4 (retrieved 18 January 2023).
4. George Orwell writes a flattering account of navvies in his *The Road to Wigan Pier* (1937), and Phil Collins of the band Genesis wrote the lyrics of the song ‘Driving the Last Pike’, featured on the album *We Can’t Dance* (1991), as a dedication to navvies.
5. Interestingly, Chinese immigrant labour was also used in the late 1920s by the colonial government of French Equatorial Africa for railroad work (Martinez 2017).

References

Ahuja, Ravi. 2004. '"The Bridge-Builders": Some Notes on Railways, Pilgrimage and the British "Civilizing Mission" in Colonial India', in Harald Fischer-Tine and Michael Mann (eds), *Colonialism as Civilizing Mission: Cultural Ideology in British India*. London: Anthem Press, pp. 95–116.

Aiyar, Sana. 2011. 'Anticolonial Homelands across the Indian Ocean: The Politics of the Indian Diaspora in Kenya, ca. 1930–1950', *American Historical Review* 116(4): 987–1013.

Allen, Richard. 2017. 'Asian Indentured Labour in the 19th and Early 20th Century Colonial Plantation World', *Oxford Research Encyclopedias*. Retrieved 18 January 2023 from https://oxfordre.com/view/10.1093/acrefore/9780190277727.001.0001/acrefore-9780190277727-e-33.

Alderman, Geoffrey. 1971. 'The Railway Companies and the Growth of Trade Unionism in the Late Nineteenth and Early Twentieth Centuries', *Historical Journal* 14(1): 129–52.

Ambrose, Stephen E. 2001. *Nothing Like It in the World: The Men Who Built the Transcontinental Railroad 1863–1869*. New York: Simon & Schuster.

Amrith, Sunil. 2011. *Migration and Diaspora in Modern Asia*. Cambridge: Cambridge University Press.

———. 2013. *Crossing the Bay of Bengal*. Cambridge: Cambridge University Press.

Anderson, Clare. 2009. 'Convicts and Coolies: Rethinking Indentured Labour in the Nineteenth Century.' *Slavery & Abolition* 30(1): 93–109.

———. 2016. 'Transnational Histories of Penal Transportation: Punishment, Labour and Governance in the British Imperial World, 1788–1939'. *Australian Historical Studies* 47(3): 381–97.

Ayoola, Tokunbo 2008. 'Colonial Inheritance, Postcolonial Neglect, and the Management of Nigerian Railway by Rail India Technical and Economic Services (RITES)'. *Lagos Notes and Records* 14(1): 60–85.

Bagwell, Philip. S. 1974. *The Transport Revolution from 1770*. London: Routledge

Bahl, Vinay. 2003. 'What Went Wrong with "History from Below"', *Economic and Political Weekly* 38(2): 135–46.

Bailey, John. 2021. *Inventive Geniuses Who Changed the World*. London: Springer.

Barrett, Daniel W. 1883. *Life and Work among the Navvies*. New York: E & J.B. Young & Co.

Bates, Crispin, and Marina Carter. 2017. 'Sirdars as Intermediaries in Nineteenth-Century Indian Ocean Indentured Labour Migration', *Modern Asian Studies* 51(2): 462–84.

Bear, Laura. 2007. *Lines of the Nation: Indian Railway Workers, Bureaucracy, and the Intimate Historical Self.* New York: Columbia University Press.

Behal, Rana P. 2017. 'Indian Migrant Labourers in South-East Asian and Assam Plantations under the British Imperial System'. NLI Research Studies Series, No 127: 36. Noida: VV Giri National Labour Institute.

Birmingham, David. 2006. *Empire in Africa: Angola and Its Neighbors*. Athens, OH: University of Ohio Press.

Blake, Gerald, and Russell King. 1972. 'The Hijaz Railway and the Pilgrimage to Mecca', *Asian Affairs* 3(3): 317–25.

Bleasdale, Ruth. 2018. *Rough Work: Labourers on the Public Works of British North America and Canada, 1841–1882*. Toronto: University of Toronto Press.

Bowman, Marion. 2015. 'Railways, Rivalry and the Revival of Pilgrimage in Glastonbury, 1895 and 1897', *Religion, Culture, Society* 2: 168–90.

‘A Brief History of the Thailand-Burma Railway’. n.d. Retrieved 18 January 2023 from https://www2.gvsu.edu/walll/A%20BRIEF%20HISTORY%20OF%20THE%20THAILAND.htm.

Brereton, Bridget. 2002. *Race Relations in Colonial Trinidad 1870–1900*. Cambridge: Cambridge University Press.

Brewer, John. 2010. ‘Microhistory and the Histories of Everyday Life’, *Cultural and Social History* 7(1): 87–109.

Brooke, David. 1975. ‘Railway Navvies on the Pennines, 1841–71’, *Journal of Transport History* 3(1): 41–53.

_______. 1983. *The Railway Navvy: ‘That Despicable Race of Men’*. London: David and Charles.

_______. 1989. ‘The Railway Navvy: A Reassessment’, *Construction History* 5: 35–45.

Bubb, Alexander. 2017. ‘Class, Cotton, and “Woddaries”: A Scandinavian Railway Contractor in Western India, 1860–69’, *Modern Asian Studies* 51(5): 1369–93.

Buier, Natalia. 2017. ‘Time without Labour: The Past and Historical Representation in the Spanish Railways’, Max Planck Institute for Social Anthropology Working Papers No. 184.

‘Building Vogel’s Railways’. 2020. Ministry for Culture and Heritage. Retrieved 18 January 2023 from https://nzhistory.govt.nz/politics/the-vogel-era/building-vogels-railways.

Burton, Anthony. 2012. *History’s Most Dangerous Jobs: Navvies.* Stroud: The History Press.

_______. 2016 [1992]. *The Railway Builders; How Britain’s Railway Network Evolved.* London: John Murray Publishers.

Carter, Marina. 2006. ‘Slavery and Unfree Labour in the Indian Ocean’, *History Compass* 4(5): 800–13.

Chakravarti, Uma. 2012. *Everyday Lives, Everyday Histories*: *Beyond the Kings and Brahmanas of ‘Ancient’ India.* New York: Columbia University Press.

Chang, Gordon. 2019. *Ghosts of Gold Mountain: the Epic Story of the Chinese Who Built the Transcontinental Railroad.* Boston: Houghton Mifflin.

Chang, Gordon H. et al. (eds). 2019. *The Chinese and the Iron Road: Building the Transcontinental Railroad.* Stanford: Stanford University Press.

Chatterji. Joya. 2017. ‘On Being Stuck in Bengal: Immobility in and Age of Migration’. *Modern Asian Studies* 51(2): 511–41.

Cheng, Lucie, and Edan Bonacich (eds). 1984. *Labour Immigration under Capitalism: Asian Workers in the United States*. Berkeley: University of California Press.

‘Chinese Immigrants and the Building of the Transcontinental Railroad’. n.d. *Digital History*. Retrieved 18 January 2023 from http://www.digitalhistory.uh.edu/voices/china1.cfm.

‘Chinese Immigration and the Transcontinental Railroad’. n.d. *US Citizenship Info*. Retrieved 18 January 2023 from https://www.uscitizenship.info/Chinese-immigration-and-the-Transcontinental-railroad.

Chiswick, Barry, and Timothy J. Hatton. 2003. *International Migration and the Integration of Labour Markets.* Chicago: University of Chicago Press.

Cohen, Robin. 1995. *The Cambridge Survey of World Migration*. Cambridge: Cambridge University Press.

Cohn, Samuel. 1979. *Keeping the Navvies in Line: Variations in Work-Discipline among Victorian Railway Construction Crews*. Center for Research on Social Organization Working Paper No. 206. Michigan: University of Michigan.

Coleman, Terry. 1965. *The Railway Navvies: A History of the Men Who Made the Railways.* London: Penguin.

Cooper, Frederick. 1996. '"Our Strike": Equality, Anticolonial Politics and the 1947–48 Railway Strike in French West Africa', *Journal of African History* 37(1): 81–118.

Cottrell, Michael. 2010. 'The First Public Railway in South Africa: The Point to Durban Railway of 1860', *Natalia*, *Journal of the Natal Society* 40: 20–31.

Cowen, Deborah. 2019. 'Following the Infrastructures of Empire: Notes on Cities, Settler Colonialism, and Method', *Urban Geography* 41(4): 1–18.

Cowley, Ultan. 2001. *The Men Who Built Britain: A History of the Irish Navvy*. Verlag: Wolfhound Press.

Crager, Kelly S. 2008. *Hell under the Rising Sun: Texan POWs and the Building of the Burma-Thailand Death Railway*. Austin: Texas A&M University Press.

Das, Pallavi. 2016. *Colonialism, Development, and the Environment: Railways and Deforestation in British India, 1860–1884*. Leiden: Springer.

Datta, Arunima. 2021. *Fleeting Agencies: A Social History of Indian Coolie Women in British Malaya*. Cambridge: Cambridge University Press.

Darvil, Simon. 2011. 'India's First Railways'. *The Indian Railways Fan Club*. Retrieved 18 January 2023 from https://www.irfca.org/docs/history/india-first-railways.html.

Davis, Clarence B. 1991. 'Railway Imperialism in China, 1895–1939', in Clarence Davis and Kenneth Wilburn (eds), *Railway Imperialism*. Westport, CT: Praeger, pp. 155–73.

Dawson, Anthony. 2018. *The Early Railways of Leeds.* Stroud: Amberley Press.

De Kervern, Andre, and Yvan Martial. 2013. *Mauritius 500 Early Postcards*. Editions Didier Millet.

Debroy, Bibek, Sanjay Chadha, and Vidya Krishnamurthi. 2017. *Indian Railways: The Weaving of a National Tapestry*. New Delhi: Random House India.

Dyer, Peter, and Peter Hodge. 1961. *Balloon Stacks and Sugar Cane: The Sugar Cane Railways of Fiji.* Wellington: New Zealand Railway and Locomotive Society.

Eade, John. 2015. 'The Changing Role of Railways in the Life of a European Pilgrimage Shrine', *Religion, Culture, Society* 2: 154–67.

'East and West: Completion of the Great Line Spanning the Continent'. n.d. *Digital History*. Retrieved 18 January 2023 from https://www.digitalhistory.uh.edu/disp_textbook.cfm?smtID=3&psid=1094.

Encyclopaedia Britannica. 2019. 'British Railways'. Retrieved 18 January 2023 from https://www.britannica.com/topic/British-Railways.

English, Jeffrey. 1989. *One for Every Sleeper: The Japanese Death Railway through Thailand.* London: Robert Hale.

Evers, Cornelius B. 1993. *Death Railway: The Stirring Account of the Building of the Infamous Burma-Siam Railway and the Lives of the Men Who Died Constructing It*. Cheverly, MD: Craftsmen Press.

Frost, Mark Ravinder. 2005.'Emporium in Imperio: Nanyang Networks and the Straits Chinese in Singapore, 1819–1914', *Journal of Southeast Asian Studies* 36(1): 29–66.

Galloway, Jock H. 2005. *The Sugar Cane Industry: An Historical Geography from Its Origins to 1914*, vol. 12. Cambridge: Cambridge University Press.

Gill, Geoff, and Meg Parkes. 2017. *Burma Railway Medicine: Disease, Death and Survival on the Thai-Burma Railway, 1942–45.* London: Palatine Books.

Gotz, J.F.F. 1939. 'Railways in the Netherlands Indies, with Special Reference to the Island of Java', *Bulletin of the Colonial Institute of Amsterdam* 2(4): 267–90.

Gourvish, Terry. 1980. *Railways and the British Economy 1830–1914.* London: Macmillan.

______. 1993. 'What Kind of Railway History Did We Get? Forty Years of Research', *Journal of Transport History* 14(2): 111–26.

Great Britain, Colonial Office. 1905. *Transvaal and Orange River Colony: Further Correspondence Relating to Affairs in the Transvaal and Orange River Colony*. Continuation of Cd. 2104 and Cd. 2482. Presented to Both Houses of Parliament by Command of His Majesty, July 1905. London: His Majesty's Stationery Office.

Gupta, Desh. 1998. 'South Asians in East Africa: Achievement and Discrimination', *South Asia: Journal of South Asian Studies* 21(1): 103–36.

Hall, Edward. R. 1981. *The Burma-Thailand Railway of Death*. Armadale, Victoria: Graphic Books.

Handley, James. E. 1970. *The Navvy in Scotland*. Cork: Cork University Press.

Harrison, Brian. 1967. 'Religion and Recreation in Nineteenth-Century England', *Past & Present* 38: 98–125.

Harter, Jim. 2005. *World Railways of the Nineteenth Century: A Pictorial History in Victorian Engravings*. Baltimore: JHU Press.

Hawksley, Charles 2001. 'Administrative Colonialism: District Administration and Colonial "Middle Management" in Kelantan 1909–1919 and the Eastern Highlands of Papua New Guinea 1947–1957', Ph.D. dissertation. Wollongong: University of Wollongong.

Hill, M.F. 1977 [1949]. *Permanent Way: The Story of the Kenya and Uganda Railway*, vol 1. Nairobi: East African Railways and Harbours, Kenya.

Hitchcock, Tim. 2004. 'A New History from Below', *History Workshop Journal* 57: 294–98.

Huenemann, Ralph William. 1984. *The Dragon and the Horse: The Economics of Railroads in China 1876–1937*. Cambridge: Cambridge University Press.

Hurd, John II, and Ian J. Kerr. 2012. *India's Railway History: A Research Handbook*. Leiden: Brill.

Hutson, Terry R. 1997 'Wooden Railway on Durban's Bluff', *Natalia*, *Journal of the Natal Society* 26: 74–78.

Ingleson, John. 1981. '"Bound Hand and Foot": Railway Workers and the 1923 Strike in Java', *Indonesia* 31: 53–87.

Karuka, Manu. 2019. *Empire's Tracks: Indigenous Nations, Chinese Workers, and the Transcontinental Railroad.* Oakland: University of California Press.

Kaur, Harpreet. 2012. 'Reconstructing the Sikh Diaspora', *International Migration* 50(1): 129–42.

Kaur, Amarjit. 1985. *Bridge and Barrier: Transport and Communications in Colonial Malaya, 187–1957.* Oxford: Oxford University Press.

______. 1990. 'Working on the Railway: Indian Workers in Malaya 1880–1957', in Peter J. Rimmer and Lisa M. Allen (eds), *Pullers, Planters, Plantation Workers: The Underside of Malaysian History*. Singapore: Singapore University Press, pp. 99–127.

______. 2009. 'Labour Crossings in Southeast Asia: Linking Historical and Contemporary Labour Migration'. *New Zealand Journal of Asian Studies* 11(1): 276–303.

Kerr, Ian J. 1985. 'Working Class Protest in 19th Century India: Example of Railway Workers', *Economic and Political Weekly* 20(4): 34–40.

______. 1991. 'The Railway Workshops of Lahore and Their Employees: 1863–1930', in Surjit Dulai and Arthur Helweg (eds). *Punjab in Perspective: Proceedings of the Research Committee on Punjab Conference*, *1987*. Michigan: Asian Studies Center, Michigan State University, pp. 67–77.

______. 1995. *Building the Railways of the Raj, 1850–1900*. New Delhi: Oxford University Press.

———. 2001. 'Rethinking a Popular Religious Practice: The Effects of Railways on Pilgrimage in Nineteenth- and Early Twentieth-Century South Asia', in Ian J. Kerr (ed.), *Railways in Modern India.* New Delhi: Oxford University Press, pp. 304–27.

———. 2006a. 'On the Move: Circulating Labour in Pre-colonial, Colonial and Post-colonial India', *International Review of Social History* 51(14): 85–109.

———. 2006b. *Engines of Change: The Railroads That Made India*. Westport, CT: Praeger.

———. 2007. 'The Railway Workshops and Their Labour: Entering the Black Hole', in *27 Down: New Departures in Indian Railway Studies*. London: Orient Longman, pp. 231–75.

Kimani, Peter. 2017. *Dance of the Jakaranda.* New York: Akashic Books.

Kirby, Maurice. 1993. *The Origins of Railway Enterprise: The Stockton and Darlington Railway 1821–1863*. Cambridge: Cambridge University Press.

Kratoska, Paul. 2002. 'The Karen of Burma under Japanese Rule', in Paul Kratoska (ed.), *Southeast Asian Minorities in the Wartime Japanese Empire*. London: Routledge, pp. 21–39.

Laforte, Robert S., and Ronald E. Marcello (eds). 1993. *Building the Death Railway: The Ordeal of American POWs in Burma, 1942–1945*. Wilmington, DE: Scholarly Resources.

Lockman, Zachary. 1993. 'Railway Workers and Relational History: Arabs and Jews in British-Ruled Palestine', *Comparative Studies in Society and History* 35(3): 601–27.

Logan, James Richardson. 1857. 'Enquiry into Chinese Grievances at Penang', *Singapore Free Press*, 10 December.

Luedtke, Alf (ed.). 1995. *The History of Everyday Life: Reconstructing Historical Experiences and Ways of Life*, William Templer (trans.). Princeton: Princeton University Press.

Maggs, Colin G. 2018. *Great Britain's Railways: A New History*. Stroud: Amberley Publishing.

Major, Susan. 2015. 'Railway Excursion Agents in Britain, 1840–60', *Journal of Transport History* 36(1): 22–40.

Martinez, Julia. 2017. '"Unwanted Scraps" or "An Alert, Resolute, Resentful People"? Chinese Railroad Workers in French Congo', *International Labour and Working-Class History* 91: 79–98.

Mazumdar, Sucheta. 1984. 'Colonial Impact and Punjabi Emigration to the United States', in Lucie Cheng and Edna Bonacich (eds). *Labour Immigration under Capitalism: Asian Workers in the United States*. Berkeley: University of California Press, pp. 316–36.

McCoy, Alfred W. 2019. 'Sugar Barons: Formation of a Native Planter Class in the Colonial Philippines,' in E. Valentine Daniel, Henry Bernstein and Tom Brass (eds), *Plantations, Proletarians and Peasants in Colonial Asia*. Abingdon: Routledge, pp. 106–41.

McKeown, Adam. 2004. 'Global Migration 1846–1940', *Journal of World History* 15(2): 155–89.

Miller, Charles. 2017 [1971]. *The Lunatic Express: An Entertainment in Imperialism.* London: Penguin.

Mills, Stephen, and Brian Yonge. 2012. *A Railway to Nowhere: The Building of the Lunatic Line 1896–1901.* Nairobi: Mills Publishing.

Mitchell, Brian. R. 1992. *International Historical Statistics: Europe 1750–1988*. Basingstoke, Hants, England: Macmillan.

Mohapatra, Prabhu. 2007. 'Eurocentrism, Forced Labour, and Global Migration: A Critical Assessment', *International Review of Social History* 52(1): 110–15.

Mom, Gijs. 2003. 'What Kind of Transport History Did We Get? Half a Century of JTH and the Future of the Field', *Journal of Transport History* 24(2): 121–38.

Munasinghe, Indira. 2002. *The Colonial Economy on Track: Roads and Railways in Sri Lanka, 1800–1905.* Colombo: Social Scientist Association.

Odlyzko, Andrew J. 2012. 'The Railway Mania: Fraud, Disappointed Expectations, and the Modern Economy', *Journal Railway & Canal Historical Society* 215: 2–12.

Orwell, George. 1937. *The Road to Wigan Pier.* London: Victor Gollancz.

Pandian, Jacob. 2008. 'The Building of Indian Railways and the Castefication of Wage Labourers in India', *Anthrosource* 24(1–2): 13–18.

Patterson, John Henry 1908. *The Man-Eaters of Tsavo and Other East African Adventures.* New York: Macmillan and Co.

Pirie, Gordon. 2014. 'Tracking Railway Histories', *Journal of Transport History* 35(2): 242–48.

Pollins, Harold. 1971. *Britain's Railways: An Industrial History.* Newton Abbot: David and Charles.

Prasad, Ritika. 2016. *Tracks of Change: Railways and Everyday Life in Colonial India*. Cambridge: Cambridge University Press.

Profillidis, Vassilios A. 2014. *Railway Management and Engineering*, 2nd edn. Farnham: Ashgate.

Purewal, Navtej Kaur, and Harjinder S. Lallie. 2013. 'Sikh Kirtan in the Diaspora: Identity, Innovation, and Revivalism', in Michael Hawley (ed.). *Sikh Diaspora: Theory, Agency, and Experience*. Leiden: Brill, pp. 381–403.

'The Railways of Fiji: The Development of Railways in the South Pacific'. n.d. *Railway Wonders of the World*. Retrieved 18 January 2023 from https://railwaywondersoftheworld.com/fiji.html.

'The Railways of Martinique'. n.d. *The International Steam Pages*. Retrieved 18 January 2023 from https://www.internationalsteam.co.uk/trains/martinique01.htm.

Raja, Sivachandralingam Sundara. 2021. 'Thamboosamy Pillai and the Colonial Elite of British Malaya', *Journal of the Malaysian Branch of the Royal Asiatic Society* 94(1): 101–17.

Reminick, Gerald. 2002. *Death's Railway: A Merchant Mariner POW on the River Kwai.* El Cerrito, CA: Glencannon Press.

Richardson, Roger C. 2011. 'The Broad-Gauge and the Narrow-Gauge: Railways and Religion in Victorian England', in Roger C. Richardson (ed.), *Social History, Local History, and Historiography: Collected Essays*. Newcastle: Cambridge Scholars Publishing, pp. 197–214.

Rolt, Lionel T.C. 2016. *George and Robert Stephenson: The Railway Revolution*. Stroud: Amberley Publishing.

Roseberry, William. 1989. 'European History and the Construction of Anthropological Subjects', in *Anthropologies and Histories: Essay in Culture, History and Political Economy.* New Brunswick, NJ: Rutgers University Press, pp. 124–44.

Roy, Tirthankar. 2018. *A Business History of India: Enterprise and the Emergence of Capitalism from 1700*. Cambridge: Cambridge University Press.

Ruchman, Samuel. G. 2017. 'Colonial Construction: Labour Practices and Precedents along the Uganda Railway, 1893–1903', *International Journal of African Historical Studies* 50(2): 251–74.

Samaddar, Ranabir. 2015. 'Forty Years after: The Great Indian Railway Strike of 1974', *Economic and Political Weekly* 50(4): 39–47.

Sandhu, Kernial Singh 1967. 'Indians in the Modern Malayan Economy', *India Quarterly* 23(2): 106–26.

Satchell, Veront M., and Cezley Sampson. 2003. 'The Rise and Fall of Railways in Jamaica, 1845–1975', *Journal of Transport History* 24(1): 1–21.

Scott, James. 2009. *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia.* New Haven: Yale University Press.

Sherlock, Stephen. 1989. 'Railway Workers and Their Unions: Origins of 1974 Indian Railways Strike', *Economic and Political Weekly* 24(41): 2311–22.

Silverman, Stephanie J. 2006. 'Economic Immigration to Canada', *The Canadian Encyclopaedia.* Retrieved 18 January 2023 from https://www.thecanadianencyclopedia.ca/en/article/immigrant-labour.

Sinha, Nitin. 2008. 'The World of Workers' Politics: Some Issues of Railway Workers in Colonial India, 1918–1922', *Modern Asian Studies* 42(5): 999–1033.

Spear, Brian. 2008. 'James Watt: The Steam Engine and the Commercialization of Patents', *World Patent Information* 30(1): 53–58.

Steege, Paul, Andrew Stuart Bergerson, Maureen Healy and Pamela E. Swett. 2008. 'The History of Everyday Life: A Second Chapter', *Journal of Modern History* 80(2): 358–78.

Strangleman, Tim. 2002. 'Constructing the Past: Railway History from Below or a Study in Nostalgia?', *Journal of Transport History* 23(2): 147–58.

Sunseri, Thaddeus. 1998. 'Dispersing the Fields: Railway Labour and Rural Change in Early Colonial Tanzania', *Canadian Journal of African Studies/Revue Canadienne des Études Africaines* 32(3): 558–83.

Tatla, Darshan Singh. 1995. 'Sikh Free and Military Migration during the Colonial Period', in Robin Cohen (ed.), *The Cambridge Survey of World Migration*. Cambridge: Cambridge University Press, pp. 69–73.

Thiara, Ravi K. 1995. 'Indian Indentured Workers in Mauritius, Natal, and Fiji', in Robin Cohen (ed.), *The Cambridge Survey of World Migration*. Cambridge: Cambridge University Press, pp. 63–68.

Thompson, Edward P. 1966. 'History from Below', *The Times Literary Supplement*, 279–80.

Tinker, Hugh. 1974. *A New System of Slavery: The Export of Indian Labour Overseas, 1830–1920.* Oxford: Oxford University Press.

Treble, James H. 1972. 'The Navvies.' *Scottish Labour History Journal* V: 34–54.

Truscello, Michael. 2020. *Infrastructural Brutalism: Art and the Necropolitics of Infrastructure.* Boston: MIT Press.

Tsey, Komla. 2012. *From Head-Loading to the Iron Horse: Railway Building in Colonial Ghana and the Origins of Tropical Development.* ☐ Bamenda, Cameroon: Langaa RPCIG.

Ville, Simon P. 1990. 'The Railways', in Simon Ville (ed.), *Transport and the Development of the European Economy, 1750–1918*. London: Palgrave Macmillan: pp. 114–71.

Way, Peter. 1997. *Common Labour: Workers and the Digging of North American Canals, 1780–1860*. Baltimore: Johns Hopkins University Press.

Wells, Matthew. 2002. *Parallelism: A Handbook of Social Analysis*. Bloomington: Xilbris.

'Where the Navvies Lived'. n.d. *Railway Archive*. Retrieved 18 January 2023 from https://www.railwayarchive.org.uk/where-the-navvies-lived.

Whitehouse, G.C. 1948. 'The Building of the Kenya and Uganda Railway', *The Uganda Journal* 12(1): 1–15.

Williams, Glynn. n.d.a. 'Railways in Guyana'. Retrieved 18 January 2023 from https://www.sinfin.net/railways/world/guyana.html.

———. n.d.b. 'Railways in Sudan'. Retrieved 18 January 2023 from https://www.sinfin.net/railways/world/sudan.html.

Wiseman, Yair. 2020. 'Rail in Islands Is an Expected Failure'. Retrieved 18 January 2023 from https://u.cs.biu.ac.il/~wisemay/isolated3m.pdf.

Wolf, Eric. 1982. *Europe and the People without History*. Berkeley: University of California Press.

Wolmar. Chris. 2009. *Fire and Steam: How the Railways Transformed Britain.* London: Atlantic Books.

———. 2017. *Railways and the Raj: How the Age of Steam Transformed India*. London: Atlantic Books.

Wyse, Akintola. 1981. 'The 1926 Railway Strike and Anglo-Krio Relations: An Interpretation', *International Journal of African Historical Studies* 14(1): 93–123.

Yang, Anand. 2003. 'Indian Convict Workers in Southeast Asia in the Late Eighteenth and Early Nineteenth Centuries', *Journal of World History* 14(2): 179–208.

———. 2021. *Empire of Convicts: Indian Penal Labour in Southeast Asia*. Berkeley: University of California Press.

Younger, Paul. 2010. *New Homelands; Hindu Communities in Mauritius, Guyana, Trinidad, South Africa, Fiji and East Africa*. Oxford: Oxford University Press.

Zajontz, Tim. 2022. 'Railway Imperialisms in East Africa: Laying the Tracks for Exploitation', in Zak Cope and Immanuel Ness (eds), *The Oxford Handbook of Economic Imperialism* (online edn). Oxford Academic.

Zinn, Howard. 1980. *A People's History of the United States*. New York: Harper Perennial Modern Classics.