# 3

## Work and Living Spaces of Malayan Railway Labour

### Homes and Worksites as Contiguous Domains

Against the backdrop of global migration narratives and colonial railway histories outlined in the two previous chapters, the discussion here is focused specifically on the working and living conditions of railway labourers who built and maintained railways in Malaya. Selected archival materials and ethnographic data are used to unpack the *work* of this cluster of railway labourers and detail their worksites and living spaces. In a colonial context, manual labour was organized into *gangs* headed by a *mandore* (supervisor, foreman, inspector), akin to the organization of British navvies. Satya has observed that: 'The organisation of large bodies of workers into gangs was a central feature of the imperial railway construction project. The gang-labour system was recruited and controlled by Indian labour contractors in a classic colonial policy of divide and control' (2008: 73). As such, these gangs constituted productive units and were not unique to the railways.

The predominantly immigrant South Indian railway labour in Malaya, who had laid the tracks in these regions, were also tasked with the daily task of maintaining the permanent way and ensuring that the trains ran without disruption. Gangs organized by the logic of railway engineering and technology not only worked together, but were also often housed as a cluster, in functional accommodations close to their work sites. This proximity was necessitated by the very logic and nature of the work they performed; this was, above all, a deliberate and expedient decision of the railway authorities. The imperative of running the railways produced residential patterns that kept labour close to railway lines, stations, workshops, depots and yards – aligned with housing patterns of the British railway navvies.

In his review of the scholarship on India's railways, Kerr describes its 'socio-cultural dimensions' (2007: xli) as an under-researched field. In her

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study on labourers who constructed the infrastructure of public works in North America and Canada, Bleasdale (2018) reiterates the same gaps. Speaking of the everyday lives of diverse local and migrant labouring communities, she poignantly remarks:

> As labourers came and went on public works, they created communities which were internally differentiated by age, marital status, the number of women and children present, degrees of poverty, types of attachments in the area of construction, and all the life experiences and circumstances individuals brought to the works … But much of the differentiation within any one cluster of labourers is lost in the historical record, and with it the day-to-day interactions within family, networks, neighbourhoods, communities of faith, and leisure affiliations from taverns to temperance associations. *These have been obscured by processes which marginalised in the past and into the present.* (Ibid.: 286, emphasis added)

This study is committed to highlighting these neglected aspects of labourers' lives. The driving argument in this chapter is that what constituted *homes* for railway labour in Malaya were located precisely in, or near, the places where they also worked. The workspaces and homes of permanent way labourers were thus contiguous sites. Notably, and unexpectedly, the proximate nature of these sites was consequential beyond serving the instrumental needs of the railways. I argue that these adjoined *work-living spaces* were, to some extent, sites of containment, and limited the workers' movements, though not in the same way that Malayan estates were places of discipline and confinement.

While the housing provided for railway labour was barely functional and often situated in harsh terrains, individuals could build sociocultural and religious lives therein, forge solidarities and build a sense of community. While building and maintaining the railways, Indian Hindu railway labour in Malaya also constructed temples for their gods and goddesses in their backyards, within railway landscapes. These sites were approached as efficacious and enchanted, where individuals expressed devotion and enacted their religious lives. I have designated these acts of building temples as an instance of the *religion-making* efforts of labourers, and as one register of their *nonlabouring* lives, which were manifested even as individuals laboured for the railways.

## Unpacking the 'Work' of Railway Labour

Geographers have noted that the natural, physical environment of Malaya in the mid-nineteenth century was 'as difficult for men to control as any other equatorial landscape' (Dobby 1942: 211) and that 'the physique of Malaya has

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been in no sense exceptionally favourable to human settlement' (Fisher 1966: 590). The commercial potential of Malaya for agricultural development and mining had to contend with the exacting and daunting natural features of the region. As Brookfield et al. note: 'As late as the middle of the nineteenth century, over 95 per cent of the land area of Borneo and the Peninsula was still under forest' (1995: 23), which is confirmed by Dobby's description of the Malayan topography:

> The chief variant within this cover of evergreen forest is marsh; often the jungles itself stands in marsh. Hundreds of square miles of marsh landscape are occupied by a bushy vegetation of which mangrove is the marine type; the fresh water-swamps carry tall grasses, *lalang*, as well as bushes. The combination of jungle and swamp dominates the natural landscape and has controlled rigidly the manner and patterns of man's settlement. (1942: 211)

Likewise, Lim highlights the natural barriers to the 'movement of people' in these territories (1978: 7), given that the 'alignment of the mountain ranges and by the tropical rain forest' (ibid.). As such, he argues that 'human activities were thus confined to the narrow coastal strips and the riverine lands. Even these areas could not be developed without difficulty' (ibid.), also adding that the onslaught of the 'north-east monsoon interrupted productive activities on the east coast' (ibid.), while 'a high proportion of the riverine lands elsewhere were rendered both unhealthy and agriculturally unproductive by the existence of marshes' (ibid.). Constructing transportation and communication networks in this inhospitable environment with rudimentary tools and technologies would not have been easy. As such, it is worth asking how a railway network was even built in these terrains *at all*. Yet, by 1932, the entire FMSR network of close to 1,700 km of tracks – across Malaya and the island of Singapore – had been completed. Comparing this railway network with others in Southeast Asia, Fisher declared that 'Malaya has a somewhat elaborate railway system. Indeed, no other nearby territory has so great a length of line relative to its population' (1948: 123).

Planning and laying railway lines and building bridges and tunnels in the dense, tropical Malayan jungles no doubt challenged railway engineers, surveyors and labourers alike. The terrain was neither ideal nor easy for railway construction. Shamsuddin observes that: 'These lines were constructed by manual methods following the land profile which offered a minimum of cut and fill, curves were quite sharp but gradients modest to accommodate the limited haulage capacity of early locomotives' (1985: 11). Fisher concurs that 'Malaya as a whole, is by no means an easy country for railway construction' (1948: 124) and that the topography of Malaya posed challenges to railway building as 'with few

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exceptions, Malayan conditions are no more favourable to railway construction than those pertaining elsewhere in South-east Asia' (ibid.: 123), a view Stanistreet agreed with:

> Much of the permanent way lies along embankments and cuttings, though nowhere could any of these be classed as major engineering works. The very fact that the entire railway was hacked through thick tropical rain-forests and malarious swamps by largely unmechanized labour, would seem, in itself to qualify the whole of the system as a major engineering feat. (1974: 7)

In particular, the eastern coast of the peninsula was marked as a largely 'uninhabited and completely untamed jungle' (Fisher 1948: 123) and posed distinct obstacles to railway builders. Constructing this section of the railways entailed 'lengthy and expensive tunnelling and the construction of numerous large bridges' (ibid.: 125). Speaking at the official opening of the East Coast Railway, J. Strachan, General Manager of Federated Malay States Railways, outlined the difficulties of laying tracks in this part of the country, congratulating all involved in this onerous endeavour and even remembering 'the absent ones who have helped in the construction':

> The construction staff has had a hard task. The work has been exceedingly heavy and of a difficult nature: transport difficulties, sickness, frequent tropical rains and floods have had to be overcome. All ranks and races have shown a fine spirit; some have died at their posts, many rest in France, others are scattered over various parts of the world, and many are out of work and unable to find employment. We heartily congratulate Mr. W. J. Haskins, the Engineer for Construction, on the very satisfactory completion of the railway, but all of us who are now present should remember the absent ones who have helped in the construction. (*The Straits Times* 1931a)

Once constructed, the East Coast Line required considerable attention and maintenance due to climate and weather conditions, especially regular floods, which 'wreak great havoc to bridges, embankments and cuttings' (Fisher 1948: 123). Stanistreet also observed the difficulties in maintaining the FMSR, particularly its east coast network:

> Parts of the line, principally on the East Coast section, suffer from the softness of the ground and there is a tendency for slips to occur, especially during the monsoon seasons. In north-east Malaya, in the state of

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> Kelantan, further hazards are encountered, in the shape of serious floods. Permanent way staff have to be, and are, very vigilant. (1975: 7–8)

The blueprint for railway construction in colonial India, which was inspired by British railways, was exported to the other colonies. Kerr argues that railway-building efforts in India 'were colonial projects directed, initially, by railroad companies headquartered in London following a *template established by the colonial authorities*' (2007: 48, emphasis added). Comparative historical data confirm that the model used in India aligned with the Malayan case:

> The construction of a line was conceived, managed, and then directed on-site by the British … In India, the construction process ended at many individual worksites where *Indians physically built the railroads* under the direction of British engineers and British overseers with a leavening of skilled British workmen. (Ibid., emphasis added)

The laying of railway tracks was labour-intensive and translated into aggressive and unrelenting colonial policies and strategies for securing cheap and large pools of labour. Kerr observes that 'the British directed the entire construction process – overall and specifically' (2006: 37) and that 'Line formation required the most labour. This arduous, time-consuming task was the preserve of Indians. Their muscle power assisted by the simplest of tools formed the line' (ibid.: 38). This heavy reliance on human labour produced the earliest railways in Malaya – at the cost of tremendous injuries and death for labourers. However, this was analogous to railway-building elsewhere, including in India, where 'Indians built the railroads; they did most of the work and most of the dying' (Kerr 2006: 48).

Satya has noted that Indian railways were built literally on the backs of men, women and children, adding that the 'Majority of the workers remained unskilled as manual labourers, diggers and movers. Indian railways until the end of the Raj remained a heavily labour-intensive operation in which men, women, and children sold their labour power' (2008: 73). Given the precarious nature of railway work, labourers were vulnerable, just as in other places like India and Uganda:

> Often the railway work was extremely dangerous and accident-prone. Construction accidents were common and led to many deaths. Working on cliffs to drill and blast into rocks often sent workers down with suspension that dashed into rocks or snapped taking life. Blasting with powder resulted in considerable loss of life from flying rocks, slips, cave-ins, etc. (Ibid.)

Research on railway building in the colonies highlights the hazardous, harsh and backbreaking work undertaken by the labour laying tracks. Notably, Kerr

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observes that: 'Manual methods requiring large numbers of labourers remained a distinguishing feature of earth-working in India well into the 20th century' (2006: 39). The longevity of traditional and manual methods of track construction and maintenance well into the postcolonial period is remarkable, not just in British India but also in the Empire's former colonies, like Kenya, Uganda and Malaysia. It would seem that the colonial proclivity to keep the railways tied to large labour pools was shared by the governments in these places even after independence, despite the availability of modern methods of track maintenance with enhanced technologies and scientific knowhow. However, the mechanization of track maintenance was a double-edged sword as, ironically, it rendered railway labour redundant. The railway workflow and labour processes that were implemented and executed in the Indian context also helped unpack the work deployed by railway labour in Malaya:

> Once the general route surveys and the detailed line surveys had been completed, railroad construction involved three basic tasks: formation of the line; ballasting and laying the permanent way (the tracks); building/erecting workshops, stations, accommodations for workers, signals and signalling boxes and towers, water towers, installation of the electric telegraph, and many other devices. (Kerr 2006: 38)

Kaur highlights that in Malaya, 'The largest category of railway workers were labourers employed for construction and maintenance work' (1990: 106) from South India – mostly Tamils and some Telugus and Malayalis. These clusters were classified as *unskilled labour* and *railway servants*, charged with laying the tracks and, subsequently, maintaining them, for which little technical training was deemed necessary. The railway construction work included clearing land, forests and earthwork – that is, the renewal and clearance of soil, cutting dense vegetation, excavating cuttings and making embankments. These could be accomplished with little training and on-the-job guidance sufficed. On the other hand, erecting bridges and tunnelling work required training and explicit instruction. Unsurprisingly, a great deal of all railway work was performed by hand, using rudimentary equipment – shovels, picks and baskets – and was physically demanding. Beyond the arduous and gruelling task of laying the tracks, manual labour maintained the permanent way by surveying the tracks daily and performing meticulous technical and mechanical checks. The manpower in the Way and Works and Engineering Departments were the largest and most expensive sections of the railways and furnished labour for track maintenance.

From 1931, the 'Maflin formula' was used to calculate gang strength for manual track maintenance in the British railways and presumably in the colonies too. Essentially, this formula was 'a very simple one (number of gang men =

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2.5 x "unit per mile" x length of track, where the "unit per mile" factor depends on the kind of traffic carried on the track). It assumes a standard requirement of manpower regardless of the track gauge' (Permanent Way n.d.). This blueprint evolved, becoming more complicated and incorporating more parameters in calculating the labour needed for track maintenance. Writing of railways in India, a 2017 report on the *Work Study to Review the Staff Strength at Sse/P.Way/Wst, Chennai Division* details the history of quantifying labour as a key element of rationalizing railway work itself:

> In the early days of company railways and State railways, the gang strength of permanent way was calculated in various ways. In 1931, the Maflin formula was first introduced. Then in 1959, the Lobo Committee appointed by Railway Board brought the 'Modified Maflin Formula'. But due to some inbuilt contradictions, this was not implemented. Again, two more committees appointed in 1971 and 1972 had not seen the light of the day at all. The special committee formula of 1976 was implemented in 1979. But this special committee covered only 12 activities and other activities were carried by contract/casual labourers. (Ministry of Railways 2018)

These technical formulae reveal a deep connection between railway engineering and the organization of labour for extracting maximum productivity – something that resonated with colonial logic. This method of calculating optimal gang strength for track maintenance continued to be improved and honed until 2014. According to Profillidis:

> In order to estimate the extent (and the expense) of track maintenance works, the maintenance coefficient k is used as a parameter. The entire railway network is divided into sections with approximately the same number of maintenance sessions of track teams along each section, maintenance sessions being used to understand all mean sessions, with either manual labour alone or including the use of mechanical equipment, between two complete renewals of the track … Use of maintenance coefficient k may contribute to a rational planning of track maintenance works. (2014: section 9.9.1)

Railway gangs were composed of eight to twelve workers who were charged with the maintenance of specific sections of the track length, at three to four-mile intervals, along the entire stretch of the railway network. For Indian railways, Satya notes that 'Indian labourers were organised into small gangs of 12–13 men under the immediate charge of an Indian *mistri* (ganger) who in turn were subjected to

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close superintendence by British inspectors and sub-inspectors' (2008: 73). This pattern was replicated across the British colonies such as Kenya and Malaya. In the example of the Kenya Railways, Musuva documents two manual methods of track maintenance – 'the Orthodox and the Flying Gang Trolley methods' (1992: 119). He explains:

> The Orthodox method is a system whereby a *maintenance unit (gang) are accommodated alongside the railway line* and each gang covers a track length of about 7 km depending on the standard length of track and formation conditions. The basic method of calculating the strength of a unit depends on the number of curves, lines and turn-outs etc. As regards a maintenance gang, especially in the orthodox track maintenance method, *the number of labourers (gangmen) is determined by equivalent length of plain track.* (Ibid.: 121, emphasis added)

Notably, in the state of Selangor in 1889, the 'men per mile' logic was already being used by Selangor Railway. The government engineer for this state railway, A. Spence Moss, provides the breakdown of railway expenses and savings for 1889 and outlines the strategy of extracting maximum productivity from each labourer by reducing wages to a bare minimum, long before the appearance of Maflin's Formula:

> It is very satisfactory to note a gradual reduction of the working expenses per train mile, more especially in the item 'Maintenance of Ways and Works'. When I returned from leave in October 1888, this item stood at $1.70. I have now reduced it gradually to 46 cents. A brief description of the system of maintenance may be of interest. The line is divided into 10 sections of 2 miles each; to each section there is a Mandore, with 10 coolies, 9 ordinary and 1 spannerman, for tightening up rail joints. There is also a special gang, consisting of 1 Mandore and 12 coolies, somewhat more highly paid than the ordinary gangs, kept at Batu Tiga, in readiness to be sent to any portion of the line in case of emergency or breakdown. The cost is as follows, the month being taken at 26 days:

| | |
|---:|:---|
| 10 Ordinary Permanent Way gangs at $100.62 | = $1,006.20 |
| 1 Special Permanent Way gang at $118.56 | = $118.56 |
| Per month | = $1,124.76 |
| | × 12 months |
| Per annum | = $13,497. |
| Repairs to coach | = $ 13,800.00 |

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It is notable that the *Annual FMS Railway Reports* and the *Malayan Railway Reports* offer meticulous account details of railway expenditures. Chief among these were financial details on track construction and maintenance, with reductions in these costs highlighted as accomplishments and triumphs. Kaur makes the crucial point that:

> Between 1884 and 1931 (by which time approximately 1700 km of railway track had been laid), cumulative expenditure on railway construction amounted to more than $233 million .... *This great expenditure was possible because of the exploitation of labour.* (1990: 101, emphasis added)

Interestingly, gangs persisted as the basic unit for organizing labour well into the postcolonial era in Malaysia, India and elsewhere. A 2019 article published by *Rail News Center* mentions permanent way gangs and outlines the manual work they undertake in the present as track maintenance crew, a role that has continued for over a century. The workflow of track maintenance outlined here overlaps with the work of permanent way gangs described in the *General Rules for Working Open Lines of Railway in British India* published by the Public Works Department (PWD), Government of India, in 1892 (see Appendix I). These rules were meant to 'extend to the whole of British India and, so far regards subjects of Her Majesty the Empress of India, to the dominions of Princes and States in India in alliance, within Her Said Majesty' (see Appendix I). Given its brief, this document contained meticulous details of the work to be undertaken by various categories of railway personnel. For example, 'Section IX of Chapter II' of this document is entitled 'Maintenance of Permanent Way' and specifies how the tracks are to be maintained:

> *Every portion of the permanent-way must be inspected daily on foot* by some authorized person responsible for its condition; and bridges and all other works (including signals and signal wires) must be regularly inspected in accordance with special instructions. (PWD, GoI 1892, Rule 112, emphasis added)
>
> Each ganger must report to the Inspector of Permanent way when any telegraph post on his length of line appears to be in an unsafe state, or any of the signal or telegraph wires are broken, slack, entangled, or touching each other or any building. He must also see that all grass, creepers, boughs of trees, and rubbish are removed from the wires. (Ibid.: Rule 113)

These elaborate specifications articulate the responsibilities of the ganger and the gang of workers he supervised. Other examples from the same document,

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'Chapter VI: Rules for Regulating the Conduct of Railway Servants, and Generally for Regulating the Travelling upon, and the Use, Working, and Management of the Railway' and 'Section V' in particular, detail the duties and work scope of 'Inspectors, Platelayers, Gangers, and others employed on the Permanent way' (see Appendix II).

In Malaya, staff who were assigned technical tasks in the Way and Works, Signal and Telegraph and Locomotive Departments were trained at the Government Technical School (FMSR 1930: 28). This school, 'opened in October 1925, was under the direction of an Executive Engineer, Public Works Department' (ibid.). Here, apprentices took classes, sat for examinations in technical subjects and also received practical training. The Permanent Way Institution (PWI) for Malaya was set up in 1928 by R.W. Hiam, head of the Engineering Department at FMS. At a meeting held at the Railway Institute in Kuala Lumpur on 9 March 1929, Hiam 'explained that the main object of the Institution was to disseminate knowledge of permanent way work by means of informal discussions of the various little problems that creep into everyday permanent way maintenance' (*Malaya Tribune* 1929). J. Stratchan, the general manager of the FMSR who was present at the meeting, having visited other colonies, boasted 'that he had not yet seen one where the permanent way was as good as ours' and declared that 'this was largely due to the Head of Engineering Department, Mr R.W. Hiam, who was a very energetic officer' (ibid.), rendering invisible and inconsequential the contributions of the largely Indian labour force employed in the 'Way and Works' and 'Engineering Departments'.

Expectedly, in the official records of the FMSR, there is no mention of the manual labour engaged in earthworks, laying lines, tunnelling, building bridges and maintaining the railway network. Often the labouring work entailed in these railway construction and maintenance projects is referenced at best passively and indirectly, and reported in the third person. This obscured the individuals who laboured, their efforts were erased and they were rendered persona non grata. For example, the FMSR *Annual Report of the Railways for 1909* reflects the typical modes of reporting the tedious and extensive work of laying lines and sidings, digging tunnels, building bridges and platforms and reconfiguring goods yards, without any mention of who was doing all the reported railway work:

> Remodelling Goods Yard, KL, River Wall and Bridge on Klang River: All works in connection with this item have been completed, with the exception of the new road to goods shed which is in need and the cable siding which has to be ballasted. (FMSR 1910: 10)

> Gemas-Kuala Semantan Railway: The construction of this railway, which is the first section of the East States trunk line, was commenced in July

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> 1907, the length from Gemas to Semantan river being 76 miles. 23 miles of the line from Gemas to Bahau were practically completed. The Progress made was as follows. Jungle felling and clearing has been completed for the whole length. Out of a total of 41,665, 275 cubic yards of earthwork, 3,679,193 were completed. The service road has been completed to the Semantan river. The total number of bridges and culverts is 338, of which 131 have been completed. The Permanent way was linked in for 55½ miles from Gemas. (Ibid. 16)

Despite the key role played by these labouring units, Kerr laments that the records 'do not penetrate to the level of the gangs and the gangers' (2006: 44). This is hardly surprising and such silencing of railway labour's contributions is rife in the archives. A turn to other sources is thus necessary to uncover their labouring contributions. My effort in this regard is driven by a commitment to decolonize research methodologies and to demonstrate the contributions of railway labour in building and maintaining the railways, given the limited discussions of this in official records and railway historiography. I invoke two alternate sources to achieve this: first, ethnographic materials generated through my fieldwork; and, second, content analysis of select English-language newspapers from Malaya. While colonial newspapers furnish insights on railway building projects and reflect public opinion about the economic, social and political issues of the time, these articulations were undoubtedly shaped by agendas that influenced the nature of the reportage. Nonetheless, I argue that newspapers constitute an important resource, as they contain substantive – sometimes even ethnographic – details unavailable in the official archives. Turning to the former materials enabled me to abstract the day-to-day railway work in which permanent way gangs were engaged as well as the episodic emergency work that they were called upon to perform.

I turn first to ethnographic insights from the interviews that I conducted with permanent way staff – *mandore*s, signalmen, linesmen and track maintenance labourers – as well as locomotive drivers, all of whom provided valuable first-hand accounts of the day-to-day railway work they witnessed or performed. Naresh, a former locomotive driver now in his early eighties who is associated with the Kuil Sri Maha Mariamman Temple in Bukit Tembok, noted:

> Every 3 to 4 km there was a gang line – these were the railway line workers – always stationed nearby. Their job was to patrol and maintain the tracks. There were at least ten members in the gang plus one *mandore*. They all lived in railway quarters near or next to tracks and stations … People were living in jungles also. Their life was very hard. No water, no light, rooms so small … they worked for so long, so many hours, woke up

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> so early, could not rest also … how to sleep, staying so close to the tracks, just imagine the noise from the train – so close.

Hajruddin, a retired station master at the Kuala Krai Station and who runs a canteen there with his Thai wife, Titor, explained the nature of track maintenance work, highlighting the value of manual methods even after mechanization:

> Gang line people worked on the permanent way, on the maintenance of the track. So every 3 or 4 km, this gang, 10–12 people – they check everything. They are given … it seems they are given this part to check. Every morning you walk 4 km and turn back – checking and checking. It was very tough. Now it is not tough *lah*. We have the machinery. Last time, manually. Now also people check – they will just go on the bike and come back. But we don't trust 100% the machinery. The machine will just check and give the report but the gang line people still have to go and do the repairing and all.

Kaur's research is rare in documenting the impoverished working conditions of railway labourers:

> The most exploited groups of workers was [*sic*] the unskilled labourers who maintained the railway tracks and grounds. A small number were based at each station and the workshops. The majority were stationed along the railway tracks throughout the country at 3 mile (4.8 km) intervals. Their working hours were from seven in the morning until three in the afternoon with only a half-hour break for lunch. These labourers worked in groups of seven or eight – comprising the ganger (*mandore* or overseer), a keyman and five to six labourers. (1990: 110)

The idea of labourers being 'given kilometres to check and work on' appeared repeatedly in my conversations as I travelled across the western and eastern coasts of Malaysia, and soon became a predictable pattern. Lingam, who had worked in track maintenance in the railways and was in his mid-sixties when we spoke in 2017, was the caretaker of the Dewa Sri Muneeswarar Temple in Arau, a temple with a history of 117 years. He told me about the 'flying gang' – a gang of workers mobilized to handle emergencies and crises and who literally lived 'between the tracks … very close, right next to the tracks' because of their work. Lingam's grandfather was from Tamil Nadu, and had come to Malaya via South Africa and had worked with railways doing track maintenance. He recounted his grandfather's working experiences:

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> Then our grandfather … according to our grandmother, she was from Nepal … our grandfather was with the railways. In those days, he was involved in clearing the forests for tracks to be laid. In those times, there was a system where the tracks will lock when the trains are crossing. Yes, he did track maintenance. The old system … they had to go very far ahead, walk a lot. As they were doing the maintenance, my grandfather's leg got stuck in one of those tracks … and he died in that accident.

Numerous other former railway labourers I spoke to about their working life in the railways confirmed the many instances of workplace injuries and accidents – some had experienced these themselves. Former locomotive driver, Tan, was in his seventies when I spoke to him in 2017. He had a wealth of information about railway history in Malaysia and continued to work for Indian and Chinese companies involved in railway modernization projects after he retired from KTM. He shared that he had witnessed a staggering number of accidents throughout his career, citing examples of rail crashes when two trains were travelling on the same track from opposite directions, and of derailments, worker injuries and deaths:

> I have seen major accidents – trains destroyed; passengers killed – but also when driving the train at night – workers living nearby tracks – crossing; getting knocked down. I don't know how many people have been knocked down … feel bad but what to do.

Mani, a Ceylon Tamil gentleman in his eighties who had retired as station master at the Port Klang station, shared similar stories:

> There was a famous accident at Layang Layang … because we put the wrong line … didn't switch properly. Two trains crashed on the same line, high speed … major … the whole entire thing is gone. The driver died, attendant and passengers also.

In another instance, 72-year-old Venu, a former linesman whose job was to shift a set of levers manually for trains to switch tracks based at Layang Layang station, noted:

> so many workers died – fingers, hand and leg stuck in the tracks – have to cut. Drivers got burnt … from hot coal and steam in the engine. Also attacked by wild animals – elephants – in jungles. KTM staff working on the tracks – see cobra everything [*sic*]. So many died also – knocked down by train – crossing tracks, working night time, cannot see properly [*sic*].

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Likewise, Gopinath confirmed that railway work was dangerous. He was almost seventy when I spoke to him in 2018 and had worked in track maintenance in the early days of his long career with the railways at the Bukit Mertajam Station as a member of 'railway gangline no. 18'. He confirmed the presence of the famous 'flying gang' at Arau station and explained the different types of gangs as he described his own experience of performing demanding railway work:

> There was 'normal gang' and 'special gang'. In Arau, there was 'flying gang' and 'main gang'. Here they have special gang, crossing gang, normal gang. Special gang, they are responsible for the main repairs from Prai to Taiping. Normal gang, that one for three miles only – every day walking up and down. So, main and normal gang is the same. So, every three miles there was quarters for the gangs also [*sic*].
>
> I myself when I was working in the railways, our *mandore*, Sinnasamy Thevar. He – that time – the railway supply pocket watch you know [*sic*]. Those times where got wrist watch? And you [meaning labourer] cannot wear it, so he [*mandore*] keeps the pocket watch here (in his pocket). He will turn the time. If now it is 2 o'clock, the fellow will put 1.30. Why? To make you work extra *lah*. I worked about 8 hours a day when I was in the gang line [*sic*].
>
> No, you must finish the work by this time. But sometimes a lazy fellow will just be acting and working like that, so that's why they give *pangu* – a share *lah*. That means every three miles, every quarter mile they will be there. So one person will get 10 rails. That means 30 ft, 1 rail. So 300 ft one fellow. Less work you cannot do. You must finish work. If you don't finish today, tomorrow you have to continue. So tomorrow they will write down in the paper there. So, in weekly report, they will record that you haven't finished. Then the supervisor will come and ask why.
>
> I go to work at 7 o'clock so I wake up at 6 o'clock. Then by 7 o'clock when you leave, you have already done the cooking and carry my own lunch. And come back at 3 pm. So we were very tired after work.

My interviews further confirmed that the day-to-day maintenance of the tracks, undertaken by sectional gangs, entailed foot patrolling of tracks and visual inspections for damage and flaws, which needed to be repaired on the spot. My interlocutors shared that manual track maintenance was done using the methods of packing or beater packing – from the name of the tool for packing ballast (that

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is, a beater) – and was physically demanding. Kaur's important work details the daily grind of the permanent way labourers:

> Every morning (except Sundays), the labourers would be 'rounded up' (in the process some men were beaten as well), and, carrying all their tools such as jacks and lifting bars in baskets, they would walk up the track one-and-half-miles (2.4 km) and then back to the other end, three miles (4.8 km) away … The poor Indian worker therefore trudged along with his basket containing his tools on his head. He also carried a tiffin carrier and some well water. The water was never sufficient and he had to depend on drain water from the drains adjoining the tracks. The workers had no shelter while they worked. (1990: 110–11)

Together, my interlocutors and I drew rough images in my field notebooks to visualize where these gangs were positioned in quarters and living camps near stations and depots and adjacent to the tracks. They described the daily routine of track maintenance thus: walking up and down the length of the tracks, checking for wear and tear, looking out for dislodged nuts and clips, carrying out the necessary repairs and reporting all the work they had done to the *mandore*. Damodaran, a former railway employee in his sixties when I met him in 2018 and the caretaker of the Sentul Yard Temple, explained the work done by gangline workers who lived in railway quarters near the Sentul and Batu Caves stations thus:

> Every morning they get up … check the track … whether the lines moved or not … check if the nails are loose or not … from Sentul to Batu Caves, they will check. You know *lah*, in those days, they will put their things in a trolley and push and go. On one railway block there were ten houses … one block on this side and one block on that side of the station. Each gang walked in opposite directions, checking, repairing tracks.
>
> They will start work early morning, 6 o'clock or 7 o'clock, carry tools on their head or in shoulder bags – then eat cold food they own-self make and carry – until … come back so tired – 5 o'clock, 6 o'clock – every day, only Sunday rest.

The railway tracks laid across the western and eastern coasts of the Malayan Peninsula and the island of Singapore constituted a sprawling railway network. This was spread across urban centres and the rural countryside, often cutting through thick jungles and isolated and inhospitable terrains. Many of my interlocutors shared that the gangs were also located in remote regions, as track work was required everywhere. In Malaya, the working and living conditions of

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permanent way gangs operating in isolated parts of the country were harsh and perilous. Often, these railway clusters were without piped water and electricity, and did not have access to healthcare or proper nutrition. The health services section of the *Malayan Railway Report of 1949* acknowledged the presence of gangs in 'wayside stations' in reporting the work of the department, something that I rarely encountered in official records and documents:

> The Hospital Assistant visited *wayside stations and permanent way gang lines* twice each month attending to minor aliments: serious cases were sent to hospital. Sanitary inspections were made during these visits. (Malayan Union 1950: 40, emphasis added)

Turning to newspaper reports, I was also able to extract a great deal of information about gangs and the work they performed. In these articles, the different categories of gangs – marked as working units in FMS Railways and Malayan Railway – are *named* as such and their existence is acknowledged. In the newspaper articles I reviewed, these clusters of workers are described as 'gangs of coolies', 'patrol gangs', 'breakdown gangs', 'repair gangs', 'maintenance gangs', 'railway gangs' and 'gangs of workmen'. Notably, the breakdown and repair gangs of the FMS and Malayan Railways were kept busy, given the regular disruptions and damage to tracks and coaches due to human accidents and natural disasters. Rains and floods were a persistent challenge, as evidenced in the following newspaper reports. On these occasions, repair and maintenance gangs were rushed to the scene, where they worked around the clock to restore operations. I share a brief sample from my extensive perusal of the substantial number of newspaper articles through the decades that reported on the damage from floods and heavy rains to the railways:

> A serious landslip occurred yesterday in the Pass Section, near the 64th mile of the railway, owing to the heavy rains which fell throughout the evening. Ballast trains, with *gangs of coolies* were dispatched immediately upon the news becoming known, *the men working throughout the night*. Great credit is due to the District Railway Engineer and his staff for the expeditious manner in which the line has been put to right. (*Eastern Daily Mail and Straits Morning Advertiser* 1907, emphasis added)

> Detailed reports from engineers exploring the line south of Manek Urai to the Pahang border are not yet available, although it is known that 50 serious slips have to be repaired along one stretch of the track in Ulu Kelantan … It is expected that the whole stretch of the East Coast

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> railway in Pahang will be put into commission early next week, thanks *to the intensive effort by the repair gang.* (*The Straits Times* 1931b, emphasis added)

> *Railway gangs* cleared the main line at several points between Singapore and Penang today following slips of earth in the cuttings particularly in Johore and at Sungkat, Perak, after heavy rain. In two places the line had to slued (diverted) to get clear of obstructions with the result that services were slightly interfered with during the early hours of this morning. (*The Straits Times* 1939c, emphasis added)

> Full railway services between Singapore and the federation were restored yesterday, twelve days after floods damaged the tracks. A railway spokesman said that *repair gangs, working around the clock*, had cleared up damage caused by 40 landslides between Gemas and Singapore. (*The Straits Times* 1954, emphasis added)

Given the history of disruptions caused by flooding, railway authorities anticipated landslides and slippages during the rainy season and made contingency plans. As can be seen from the following report, maintenance gangs were mobilized and preparations were made to circumvent the expected deleterious effects on embankments and tracks:

> The Railway stations in the Federation have been alerted to be prepared for disruption of lines by landslides and floods. A Malayan Railway Administration official disclosed this today when referring to two landslides and a derailment in North Malaya yesterday. A round the clock watch is being carried out on tracks through the Federation – he said. He added, 'we are aware of the monsoon season and know what to expect'. *Groups of breakdown gangs and track labourers are being placed five miles from one another on all lines*. This is to ensure the least breakdown of lines and inconvenience to passengers. As soon as an incident is reported from a certain area, a work train carrying track engineers and labourers will be rushed to make the necessary repairs or clear the lines. (*The Straits Times* 1959, emphasis added)

As reported in the press, responding to train, engine and coach derailments due to accidents and acts of sabotage were common features of the work undertaken by maintenance gangs, who had to work under pressure, quickly and efficiently, to restore train services. These articles communicate that specific categories of railway workers were known as 'running staff' – this included the repair gangs

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and flying gangs – who could be called upon at any time in response to crises that disrupted railway operations. It was not unusual for repair and breakdown gangs and labourers from the Engineering Department to work through the night to restore train travel (*Singapore Free Press* 1959). It is also apparent in the reportage that their working conditions were far from ideal – they were evidently on call twenty-four hours a day – and they had to often work irregular hours under stressful conditions:

> Working at high pressure, F.M.S Railway *gangs cleared the line of the derailed south-bound mail trail* by 9 o'clock last night and the Kuala Lumpur-Penang night mail train crawled through on the repaired track before midnight. Derailment took place at about 4 o'clock coaches strewn along the damaged track and the engine half way down the embankment. 220 yards of track damaged. (*The Straits Times* 1939a, emphasis added)

> The crane of an F.M.S Railway breakdown is seen at work on the wreck of the Penang-Kuala Lumpur night mail train which was derailed at Slim River, on the Perak-Selangor border early on Friday morning. *Working at high pressure*, gangs had the line clear by Friday night and services were normal by Saturday. (*The Straits Times* 1939b, emphasis added).

> Repair gangs and officers proceeded to the scene immediately and *after the feverish pace at which the work was done, managed to get the line clear* about 3 pm. (*Morning Tribune* 1941, emphasis added)

Maintenance gangs were also called upon to repair damage to railway bridges and lines due to sabotage – bandit activity and the work of terrorists. Between 1948 and 1957, a State of Emergency was declared in Malaya in response to what was denoted as acts of communist insurgency in the country. During this period, railways were targeted and trains, tracks and stations were destroyed (Selvaratnam 1985: 99). In one instance, terrorists removed fishplates from the track at Gemas Station, causing a derailment. In response, repair gangs arrived at the scene and worked at a rapid pace, which both surprised and impressed observers:

> The F.M.S Railways mail train time-table between Singapore and Kuala Lumpur has been restored – a deviation of the single track at Gemas, torn up by the wrecked night mail yesterday, being used … Reporters who drove to Gemas and walked through a rubber estate to the scene of the wreck *were impressed by the rapid progress made by repair gangs. Just after noon, a deviation of the single track had been completed*, and the

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> day mail for Singapore passed over it with only a short delay. The only interruption of traffic yesterday – in spite of many yards of tracks being torn up – was to a local train. (*The Straits Times* 1939d, emphasis added)

> *Working non-stop from last night,* railway breakdown gangs this afternoon repaired the bridge between Labis and Bekok in Johore, which terrorists dynamited yesterday. (*The Straits Times* 1948, emphasis added)

> The railway line between KL and Singapore was completely blocked as a result of bandit activity in Negri Sembilan last night, and *breakdown gangs worked all day to clear the line* (*The Straits Times* 1950, emphasis added).

> *Working around the clock for 36 hours, breakdown gangs of the Malayan Railway restored through traffic* at noon today at Tapah Road, where terrorists blew up a section of the track on Wednesday night. (*The Straits Times* 1956, emphasis added)

Newspaper articles also detail the *nature* of the work performed by the gangs in these crisis moments. This work included, for example, 'jack(ing) up and lift(ing) the heavy engine by crane back on the rails' (*Singapore Free Press and Mercantile Advertiser* 1937), clearing and repairing lines and bridges, rebuilding tracks, replacing sleepers and clearing spillages of goods from tunnels and tracks, and derailed wagons:

> A truck in the middle of the 10.30 am goods train from Taiping to Ipoh ran off the rails while the train was passing through the third tunnel, near Bukit Berapit. The derailment was not very serious although all railways traffic was delayed some hours *while gangs of workmen placed the derailed truck* back on the rails. (*The Straits Times* 1937, emphasis added)

> *Gangs of railway workers toiled under armed guards today to clear the line* near Taping where bandits yesterday derailed the mail train in which the Yang di-Pertuan Besar of Negri Sembilan and his family were returning to Seremban. (*The Straits Times* 1951b, emphasis added)

> After an eight-day break because of floods, the first through passenger mail train between Singapore and Kuala Lumpur ran again today … The line itself was cleared and deemed to be safe at 2.50 pm this afternoon. Since the floods finally subsided on Saturday, *gangs of workmen who were standing by have worked around the clock to restore the track.* (*The Straits Times* 1951a, emphasis added)

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> Sixteen wagons of a south-bound goods train loaded with cement jumped the rails about 5 km south of here at about 11.22 pm yesterday causing extensive damage to about 200 metres of railway track. The most damage caused was in a pass where the pile up ripped off the tracks and sleepers from the stone beds. About 80 workers have been working from 2 am to *clear the wagons and rebuild the railway tracks*. Until late this afternoon, railways gangs were still trying to clear the pass of the seven wagons blocking it. Repair work on the rails is expected to be completed at about 4 pm tomorrow. (*The Straits Times* 1977, emphasis added)

In addition to these routine challenges, the permanent way staff sometimes had to manage exceptional incidents, including the menace from wild elephants, 'especially in isolated camps in the jungle', news that made it to the pages of the *Malaya Tribune*:

> Wild elephants, according to the annual report of Mr. D.H. Elias, the general manager, F.M.S. Railways, continue to do damage to the railway in Kelantan. Apparently, the elephants are very wild indeed, for besides playing havoc with the line, they have reduced the permanent way staff to a state of fear bordering on panic and which, if not allayed, may give the coolies every excuse for wishing to work elsewhere. As elephants are a definite menace to permanent way gangs, especially in isolated camps in the jungle, an effort should be made to curb their mischievous and dangerous proclivities. (*Malaya Tribune* 1936)

Railway workers faced these rather unique challenges globally, requiring them to go beyond the call of duty, as the following examples from Uganda Railways illustrate. In the aftermath of the First World War, the fallout from the continuing conflicts and skirmishes between the Germans and the British was borne by the personnel and labourers of the Uganda Railway. Trains were frequently attacked by Germans to 'damage the line and interrupt the traffic' (*Singapore Free Press and Mercantile Advertiser* 1917). In 1916 alone, 'fifty-five attempts were made … the maintenance gangs were strengthened, the line was patrolled throughout the danger zone, and guards were placed by the military at all bridges and culverts throughout the entire length of the railway' (ibid.). Uganda Railways' 'running staff who worked over the danger zone during the year' were appreciated for their heroism for they worked without 'protest or complaint on the part of any of the men concerned' (ibid.). The threat from wild animals like lions was also reported to be more than a nuisance for the workers and led to the tragic loss of railway labourers, as reported in 1899 in the Malayan press:

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> There seems to be something after all in the statements which appeared in Truth as to the dangers and difficulties amongst which the coolies of the Uganda Railway work … once the railway was started three years ago, 400 coolies have been killed by lions. It appears the districts in which the coolies live are infested with lions, and the unfortunate men are without any protection except that afforded by the shelter of their tents and a thick hedge of felled trees and brushwood with which they surround their camps … Day after day, it is said in broad daylight the lions charged into gangs of coolies when they were working, struck down their victims and proceeded to devour them on the spot in full view of the terrified coolies. (*Singapore Free Press and Mercantile Advertiser* 1899)

Across the British Empire, labourers were denied both humanity and morality (Datta 2021), making the dismal circumstances of colonial labour invisible even when they were obvious. This echoes Headrick's comment that:

> The era of the new imperialism was also the age in which racism reached its zenith. Europeans … began to confuse levels of technology with levels of culture in general, and finally with biological capacity. Easy conquest had warped the judgment of even the scientific elites. (1981: 209)

Racist thinking manifested in the ways in which immigrants – as coolies, labourers and servants – were conceived of by the British across their colonies, justifying the kind of substandard working, housing and health provisions they were accorded and the rights they were denied. Despite sustained criticisms of poor living and working conditions of overseas Indian labourers, and the formulation of legislation and codes, there was no political will among colonial authorities to enforce these regulations or enact significant changes. As in other colonial contexts where railways were built, the residential arrangements of the gangs who maintained the permanent way embedded them within sites where they also worked. The discussion now turns to the controversial and complex question of housing railway labour in Malaya.

## Accommodating Railway Labour

Concerns regarding the lack of provision of suitable housing for overseas Indian labour were expressed as early as the closing decades of the nineteenth century. Housing and health conditions of Indian labourers attracted the attention of Indian and Malayan authorities and Indian nationalists, albeit for very different reasons. In an early example, section 52 of the Indian Immigration Ordinance (1884) attempted to regulate housing for indentured labourers, requiring

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employers to provide 'sufficient and proper house accommodation … such as shall be considered sufficient and proper by the Indian Immigration agent'. The *Straits Settlements Labour Commission Report of 1894* indicated the following specifications for housing labour: 'We think that a minimum floor space and a minimum cubic space per adult should be insisted on, and that a separate room should be available for every married couple' (cited in Jackson 1961: 103). Jackson also cites a European planter's views published in the *Selangor Journal* in 1894, reflecting the prevalent racial prejudices of the times, attitudes that denied both humanity and morality to labourers:

> Coolie lines, each room 12 by 12 with *jelutong* plant walls, door and sleeping platform 12 by 6 feet and *attap* roof, can be built for $25 to $30 a room … No more than six coolies should be put into each room, but the planter need have no apprehensions on the subject of mixing the sexes, as the Tamil cooly is most philosophical in this respect, a young unmarried woman not objecting in the least to reside with a family of even to sharing her quarters, if necessary, with quite a number of the opposite sex. (Cited in Jackson 1961: 104)

The Labour Code of 1912 specified that labour should be provided with sanitary housing, a pure water supply and a well-equipped hospital or dispensary. The Code mandated that employers had 'to set aside 1/16 of an acre of arable or grazing land for each laborer with dependents' (Thompson 1945: 16). Initially, 'some degree of compulsion was used to enforce the ruling' (ibid.), but subsequently employers 'were reluctant to see newly cleared land used for any purpose other than rubber growing and refused to allow laborers' livestock to feed off young rubber plants' (ibid.). Labourers were themselves not entirely enthusiastic about growing their own food crops and preferred to buy food items. The Code was completely revised in 1923 and underwent key modifications in the following years. In 1925, the Controller of Labour replaced the Indian Immigration Department (established in 1907) and enforced the Labour Code in the FMS and the SS. The housing question for labour had received specific attention in the 1912 version of the Code and 'encouraged replacement of the old coolie lines (barrack-like structures)', which were deemed 'no longer so suitable as in the days when few families accompanied immigrant Indians and when the danger of malaria made it imperative to concentrate the labor force while the estate was being opened up' (ibid.: 26):

> certain minimum requirements in regard to floor space so fixed standards were imposed and employers were encouraged to submit their own housing plans. The type of accommodation officially blessed consisted of a

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> room not smaller than 12 by 10 feet to accommodate a small family or 3 bachelors, with a front open verandah and with a back verandah, partially enclosed, where laborers could cook and dry their clothes … The housing situation in the Straits ports resembled that of Rangoon. (Ibid.)

Even though housing provisions were made for labourers, observers noted that the design and conditions of such accommodation were highly undesirable. The Indian Emigration Act (1922), which applied to the whole of British India, reiterated the need for regulating the emigration of Indians overseas, and imposed terms and obligations on employers for better living and working conditions. Ultimately, there were some changes in the barrack-type design of labour housing by the 1920s, when 'the standard accommodation consisted of raised accommodation (sometimes with a verandah), with a room provided underneath the main building for a kitchen and storage' (Kaur 2006: 458). Despite the changes effected in the architectural design of the coolie lines through the 1920s and 1930s, complaints and criticisms continued, and proposals for bigger housing with better designs were regularly called for:

> Better housing accommodation for estate coolies, cheap housing schemes and settlements have been worked out successfully in Malaya, and although the problem still leaves room for improvement, a great advance on the schemes has been seen during the last three years. (*Malaya Tribune* 1940)

In theory, the wooden, barrack-style labour lines were to be replaced with housing units for families – cottages for even the lowest-paid workers, given that, increasingly, labourers were accompanied by their dependents:

> On estates, detached or semi-detached cottages are taking the place of the long lines that were almost universal until a few years ago and many of the older lines have been converted into family quarters with two rooms and a kitchen. In the case of Government coolies, mostly employed in towns, there is usually not sufficient land available to permit building of detached cottages and separate allotments, but lines are usually constructed in small blocks of four or five houses of permanent type and provide excellent accommodation. (Ibid.)

In 1936, V.S. Sastri, a member of the Indian National Congress, visited Malaya to determine the living and working conditions of Indian labour there. His report (Sastri 1937) was largely commendatory and was thus criticized for being blind to the problems of Indian labour in Malaya. However, Sastri did

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note the shocking state of housing provided for unmarried Tamil labourers in the Municipality of Penang:

> I was shocked beyond words by the condition of the quarters provided for the bachelors. They consist of a stone, barrack-like building which at the time of my visit was so overcrowded that it is doubtful if even the barest requirements of public health were fulfilled. Both the heat and the smell of the place were overpowering and appeared to find no easy exit. The washing accommodation was such that all used water found its way down the general entrance. No privacy of any sort was provided for, and no wonder that the place is the scene of frequent disputes and quarrels. (*Malaya Tribune* 1937)

In the 1940s, J. Orde Browne – who was the labour adviser to the Secretary of State for the Colonies – was still arguing that the existing rules were inadequate and recommended the provision of 'a standard of a 10 feet by 12 feet floor space for two adults, separate rooms for married couple, additional rooms for children above the age of infancy and the provision of cooking facilities' (Orde Browne 1943: 111). However, laws, codes and enquiry committee reports lacked the teeth or muscle to make any real difference in terms of improving housing for labour. Nor was there a political will to change the situation even after independence, as dismal living conditions for overseas Indian labourers persisted.

Limitations concerning land and funding continued to present challenges for the authorities in terms of providing housing for the large pool of immigrant labour employed across estates and government public works in Malaya. On the one hand, labour was needed to meet the needs of extractive colonial capitalism; on the other hand, this labour presence created a housing crunch as shortages were reported, especially by the railways. Acquisition of land for building housing for railway staff across the Malayan Peninsula concerned the authorities in the early decades of the twentieth century as much as sourcing funding for this purpose. The high commissioner of the FMS, Sir Arthur H. Young, sought substantial funding from the government for building railway housing in 1917: 'A considerable sum is necessary for quarters for officers and staff, and in this connection, I may say that, taking the whole of the estimates for public works, they provide about one million dollars next year for quarters for officers and staff, especially for the menial staff of the Railway Department' (FMS 1917: 23). Despite the FMS government's efforts to provide funds to establish a housing scheme for railway staff back in 1927, shortages continued to be reported in subsequent decades:

> A housing scheme for the Railway subordinate, artisan and menial staff estimated to cost $4,765,000 was commenced in 1926 and on 31st

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> December, 1927, 131 units had been completed and 634 units in hand. The main portion of the scheme is the railway settlement at Sentul, near Kuala Lumpur. The scheme provides 1,740 additional units. (FMS 1928: 1)
>
> The shortage of government quarters has become so severe that the authorities responsible now in choosing sites, drawing plans and making other preliminary arrangements for the building of about twenty quarters of different classes in Ipoh … The Railway Department have their own quarters and the Police, Medical and the Posts and Telegraphs have a certain number of quarters of their own … Quarters are allocated according to salaries and a senior official interviewed by the Tribune said that there will always be a discrepancy between the number of houses available and the government staff requiring quarters. This is because there are 10 classes of quarters and the number of officers in each class is never consistent. (*Malaya Tribune* 1938)

In the FMSR, the various categories of railway workers were provided with different benefits in terms of housing, travel, wages and health policies, which mapped onto British and non-British personnel and were patently discriminatory. Hypocritically, British civil servants paid themselves more, ensured optimal hygienic and sanitary living conditions for themselves, and enjoyed good housing and medical care. Stanistreet reflected on the state of Malayan Railway housing in the old days: 'The Railway Administration provides its servants with their own quarters, which vary considerably, of course, both in size and comfort, for the different grades of staff' (1975: 48). Managerial and administrative elites who were mainly British and were paid substantial monthly salaries were housed in the best railway accommodation and enjoyed spacious dwellings with gardens. The subordinate technical and clerical staff, predominantly Jaffna Tamils, received monthly salaries and were provided with reasonable accommodation, being allocated 'Class 8 or 9' type quarters, which had two bedrooms, a hall, a kitchen, a bathroom and a toilet. Accommodation, with one bedroom, a hall, a kitchen and a toilet-cum-bathroom were classified as 'Class 9 or 10' type (Kaur 1990). The skilled workers, semi-skilled workers and unskilled labourers who maintained the railway tracks were paid a daily rate and housed in accommodations ranging from labour lines to barrack-style quarters.

The lowest category – the unskilled labourers – were housed in 'Class 11' accommodation. In urban locales, these translated to cement barracks, with a hall, a bedroom and a kitchen, and shared toilets and bathrooms, located outside and behind the lines (Kaur 1990). The labour lines consisted 'of a labour line of seven to eight units which was built next to the track' (ibid.: 110–11).

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The wooden barracks located along the tracks and wayside stations were without piped water, drainage and electricity (ibid.: 118). Given the low priority accorded to this category of workers, they 'were the worst and they were paid the lowest wages' (ibid.), and worked in less than ideal conditions. Kaur emphasizes that: 'The smooth functioning of the railways necessitated accommodating workers in labour lines along tracks, near stations or workshops. These labour lines were occupied principally by Indians' (ibid.: 117). The manual labourers living in these conditions were vulnerable to the elements and natural disasters and suffered from diseases and death:

> Along the tracks, the barracks were located next to the tracks and dirt and dust prohibited the cultivation of flowers and vegetables. Under these unhygienic conditions, it is not surprising that the workers succumbed to diseases like malaria and dysentery. The passing trains also carried diseases and infections. Lack of privacy and unhygienic conditions typified labourers' dwellings. (Ibid.: 118)

Townships of Indian railway workers were established at the two main railway workshops at Sentul and Brickfields in Kuala Lumpur. Of course, this also made it possible for employers to have immediate and total access to workers at all times:

> There are a very considerable number of workmen now employed at the Central workshops who, owing to lack of local accommodation, are compelled to travel backwards and forwards from Kuala Lumpur every day to and from their works. It is proposed to erect a considerable number of workmen's quarters upon the Company's land and also to provide a sufficient number of shop houses, together with a proper theatre and all the other amusements and luxuries which native workmen wish for. (*Eastern Daily and Straits Morning Advertiser* 1907)

> There can be no doubt that at the present time, such quarters are badly needed in the neighbourhood and that as the Federated Malay States Railways System is extended more and more workmen must be employed at these workshops and the Batu Village will tend to rapidly increase in size and importance. (Ibid.)

In Malaya, the housing and living conditions of permanent way gangs who were based outside of urban centres and rural settlements, in wayside and isolated terrains, were the least regulated and most neglected, barring occasional visits from healthcare workers and sanitary inspectors:

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> All housing areas and all gang lines even at isolated places were visited once in every four months. In addition to this, a Local Health Committee under the chairmanship of the District Traffic Inspector visits the main stations and thickly populated railway centers periodically. The standard of hygiene and sanitation both in housing areas, and in isolated permanent way gang lines continued to show improvement during the year. (Malayan Union 1950: 50)

The design of early labour lines was common across Malaya consisted of barrack-style accommodation, such that 'a large building [was] divided into single-room units … each room housing three to four coolies' (Ferguson-Davie 1921) and where 'The building was rather rudimentary, often the single room [was] windowless and a veranda the chief sleeping place' (Dobby 1940: 103).

The labour lines through the early decades of the twentieth century were grim and dreary, lacked ventilation and did not meet sanitary standards. In 2018, I met 63-year-old Vijey, a former track maintenance labourer at Alor Star Station, who recounted his experiences of living in the railway quarters: 'Quarters a lot of Indians. All families, open bathroom, one kitchen – everyone can see everything, a lot of fighting also. Line maintenance, gang line workers … all Indians living there'. Kaur (1990) highlights that government dwellings, like the railway quarters provided by the Railway Department, were exempt from inspection by the Sanitary Board. Yet, the FMSR *Annual Report of the Railways for the Year 1938* acknowledges the unacceptable standards of sanitation in railway housing, especially on the labour lines:

> The sanitary condition of Railway property varies considerably. Many of the gang lines are old and were built with little regard to the hygiene of occupants. The Health Department make recommendations from time to time to the Engineering Department for repairs or improvements in sanitation, and where possible these are carried out. (FMSR 1939: 71)

This pattern of substandard housing design and living conditions for manual labour was replicated in other British colonies. For example, accommodation for labourers in Burma was equally dismal: '[T]he great majority of the workers … were miserably housed, the housing problem being particularly acute in Rangoon with its considerable floating population and steady influx of immigrants' (Pillai, cited in Kaur 2006: 452). Kondapi too depicts the shocking accommodation of Indian labourers in Rangoon thus: 'in 1930, 42,000 workers lived in these dark and unventilated houses, and the gunny-cloth families, where married couples slept in hammock-style beds, slung above bedding used by single men, were most degrading for women' (1951: 183). Despite this, working in the railways

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carried the appeal that *free* housing and healthcare were offered to employees. Together with the possibility of more stable employment, these were used as inducements to draw workers into the railways, even if the wages its staff received were not higher than that of estate labourers.

The Construction Department of the railways and the Public Works Department were responsible for building housing for railway staff as well as constructing railway stations and offices. The public works department was founded in the state of Perak in 1972, 'to manage the construction of works such as roads, railways, buildings and infrastructure facilities' (Babulal and Ariffin 2019: 142). Private contractors, many of them Chinese, secured these tenders to construct housing, but the building plans, size and design of the quarters and the materials to be used were determined by the FMSR authorities. Tenders were invited from private contractors and were advertised in the local press:

> Tenders are invited for the construction of the following buildings at Bukit Timah, Singapore, including labour and materials: One Unit Class VII Quarters; One Block of Two Units Class VIII Quarters; One Unit Station Building; One Block of Ten Units Cooly Lines; One Block of Two Units Cooly Lines. (*Malaya Tribune* 1930)

> Tenders invited by FMS for construction of buildings and housing scheme – 50 clerks' quarters Class VIII in blocks of 2, Artizans quarters Class IX in Blocks of 8, Menial Staff Quarters in blocks of 19 and 8. (*The Straits Times* 1927)

Labour lines for railway labour persisted in post-independent Malaysia and Singapore. Manual labour – the permanent way workers – continued to be housed here well into the 1960s and 1970s. During my fieldwork in Malaysia and Singapore in 2001–4 as well as during the 2017–18 leg of my research, I encountered these lodgings, some of which were occupied by squatters. In Singapore, I met Sureshan – the son of a foreman, Dharmalingam, who was charged with the care of the tracks between Tanjong Pagar and Johor Bahru stations – who stayed in the labour lines at Queens Close with his family of seven. This was an eight-unit barrack-style housing, two of which were allocated to the foreman and his family, while the other six units accommodated gang-line labourers (three Indian and three Malay families) who worked under him. Sureshan – who was in his early sixties when we spoke in 2022 – and his four siblings were born in these quarters, which he called home for almost twenty years. The residents used a small generator for basic electric needs only at night, there was no piped water, and a latrine-style, outdoor bathroom was shared by all. Nonetheless, Sureshan shared that he missed living in the quarters, had very

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fond memories of growing up close to nature, near the tracks and was hardly bothered by the noise of the trains. But other interlocutors were less complimentary and nostalgic, highlighting that life was not easy for the residents of these labour lines. Mohanan – a former railway employee in his late fifties and the caretaker of Kamunting Temple – noted that 'in the past, there were a lot of them in the quarters – two rows of quarters with eight to nine houses had about thirty families and more'. He pointed out that the congestion and lack of privacy were especially difficult for families. Others I spoke to refused the railway quarters and preferred to stay in nearby squatter settlements, such as Sentul Yard's caretaker, Damodaran's father, who was a railway employee and did 'not want to stay at the railway house. It was too small and crowded, so my father stayed in the squatter area nearby'.

Insights from my ethnography, selected archival materials and the current scholarship on railways in Malaya confirm that the working life of permanent way staff was hard and their living conditions often did not even meet basic standards. They laboured for long hours, were on call at short notice and had little control over their working conditions or living arrangements. Yet, regardless of these physical hardships, several interlocutors admitted that living in such proximity created a sense of community and solidarity among its multiethnic residents, something that has also been noted among the residents of Sentul Yard by Kaur (1990). Thiaga – a businessman in his early seventies and an active committee member of the Bukit Tembok Temple – recalled with fondness the spirit of collegiality in these neighbourhoods:

> That time it was very nice to see. Because all will come and help. When there is a *poojai [prayers]*, everybody will come and help – make *prasadam (blessed food offerings)*. That time, our people will do the *modagam (sweet delicacy)*. All the *maamis* (aunties), all will come. Like his mother-in-law, then my mother, then a few of my friends' mothers. All will come here to this temple, the main hall, will sit there and do all the *modagam*.

Interestingly, temples built by railway personnel surfaced in some of my conversations as centres of multiethnic community life. Hajruddin, an Indian Muslim who had served as a station master for thirty years, reminisced about the good times he had spent in the temples:

> I can still remember – we will go to the temple. We will eat there. So, when you say 'One Malaysia', now it is nothing *lah*. [The] 1960s to early 1970s – that was One Malaysia. Not now. I told you those days, we were all together – Malays and Indians and Chinese. Any festival in the temple, we go. We have nice food there. There is one prayer for studies

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> you know – we will take our books to the temple – we need to put our books there … *Saraswathi pooja [Prayers for Saraswathi, the Goddess of Learning]*.

He lived in railway quarters for three decades and fondly recalled the close friendships he had formed with Indians – by which he meant Hindus – with whom he is still connected:

> I had a lot of Indian friends, you know … When I was a station master there, I was getting my daily *thosai [savoury Indian pancakes]*, my daily *makan (meals)*, in their house. The family really takes care of me like hell, I tell you. They are so sweet.

But he mused despondently that the state of interethnic relations and the railway scene in Malaysia had changed following independence, and for the worse.

One key driver for this research is to shift the gaze to the nonlabouring lives of railway labour, which I argue constitutes another strand of railway historiography. This has meant asking if railway labourers had any free time and, if so, what they did by way of leisure activities. What else did and could they do, other than labour? As I discussed this query with my interlocutors, as I expected, I heard about the ubiquitous toddy shops in towns across Malaya, which I was told provided some respite for the workers after a hard day's work. Like numerous others, Thiru – a former office attendant who worked in the railway station in Kuala Lumpur – in making this observation emphasized that he was not 'making excuses' for this practice, but stated matter-of-factly that there were no other opportunities for workers 'to relax … that was the only thing that was there. Because they are not highly paid. They work hard, then go to the *toddy* shop, drink so they are happy but what to do, they will come out drunk … Get angry, fight'. Damodaran confirmed the lack of leisure options for labourers, adding that there was not much to do 'those days':

> When I joined the service, the pay was only 74 Ringgit per month. I gave my father all the money and kept only 24 dollars. OK *lah*, it was enough, one can go for a film show, cinema. That time tickets were cheap, only 65 cents for Indian cinema. That time, we had cheap matinees … morning show, 45 cents. Yes, that time English movies – James Bond … Sean Connery, Roger Moore, *Dr No*, *Goldfinger*, *Thunderball*. Hindi movies … *Sangam* … the theatre was packed. I liked to watch MGR movies – *Nadodi Mannan*, *Enga Veethu Pillai* – very nice. So those days no video, nothing, you just go to the theatres. Those days everything was very cheap, 65 cents for cheap matinee and *chappati* (Indian bread made of

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> wheat) one can get for 10 cents. Three *chappati*s, 30 cents, one lunch can eat for 30 cents.

Interestingly, the *Report of the Malayan Railways* (1949) noted the presence of a Department of Public Relations mobile film unit and recorded that it:

> toured important centres on the Malayan Railway in April and October … Cinema shows of educational value were given and lectures in English and Tamil were delivered. The subjects covered Trade Unionism, Health and Hygiene, the Co-operative Movement and the Emergency regulations. The shows were highly appreciated by the staff. (Malayan Union 1950: 44)

These were the films screened for railway staff, which my interlocutors recalled as nationalist and propagandist. Prasad, who was in his late sixties and was a committee member from the Bukit Mertajam Temple, confirmed that in addition to watching movies in theatres, the railway authorities screened some films too: 'They only show film *negara* [Malay, nation/nationalist]. Only about the country, documentary *lah*. Politics. But in Alor Setar – we see Tamil and Hindi movies. Sangam and Shammi Kapoor film. Tamil – Shivaji and MGR films – that was in the 60s, 70s.'

In Malaya after the Second World War, railway staff welfare did receive some attention from the authorities, when a labour and welfare section was established in 1946 and the post of labour and welfare officer was created (Selvaratnam 1985: 99). However, prior to this, many 'railway institutes', effectively sports clubs, had already been set up across Malaya. For example, the Brickfields Club was established under the auspices of the Selangor Government Railway in 1896, and the 'Ipoh Road Club' was founded in 1915' (ibid.). These were renamed 'railway recreation clubs' and registered under the Societies Ordinance after the Second World War (ibid.). Sports clubs provided a platform for railway staff to compete in football, cricket, hockey and chess tournaments, among others (ibid.: 100). Sports, especially athletics, have a long history in railways in Britain and its colonies (Huggins and Tolson 2001; Mehta 2009; Sen 2015). The rationale for these sports and cultural initiatives was, in the first instance, a strategic decision, as noted by Selvaratnam:

> The Railway Administration had long recognized the importance of sports to their workers and the associated harmony and co-operation at the working place for better productivity and efficiency. (Ibid.: 99)

Remarkably, the authorities also established a railway staff arts society in 1959 to encourage staff to develop artistic talents and pursue crafts as a hobby. The

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management logic was that affording staff and their families opportunities to develop hobbies like arts and crafts, music and dance 'kept [them] away from undesirable directions, would bring healthy results and happier relationships as long as heavy financial commitments were not involved' (ibid.: 105). However, many of these interclub competitions involved staff from the middle and higher grades of railway employees. It is unlikely that these were extended to railway labour, such as the permanent way staff. Certainly, none of my interlocutors from the Way and Works Department mentioned these sports or cultural activities, or reported being involved in events relating to these. However, I did come across a rare mention that at the Gua Musang Station, 'predominated by permanent way staff and other lower income groups … [staff] had organised an Arts & Crafts Exhibition and Sports Competition on 25 November 1961' (ibid.: 107).

The numerous former permanent way staff with whom I discussed this issue did not say anything positive about the experience of watching films screened by railway authorities – these were all dismissed as *negara* films, as propaganda. However, other sources contain personal, more favourable memories of sports events and film screenings organized by railway authorities. For instance, Bala notes that Madam Perima – whose father, Perisamay, son of Sola Thevar Alagan, was a clerk in the railway depot at Gemas and grew up in railway quarters – recalls the life of railway communities with nostalgia:

> We had railway sports at the field. A lot of activities. And then we watched movies sponsored by the railway. They had a big white screen. You bring your own mat and you just sit down [on the field] and they'll screen it from the railway club. Sometimes English movie, sometimes Tamil. Whole families would bring their mats, pillows, all of them excited. (Cited in Bala 2018: 25)

These contrasting experiences are no doubt mediated by the class of railway staff in question. Those who lived in railway communities in towns and cities, from the middle to the higher grades of the railway services, would report a good working life – good housing, medical benefits and time for leisure activities. The vast majority of my interlocutors who were daily-wage, permanent way labourers portrayed their working lives in dramatically different modes, with negligible leisure opportunities. My invocation of *leisure* here does not refer to organized free time for labourers, which was occasionally provided by railway authorities in the form of sports events and propagandist, educational films. The latter become more pronounced in Malayan Railways from the mid-1950s onwards following the establishment of 'Railway Institutes'. Nevertheless, this discussion of railway staff welfare and leisure has surfaced and given credence to the lives that railway labour led *outside their work as capitalist labour*. However, how

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can the self-directed, meaningful activities that railway labour may have turned to of their own accord be known? In one response to this question, Kaur records that despite the dismal conditions in which railway labour in Malaya was housed and worked:

> These coolies were *provided with one facility deemed to be good for their souls – a small temple beside their labour lines*. Thus, all along the countryside were little temples providing salvation for the coolies. (Kaur 1990: 111, emphasis added)

Indeed, Hindu temples in diasporic locales have enabled immigrants from India to express piety and devotion. However, it is crucial to highlight that the temples that dotted the length of the permanent way in Malaya *were built by the labourers themselves*, as the colonial authorities permitted the use of railway premises to establish these sacred sites and, indeed, charged the workers a nominal sum for the right to occupy the land temporarily. The *same* group of individuals who built and maintained the railways also constructed the sacred Hindu landscape in and around railway precincts. My argument is that the religion-making practices of labour – through the building of temples – are one manifestation of the nonlabouring lives of labour. As such, I present labourers, who were the builders of railways – a symbol of technological modernity – *also* as pioneering religion makers in Malaya.

In highlighting their religion-making capacities, I argue that railway labourers did not lead one-dimensional lives, existing only to labour or function as labour. Ironically, it was precisely the strategic and utilitarian placement of these workers' homes within and around railway landscapes that – indirectly and unintentionally – led to them marking these territories with sacrality: a complex historical phenomenon in Malaya that I will turn to in the next chapter. The outcomes of my *mapping* and *tracing* of the railway and religious infrastructures across Malaysia and Singapore, enabled by the methodology of *ethnography on the move*, are also covered in Chapter 4. This approach has allowed me to construct visual maps of functioning 'railwaymen temples' across these territories. Additionally, my fieldwork has revealed stories about these temples, which entrench these sites firmly in my interlocutors' renderings of colonial railway history – remembered connections that reverberate in contemporary narratives of the railways and Hinduism that I encountered in these two countries.

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