

# In the City, Out of Place

## Environment and Modernity, Delhi 1860s to 1960s

*Over the last two decades, cities as spaces of residence have come into conflict with cities as sites of work, mediated by concerns around the environment. This essay engages with the nature of urban modernity in India while historicising the debates over the environment in Delhi. The issues and practices bundled together as “environmental”, around which strategies and tactics are organised, shift through time. Infrastructure and public health; nuisance and noxious trades; pollution and zoning; standards and technoscience; and environmentalism through legal rights, leave their distinct imprints on how we dwell in the city. An environmental injury, perhaps, does not lie in Nature alone and must be apprehended through frameworks that render these injuries intelligible. The attention to these shifting registers shall help to link planning and environment both to power and to an anthropology of the urban modern in India.*

AWADHENDRA SHARAN

Over the last two decades, cities as spaces of residence have increasingly come into conflict with cities as sites of work, the two often being mediated by concerns about the environment. For some commentators environmental degradation in urban India is a consequence of administrative lapse and lack of political will. Short-term interests have prevailed over long-range, scientifically conceived plans, leading to chaos with industries flourishing in residential spaces and majority of the urban poor huddled in numerous ‘bastis’ and slums.<sup>1</sup> For others, contemporary environmentalism in cities such as Delhi, aims no more than to render invisible that which is unaesthetic, the ugliness of production, and together with it, bodies at work.<sup>2</sup> This essay seeks to engage with the nature of urban modernity while historicising the debates over environment in Delhi. I suggest that the constellation of issues and practices that are bundled together as “environmental”, around which strategies and tactics are then organised, shift through time. Five broad constellations may be suggested: infrastructure and public health; nuisance and noxious trades; pollution and zoning; standards and technoscience; and environmentalism through legal rights, each of which leaves its distinct imprint on how we dwell in the city. Argued another way, the essay suggests that the nature of an environmental injury does not lie in Nature alone but must be apprehended through the framework that render these injuries intelligible. The attention to these shifting registers, we hope, shall help us link planning and environment both to power and to an anthropology of the urban modern in India.

The inquiry is developed in two parts, the first concerning the nature of colonial urbanism in Delhi and the second addressing the period of nationalist planning. The conclusion briefly outlines the framework of regulatory science and legal rights through which environmentalism in contemporary Delhi has unfolded over the last decade.

### **Colonial Urbanism: Infrastructure, Nuisance and Congestion**

Technologies of urban governance till the end of the 19th century were anchored in conceptions of public health. Miasma was the influential theory of disease that explained a sick body through the “corruption” of air on account of decaying vegetation,

thick foliage, cramped and ill-ventilated housing, etc.<sup>3</sup> Excrement, corpses, carcasses, and their odours, were anathema to the sanitary inspectors in cities across the world. Alain Corbin writes that through the nineteenth century “to contemplate the mass of vapours that accumulated where living beings crowded together was to be seized with a vertiginous sense of alarm”.<sup>4</sup> Not surprisingly, the putrid crowd, the togetherness of people and animals and the enclosed nature of residential spaces became familiar objects of reform. Comprehensive water and sewerage systems, well ventilated houses, clear streets and public spaces through which a civic community could express the urban collective self were hallmarks of 19th century European cities as they responded to the spatial and social impacts of the industrial revolution.<sup>5</sup> The functioning of the human heart, as William Harvey had revealed it, shaped an image in which modern European and American cities cast themselves, as circulatory systems with unhampered movement of air, water and citizens through the body of the city.<sup>6</sup> Liberal governmentality implied that these networks shaped individual conduct without being directly interventionist, “cleanliness” being a function not of the exercise of police power but of technological discipline that left the home and the family relatively autonomous to shape itself.<sup>7</sup>

Colonial cities could not have been more different. The crowd was suspect for more reasons than one and the lack of legibility of colonial streets that wound their way into narrow lanes and cul-de-sacs spoke both of inferior urban design and functioned as a sign of degeneracy.<sup>8</sup> Local urban practices, whether they related to the mix of the public or private or concerned the proper relationship between the spaces of the living and the dead, could not simply be cajoled into transforming themselves. Instead they had to be coaxed into rendering themselves in the image of Europe, making municipal governance in colonial contexts more a matter of authority and policing than of individual fashioning.<sup>9</sup> As Gyan Prakash has argued “colonial governmentality could not be the mere tropicalisation of the Western norm, but its fundamental dislocation”.<sup>10</sup> What was achieved in the metropolitan centre through the sovereignty-discipline-government triangle identified by Foucault could be effected in the colony only through the power of police; the making of the citizen in the imperial domain was counterposed to the domination of subjects in the colonies.

In Delhi, Europeans and Indians had lived in a rather mixed fashion till the middle of the 19th century. This changed fairly rapidly in the aftermath of the revolt of 1857 when a third of the city was demolished and rebuilt. Post-mutiny Delhi, like many other Indian cities, had to be “sanitised” and “improved”, with a view to establishing order and containing disaffection. In 1863, a municipal committee was established for the city but unlike English municipalities that provided amenities such as gas, electricity, water and sewerage networks through taxes on rental value of property, Indian municipalities, Delhi included, were hampered by considerably less power, and even less financial resources, to effect the necessary transformation.<sup>11</sup> Not surprisingly, the infrastructure that developed could, at best, secure partial improvements. Water supply in Delhi saw the replacement of the system of canals and wells by piped water beginning in the 1890s,<sup>12</sup> conservancy arrangements were reworked<sup>13</sup> and electricity was first supplied on a regular basis from 1902.<sup>14</sup> Disease and disaffection were sought to be simultaneously addressed through widening of roads and creation of open spaces that separated European residents from native quarters.<sup>15</sup> Effective connectivity through these networks, however, was rather limited, both on account of cultural differences and insufficient finances.<sup>16</sup> By 1894, Jyoti Hosagrahar points out, only 146 houses in the city, mostly European, had water connections. Few streets were regularly maintained and by 1912 the municipality had been able to build only 25 public latrines and three public urinals for a city that now numbered close to 5,00,000.<sup>17</sup> Waterborne latrines were yet to be introduced in the city by the first decade of the century and the ambitious scheme floated in 1913 to provide a waterborne sanitation system for the city remained a paper dream in the face of the fiscal conservancy of the government of India.<sup>18</sup> Infrastructure in the colonial city, it may be suggested, operated most powerfully in the symbolic realm, gesturing to an imminent modernity, even as that modernity was endlessly deferred.

The management of “vapours” and “nuisances” defined a second domain of interventions in the colonial city. The Military Cantonments Act of 1864 contained regulations not only on land use and drainage but also on nuisances and unlicensed trade.<sup>19</sup> Similarly, the report on the sanitary state of the army mentioned “unhealthy trades” alongside “bad air”, “badly constructed and ill-ventilated habitations”, “poor drainage”, etc, as contributing to an undesirable state of affairs.<sup>20</sup> The remedy in law that had developed Europe was largely in the nature of private disputes suggesting that the enjoyment of one’s property could not be at the expense of injury to another. Typically used by one form of productive activity (e.g. agriculture) against pollution and consequent loss of value caused by another (e.g. industry), these laws were resorted to rather infrequently by the working class of Britain and found even less use in colonial cities.<sup>21</sup> Instead what came to the fore as a technology of governance in colonial India were the laws of public nuisance, coded first in the penal code of 1862, chapter XIV of which concerns offences affecting the public health, safety, convenience, decency and morals. The code recognised a person to be guilty of public nuisance if s/he carried out “any act or is guilty of an illegal omission which causes any common injury, danger or annoyance to the public or to the people in general who dwell or occupy property in the vicinity, or which must necessarily cause injury, obstruction, danger or annoyance to persons who may have occasion to use any public right”. Instances of these included “[any] negligent act likely to spread infection of disease dangerous to life”, “[any] malignant act likely to spread infection of disease dangerous to life”, “fouling water of public spring or reservoir”, “making atmosphere noxious to health”, and “negligent conduct with respect to poisonous substance”.<sup>22</sup>

Thus defined, nuisance covered a rather wide spectrum of activities, many of which were not recognised as nuisance even in England.<sup>23</sup> Characteristic of the colonial context was also the power enjoyed by local officials to prosecute under this law, with the duty of “lay inspectors” being “to see the abatement of nuisances and to bringing the cases of nuisances before the law”.<sup>24</sup> Convictions for public nuisance increased rapidly between 1870s and 1910s – in Bengal presidency from about 15 per cent of total convictions to about 45 per cent of total convictions for cognisable crimes.<sup>25</sup> The post-mutiny colonial state might have affirmed a hands-off social policy at the highest levels of government but as Veena Oldenburg suggests, there were steady attempts to insert colonial agendas in fashioning the Indian society at lower levels.<sup>26</sup> In every major city of the country we thus see nuisance as providing an important frame for fashioning the urban order. Michael Anderson mentions roadside hawking, bathing in a stream, use of manure in local fishing and defecation on the streets as instances in which the colonial state intervened in shaping the everyday environment of cities. In Bombay we read of Arthur Crawford’s concern with trades such as dyeing that he tried in vain to locate outside the city boundaries.<sup>27</sup> In Lucknow, the location of the graveyard became a matter of great dispute.<sup>28</sup> In Delhi, familiar nuisances included encroachments on public lands, construction of new privies opening into public streets, dilapidated houses, protruding walls endangering the lives of occupants or passers by and cremation grounds, around all of which there were frequent contests between the residents and municipal authorities, given the rather different cultural understandings of public and private, sacred and profane, appropriate and inappropriate behaviours.<sup>29</sup> Even open spaces outside the city wall qualified as “sightless nuisance”, rubbish lands that awaited improvement!<sup>30</sup>

Fines and cessation of activity were two ways of dealing with the issue of nuisance.<sup>31</sup> In Delhi, fines were levied for encroaching on roads, on unauthorised structures and for carrying on “offensive trades” and at various times during the 19th century tanners and dyers were relocated, taxes were levied on ‘tehbazari’ and on draught animals and milch cattle whose object was “entirely sanitary”, lime kilns were removed to Ajmere gate owing to smoke nuisance, trade in hides was sought to be regulated and the slaughter house sought to be moved from its location at Idgah to a site outside the city.<sup>32</sup> Anderson argues that these frequent conflicts around nuisance were reflective of an intense conflict over the use of public spaces and physical resources suggesting that the state policy was at extreme variance with the modes of existence and conceptions of property that obtained in the local society. This was especially true as one moved down the social ladder, the colonial law operating adversely against economically marginal groups by dispossessing them of common facilities that they had hitherto enjoyed. An “environmental good”, Anderson suggests, did not imply the same for those who “relied upon rivers, streets, and wastelands as key resources in the daily conduct of production and subsistence” and those who “did not depend immediately upon common property resources for subsistence”.<sup>33</sup> Christine Rosen’s study of nuisance laws in 19th century US also suggests that the move to curb certain kinds of activities in the city was an aspect of modernisation, the legal evidence suggesting that the bar for proof of environmental harm caused by modern, steam-driven factories, mines, etc, was considerably raised as compared to proof of harm from traditional works like pottery, slaughter houses, wax making, etc.<sup>34</sup> Anderson’s study of smoke pollution in Calcutta also suggests that the burden of proof under the 1863 Calcutta and Howrah smoke nuisances act was very high so as to make successful prosecution “almost impossible”.<sup>35</sup> Conversely, we may note that the dyers, weavers etc, who had been the objects of Crawford’s

ire in Bombay had significant financial clout, the opposition to these activities therefore not simply being a matter of economic divide but reflective of the fact that they were seen as being “out of place” in the modern city.

Read thus as a modernising impulse, it is possible to argue that the delineation of nuisance activities were always inflected by cultural markers. Mark Harrison points out that prior to the 19th century climatic differences were seen as being sources of disease but subsequent emphasis shifted to the habits of the natives, the latter perspective being elegantly summed up in the view of the surgeon Kenneth MacKinnon who wrote in 1848 that “disease depends mainly on general climate ... but it depends also in part upon mere local causes, and on the social conditions, habits and morals of the population”.<sup>36</sup> The view found support in influential quarters such as in the Cantonment Act of 1864 and in the writings of Florence Nightingale: “They live amidst their own filth, infecting the air with it, poisoning the ground...polluting the water... [some] even think it a holy thing to drink filth”.<sup>37</sup> Quite obviously, referents of pollution in colonial narratives were always in excess of “nature” and included elements of aesthetics, racial difference and class biases. Consider for instance these reports from the Delhi municipality:

Ghosis living in Gali Shahtara are a source of great nuisance as their cattle collect and roam about in the streets, and their womenfolk collect cow-dung cakes within the railway boundary... these dung cakes when stuck to the walls and roofs of the houses, are as unsanitary as unsightly.<sup>38</sup>

Over 66 per cent of the deaths from respiratory diseases occurred in Delhi city...The larger percentage of deaths amongst females is no doubt largely due to the purdah system and to the insanitary and congested housing conditions.<sup>39</sup>

Nuisance and disease, in the colonial imagination, thus called for both material improvements and the containment of the dangers posed by native habits. Cultural differences translated into spatial distinctions and what Gyan Praksh calls the irreducible difference regarding “the truth of the Indian body” both produced the knowledge and techniques of policing and the pragmatics of education in matters of health and hygiene.

Congestion, in addition to sanitation and nuisance, was the third important category through which the colonial state sought to manage native populations and cityscapes. “The people in Delhi”, Colonel Beadon, president of the New Delhi Municipal Committee, noted in 1912 “have been huddled into a totally insufficient area so that the streets have been encroached upon [and] slums have been built”.<sup>40</sup> By the early part of the 20th century it was suggested “to take up the question of extension comprehensively and prepare outlines of a general scheme to provide for roads, streets and space for building during the next 30 years”.<sup>41</sup> Improvement ever more tried to anticipate rather than merely respond to a situation and as it did so, it began to acquire the veneer of a plan. However, contrary to the assumption that any such plan would be for the betterment of the entire city, the two cities of Delhi were increasingly severed. Further, contrary to the growth of professional planning in the metropolitan context, the most that Delhi got was a bureaucratic Improvement Trust. The formation of this Trust was first proposed by A P Hume in the *Report on Relief of Congestion in Delhi* that outlined the need to provide an additional built area of about 1,200 acre to house the excess population of the city (estimated at 1,00,000 persons), which, Hume felt, would be best carried out by an Improvement Trust.<sup>42</sup> This was so because the Trust could work in “public interest” while ignoring “politics” in a manner that was not possible even for a municipality with limited powers:

The argument for an Improvement Trust rests on the basis that having decided what scheme should be undertaken it has statutory

authority to carry out the scheme. Where a municipality might be undecided for months and years regarding the execution of any particular scheme, a Trust, subject to government approval, has power by statute to notify that a particular scheme be undertaken.<sup>43</sup>

Beginning December 1937 the Delhi Improvement Trust drew up a number of schemes, 26 schemes being listed for the first triennial, followed by another 21 schemes between 1941 and 1944 and six schemes between 1947 and 1950, all of which were marked by the precedence of financial consideration over “improvement”. Tanners were not shifted from Rehgar Pura as it was felt that this would have a prejudicial effect on land value in Sarai Rohilla. The slaughterhouse remained where it was and big slum clearance schemes such as the Delhi-Ajmere Gate rehousing scheme, in which approximately 2,000 families were to be relocated, remained on paper since it was felt that existing ground rents would make the entire scheme unprofitable.<sup>44</sup> Hume had been well aware of the potential pitfalls. He wrote, “On the subject of poor class accommodation that the comparatively heavy cost of acquisition of land, which in the circumstances will not yield a big return, is a serious obstacle, unless proposals for such a scheme go hand in hand with proposals for improvement of an area of government land from which a higher return may be expected”.<sup>45</sup> As it turned out, between the play of the economic and the environmental, the latter understood as decent housing conditions that could rid the city of its slums, the former always trumped. Sandip Hazeerasingh rightly points out that, “in spite of the consistently high level of frustration at their failure to reverse the process of environmental degradation, the colonial agencies never questioned the shibboleth that urban development should be driven by the profit and prestige motives of the dominant classes”.<sup>46</sup> Not surprisingly the committee set up by the government of independent India to inquire into the functioning of the Trust was scathing in its assessment of the Trust’s activities. The capital of an independent, democratic India, it suggested, needed to be built according to radically different set of imperatives than what had characterised the first city of an Empire, based on scientific knowledge and in accordance with a master plan.<sup>47</sup> Even more critically, it suggested, the planned city must cater to the needs of all members of the urban public, especially “bearing in mind...the requirements of the poorest sections of the population”.<sup>48</sup>

## Nationalist Modernisation and Urban Environments

In 1947, India was partitioned and Delhi became a city of refugees forced to migrate from the other side of the newly minted border under the shadow of death and massacre. Simultaneously, the normal stream of migration continued, contributing to a massive growth of the city population from approximately 4,00,000 persons at the beginning of the century to over 17,00,000 by 1951, the large numbers taking a toll on the city’s infrastructural capacities. This was a matter of some concern to the newly independent rulers of India. “Bad environment affects us all alike; we are choked, each one of us...by the meanness and squalor which stretch their tentacles upwards from the lives of our less fortunate fellow citizens”, wrote G D Birla in his report on the Delhi Improvement Trust.<sup>49</sup> The crisis was evidently most significant for the slum dwellers, but its articulation was through the lens of the urban reformer, concerned simultaneously with health and morality of the poor and “danger” to the city. Pandit Thakur Das Bhargava, among many others, hinted at sexual/psychological tensions through proximate living: “There is so much congestion in Harpul basti that many families live in a single room. Father, mother, son, daughter-in-law, daughter, son-in-law are all huddled in the same room. Under the circumstances how on earth can a person maintain his health (‘tandrusti’), preserve

her shame ('sharm/haya') or retain their morality".<sup>50</sup> Housing congestion, the Birla Committee noted, was not only a causative factor in the spread of tuberculosis and other communicable diseases but also bred juvenile delinquency, accentuated the bitterness of class antagonisms and fostered social discontent. It observed "Where honest toil can produce nothing but squalor there need be no wonder that unsocial tempers rise".<sup>51</sup> Into this social complex of doing justice for the "honest worker", addressing the needs both of the victims of partition and those who were merely poor and working towards the making of a national capital that would not suffer the psychological and social burdens of mass poverty, Delhi began preparing for a planned future. This was a political task, to be accomplished by technical means. If in the case of the Improvement Trust, politics was evaded through the creation of an intermediate institution between the government and the elected municipality, nationalist urban planning operated not by evading politics but by making it distinct from technical calculations:

Non-officials do not understand anything about town planning ... But any plan that will come now will come before this committee on which there are plenty of non-official members. They can study it and make any suggestions. But the actual planning for a town or an urban area must be done by town planners.<sup>52</sup>

In this background, Rajkumari Amrit Kaur, in her capacity as minister for health and local self-government, invited the Ford Foundation to assist in the planning of Delhi in 1956.<sup>53</sup> Albert Mayer, a US-based planner with prior experience of working on the planning of Bombay and Chandigarh and the initiator of Etawah rural community development project, was appointed to head the consultation team consisting of a physical planner, a specialist in government, an industrial planner, a transportation specialist, an economist and an urban sociologist.

The city of Delhi that the planners encountered in the 1950s was one that was embedded in the regional economy, drawing upon resources, providing goods but above all attracting people, both migrants and refugees. Its governance required the ability to comprehensively map and order these flows so that optimum balance could be obtained, minimising "the friction of progress" as James Scott puts it.<sup>54</sup> A comprehensive regional and urban plan was the suggested solution. Two strands of regional planning had developed in the US since the 1920s, a metropolitan regional development plan and another view inspired by Patrick Geddes and the garden city movement that subscribed to low-density urban developments situated in their regional contexts.<sup>55</sup> In the case of Delhi, the region as metropolitan area found favour over its conception as a resource region. Delhi, the argument went, was "an almost pure example of the need for the concept, development and execution of a plan for the metropolitan region", and within this metropolitan region two broad environmental concerns were outlined: slums and industrial location.<sup>56</sup>

The issue of slums, in post-partition Delhi, was an absolute priority, to be tackled pragmatically and scientifically. In a letter to Nehru, Mayer pointed out that while in the west "the social conscience that demanded slum elimination" emerged after a large build-up of capital and resources, in India, the task was rendered far more difficult because of "the growth of moral, social and political pressure before the build-up of resources to permit the massive attack required".<sup>57</sup> It is entirely understandable that Mayer was cautious that "care must be exercised not to imply a type and rate of action which in fact may not be possible to attain or continue".<sup>58</sup> What was required, in his opinion, was a demonstration effect, the need to solve select problems in specific areas on a minimum, adequate, standard scale through limited "controlled" development, while making long-term plans.<sup>59</sup> Plans were thus drawn up for urban renewal of specific

areas and neighbourhoods (e.g., Sarai Rohilla, Mata Sundari, Motia Khan, Mubarakpur Kotla, etc), transit camps and "unauthorised land use", the last including on the one hand beggars, vagabonds and squatters and on the other, open markets and small vendors. The desire was to produce integration through improvement, to secure at least a minimal degree of equity through planning through schemes for relocation of basti squatters "in suitable areas not too far away from major work centres" with "structures and facilities [that] may be substandard" in order to keep rents and costs down, while maintaining "space standards for schools and parks and streets, etc". It was also recommended that these should be integrated with a larger neighbourhood and that "reasonable areas should be earmarked in several zones for the low-income groups who migrate to Delhi on accord of the relentless "push" from the rural areas".<sup>60</sup>

Zoning, the plan argued, was entirely for promotion of health and safety, moral and social welfare, and could not, on any count, be "used to accomplish any kind of human segregation like excluding certain communities, or income groups from certain areas".<sup>61</sup> In the course of parliamentary debates that preceded the arrival of the American planners the issue had elicited two responses. One view favoured the acceptance of difference in standards and amenities so that all residents of Delhi had a place to stay. "It would be much better", Mohanlal Saxena, member of Parliament from Delhi argued, "if we divide the whole of Delhi into zones and say such and such zones will be A class, such and such will be B class and they will have such and such services, some will have all the services and some will have a few".<sup>62</sup> To insist on uniform standards, he argued, would be to deprive the many of decent housing who could not afford such living. Others contested this logic of differentiation, arguing that similar environmental amenities ought to be made available to all – electricity, water, latrines and parks being the needs of the urban poor as much as of middle class residents.<sup>63</sup> The master plan when it was formulated took both elements, suggesting that economic differentiation would only partially translate into differences of built form, the exceptions in quality of building material, etc, being offset by the need to "adopt a comprehensive system of building, sanitary and other codes which prescribe adequate minimum standards of health, sanitation and safety".<sup>64</sup> The rule of exceptions, it argued, would not translate into the zoning of difference.

However, what justice offered with one hand, culture withdrew with the other. To be in city and inhabit its numerous bastis was to be always under the injunction to mutate into an other, the violence of the policing of colonial difference yielding to the burden of the nationalist/modernist desire for assimilation. Slums were about economic poverty but also "social degeneration", so that their improvement was always more than merely physical reconstruction. Nehru stressed the need for improvement of physical conditions but also of the need to face up to "ingrained habits and lack of desire as well as lack of training to use better accommodation".<sup>65</sup> The Bharat Sevak Samaj wrote of slums as a consequence of urban poverty, but remarked that "miserable environment in which they live breeds despair and a fatalistic approach to life".<sup>66</sup> For them, social life in slums lacked "anything desirable" and smacked of "many unhealthy trends", suggesting that "social regeneration of slum dwellers" ought to be an "essential and integral part of a slum clearance or slum eradication programme".<sup>67</sup> It is another matter altogether that the "problems" of the reformer were sometimes no more than alternative preferred by the dweller. Details of a survey of the slums of old Delhi conducted by the Samaj, and made available to the planners, make clear that though an overwhelming 90 per cent of those surveyed expressed their dissatisfaction with the existing conditions in Delhi slums, a mere 3 per cent considered

overcrowding to be a principal reason for the same; while many spoke of the need for provisions, a mere 0.4 per cent considered education of people in sanitary habits as a possible solution; and while congestion had been a common concern of both the colonial state and the nationalist modernisers, most slum dwellers preferred to suffer “a little more congestion to being cold to social ties”.<sup>68</sup> However, while these alternatives were recorded, they hardly registered and so even as the Samaj recommended the provision of facilities, it also spoke of “rousing social and civic consciousness”, “infusing hope and confidence”, through a programme of “extensive education”.<sup>69</sup> The fullest expression of this urge to recast the rural in the mould of the appropriately urban came two decades later, expressed in the words of Jagmohan:

I have always believed in the destiny of this city, in its historic role, in its being a spiritual workshop of the nation, in its capacity to impart urbanity and civility to the rural migrant...The real problem of the slums is not taking people out of slums but slums out of people.<sup>70</sup>

But we anticipate our story. In the years when the master plan was being put together, American consultants brought their own views on the matter of the refashioning of Delhi's slums on the basis of American neighbourhood schemes that resonated with ideas being promoted by Indian nationalists on the issue of civic citizenship. In the American view too, Indian slums were more than the “aggregate of physical surroundings”. They were “a way of life” as well, one characterised by disease, illiteracy and limited cultural resources, save cinema and gambling, peopled by persons who were “apathetic or even antagonistic to local authorities” and “lacking community consciousness”.<sup>71</sup> The task before the planner was to help the slum dwellers make the transition from this state to one of engaged civic disposition by stimulating “common frontiers of associations” that would pave the way for “community consciousness and integration” and identifying “natural leaders” who would help organise mutual aid and self-help work.<sup>72</sup> Planning and community were tied through the making of ‘vikas mandals’ (development councils), specifying sets of activities in which the entire community could participate. The education was not of slum dwellers alone but of all marginal sections of the society including refugees and migrants. “We need to”, Mayer wrote to Nehru, “tie these submerged citizens into our corporate and civic life, give them a sense of a stake in living and performing...[which would] both fulfill the needs of social policy and buy time for a realistic policy of urban development”.<sup>73</sup> This was the proposal for the making of a reasoned civil society, that in time was constantly undermined by the operations of the political society.<sup>74</sup>

The play between the social and the physical, between land-use and environment and between environment and the fashioning of the urban modern in Delhi found an even fuller expression in considerations of industry and pollution, their types and location and the extent to which zoning and planning could help in making improvements. Zoning had first been introduced in Germany in the late 19th century and soon became globally influential with New York passing the first comprehensive zoning law in 1916 and the constitutionality of the zoning principle being upheld by the US supreme court in 1926. Links between nuisance and zoning and between zoning and planning were enunciated in the course of the arguments presented before the US supreme court. Both the proponents and opponents of zoning recognised that nuisance laws were incapable of dealing with more dense, complex urban settings, necessitating an extension of the police powers which inhered in them. However, while opponents feared that zoning on aesthetic grounds might constrain public welfare by restricting growth of business and industry, proponents argued that

anticipation, not reaction, was needed in a new urban context and zoning helped “place a margin of safety between that which is permitted and that which is sure to lend to injury or loss”.<sup>75</sup> The argument against zoning also considered the question of knowledge, arguing that municipal councils simply lacked the wisdom and the knowledge to “measure prophetically the surging and receding tides by which business evolves and grows, to foresee and map exactly the appropriate uses to which land shall be developed and for each separate use”.<sup>76</sup> The argument in favour of zoning, in contrast, emphasised its scientific, apolitical character: “A zone plan finds its scientific as well as its legal justification in the fact that it represents the product of a study designed for the promotion of public health, safety, convenience, prosperity and welfare, and that he who made the design kept these purposes in mind throughout the work”.<sup>77</sup> Thus conceived, zoning was also tied to regional planning, so as to eliminate any possibility of its manipulation by local interests. Zoning without planning, it was suggested, lacked “coherence and discipline in the pursuit of goals of public welfare”.<sup>78</sup>

This was the tradition available to Mayer and his team at the time they began to prepare the master plan for Delhi. Not surprisingly, they made a strong case for zoning regulations as not only protecting residential areas from the harmful invasions of commercial and industrial uses but also promoting business and industry through planned and orderly development.<sup>79</sup> However, zoning was not simply an idea that had been grafted onto Indian cities from elsewhere. As we saw above, versions of the zoning/planning paradigm had been debated in India for some time and had many Indian adherents.<sup>80</sup> In the course of the planning exercise, JP Sah of the Central Regional and Urban Planning Organisation, Delhi posited the necessary and desirable link between the modernisation of nuisance laws and zoning:

Zoning regulation should provide a very effective remedy against blight, non-conforming uses and high densities...At present only very few trades, business or industries, characterised as “offensive and dangerous” are subject to municipal licensing powers. There... is every reason why municipal licensing should be made so extensive as to comprehend every trade, business or industry within a city.<sup>81</sup>

The consideration before the planners was two-fold: provision of adequate workspace for workers and provision of adequate space for the growth of desirable kinds of industry and production in the city. The manufacturing industry was considered of some importance for the economic growth of the city. However, existing industries posed a number of problems. Apart from some cotton mills, very few modern plants had been established in Delhi in the preceding decades; industries established in the wake of the inflow of refugee population were marked by severe inadequacies regarding space, air and light; in most neighbourhoods, especially in Old Delhi, there was an intimate mingling of industry with residence; working space for manufacturing workers was limited; many industries were “rural” in character and little suited for a modern metropolis; and above all, many were noxious and produced nuisance, making it imperative that they be relocated elsewhere.<sup>82</sup> The size of plants and scale of nuisance, planners suggested, were the two most important considerations in classifying industries.<sup>83</sup> Depending on these, it was proposed to have a number of industrial zones in the city. Multistoried flatted factory spaces were envisaged for smaller industries and workshops that dotted the old city and the city centre and were not noxious.<sup>84</sup> Work-cum-industrial centres were proposed for out-lying industrial areas to provide for household manufacturing units. Provision were also made for non-noxious light and service industries.<sup>85</sup> In contrast, there was only a grudging acceptance of clay mining and pottery and it was suggested too that large

industries were “undesirable industries in urban Delhi” and therefore, best located in neighbouring towns.<sup>86</sup> Finally, there were those industries that were to be completely prohibited, viz, the noxious industries that were associated with stench, smoke, fumes, etc, posing hazards to those residing in their neighbourhoods. A list of 22 such obnoxious and hazardous industries was prepared and these, the plan emphatically argued, must be kept out of Delhi urban area, leaving unsaid where these should be located.<sup>87</sup> However, the most interesting case was that of industries designated “rural”, discussions on which figure both in the context of urban redevelopment and the making of new industrial zones, sometimes described as noxious and at other times as being merely anachronistic.

In the colonial period, we have suggested above, native habits were considered a major cause of environmental degradation. In many ways the nationalist plans for urban improvement and dealing with nuisances carried this style of argument forward, and yet they could hardly do so without dropping the baggage of cultural inferiority ingrained in colonial writings. The response that emerged was to deploy the trope of the “rural”, rural persons and rural industrial processes/trades being made to stand in the place of the native, as that which was prior and inferior and in need of transformation. The first needed to be educated into being properly urban/modern while the second required to be relocated beyond the margins of the city, into “urban villages”. The main plan itself spoke little of the subject except to recommend that village-like trades such as keeping milch cattle be removed to urban villages, which would both strengthen the rural economy and help provide cheap milk to the city.<sup>88</sup> However, a more elaborate set of reasonings were on offer in the work studies related to the making of the master plan. Rural industries were defined more widely to include such activities as pottery, tannery, keeping milch cattle, handloom weaving, artistic metal works, ‘zari’ and ‘zardosi’ making, etc. The criteria that made them “rural” was not quite spelt out though the reasons regarding the necessity for such a shift were on offer: these industries, it was argued, were located in the heart of the residential areas, intensifying slum conditions, and their relocation would therefore mean the release of “valuable land” and “weeding out those uses not required in the urban core”. It was argued too that some of these, such as tanning, were also obnoxious and hence must be located outside the proposed urbanisable limits. On the other hand, it was assumed that the villages would gain through new economic activities and rural life that had been stagnating would be revitalised. The problem was that the people who practised such trades were hardly appreciative of the “win-win” scenario. It was estimated that of the nearly 30,000 families of slum dwellers involved in rural industries, only about half would be willing to move to the urban villages being created, the fate of the other half left unsaid.<sup>89</sup>

This sharp polarisation between the urban and the rural, as persons and in their economic roles, was posited not only in the plan itself but also in its popular descriptions:

A further step would be to relieve urban Delhi of those members of its population whose occupations – and consequently ways of living – are primarily rural, and resettle them in the villages. Tannery, pottery, weaving... are all occupations which belong not to the city but the village ... Too many people now settled in Delhi... are by their very nature and instincts rural dwellers ... if Delhi is to be planned into a well integrated city, and to be maintained as such, it needs inhabitants with a primarily urban psychology.<sup>90</sup>

“Nuisance” and pollution were thus to be located elsewhere, spatially and socially, and the discourse of planning acquired its significance from its confidence in managing these separations. Over the next three decades or so, this confidence has been much shaken, both through the many exceptions to the master plan and

because there is now an entirely different order of material flows and urban expectations than that which obtained for the planners, necessitating the innovation of new institutional mechanisms.

## Conclusion: New Beginnings

Earlier concerns with pollution that was visible and degradable are giving way to new types of pollution with very small quantities of synthetic chemicals that... damage the environment... Despite uncertainties and insufficient knowledge, political and scientific decisions concerning environmental change will increasingly be necessary.<sup>91</sup>

This essay has argued that environment is a fluid concept, linking cultures, populations, materials and spaces in specific ways in particular historical conjunctures. In the colonial period, public health and concerns around nuisance shaped the strategies through which the state sought to manage spaces and populations. About a half century ago, the nuisance paradigm yielded to the planning approach in a bid to tackle pollution that occurred in non-proximate instances. Over the last decade, land use planning itself has had to gradually accommodate environmental planning, first in the form of statutory laws governing air and water pollution and then as a discourse of rights, environment as fundamental right, as pronounced in numerous judgments of the Supreme Court. Planning, in the 1950s had justified itself as a science and a diagnostic of social needs that could address general good through specific standards. Today, we reflect on the possible limits of that science and the uncertainty that is intrinsic to regulatory science trying to cope with an ever rapid introduction of new chemicals and wastes into our environment and try to unpack the new politics of environment – legal, technoscientific and highly mediated; precaution must take precedence over follow-up. However, even in these contemporary environmentalist discourses there is also the evocation of common nuisance laws, planning prescriptions and provisions of statutory laws, suggesting that no one agenda totally eclipses another though each does seek to fashion the city in its own way. Reflections on the contemporary city requires that we recover the ways in which we ordered our cities in the past, not with a view of a return but to excavate their traces in our everyday habits and ways of inhabiting the city. [\[PDF\]](#)

Email: sharan@sarai.net

## Notes

- 1 Gita Dewan Verma, *Slumming in India: A Chronicle of Slums and Their Saviours*, Penguin Books, Delhi, 2002.
- 2 Amita Baviskar, ‘The Politics of the City’, *Seminar* 516, August 2002; Dunu Roy, ‘From Home to Estate’, *Seminar*, 533, January 2004.
- 3 Mark Harrison, *Climates and Constitutions: Health, Race, Environment and British Imperialism in India, 1600-1850*, OUP, Delhi, 1999.
- 4 Alain Corbin, *The Foul and the Fragrant: Odor and the French Social Imagination*, Harvard University Press, Cambridge, Mass, 1986, p 47.
- 5 On “sanitary city” in England see Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick, Britain 1800-1854*, Cambridge University Press, Cambridge, 1998.
- 6 Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City*, MIT Press, Cambridge, Mass, 2002, p 8.
- 7 Thomas Osborne, ‘Security and Vitality, Drains, Liberalism and Power in the 19th Century’ in Andrew Berry, Thomas Osborne and Nikolas Rose (eds), *Foucault and Political Reason, Liberalism, Neo-Liberalism and Rationalities of Government*, Routledge, London and New York, pp 99-122.
- 8 Jyoti Hosagrahar, ‘Design, Domination and Defiance: Negotiating Urbanism in Delhi, 1857-1910’, PhD, Diss, University of California, Berkeley, 1997.
- 9 This is not to deny that there were significant social differentiation within European cities with regard to the nature of the municipal intervention.
- 10 Gyan Prakash, ‘The Colonial Genealogy of Society, Community and

- Political Modernity in India' in Patrick Joyce (ed), *The Social in Question, New Bearings in History and the Social Sciences*, Routledge, 2002, pp 81-96.
- 11 Sandip Hazareesingh, 'Colonial Modernism and the Flawed Paradigms of Urban Renewal in Bombay, 1900-1925', *Urban History*, 28, 2, 2001, pp 235-55. For expenditures of Delhi municipality on policing and other functions see Narayani Gupta, *Delhi between Two Empires: Society, Government and Urban Growth, 1809-1931*, Oxford University Press, Delhi, 1998, pp 83-168.
  - 12 Gupta, *Delhi between Empires*, pp 160-61.
  - 13 Vijay Prashad, 'The Technology of Sanitation in Colonial Delhi', *Modern Asian Studies* (hereafter MAS), 35, 1, 2001, pp 113-55.
  - 14 Gupta, *Delhi between Empires*, pp 167-68.
  - 15 Gupta, *Delhi between Empires*, Ch 6, 'The Strains of Urban Expansion' and Hosagrahar, 'Design, Domination and Defiance', esp Ch 3, 'Constructing Landscapes of Health, Sanitation and Infrastructure'.
  - 16 Mark Harrison, *Public Health in British India*, Delhi, Foundation Books, 1994, esp Ch 7, 'Public Health and Local Self-Government'.
  - 17 Hosagrahar, 'Design, Domination and Defiance', p 169.
  - 18 Prashad, 'Sanitation Technology', p 123.
  - 19 Harrison, *Public Health in British India*, p 76.
  - 20 Hosagrahar, 'Design, Domination and Defiance', p 147.
  - 21 John P S McLaren, 'Nuisance Law and the Industrial Revolution – Some Lessons from Social History,' *Oxford Journal of Legal Studies*, Vol 3, No 2, 1983, pp 155-221.
  - 22 Indian Penal Code, Sections 268-291, in England, nuisance laws had been first passed in 1846.
  - 23 M R Anderson, 'Public Nuisance and Private Purpose', SOAS law department working paper, 1, 1992.
  - 24 Gyan Prakash, *Another Reason, Science and the Imagination of Modern India*, OUP, Delhi, 1999, p 131.
  - 25 Anderson, 'Public Nuisance and Private Purpose'.
  - 26 Veena Talwar Oldenburg, *The Making of Colonial Lucknow, 1856-1877*, OUP, Delhi, 1985.
  - 27 Arthur C Crawford, *The Development of New Bombay: A Pamphlet*, Bombay, 1908, cited in Miriam Dossal, 'A Master Plan for the City: Looking at the Past', *Economic and Political Weekly*, Vol XL, No 36, September 3-9, 2005, p 3899.
  - 28 Oldenburg, *Colonial Lucknow*, pp 112-16.
  - 29 Hosagrahar, 'Design, Domination and Defiance', p 174, fn 62.
  - 30 Charles Trevelyan, cited in Gupta, *Delhi between Empires*, p 17.
  - 31 Gupta, *Delhi between Empires*, p 71.
  - 32 Gupta, *Delhi between Empires*, pp 61, 159; Hoshragar, 'Design, Domination and Defiance', p 138 and A P Hume, *Report on Relief of Congestion in Delhi*, Vol 1, Simla, 1936, p 38.
  - 33 Anderson, 'Public Nuisance and Private Purpose', pp 24-25.
  - 34 Christine Rosen, 'Knowing Industrial Pollution: Nuisance Law and the Power of Tradition in a Time of Rapid Economic Change, 1840-1864', *Environmental History*, Vol 8, No 3, October 2003, pp 565-97.
  - 35 M R Anderson, 'The Conquest of Smoke: Legislation and Pollution in Colonial Calcutta' in David Arnold and Ramchandra Guha (eds), *Nature & Culture and Imperialism: Essays on the Environmental History of South Asia*, OUP, Delhi, 1995, pp 293-335. Anderson also points out that the blame in the case of pollution was often passed on to the Indian workers, suggesting that class and racial distinctions were never too far off from the considerations of tradition and modernity.
  - 36 Harrison, *Climates and Constitutions*, p 176.
  - 37 Cited in Gyan Prakash, *Another Reason*, p 130.
  - 38 Government of India (GoI), *Report on the Administration of the Delhi Municipality for the Year 1940-41, Vol II: Annual Report of the Medical Officer of Health for 1940*, p 26.
  - 39 GoI, 1932, *Public Health Report on the Delhi Province for the Year 1930*, pp 1-2. Racial distinctions of this kind were invoked in many other colonial cities in India and elsewhere. See, Robert-Home, *Of Planting and Planning, the Making of British Colonial Cities*, E and FN Spon, London, 1997.
  - 40 Cited in Bharat Sevak Samaj, *Slums of Old Delhi*, Atma Ram and Sons, New Delhi, 1958, p 215.
  - 41 Cited in Hume, *Congestion in Delhi*, Vol 1, p 5.
  - 42 Hume, *Congestion in Delhi*, Vol 1, p 22. The size of the excess population was based on the standard of 50 sqft of living space per person.
  - 43 Hume, *Congestion in Delhi*, Vol 1, pp 67-68.
  - 44 GoI, *Report of the Delhi Improvement Trust Enquiry Committee*, Vol 1, Delhi, 1951.
  - 45 Hume, *Congestion in Delhi*, Vol 1, pp 38-39.
  - 46 Hazeerasingh, *Colonial Modernism*, p 242.
  - 47 GoI, *Delhi Improvement Trust Enquiry*, Vol 1, p 25.
  - 48 GoI, *Delhi Improvement Trust Enquiry*, Vol 1, p 11.
  - 49 GoI, *Delhi Improvement Trust Enquiry*, Vol 1, p 13.
  - 50 Pandit Thakur Das Bhargava, *Lok Sabha Debates*, 1955, Vol IX, Part II, p 1838.
  - 51 GoI, *Delhi Improvement Trust Enquiry Report*, Vol 1, p 21.
  - 52 Rajkumari Amrit Kaur, *Lok Sabha Debates*, 1955, Vol IX, Part II, p 1890.
  - 53 Letter from Rajkumari Amrit Kaur to Douglas Ensinger, Ford Foundation Representative in India, January 14, 1956. Ford Foundation Archives, NY. A Town Planning Organisation had been set up prior to the arrival of the American consultants that had prepared an interim general plan for the city, a "holding the line" operation awaiting the making of a regional master plan. See George Goetschius, 'TPO: History and Current Affairs' (nd), *Albert Mayer Papers* (hereafter AM papers), box no 23, folder 3, University of Chicago spl collections.
  - 54 James Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, Yale University Press, 1998.
  - 55 On the New York Plan see David A Johnson, *Planning the Great Metropolis: The 1929 Regional Plan of New York and Its Environs*, London, E and FN Spon, 1996. On Garden City Movement see Stephen Ward (ed), *Garden City, Past, Present and Future*, Spon Press, 1992.
  - 56 Albert Mayer, *AM Papers*, box 21, folder 35.
  - 57 *AM Papers*, box 22, folder 4, Letter May 15, 1957.
  - 58 Albert Mayer to Jawaharlal Nehru, May 15, 1957, *AM Papers*, box 22, folder 4.
  - 59 See the note, 'Study-Work Plan, Slum Clearance and Urban Redevelopment Section', first draft (revised) (nd), Ford Foundation archives, NY.
  - 60 Delhi Development Authority, *Master Plan for Delhi, 1962* (hereafter MPD-62), p 27.
  - 61 MPD-62, p 44.
  - 62 Mohanlal Saxena, *Lok Sabha Debates*, 1955, Vol IX, Part II, December 7, 1955, p 1728.
  - 63 Naval Prabhakar, *Lok Sabha Debates*, 1955, Vol IX, Part II, p 1739.
  - 64 MPD-62, p 28.
  - 65 Jawaharlal Nehru, 'Foreword', to Bharat Sevak Samaj, *Slums of Old Delhi*, Atma Ram and Sons, Delhi, 1958.
  - 66 Bharat Sevak Samaj, *Slums*, p 217.
  - 67 Bharat Sevak Samaj, *Slums*, p 150.
  - 68 Bharat Sevak Samaj, *Slums*, pp 183, 85, 72.
  - 69 Bharat Sevak Samaj, *Slums*, p 209.
  - 70 Jagmohan, *Island of Truth*, Vikas Publishing House, Delhi, 1978, pp 9, 14.
  - 71 Marshall B Clinnard, 'Report of a Pilot Project in Urban Community Development', Ford Foundation Programme Letter, India, Report No 112, May 23, 1960.
  - 72 B Chatterjee, director, Delhi Municipal Corporation, 'The Delhi Urban Community Development Project', Ford Foundation India, Report No 130, July 12, 1962.
  - 73 Albert Mayer to Jawaharlal Nehru, May 15, 1957, *AM Papers*, box 22, folder 4.
  - 74 On the interplay of civil and political society see, Partha Chatterjee, *The Politics of the Governed, Reflections on Popular Politics in Most of the World*, Columbia University Press, 2004.
  - 75 Arthur V N Brooks, 'The Office File Box' in Charles Haar and Jerold Kayden (eds), *Zoning and the American Dream*, American Planning Association, 1990, p 29.
  - 76 Brooks, 'The Office File Box' in Haar and Kayden (eds), *Zoning*, p 14.
  - 77 Earl Finbar Murphy, 'Euclid and the Environment' in Haar and Kayden (eds), *Zoning*, p 169.
  - 78 Charles Haar, 'In Accordance with a Comprehensive Plan', *Harvard Law Review*, 68, 1955. Cited in Robert Nelson, *Zoning and Property Rights*, MIT Press, 1980, p 60.
  - 79 MPD-62, p 44.
  - 80 In zoning in Bombay see Annapurna Shaw, 'The Planning and Development of New Bombay', *MAS*, 33, 4, 1999, pp 951-88.
  - 81 J P Sah, 'A Note on Urban Land Policy', 1961, *AM Papers*, box 22, folder 23.
  - 82 Noxious/nuisance industries were described in the master plan as any industry 'Which Is or May be Dangerous to Life or Injurious to Health or Property Caused by Fumes, Effluent or Smoke or by Producing or Storing Inflammable Materials', MPD-62, p 46.
  - 83 *Weekly Report*, September 30, October 12, 1957, *AM Papers*, box 23, folder 11.
  - 84 MPD-62, p 71, p 51.
  - 85 MPD-62, p 22.
  - 86 MPD-62, p 83; p 153.
  - 87 MPD-62, p 85.
  - 88 MPD-62, p 27.
  - 89 DDA, *Work Studies*, Vol 1, p 188. On consultation prior to relocation see 'Social Studies and Action in Planning,' *AM Papers*, box 23, folder 20.
  - 90 Anand, Aptay and Jhabvala, 'Why a Master Plan for Delhi', *The Hindustan Times*, August 21, 1960.
  - 91 GoI, MoEF, 1992, *Policy Statement for Abatement of Pollution*, p 2.