

## Colonial modernism and the flawed paradigms of urban renewal: uneven development in Bombay, 1900–25

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**ABSTRACT:** This article explores the failure of urban renewal in Bombay city during the first quarter of the twentieth century. It shows how colonial rule structured a class-driven process of uneven urban ‘improvements’ that actually exacerbated the problems of congestion, bad housing and environmental blight. In this process, the new forces of modernity were selectively appropriated to accentuate the differentiation in built forms and urban spaces. Finally, through implicit comparisons with contemporary developments in Europe, it reveals the limitations of urban regeneration in a *laissez-faire* colonial capitalist environment where the search for quick returns by competing economic actors precluded the adoption of long-term policies and interventionist strategies necessary to create the good city life.

Contemporary Bombay is amongst the world’s largest and fastest growing cities, its population of over 15 million making it the sixth largest city in the world today; slum and pavement dwellers, however, make up over one-third of these inhabitants.<sup>1</sup> Within the next decade of this millennium century, the majority of the world’s population will, for the first time in history, become urban dwellers, and most will be living in the ‘new’ megacities of the south such as Bombay. This phenomenal urban growth, often caused by the failure of rural cycles and of suburban development projects, represents one of the main symptoms of the ‘maldevelopment’ of many southern societies, with city life becoming increasingly unsustainable as a result of demographic implosion, poverty, overcrowding, and environmental health risks.<sup>2</sup>

In spite of the suggestive work of Anthony King over two decades ago,<sup>3</sup> there have been remarkably few attempts to trace the historical genesis of this situation, and to explore in particular, the urban policies

<sup>1</sup> H. Girardet, *The Gaia Atlas of Cities* (London, 1996), 75, 182–4.

<sup>2</sup> B. Gleeson and N. Low, ‘Cities as consumers of the world’s environment’, in N. Low, B. Gleeson, I. Elander and R. Lidskog (eds), *Consuming Cities* (London, 2000), 10–11.

<sup>3</sup> A. King, *Colonial Urban Development* (London, 1976); and idem, ‘Colonial architecture revisited: some issues for further debate’, in K. Ballhatchet and D. Taylor (eds), *Changing South Asia: Economy and Society* (London, 1984), 99–106.

of the colonial era.<sup>4</sup> After all, like other colonial cities (and particularly colonial port-cities), the growth of Bombay closely parallels the expansion of the needs of European empires (chiefly the British Empire) and the emergence of a global economy. Indeed, the power of colonial authorities to command and shape urban space is of primary significance in understanding the development of many contemporary 'Third World' cities. In particular, an examination of the intensified production of urban space in the late or 'industrial' colonial era, facilitated by the new possibilities of modern technologies, and of the changing framework of the colonial political economy during this period, might well offer a revealing glimpse of the formative stage of urban development paradigms whose constraining effects have continued to cast a long shadow over Bombay. By identifying the primary determinants of colonial spatial practice and by showing how inter-colonial land rivalries and competition for quick profits influenced the nature of built forms as well as the level of population densities and the outcome of initial suburbanization schemes, this essay will attempt to trace the colonial historical origins of Bombay's current predicament.

### Colonial spatial practice

Bombay was not an indigenous Indian city. It did not evolve from an original sacred centre or a place of pilgrimage, but represents the outcome of an evolving process of colonial domination which created its own stratified urban forms and demographic patterns.

During the initial phase of 'mercantile colonialism' from the late seventeenth century to the early nineteenth, Bombay, under the controlling hand of the East India Company, gradually evolved as a built environment designed to facilitate the extraction and concentration of vast quantities of opium and cotton from its rural hinterland, and to enable their shipment abroad. These commodities provided the basis for a flourishing colonial trade with China,<sup>5</sup> while raw cotton exports to England contributed significantly to new domestic consumption patterns which paved the way for Britain's industrial take-off.<sup>6</sup> Spatially, Bombay

<sup>4</sup> There has, nonetheless, been some very interesting urban historical work on Bombay generally focusing on the nineteenth century: A. Farooqui, 'Urban development in a colonial situation: early nineteenth century Bombay', *Economic and Political Weekly*, 31, 40 (1996), 2746–59; C. Dobbin, *Urban Leadership in Western India* (Oxford, 1972); M. Dossal, *Imperial Designs and Indian Realities* (Delhi, 1991); I. Klein, 'Urban development and death: Bombay city, 1870–1914', *Modern Asian Studies*, 20, 4 (1986), 725–54; J. Masselos, 'Appropriating urban space: social constructs of Bombay in the time of the Raj', *South Asia*, 14, 1 (1991), 33–65; F. Conlon, 'Industrialization and the housing problem in Bombay, 1850–1940', in Ballhatchet and Taylor, *Changing South Asia*. Closer to the colonial modernist concerns of this essay are, more recently, Z. Celik, *Urban Forms and Colonial Confrontations: Algiers under French Rule* (Berkeley, 1997); and N. Perera, *Society and Space: Colonialism, Nationalism, and Postcolonial Identity in Sri Lanka* (Denver, 1998).

<sup>5</sup> Farooqui, 'Urban development in a colonial situation', 2748–49.

<sup>6</sup> D. Washbrook, 'From comparative sociology to global history: Britain and India in the

was thus conceived as a regional centre of colonial mercantile capital accumulation, at the heart of an export-oriented network of communications centred on its port.

The development of built structures between the early eighteenth and the mid-nineteenth centuries, created 'the Fort' (the expanding fortified harbour area) as the dominant urban social space and the nucleus of early colonial settlement. However, the East India Company's enforced reliance upon native brokers to secure profitable trade transactions with the Bombay hinterland, ensured the granting of property rights to elite merchant communities – Baniyas, Bohras and, particularly, Parsis – who thus participated in the development of the Fort's built environment. By the early nineteenth century, the overwhelming concentration of commercial activities and employment opportunities in the Fort had led to a diverse population influx and created the conditions for urban congestion. The demand for housing, moreover, also led to a sharp rise in the value of land not only in the Fort but also in the growing 'Indian town' just beyond the fortifications. With the strengthening of capitalist property rights in the early decades of the nineteenth century, investment in urban real estate provided lucrative new opportunities for indigenous merchants who had prospered through the opium and cotton trade with China.<sup>7</sup> Ownership of land and buildings not only brought lucrative returns but also enabled a more flexible strategy of capital accumulation, giving rise to a new 'class faction' of substantial landlords.

The transfer of authority from the East India Company to the British state following the Rebellion of 1857 led to a drive to reconstruct social space in the Fort. Additional land was created as a result of the demolition of the ramparts and through reclamations from the sea, as a more pervasive colonial presence now strove to erase built signs of its military origins and highlight instead the city as a prosperous centre of commercial enterprise, illustrative of imperial power and prestige. The opened up sites were occupied by planned public buildings designed to display the architectural arts of a 'superior' civilization. During the late nineteenth century, there emerged a range of public edifices such as the Bombay High Court and the Municipal Corporation in the 'neo-Gothic' style originally devised by John Ruskin and William Morris as, ironically, a rebellion against the tastelessness of mainstream English Victorian architecture. Most prominent of all was that architectural ode to the imperial venture, the Victoria Terminus building: with its deliberate, unsubtle symbolism – it featured mounted figures representing 'Progress', 'Commerce' and 'Engineering' – the new railway terminal

pre-history of modernity', *Journal of the Economic and Social History of the Orient*, 40, 4 (1997), 417–19.

<sup>7</sup> Particularly in the decades following the British Government's abrogation of the East India Company's trading monopolies in 1813.

clinched the Fort's function as the spatial embodiment of an emerging colonial industrial modernism.

Meanwhile, demand for Indian cotton rose considerably as a result of the American Civil War. It marked a boom period of capital accumulation for indigenous merchants and provided further opportunities for diversification. From the 1860s, capital began to be increasingly invested in the building of cotton mills,<sup>8</sup> and by the end of the century a new industrial landscape, created out of the filling in of previously empty lowlands, had emerged virtually adjoining the northern portion of the congested Indian town. To house the migrant workers arriving in the city from the hinterlands of the Konkan and the Deccan, entrepreneurial landlords built the most basic tenement chawls on the premise that the chronically low-waged workers would only be able to pay a cursory rent. In the absence of regulations specifying minimum adequate living space, home amenities, or open space between buildings, one-room tenements were erected on 'every inch of available land' without connections to drains or sewer pipes. Their overcrowded occupants were described as living in 'incredible' poverty and subsisting on a 'starvation diet'.<sup>9</sup>

By the turn of the century, a new city had indeed come into being, but one that was marked by environmental degradation, human poverty and health pandemics. Overcrowded and insanitary buildings threatened the lives of their occupants, facilitating the spread of diseases such as tuberculosis; the coal-powered cotton mills, railway locomotives and government Mint churned out thick black smoke which caused a deterioration in air quality and increased susceptibility to respiratory illnesses. Lingering dark clouds brought about 'a marked change . . . over localities such as Byculla, Parel, Tardeo, Tarwadi and even remote Sewri'.<sup>10</sup> The very topography of the city, built on flatlands between the sea and the coastal hills, worked against the rapid dispersal of industrial emissions. During the day, the prevailing sea breeze funnelled the smoke-filled air towards the hills; however, the direction of the night-time breeze ensured that, for much of the year, the polluted air drifted back over the city.<sup>11</sup> Moreover, while the Municipal Corporation expanded the city's water supply, this was not matched by the construction of a comprehensive drainage system, leaving the vast majority of localities north of the Fort without adequate drains or sewers. Much of the soil in the low-lying central districts of the city remained permanently waterlogged and liable to be permeated by disease microbes, creating a favourable ecology for the spread of malaria and plague.<sup>12</sup>

<sup>8</sup> R. Chandavarkar, *The Origins of Industrial Capitalism in India. Business Strategies and the Working Classes in Bombay 1900–1940* (Cambridge, 1994), 65.

<sup>9</sup> Census of India, 1901: vol. x, *Bombay (Town & Island)*, part iv, 151, 144.

<sup>10</sup> *Ibid.*, 151.

<sup>11</sup> N. Crook, *Principles of Population and Development* (Oxford, 1998), 81.

<sup>12</sup> Klein, 'Urban development', 735–45.

The severity of the end-of-century plague pandemic<sup>13</sup> revealed the environmental degeneration achieved by almost a century of anarchic *laissez-faire* urban development in which land and buildings were primarily resources for capital accumulation by urban elites. Private owners and users of land had been allowed virtually absolute freedom to produce insanitary built structures and social spaces which had come to exercise a progressively degenerative impact on the global urban fabric.

### Competing colonialisms: 'improvement' strategies and urban land rivalries

Bombay followed the tradition of pre-industrial urban Europe where plague and congestion had often spurred the renewal of city centres.<sup>14</sup> The 'old plague' of medieval European knowledge had now, however, arrived in a city simultaneously experiencing the impact of an indigenously driven initial phase of industrialization, and – as a result of Bombay's position in the imperial market-place – of the technological innovations and artefacts associated with the second industrial revolution of the late nineteenth century in the West. Modern industrial colonialism served both to refine and accentuate the iniquitous spatial practices inherited from the mercantilist era.

Plague induced a widespread elite consensus that a bold initiative was required to 'clean up' the city. However, in the absence of any real local medical knowledge about the disease,<sup>15</sup> and of even less colonial interest in the political dimensions of the major improvements in public health secured by contemporary British cities,<sup>16</sup> slum clearance and reinforced social segregation were seized upon as the crucial elements of urban renewal. The example of the Glasgow Improvement Trust<sup>17</sup> led to the Government of Bombay setting up the Bombay City Improvement Trust

<sup>13</sup> Plague became the main cause of death in the city in the decade 1897–1907: *ibid.*, 744.

<sup>14</sup> H. Meller, 'Urban renewal and citizenship: the quality of life in British cities, 1890–1990', *Urban History*, 22, 1 (1995), 63. Disease continued to be, of course, the fundamental motivator of urban renewal projects in modern cities: A. Fairchild and D. Rosner, 'The living city: engineering social and urban change in New York City, 1865–1920', *Bulletin of the History of Medicine*, 73, 1 (Spring 1999).

<sup>15</sup> M. Harrison, *Public Health in British India: Anglo-Indian Preventive Medicine 1859–1914* (Cambridge, 1994), 134.

<sup>16</sup> In particular, the municipalization of local government in the late nineteenth century, with councillors now elected on an enlarged franchise, led to improved and expanded urban services (water, gas, electricity, public transport, sewage purification, street cleansing, parks, housing, maternity welfare) often directly operated by municipalities. These were largely paid for by taxes on the rental value of property. See T. Hart, 'Urban growth and municipal government: Glasgow in comparative context 1846–1914', in A. Slaven and D.H. Aldcroft (eds), *Business, Banking, and Urban History* (Edinburgh, 1982).

<sup>17</sup> Established in 1866 by an Act of Parliament in the wake of recurring typhus and cholera epidemics, the Glasgow Improvement Trust's objectives were to acquire and clear for redevelopment approximately 90 acres of the most crowded residential neighbourhoods

in 1898; like its British model, the Trust was dominated by local elites.<sup>18</sup> With its initial focus on slum clearance as the primary instrument of sanitary reform, the new body passed over a unique opportunity to draw on lessons of decades of British urban 'improvement' schemes whose neglect of housing provision had generally resulted in the shifting, rather than the abolition, of overcrowding.

The inhabitants of the initial slum target areas, in Nagpada, Mandvi, Market and Chandanvadi, found themselves compulsorily evicted without being offered alternative accommodation; as a result, they attempted to rehouse themselves in tenements just outside the targeted neighbourhoods. Alongside the Trust's operations, the Municipality's enforcement of the new Epidemic Diseases Act also led to the removal of a tier of living rooms from the middle of large insanitary houses with the aim of creating a *chowk* (passage) to allow light and air into the buildings.<sup>19</sup> Slum eradication thus led to an increased demand for housing which immediately caused a sharp rise in rents. This demand was largely met by private landlords adding new storeys to their old insanitary tenements. Indeed, as fast as 'many houses had chowks cut in them' they 'also had storeys added'.<sup>20</sup> Not only did this result in the worsening of congestion<sup>21</sup> but also in an increase in the cost of acquiring slum property by the Improvement Trust.<sup>22</sup>

The primary strategy of overcoming congestion through slum eradication thus floundered on the housing issue. Repeating the British experience, the Trust's rapid clearing of slums was not matched by the construction of affordable homes, thereby enabling landlords to step in and simply continue their practice of erecting the most hazardous and unhealthy buildings to accommodate the urban poor. By 1909, the Trust had evicted over 50,000 people from demolished one-room tenements, but its new sanitary chawls only contained 2,844 rooms.<sup>23</sup> Moreover, landlords' control over the Municipal Corporation, strengthened by the colonial state's refusal to democratize the municipal franchise,<sup>24</sup> ensured

of the old city: N.J. Morgan, 'Building the city', in W.H. Fraser and I. Maver (eds), *Glasgow. Volume II: 1830 to 1912* (Manchester, 1996), 21.

<sup>18</sup> Its Board comprised the Military Commander of Bombay District, the Collector of Land Revenue, the (government-appointed) Bombay Municipal Commissioner, and leading members of the Bombay Chamber of Commerce, the Millowners Association and the Municipal Corporation: Bombay Improvement Trust, 'City Improvement Trust Report, 1907', iv.

<sup>19</sup> J.P. Orr, *Social Reform and Slum Reform* (Bombay, 1917), part II, 23.

<sup>20</sup> *Ibid.*

<sup>21</sup> With the benefit of hindsight, the Trust subsequently admitted this. Its initial operations had '... tended only to make bad worse, to intensify congestion where it already existed and to extend it to comparatively open areas just beyond the original congested zone': Bombay Improvement Trust, 'City Improvement Trust Report, 1919', 121.

<sup>22</sup> These costs were already high as the Trust had no power to acquire only parts of buildings: Government of Bombay, 'Local self-government proceedings, 1916', 930.

<sup>23</sup> Orr, *Social Reform*, 23.

<sup>24</sup> Between 1888 and 1923, there was no democratic advance in terms of the widening of the municipal franchise. By 1914, only 1 per cent of the urban population – 11,500 citizens

their continued ability to resist the adoption of a uniform, sanitary building code. Indeed, as in Glasgow, the Improvement Trust's powers of compulsory land acquisition and its emergence as a substantial land-owner in its own right,<sup>25</sup> led to open conflict with the city's influential landlords who made full use of the Corporation to criticize and oppose Trust schemes.

The emergence of the Improvement Trust (and through it, of the local colonial state) as a major player in the land market necessarily led to intensified competition for the scarce commodity of urban land. It meant that each of the dominant class factions – commercial companies (European and Indian), landlords, merchants, industrialists – now found their options drastically curtailed, particularly as increasing demand for a scarce resource fuelled speculation, especially during the war years, and led to the rapid spiralling of land prices. This was not only true in the old city but also in the northern suburbs where the price of an acre of land shot up from between Rs. 200–1,500 in 1916 to Rs. 5,000–25,000 in 1919.<sup>26</sup> As the Government of India controlled the railway companies, the colonial state also had direct interests in urban land. In 1904 the central government acquired, on behalf of the Great Indian Peninsula Railway, a very substantial area of land at Matunga without informing the Bombay government, the Municipal Corporation or the Improvement Trust. The Municipal Commissioner slammed the Railway Companies' 'land hunger', accusing them of seeking 'to turn the city into a station yard with a few houses dotted about here and there'.<sup>27</sup> In a 1907 consultative memorandum on the 'future development of the city', the Bombay government seemed to agree that the railways had been allowed to appropriate far too much urban space. It now appeared to advocate restrictions on railway development in favour of the construction of 'broad northern and southern thoroughfares'.<sup>28</sup>

It was clear that, given the shape of the island, north-south movement had much greater potential to open up large areas for eventual settlement than east-west movement. However, the two major road projects completed by the Improvement Trust prior to the First World War, Princess Street (1905) and Sandhurst Road (1909), were both rather limited east-west thoroughfares. Princess Street ran from Carnac Bridge,

– had the right to vote. In 1923, the new ten-rupee rental franchise extended the number of voters to 75,000, or 7 per cent of the population, still less than one-eighth of the numbers now entitled to vote in Glasgow as a result of the Representation of the People Act of 1918: *Bombay Chronicle*, 25 Jan. 1916; 30 Jan. 1923; 2 Feb. 1923.

<sup>25</sup> By 1915, Trust-owned estates comprised 10 per cent of all urban land: *Bombay Chronicle*, 6 Feb. 1917.

<sup>26</sup> *The Times of India*, 25 Sep. 1919.

<sup>27</sup> Government of Bombay, 'Medical proceedings, 1905', 128.

<sup>28</sup> The consultation document invited responses from the city's elite commercial bodies – the Chamber of Commerce, the Millowners' Association, the Indian Merchants' Chamber, as well as from the Improvement Trust and the Port Trust: Government of Bombay, 'Local self-government proceedings, 1909', 71.

just north of the Fort, to Queen's Road on the south-western seafront. Once again, the project caused large-scale dishousing which led to an increase in overcrowding in nearby Cavel, just north-west of the new development, where 'large numbers of insanitary houses' had 'new storeys added to them', making light and ventilation in neighbouring houses even worse than before.<sup>29</sup> In contrast, the new road proved very beneficial to colonial and Indian elites, providing a quicker route to work on their daily journey from Malabar Hill and Cumballa Hill to the Fort area. Wide enough for the new motor cars, Princess Street amplified elite residential movement away from the old city centre towards the west of the island.

A decade of Improvement Trust schemes had no impact on overcrowding in the most congested parts of the inner city. Plague remained a constant menace, periodic outbreaks exacting a high death toll, while there was no abatement in the familiar diseases of malaria and smallpox.<sup>30</sup> The Improvement Trust blamed the Municipal Corporation's failure to amend the building by-laws in favour of a universal sanitary code and, with its costs rising, complained increasingly of its inadequate subsidy from the Bombay government;<sup>31</sup> the Corporation in turn accused the Trust of overspending on roads to the detriment of direct slum clearance;<sup>32</sup> it also asserted that it had no sanitary jurisdiction over the vast tracts of government and railway land; not to be outdone, the Bombay government was scathing about the Corporation's apathy, nor was it even averse to blaming the Trust for displacing 'considerable numbers of the poorer classes' and for not providing them with alternative sanitary dwellings!

In spite of the consistently high level of frustration at their failure to reverse the process of environmental degeneration, the colonial agencies never questioned the shibboleth that urban development should remain driven by the profit and prestige motives of the dominant classes. Significantly, a rare Bombay government pre-war urban policy initiative, the 1909 Resolution on the 'Development of Bombay City', was primarily concerned with increasing the social space 'available for occupation by the wealthy classes'.<sup>33</sup> Privileging yet again the south of the city, it declared that this ought to be achieved 'by means of reclamation in Back

<sup>29</sup> J.P. Orr, *Density of Population in Bombay* (Bombay, 1914), 9; Bombay Improvement Trust, 'City Improvement Trust Report, 1913', 127.

<sup>30</sup> *Bombay Gazette*, 24 Feb. 1905 and 18 Mar. 1909.

<sup>31</sup> Bombay Improvement Trust, 'City Improvement Trust Reports' (1913), 147 and (1916), 102.

<sup>32</sup> Letter from President, Bombay Municipal Corporation, to Secretary, Government of Bombay (General Department), 29 Jul. 1915; Bombay Improvement Trust, 'City Improvement Trust Report, 1916', 98.

<sup>33</sup> The following paragraphs are based on Government of Bombay General Department Resolution no. 3022, 14 Jun. 1909, 'Development of Bombay City and the improvement of communications in the Island': Government of Bombay, 'Local self-government proceedings, 1909', 381-6.



Bay', since the 'well-to-do' residents of Bombay should continue to be housed in the south-west of the city, 'as near the Fort as houses at suitable rents are available'. Similarly, accommodation for mill workers and labourers should remain close to factories and docks in the centre and east, as long as hours of work and wages did not 'permit their travelling any distance' from their workplace. Only the 'middle class worker', who could afford the cost of public transport, could be persuaded to move to the suburban north-west and eventually, to the still largely undeveloped island of Salsette beyond the existing city boundaries. Such spatial segregation had to be maintained 'otherwise the interests of one class will suffer by the intrusion, into areas unsuitable for them, of residents of another'.<sup>34</sup>

With the constant increase in the working-class population during this period, this was a recipe for exacerbating congestion in the densely populated central districts as it necessarily implied either the increase or the extension of built structures over a finite land surface area. Nor were the colonial authorities unaware of the new technological factor of the electrified railway or of public interventionist initiatives such as cheap workers' trains which, between them, were widely perceived as the potential answer to the limited availability of land in European inner cities.<sup>35</sup> The Bombay government's own memorandum of 1907 had referred to the possibilities of 'free and rapid communication by rail and tramway' as well as of 'cheap workmen's trains or workmen's tramways' which would enable working-class accommodation 'in the less frequented portions of the Island where land is available on easy terms'. But these ideas were now decisively rejected, the Resolution describing as 'premature' any 'scheme for an electric railway for the conveyance of suburban passenger traffic'. Only with the establishment of the projected upper-class residential enclave in Colaba following the reclamations in Back Bay, would railway electrification become, 'in course of time', a realistic option. Other possibilities of rapid transit such as overhead trackless trolleys and underground railways were also dismissed as 'beyond the scope of the immediate requirements of the Island'. The prospect of subsidized transport for workers, an increasingly important aspect of industrial policy in several European cities, also fell by the wayside since there was 'practically a consensus of opinion on the part of all the bodies consulted' that no such special measures were necessary. The fact that the Resolution often simply echoed the responses of the elite commercial bodies that were consulted reveals the extent to which the Bombay

<sup>34</sup> *Ibid.*, 72.

<sup>35</sup> P. Capuzzo, 'Between politics and technology: transportation as a factor of mass suburbanisation in Europe 1890–1939', 1, Paper presented at a conference on 'Suburbanising the masses: public transport and urban development in historical perspective', National Railway Museum, York, Nov. 1997.

government remained bound to a host of particularistic and competing economic actors, each of whom was equally committed to the immediacy of its perceived interests.

### The politics of built forms: high design and sick buildings

The substantial expansion in built forms is a significant and revealing aspect of the city's history during the first quarter of the twentieth century. Sometime during the war years, Bombay achieved the status of a demographic 'mega-city' and joined the select ranks of about twenty world cities with a population of over a million inhabitants. However, while Bombay's population rose by over 50 per cent between 1901 and 1921,<sup>36</sup> buildings classified as 'residential' only increased by 11 per cent, a probable indication of the effects of 'improvement' schemes on urban housing accommodation. In contrast, mills and factories increased by 328 per cent, while *godowns* (warehouses) used by commercial enterprises, railways, tramways and docks, grew by over 400 per cent. The increase in this category of buildings was the single most important factor in the overall expansion of built structures during this period.<sup>37</sup> Significantly, too, the density of buildings closely corresponded with the density of population. The most overcrowded central wards of the city<sup>38</sup> also experienced the most intense pressure of buildings on the land: over fifteen buildings per acre.<sup>39</sup> Indeed, congestion and its attendant environmental problems were due less to population density *per se* than to the ever growing spatial extension of insanitary buildings.

This was also the era that witnessed a considerable development in official colonial public building. The General Post Office, the new Custom House, the JJ School of Art, the Prince of Wales Museum, the Royal Institute of Science and the Gateway of India, were all built by the Bombay government between 1905 and 1925, with no expenses spared.<sup>40</sup> These buildings displayed an organic unity of imperial form and colonial function. On the one hand, they harnessed the possibilities of new technological developments and created an imposing yet versatile architectural language to signify modern imperial power and prestige. The 'unprecedented plasticity'<sup>41</sup> of reinforced concrete was used to cast the impressive domes of the General Post Office, the Prince of Wales Museum and the Gateway of India, enabling a peculiar mixing of styles which fused European classical traditions and Indian sources. While this

<sup>36</sup> From 776,006 to 1,175,914.

<sup>37</sup> Census of India, 1921: vol. ix, *Cities of the Bombay Presidency*, part B, vi–vii.

<sup>38</sup> Chakla, Bhuleshwar, Kumbharwada, Kamatipura and Second Nagpada.

<sup>39</sup> Census of India, 1921: *Cities*, ii–vi.

<sup>40</sup> C.W. London, 'Edwardian architects of Bombay: George Wittet and John Begg', *MARG* 46, 1 (Bombay, 1994), 37–52.

<sup>41</sup> C. Chant, 'Materials: steel and concrete', in idem (ed.), *Science, Technology and Everyday Life* (London, 1989), 155.

innovative style<sup>42</sup> expressed mastery over Indian architectural forms, the sheer size and elevation of the new edifices achieved a dwarfing of human scale and a domination of the immediate spatial environment, providing the Fort with new monumental landmarks. At the same time, these buildings also had specific functions which expressed the expanding ambitions of the colonial state in the late imperial era. They served to centralize and speed up communications (the GPO), to socialize citizens in the established canons of Western culture (the JJ School of Art, the Royal Institute of Science), and to provide an authoritative interpretation of the Indian past (the Prince of Wales Museum).

The new public buildings were expressions of colonial high design and contributed to the modernist renewal of the Fort. Meanwhile, the new medium of cinema was emerging from early exhibitions in tents and in the open air, and acquiring its own specially designed buildings. Predictably, 'picture palaces' were pioneered in the Fort where initially, spatial constraints made it easier to renovate and reconvert old theatres. The *Empire*, which opened in 1916, was rebuilt 'out of all recognition' to its previous incarnation, in a 'cream and gold colour scheme' and 'with a balcony and a lounge with tea rooms on the first floor'.<sup>43</sup> Cinema initially attracted a number of predominantly Parsi entrepreneurs who were already active in a range of modern commercial enterprises. The most eminent, J.F. Madan,<sup>44</sup> chose to locate two of his most prestigious picture-houses, the *Imperial* and the *Empress*, in the middle-class locality of Girgaum on land leased from the Improvement Trust on Lamington Road. Just off the new Sandhurst Road, Lamington Road was at the heart of one of the Trust's most valuable inner-city real estate development zones and included new elite residential plots. The high rental returns of this location, Madan's expanding cinema empire,<sup>45</sup> and the growing commercial potential of moving pictures, all made this a highly remunerative business venture for the Trust.

The conceptually original, comfortable cinemas in the Fort and Girgaum catered predominantly, though not exclusively, to upper-class Europeans and Indians. In contrast, the cheaper cinemas in the centre and north of the city were constructed for the rapidly growing working-class movie audiences. By the mid-1920s, workers had indeed overtaken 'educated Indians' as the predominant urban cinema audience.<sup>46</sup> Unlike

<sup>42</sup> This became known as 'Indo-Saracenic' architecture and represented a self-conscious colonial attempt to design official buildings which reflected their Indian environment.

<sup>43</sup> *Bombay Chronicle*, 2 Dec. 1916.

<sup>44</sup> In addition to his cinema interests, Madan was also an importer of foods, liquors and pharmaceutical products, and also dealt in real estate and insurance: E. Barnouw and S. Krishnaswamy, *Indian Film* (Delhi, 1980), 8.

<sup>45</sup> By 1927, Madan Theatres owned 8 out of 18 cinemas in the city: Indian Cinematograph Committee 1927-28: 'Evidence', vol.1, 348.

<sup>46</sup> Two-thirds of all cinema-goers were now described as belonging to 'the illiterate classes': *ibid.*, 1.

the *Imperial* and the *Empress*, however, entrepreneurs built cinemas such as the *Venus* and the *Lakshmi*, close to Parel's mill district, as 'unpretentious constructions' devoid of the architectural qualities, and the amenities, of the picture palaces of south Bombay.<sup>47</sup> There were frequent complaints about the cinemas on Falkland Road and Grant Road in particular: a combination of overcrowding, cigarette-smoking, low ceilings, and narrow and insufficient emergency exits, made them liable to 'spontaneous combustion'; while their inadequate latrines and location in the immediate vicinity of milch cattle and horse stables rendered them very much an extension of their wider insanitary environment.<sup>48</sup>

In contrast to these developments, the crisis in working-class housing showed little sign of being resolved. As we have seen, in the years preceding the First World War, the Improvement Trust was primarily concerned with the removal of insanitary slums: the provision of social housing was never one of its fundamental aims.<sup>49</sup> Moreover, although other options were now conceivable, official colonial thinking remained dominated by the shibboleth of maintaining workers' residential proximity to their workplace. Many of these residential areas were within the already highly congested central inner-city localities, the target of the Improvement Trust's regeneration and road-building schemes. The net effect of these operations was to reduce both the actual and potential housing space within the central working-class neighbourhoods, while at the same time raising the value of central urban real estate and consequently, rents.<sup>50</sup>

After a decade of ineffective and costly slum clearance operations, the Improvement Trust finally began to slow down the process of building demolition and attempted to rehouse displaced tenants in new chawls. Between 1909 and 1918, the Trust demolished 7,823 and constructed 9,311 one-room tenements on its estates. These were never meant to satisfy the quantitative needs of the labouring population but merely to provide qualitative housing models 'by way of encouragement to private enterprise . . . to take on the work' after the Trust had made a start.<sup>51</sup> Incorporating some of the principles of modern sanitary housing, the new tenements rapidly came to be seen as the cream of one-room housing accommodation in Bombay. However, very few mill hands,

<sup>47</sup> Report of the Indian Cinematograph Committee 1927–28, 19.

<sup>48</sup> Newspapers received constant letters of complaint calling for municipal intervention to enforce sanitary conveniences and safety measures on cinema proprietors: *Times of India*, 6 Jun. 1919; *Bombay Chronicle*, 4 Nov. 1924.

<sup>49</sup> The Trust received the bulk of its funding from the landlord-dominated Municipal Corporation which was hostile to any public housing programme; it also raised a substantial part of its revenue by developing and leasing vacant lands and, invariably, commercial rather than residential leases provided the highest returns.

<sup>50</sup> In the two decades between 1898, the year of the Trust's creation, and 1918, properties and rents in south and central Bombay were estimated to have increased by 100–200 per cent: *The Times of India*, 18 Apr. 1919.

<sup>51</sup> Orr, *Social Reform*, 27, 6.

construction workers, or dockers were able to afford the 'self-supporting' average monthly rent of Rs. 3.50–5.00 per room in Trust chawls.<sup>52</sup> The higher rentals both reflected the spiralling land values and the continued use by the Trust of the imported construction materials of cement and steel, now in shorter supply and more expensive as a result of war conditions.<sup>53</sup> By 1914, the average monthly wage of the labouring population was Rs. 15–20, with over 75 per cent of industrial workers owing average debts of Rs. 104 to moneylenders.<sup>54</sup> The Chairman of the Trust himself admitted that there were 'more of the middle class accommodated on the Trust estates at present than of the poorer classes'.<sup>55</sup>

Nor was private enterprise particularly keen to take up the Trust's invitation. In fact, the few private owners of large stretches of building land now tended to hold on to their properties in anticipation of a continuing rise in land values, thus keeping the most amenable building sites off the market.<sup>56</sup> Instead, the virtually universal response to the rising popular demand for accommodation was for landlords to extend their old chawls upwards and outwards, aggravating in the process the insanitary phenomenon of 'sweating building sites' and creating yet more 'sick buildings'.<sup>57</sup> This also enabled them to continue to operate outside the regulations of the new municipal building code of 1919 which only applied to 'new buildings to be constructed on land previously unbuilt upon'.<sup>58</sup>

By the end of the war years, 'house famine', affecting particularly the working classes, was seen as Bombay's most acute social problem.<sup>59</sup> 'The greatest and most urgent task to which Bombay must devote itself now and for years to come', stated the *Bombay Chronicle*, 'is to build houses – to build, to build, and to build well and with foresight.' The paper went on to suggest that local authorities should attempt to emulate the London County Council's ambitious post-war subsidized popular housing programme.<sup>60</sup> With little response from private enterprise, the

<sup>52</sup> Bombay Improvement Trust, 'City Improvement Trust Report, 1920', 28.

<sup>53</sup> Bombay Presidency Administrative Reports 1917–18, 57–8; and 1918–19, 37–8.

<sup>54</sup> *Bombay Chronicle*, 12 May 1916. Workers' difficulties in meeting daily living expenses were compounded by the standard practice, amongst mill owners, of keeping wages in arrears for 6–8 weeks: *Bombay Chronicle*, 15 May 1917.

<sup>55</sup> Oral evidence by J.P. Orr, Chairman of the Trust, to the Bombay Development Committee: Government of Bombay, 'Report of the Bombay Development Committee, 1914', 287–88. The majority of tenants appear to have been clerks and shopkeepers.

<sup>56</sup> Bombay Improvement Trust, 'City Improvement Trust Report, 1919', 123.

<sup>57</sup> Indeed, this was especially marked in 'represented' areas, i.e. the most congested central urban neighbourhoods: Bombay Improvement Trust, 'City Improvement Trust Report 1913', 123; J.P. Orr, *The Need for Co-operation Between Neighbours in the Development of Building Estates* (Bombay, 1915), 1.

<sup>58</sup> Government of Bombay, 'Local self-government proceedings, 1919', 785.

<sup>59</sup> The Bombay Central Labour Federation estimated that at least 50,000 workers in the city were homeless and slept on pavements: Government of Bombay, 'Judicial proceedings, 1922', 334.

<sup>60</sup> *Bombay Chronicle*, 30 Jun. 1919.

Bombay government set up a new 'Development Department' which was given the responsibility of constructing 'at least 50,000 one-room tenements' which, it believed, would finally solve the problem of working-class accommodation.<sup>61</sup> Like the Improvement Trust, the new government department was endowed with powers of compulsory land acquisition and amounted to yet another authoritarian 'quango' characterized by secretive deliberations and the absence of public consultation procedures.<sup>62</sup> Moreover, there was no departure from the obligation to realize 'full market values' on land transactions and to impose 'self-supporting' rents on workers. There were to be no subsidies.<sup>63</sup>

Such dogged determination not to learn from the experience of the Improvement Trust meant that the Development Department's failure was even more ignominious, and a greater financial cost. In the end, less than 17,000 tenements were actually built, and only one-fifth of these ever came to be occupied. The 'very small' numbers who took up tenancies consisted of 'clerks, superior artisans, and small shop-keepers', but not industrial workers.<sup>64</sup> Not only were rents, once again, prohibitive, but the Bombay government had remained deaf to the press's warning that if the housing scheme was intended to be 'for the benefit of the people', provision for potential users' input into the planning process was indispensable.<sup>65</sup> It continued to regard the one-room tenement model of working-class housing as sacrosanct and never seemed to have considered alternatives,<sup>66</sup> as it turned out, bad design and poor amenities had again resulted in the production of sick buildings by yet another colonial agency 'out of touch with the life of the people for whom the buildings were intended'. The majority of rooms had no water connections, *nahanis* (washing places), or lighting, and very inadequate *chulha* (fireplace for cooking purposes) and latrine provision. The chawls had also been designed without the customary verandah, which poor tenants had come to regard as their essential 'breathing space'. Rooms had thus no view of the sky and no perspective on the outside world.<sup>67</sup> The Archbishop of Bombay confided to the eminent architect Claude Batley that he feared the DD chawls would turn into 'centres of vice and crime' because 'there was no evidence of the milk of human kindness in their design'.<sup>68</sup>

<sup>61</sup> Government of Bombay, 'Development proceedings, 1921', 49.

<sup>62</sup> *Bombay Chronicle*, 29 Jun. 1920.

<sup>63</sup> Government of Bombay, 'Development proceedings, 1925', 105.

<sup>64</sup> Government of Bombay, 'Development proceedings, 1923', 67.

<sup>65</sup> *The Hindusthan*, 21 Aug. 1920; 'Bombay Native Newspaper Reports', 35, 1920.

<sup>66</sup> In the House of Commons, Communist MP with Bombay antecedents Shipurji Saklatvala accused the Bombay government of increasing the already staggering rate of infant mortality in the city by its persistence in building these one-room tenements: *Voice of India*, 25 Jun. 1923. 'Bombay Native Newspaper Reports' 30, 1923.

<sup>67</sup> *Bombay Chronicle*, 2 Jun. 1925 and 25 Oct. 1924.

<sup>68</sup> C. Batley, 'The importance of city planning', in C. Manshardt (ed.), *Bombay Looks Ahead* (Bombay, 1934), 36.

The Development Department had devised a housing project without any of the architectural design, layout, sanitary and community considerations characteristic of the best of contemporary urban planning schemes. It represented a small-scale illustration of the extent to which, in an era that witnessed the emergence of international town planning movements, 'planning' remained an alien and elusive concept for the Bombay government to grasp. The local colonial state had taken the initiative of seconding officials to study town-planning schemes in English and German cities. The report on Germany, the acknowledged world leader in the design of cheap working-class housing was particularly enthusiastic,<sup>69</sup> but its emphasis on the extensive nature of German municipalities' powers and initiatives, particularly their strategic co-ordinating role and their policy of urban land acquisition for public purposes, merely exposed the political gulf separating this vision of modern urbanism from the fragmented and anarchic administration of Bombay city.

#### **Empty suburbs, congested city streets**

During this period, suburban development, an essential means of reducing inner-city congestion, was another casualty of differing inter-colonial interests. The Willingdon administration which came into office in 1913 was certainly more enthusiastic about railway electrification than the previous Sydenham regime which had rejected the idea in its 1909 Resolution on the development of Bombay city. Indeed, another government-appointed Bombay Development Committee assumed, in 1914, that electrification 'up to the northern limit of Salsette residential development' was imminent.<sup>70</sup> The Bombay, Baroda and Central India Railway Company already operated a rather slow, commercially-oriented service between Colaba and Borivli in Salsette. Railways enabled a deeper radial penetration into the northern suburbs than tramways, and their electrification was essential for a quicker and more frequent passenger service between Bombay and Salsette.

The Bombay government, however, stumbled on the opposition of the Railway Board and the Government of India to expedite electrification. The Board observed that electrification would not yield a 'sufficiently satisfactory return on the capital expended', while the Government of India balked at the prospect of spending 'a sum approximating to one hundred thousand pounds'.<sup>71</sup> Without the increase in both transport mobility and capacity consequent upon rail electrification, any large-scale population movement to the northern suburbs was impossible. This would affect not only the projected settlement and development of

<sup>69</sup> B.W Kissan, *Report on Town-Planning Enactments in Germany* (Bombay, 1913).

<sup>70</sup> 'Report of the Bombay Development Committee', xviii.

<sup>71</sup> Government of Bombay, 'Local self-government proceedings, 1915', 487–95.

Salsette, i.e. the sparsely populated localities between Bandra and Borivli, but also the regions immediately to the south, between Mahim Creek and Dadar.

Indeed, suburban 'town planning' closely followed the fragmented model of the development of Bombay itself, in spite of the new Bombay Town Planning Act of 1915. This was an extremely limited measure which though couched in the modernist discourse of 'planning', did not reflect any new official awareness of the necessary concomitant transformations in the role and functions of local government. Suburban development schemes were conceived within an unchanged structure of local government which in Salsette consisted of multiple and unequal local authorities, all under the revenue jurisdiction not of the Bombay Municipal Corporation, but of the Northern Divisional Commissioner based at Ahmedabad.<sup>72</sup> Bandra, Kurla and Juhu had their own municipalities, while Santa Cruz, Andheri, Vile Parle and Goregaon were under the jurisdiction of 'Notified Area Committees' with considerably less powers.<sup>73</sup> Such arrangements rendered any co-ordination of services across the whole of Salsette impossible. The Act thus failed to break with the piecemeal and fragmented official approach to urban development, and continued to envisage building operations which did not simultaneously include any provision for water supply, drainage, sanitation and transport.<sup>74</sup>

Moreover, infrastructural schemes were never supported by anything like adequate funding. From 1913 onwards, the Bombay government allocated a meagre annual grant of Rs. 40,000 – or double a year's salary of the newly appointed Special Officer, Salsette Building Sites – to be distributed by the latter amongst all suburban local authorities for 'original works' (primarily conceived as the construction of roads and markets) in relation to residential town planning.<sup>75</sup> Colonial parsimony, compounded by the unco-ordinated nature of suburban 'development', ensured that by 1925, Salsette still had no drains, sewers, hospital or fire brigade services, very few schools, and only three dispensaries – at Bandra, Andheri and Kurla. Streets were lit with kerosene lamps, and even these were described as 'few and far between'.<sup>76</sup> In these circumstances, suburban 'town planning' amounted to a grave misnomer. By the end of the 1920s, a suburban region about six times the surface area of Bombay city only contained one-eighth of its population.<sup>77</sup> Indeed,

<sup>72</sup> Government of Bombay, 'Development proceedings, 1920', 47. In contrast, the new democratized post-war Glasgow Corporation was empowered to purchase suburban land for expansion and, by the early 1920s, the first phase of a gradual population movement to the suburbs was under way: C. McKean, 'Between the wars', in P. Reed (ed.), *Glasgow. The Forming of the City* (Edinburgh, 1993), 132.

<sup>73</sup> Government of Bombay, 'Local self-government proceedings, 1925', 871–895.

<sup>74</sup> *Ibid.*, 1919, 449.

<sup>75</sup> *Ibid.*, 1913, 329; 1917, 381; 1918, 529.

<sup>76</sup> *Ibid.*, 1925, 873.

<sup>77</sup> *Bombay Chronicle*, 2 Sep. 1923.



one-third of the 150,000 inhabitants of Salsette lived in Bandra alone. Of the other towns, Juhu was recorded as having a mere 1,851 inhabitants, Santa Cruz 2,461, Andheri 6,510, Ghatkopar 8,168, and Vile Parle 11,290.<sup>78</sup>

The colonial political economy precluded the processes which were enabling increased city-suburban mass mobility in post-First World War Europe: the democratization of political power, the municipalization of services and of suburban planning, the public control of transport companies and its impact on fares.<sup>79</sup> Although one of the major objectives of his own especially created 'Development Department' was the development of south Salsette, the new post-war governor, George Lloyd, attempted to dampen the hopes that plans for the northern extension of the city had previously raised. He now argued, ironically just as London suburban rail services were about to be electrified within a 15-mile radius from Charing Cross, that there was 'little analogy' between Bombay and the 'great urban' conurbations of London and New York. There, suburbs were much closer to the heart of the city, while from the Fort, 'it was 12 miles to Bandra alone'. He could not persuade the railway companies to electrify their lines; even if they did, passengers could not be carried at cheap enough rates 'to make the clerical and business population willing to live there without some considerable enhancement of their wages'; nor were such wage rises desirable as they would simply mean 'heavy new charges upon the business trade of the city'.<sup>80</sup> In a nutshell, Lloyd propounded the negative logic that underlay colonial capitalism's lack of economic dynamism which in turn dictated the fate of suburbanization.

If railway electrification was indispensable for vertical suburbanization, the tramway could also play an important supporting role by extending its lines northwards to link up with train stations, thus multiplying points of access and accelerating mobility between city and suburbs. Unlike train services, the tramways were electrified between 1905 and 1908, a technological innovation virtually simultaneous with street railway developments in Europe.<sup>81</sup> However, while this technically enabled a maximum speed of 18 m.p.h., in increasingly congested streets, the average speed of the 'electrified' trams averaged only 4.8 m.p.h. by 1925, slower than the old horse cars, and making the Bombay tramways 'the slowest in the world'.<sup>82</sup>

Although electrification enabled the running of more and bigger tram

<sup>78</sup> Census of India, 1931: vol. ix, *The Cities of the Bombay Presidency*, 18–31.

<sup>79</sup> Capuzzo, 'Between politics and technology', 13.

<sup>80</sup> *Bombay Chronicle*, 13 Aug. 1921.

<sup>81</sup> Here the electrification period was generally between 1895 and 1901, e.g. Berlin (1895–1899), Glasgow (1898–1901), Milan (1896–1900). London (1901–1905) followed close behind: Capuzzo, 'Between politics and technology', 4.

<sup>82</sup> P.D. Mahaluxmivala, *The History of the Bombay Electric Supply and Tramways Company Limited 1905–1935* (Bombay, 1936), 237–9.

cars and consequently led to a tripling of daily passengers between 1905 and 1925, they could only travel seven and a half miles more on the electrified circuit than on the old horse tram network; moreover, the overwhelming proportion of this extra mileage was taken up by extensions to inner-city lines. Like the railway companies, the Bombay Electric Supply and Tramways Company (BEST) was reluctant to undertake any development 'from which profit was not really or immediately discernible'.<sup>83</sup> Thus, the one-mile Parel-Dadar northward extension carried out in 1917 was based on the knowledge that the meeting of the BB&CI and GIP railway lines at Dadar would guarantee remunerative traffic. Otherwise, in the absence of financial incentives from the Bombay government or the Municipal Corporation, northward extensions, even within existing city limits, were not perceived as commercially viable. Indeed, with the rise in the costs of materials and equipment, BEST became unwilling to undertake virtually any proposed tramway development in the post-war era. Instead, the Company switched investment to its electricity supply branch, though it significantly declined the option of applying for the licence to supply Salsette.<sup>84</sup> The increasing demand for electric power from commercial and industrial enterprises, from government offices, police and army buildings, from individuals and private bodies for domestic and ceremonial purposes, the emergence of cinema and of illuminated 'neon' advertising signs, all combined to place the supply of electricity at the cutting edge of commercial opportunity.<sup>85</sup>

With public transportation unable to sustain even 'middle class' movement towards the suburbs, the arrival of the private motor car and the powerful commercial lobby that accompanied it soon accentuated the elitist character of official discourse on suburbanization. As elsewhere, car ownership rapidly became a prime symbol of upper-class affluence. From the small number initially registered in the city in 1905, cars increased to over 2,000 by 1914; a decade later, they numbered around 10,000.<sup>86</sup> The movable space of the automobile, moreover, also gave rise to new built structures: between 1901 and 1921, newly erected garages for motor vehicles contributed substantially to the increase in the number of buildings in the city.<sup>87</sup> High hopes arose amongst the various development agencies that the motor car would become 'a potent factor' in the northward diffusion of the 'wealthier classes', initially at least as far as Matunga until amenities in Salsette were improved.<sup>88</sup> The automobile, the Improvement Trust believed, would help overturn the lack of demand for its plots in the north of the city. During the war years, the

<sup>83</sup> 'Report of the Bombay Development Committee', 30.

<sup>84</sup> Mahaluxmivala, *History*, 381.

<sup>85</sup> By the mid-1920s, it was solely the revenue derived from its electricity operations that made BEST a profitable enterprise: *Bombay Chronicle*, 18 Mar. 1926.

<sup>86</sup> Annual Reports of the Bombay City Police 1914 and 1924.

<sup>87</sup> Census of India, 1921: 'Cities', vii.

<sup>88</sup> 'Report of the Bombay Development Committee', 148.

Trust embarked on luxury residential schemes adjacent to the Worli and Dharavi water fronts, designed 'for the upper classes who can afford to keep motor cars'.<sup>89</sup>

Once again, however, such hopes were misplaced. Even the motor car failed to generate any major thoroughfare to the north of the city, or more than one or two minor roads in the north itself, nor did it have any substantial impact on road improvement during this period. Although the long envisaged major north-south highway was finally embarked upon by the Improvement Trust, the colonial state's post-war policy of financial retrenchment made progress painfully slow. By 1924, the new 'Eastern Avenue' only comprised a two-mile extension of Parel Road from Sandhurst Road to Lalbag.<sup>90</sup> Although this section of Eastern Avenue – like the Trust's Princess Street and Sandhurst Road – was constructed with an asphalt surface and cement concrete bottom, few other roads outside the Fort were able to withstand the crushing pressure of the new motor vehicles.<sup>91</sup> The macadam and mud surfaces often tended to break up, while the rubber tyres of motor vehicles were held responsible for throwing up 'at least six times as much dust' as the iron bound wheels of ox-carts and *ticca-gharries* (victorias).<sup>92</sup> In an era before the full health implications of air pollution from petroleum vehicle exhausts were recognized, there was still considerable alarm, in a city prone to respiratory diseases, at the 'clouds of dust raised by passing motor-cars which go to swell the doctor's bill and the city's death-rate'.<sup>93</sup>

By the mid-1920s, the 12,000 motor vehicles in circulation contributed substantially to the increasing congestion, competing for street space with trams, ox-carts, victorias, bicycles and pedestrians. Pedestrians were now at risk in most of the inner-city roads: in the crowded working-class neighbourhoods in the centre and north-west where narrow thoroughfares also tended to have the busiest street life; but also in the broader avenues of south Bombay where motorists were more likely to indulge in the new 'sport' of racing. The long, winding Queen's Road was a particular danger spot with its three railway stations at Churchgate, Marine Lines and Charni Road, unloading passengers directly on to the main road, a situation described as having 'no parallel' in any other city.<sup>94</sup> As elsewhere in the world, the fatalities and injuries suffered by pedestrians were causing increasing concern. Victims tended to be predominantly children and the elderly, the most vulnerable age-

<sup>89</sup> Bombay Improvement Trust, 'City Improvement Trust Report, 1916', 15.

<sup>90</sup> Bombay Presidency Administration Report, 1923–24, 165.

<sup>91</sup> Government of Bombay, 'Local self-government proceedings, 1915', 90; Bombay Municipal Corporation, 'Administration Report of the Municipal Commissioner, 1921–22', ix–x.

<sup>92</sup> *Bombay Chronicle*, 14 Nov. 1914.

<sup>93</sup> *Ibid.*, 23 Sep. 1920.

<sup>94</sup> According to a committee appointed by the Bombay government to consider the 'better regulation of traffic' in the city: Government of Bombay, 'Judicial proceedings, 1923', 1320.

groups to speeding traffic.<sup>95</sup> 'Rash driving' was compounded by the absence of an agreed system of signalling and the confusion over the rules regarding overtaking – on the right in the case of motor vehicles and animal-drawn conveyances, but on the left in the case of tram cars.<sup>96</sup> Moreover, the haphazard nature of the city's built structures meant the existence of a large number of blind corners, while dust by day and poor lighting by night aggravated problems of visibility.<sup>97</sup>

The Bombay pedestrian, whom in the view of the *Bombay Gazette* the motor car was intended to awake from an alleged age-old 'habit of contemplation' and whose apparent 'lack of traffic sense' the police tended to regard as responsible for most accidents, was perhaps not such a singular individual after all. Indeed, there is little to suggest that his or her response to the novel phenomenon of motorized street traffic was really different from their counterparts in European cities. Universally, the arrival of the motor car now meant that the rules implicit in the accustomed habit of walking the streets, when pedestrians merely had to make small adjustments in their speed to avoid collisions with one another, were no longer sufficient. The mutually intelligible communication through glances and signs were obsolete in the face of the relentlessness of moving machines. The citizens of Bombay, as elsewhere, were very liable at this stage to make errors in judging the 'arrival' time of motor vehicles moving at variable speeds. But, as in so many areas of their social lives, they were far less able than their European contemporaries to draw on any substantial regulatory protective framework.<sup>98</sup>

### Conclusion

During this phase of late industrial colonialism, urban development in Bombay city was driven by a host of select, private and often competing considerations which ultimately worked against the regeneration of the city as a whole. Colonial spatial practice was dominated by the economic, political and social needs of a small demographic minority; moreover, these interests tended to be conceived in short-termist economic cycles. While this enabled an expansion in landed, commercial and industrial wealth and allowed the colonial government to spend lavishly on architecturally grandiose projects, these benefits were secured by an urban elite largely at the expense of the housing, transportation, environmental health and public amenity needs of the

<sup>95</sup> Annual Report of the Bombay City Police 1918, 17.

<sup>96</sup> *The Times of India Illustrated Weekly*, 11 Jun. 1919; Government of Bombay, 'Judicial proceedings, 1920', 843.

<sup>97</sup> *Ibid.*, 1322–23.

<sup>98</sup> Pedestrians were given little attention by traffic police who were very reluctant to hold up motor vehicle traffic. As a result, they usually had to wait 'for the passage of a long stream of vehicles of all descriptions . . . with considerable loss of time and temper', making them all the more liable to run across the street: *Bombay Chronicle*, 27 Sep. 1916.

majority of the population, all of which required the adoption of long-term urban planning perspectives. The economy of Bombay was reasonably affluent in the early twentieth century: only its people remained poor.

The elite-focused development paradigms of the government of Bombay invariably signified that, in the absence of any sense of obligation to provide and fund social, welfare and city-wide infrastructural services, the quickening of economic activity and selective spatial improvements would not only fail to have any real impact on the staggering levels of urban poverty: by directly contributing to both higher living costs and deteriorating popular environments, 'renewal' actually worsened the plight of the urban poor. In effect, the urban policies of the authoritarian colonial state amounted to a resistance against the democratizing forces that were beginning to transform city life in contemporary metropolitan Europe.<sup>99</sup>

<sup>99</sup> For an elaboration of this argument see S. Hazareesingh, 'The quest for urban citizenship: civic rights, public opinion, and colonial resistance in early twentieth century Bombay', *Modern Asian Studies*, 34, 4 (2000), 797–830.