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**The System of “Dry Latrines” and Scavenging in India: 1870s–1990s****Yui MASUKI****1. Introduction**

Indeed, it is marvellous how Bombay has put up with the existing state of things for so long. That it can continue is impossible. It is opposed to the most ordinary feelings of our nature. The mere fact that the system demands that hundreds of men, and women too, shall be engaged for several hours of the day in handling the very filthiest matter that can be produced, is sufficient to condemn. I say “handling,” for this is the plain and unvarnished truth. The sweepers handle the night-soil just as a baker might handle so much dough. Can it be necessary, in this age of mechanical skill, to employ human beings in this degrading occupation? ... The question is, whether the whole system of the native—both his moral and physical nature—is not lowered and debased by it. If it is, then, I say, the consequences must be reflected on the general community.

Hector Tulloch (Tulloch 1872: 13-4)

In 1993, nearly 12 decades after dignitaries such as Hector Tulloch of the Royal Engineers in British India, who proposed the improved sewerage and drainage scheme, exhibited empathetic yet patronizing demeanor toward the human waste collectors of Bombay, the practice of manually carrying any human excrement became legally proscribed in the country.<sup>1</sup> The point of contention in the new law is not about the caste issue in which those from Dalit communities are, and have been, liable to do this work. Instead, it is about how human excrement should be disposed of, in an efficient, not-so-inhuman, and hygienic manner. Or, more precisely, what could be a proper and affordable toilet system. Dalit human rights activists have strived for decades to make their voices heard in the democracy, for the emancipation of sanitation workers impugning the government’s merely rhetorical enforcement of the statute. They hope to materially eradicate what passes for “manual scavenging,” the hand removal of human waste, from so-called “dry

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<sup>1</sup> It is formally referred to as “The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act.”

latrines,” which structurally necessitates a daily cleaning and had been prevalent in urban areas especially since the latter half of the nineteenth century.

When rural Dalits migrated to industrial cities in search of greener pastures after the mid-nineteenth century, the colonial modernity helped reinforce the “untouchables’ low status” (Bayly 1999: 225-6). Among those affected were the *Bhangis*,<sup>2</sup> “the acknowledged ‘scavenger’ jatis,” who were considered “as specialist waste-removers” (Bayly 1999: 227). As Prashad reveals in the case of Punjab, quite contrary to the conventional association between their caste and being sanitation laborers, a number of them earned their bread primarily through agriculture in the countryside (Prashad 2000: 26, 43). Partly due to this generally shared stereotype (Prashad 2000: 26), the Dalits regarded as sanitation workers started to find employment in local bodies, cantonments, railways, and private households. Sanitation services were expanded in British India due to the belief that the cities’ poor sanitation jeopardized public health, which had undergone devastating consequences brought about by diseases such as cholera. Directing all their efforts to prevent epidemics, colonial officials heavily relied on manual laborers. It was a policy they believed would mesh well with their disinclination “to spend money on public welfare” (Prashad 2001: 115). The labor of sweepers and scavengers<sup>3</sup> compensated for the bureaucratic inertia in technological development, which militated against extensive mechanization of human waste disposal, or a sewerage system that was deemed a modern product at that time.<sup>4</sup>

What is relatively unclear hitherto is how this particular system wherein toilets served as a basic device for human waste disposal, in this case “dry latrines,” was popularized by the authorities, profoundly affecting scavengers’ way of living as well as their neighborhoods. It did not exist as an independent entity, but it was promoted with

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<sup>2</sup> Although the word *Bhangi* is considered a derogatory term, this paper uses it in accordance with the description in government reports and archives.

<sup>3</sup> Technically there was a sharp difference between these two occupational groups; in Bombay, for example, scavengers were engaged in the cleaning of toilets and collecting human waste from them; people engaged in this were “almost invariably” from the *Bhangi* caste (Masselos 1982: 105). Sweepers, on the other hand, were engaged in street sweeping. These two terms, however, were used interchangeably in government documents, especially when it came to the removal of human waste from toilets. As this paper primarily deals with the manual collection of human waste, both terms that appear hereafter signify the group that worked in cleaning dry latrines.

<sup>4</sup> Although the sewerage system was deemed an alternative to manual labor, it was found to be insufficient in the absence of sweepers when the system came into use in some municipalities (e.g., Tam 2013).

clear purpose at a specific period of time and context, and was gradually adopted by the people who used it. This paper primarily centers on the popularization of the dry latrines, which the colonial administration thought would be a good cornerstone of safeguarding public health, and its impact on city dwellers, including the scavengers themselves. Its time focus sweeps through the second half of the nineteenth century to the end of the twentieth century. The widespread manual technique of feces management in the form of dry latrines was deployed for *daily* and prompt removal of filthy waste from household premises to the extreme outskirts of cities and towns. What the officialdom did, amid the supposed want of financial and water resources, to untie the Gordian knot was to count on human capital by appropriating sanitary machineries. The manual labor involved in cleaning dry latrines affected not only urban citizens, arguing with one another over their right of way for the passage of these scavengers to their toilets, but also scavengers for whom it significantly constituted a part of their life in terms of a “customary right.” Rather than demonstrating a stiff resistance to the widespread stereotype of their “traditional” occupation as a means for emancipation, a number of sweepers strategically appropriated such labor as customarily exclusive to their community and attempted to secure it in the public domain.

## **2. Abolition of Pit Privies and Mobilization of Scavengers**

To contain the outbreak of highly contagious diseases, colonial officials prioritized the machinery of the administration that dealt with the practical sanitation concerns of each municipality. A government resolution in the 1880s sheds light on one of the most distinguishing aspects of the sanitation policy from the late nineteenth to the early twentieth centuries. “The main obstacles which have hitherto impeded sanitary improvement in India,” according to the resolution, “lay in the ignorance of the masses and their dislike to any change of custom, and the want of efficient executive agencies, and last, though not least, in the want of funds.”<sup>5</sup> Despite the manifest description of the issue, these three thorns in the flesh could not be removed altogether. Government officials were not inclined to enlighten the populace, whom they considered ignoramus

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<sup>5</sup> Resolution of the Home Department (Sanitary), 27 July 1888, quoted in (Hewlett 1889: 6).

about the importance of hygiene; neither did they procure funds that could help them develop the modern sanitation technology; rather, the pendulum of the bureaucracy's sanitary measures swung toward the appropriation of an administrative agency, which would execute the commands regarding public health through a top-down approach. In light of the utilization of the hierarchical organ for promulgating every order issued by the executives for the rank-and-file, a sanitary policy was implemented in a sphere of daily life. Thus, sweepers and scavengers became to be, in lieu of nonhuman resources, increasingly mobilized as the sole, although unsatisfactory, mainstay of colonial urban health.

One of the common toilets used by Indian city dwellers at that time, in the northern, western and eastern parts of the country, in particular, was “the pit privy” or “the well privy,” or the like. Some of the colonial sanitary reports offer a brief glimpse of both its structure and the perspectives of the officials toward the native manner of disposing human waste. Pit privies were mostly situated “inside the house” (Chotalall 1892: 167) so that it “formed [a] part of the houses” rather than “detached” therefrom (Ghole 1892: 130). In the case of northern part of India, the pit was “sunk in the floor of the lower compartment” “in the building” (Sterndale 1881: 38). Its design and directions for use were exceedingly simple; the discharged human waste fell into a deep-dug pit. Since the substances naturally became decomposed or liquefied by an artificial mixture with salt, as is done in western India, the feces percolated through the soil (Chotalall 1892: 167). In such a type of toilet, the accumulated feces are removed “only after long intervals – or never” emptied (Dhurandhar 1892: 140). As cited in a sanitary commissioners’ report, in the eastern part of India, when “holes dug in the earth” for toilets became full, another one was dug “until all available ground is dotted with these inadequately-covered pest-holes.”<sup>6</sup> In some parts of northern India, people used another type of toilet situated inside the house, where the excrement falls into a room at a lower level from the upper floor (Sterndale 1881: 38). Similar to the well-privy, this was cleaned “every two or three months” or “annually” (Sterndale 1881: 38). In the Calcutta municipality, feces were accumulated in a “cesspool” bored in the earth, the contents of which were collected by “*mehters* [sweepers or scavengers],” “and carried away from time to time as convenience

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<sup>6</sup> Description by Gupta, quoted in (Harvey 1878: 47).

or necessity required” (ILR 1883: 783). Some residents did use the so-called dry latrine, aside from the pit privy, which was made of bamboo baskets and emptied by scavengers employed by the house-owners (Dhurandhar 1892: 140).

The sanitary officials’ views on the native custom of disposal of fecal matter were correlated to the fact that urban cities were becoming endangered by the rapid spreading of infections. The colonial officials believed that the system of the well-privy materially allowed for continuous co-habitation of dejecta and human beings, thus increasing exposure to an unsanitary environment. Both the close proximity to drinking wells and the production of polluted gases, according to a medical officer at Baroda, were the structural defects in this toilet (Dhurandhar 1892: 140). It was argued that “the ordure collected in them fouls the subsoil and water-bearing stratum” (Hewlett 1889: 26), and that inhaling the effluvia from the excrement might cause infectious diseases such as cholera and enteric fever (Sterndale 1881: 39). The sanitary officials exposed the odium of this “time honoured custom”<sup>7</sup> and energetically endeavored to do away with it. This overenthusiasm in maintaining cleanliness in the atmosphere of buildings partially stemmed from a miasmatic theory that had held dominion over the field of public health in British India until the 1890s, when approaches by contagionists were accepted (Arnold 1986: 145; Wilhelm 2016: 31). Therefore, what the sanitary officials regarded as “these abominable contrivances,”<sup>8</sup> or the “most insanitary, injurious, and filthy practice” (Ghole 1892: 130), were eventually abandoned in the municipalities in the 1870s. For example, in Ahmedabad, which then belonged to the Bombay Presidency, pit privies “were closed and filled up” “on the representation of the Sanitary Commissioner” during the late 1870s (Chotalall 1892: 167) at “considerable expense and litigation” (Gillion 1968: 133).

Along with the abolition of pit privies, daily and prompt collection of human waste, and carrying it away from residential quarters was enforced. Merits of its disposal by way of water, a sewerage system in particular, was indeed appreciated by some officials as early as in the 1870s. They did so because such a system could completely flush all fecal matter far away from the residential areas through the pipes, but questions were raised

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<sup>7</sup> General Department files (hereafter GD), Maharashtra State Archives, 528, 1892, Memorandum by the Army Sanitary Commission, p. 21.

<sup>8</sup> Memorandum by the Army Sanitary Commission, p. 21.

about its cost-effectiveness and technological feasibility.<sup>9</sup> Likewise, the technology of flush toilets too, which was under consideration for use during this period, was met with opposition, apparently on the grounds of scarcity of water resources.<sup>10</sup> With their studious avoidance of appropriating funds for mechanization, the only viable option to stave off the epidemic outbreaks was to resort to human capital: sweepers and scavengers.

Thus, the sanitary policies to decrease the mortality rates involved the appropriation of sanitary institutions in local bodies, and the implementation of “new sanitary rules” that forbade the construction of pit privies and directed the owners of newly installed toilets to get it cleaned “every morning” (ILR 1883: 786). In their obsessions with the instant removal of polluted matter that could become breeding grounds for diseases, colonial officials shifted their focus to creating awareness among the masses on, what they believed, “the advantage of removing filth to a distance from their doors” through dry latrines and scavengers.<sup>11</sup> These so-called dry latrines which usually had receptacles attached to them, were increasingly being promoted for use in both public and private domains. Ordinarily, as described by Tulloch, in Bombay, these toilets were located “at the backs of the houses,” and the waste collected by scavengers was transferred “on their heads” “to certain central stations, where the carts are waiting to carry it off to the Main Depot” (Tulloch 1872: 12). Government sanitary experts advocated that human waste should be rapidly removed “from the inhabited area.”<sup>12</sup> Sometimes the place for excretion was separated from the receptacle of the ordure and the two were connected by a trash chute.<sup>13</sup> There were regional differences in terms of the standardized design of dry latrines; however, the manner of disposing the waste from households was more or less the same. It involved a simple procedure: the daily removal of excrement by scavengers using basic cleaning implements (e.g., a basket and a cart).

An intriguing account on the interrelation between the abolition of pit privies and the reduction of fatality rates was given by the president of the Ahmedabad municipality

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<sup>9</sup> *Abstract of Proceedings of the Sanitary Commissioner with the Government of India, for the Month of September to December 1872, 1873*, Calcutta: Office of the Superintendent of Government Printing, p.424-25.

<sup>10</sup> GD, 915, 1872, Not Specified. Undersigned by T. G. Hewlett.

<sup>11</sup> GD, 626 (part-I), 1892, *Twenty-Eighth Annual Report of the Sanitary Commissioner for the Government of Bombay*, p. 62.

<sup>12</sup> *Annual Report of the Sanitary Commissioner*; p. 64.

<sup>13</sup> *Annual Report of the Sanitary Commissioner*; p. 62.

in the 1890s. After the discontinuance of the pit privies in the late 1870s, according to him, human waste began to be moved “half a mile from the city” (Chotalall 1892: 168). The death rate in the time period of six years from 1874-75 to 1879-80 was around 55 percent and in next six years from 1880-81 to 1885-86, it dropped to around 45 percent (Chotalall 1892: 168). In the next six years from 1886-87 to 1890-91, when the municipality introduced a tramway to transfer waste farther from “the vicinity of the city to a distance of about three miles in a leeward direction,” as the report explains, there was a further decline of 5 percent in the fatality rate (Chotalall 1892: 168). This reveals colonial officials’ expectation that a complete removal of human excrement to the distant environs would directly “save hundreds and thousands of human lives” (Chotalall 1892: 168), and one of the first steps toward this was to set up a system of toilets from which fecal matter would be daily or regularly collected by scavengers or sweepers.

During the strategic implementation of this conservancy arrangement especially after the mid-nineteenth century, numerous *Bhangis* were swiftly mobilized as the most inexpensive sanitation force of the municipalities. In the Bombay of the 1880s, as the municipal commissioner explained, “4,011 men and women, 704 scavenging and drain carts, and 155 night-soil and cesspool carts” were deployed “daily in collecting and removing filth” including feces.<sup>14</sup> Even in smaller local bodies with populations of less than 10,000, a minimum of 10 *Bhangis* were employed to clean the public and private toilets.<sup>15</sup> At the same time in Madras, there were almost 950 public latrines in its 55 municipalities.<sup>16</sup> As a Surgeon-Major believed, however, the number was not adequate for the maintenance of urban sanitation, since “it represents an accommodation of only 1 to every 1,535 people.”<sup>17</sup> According to him, “there should at least be, as noted by Government, 1 to every 1,000 inhabitants” and the expeditious fitting of additional toilets would end an open defecation in the “streets, narrow lanes, by-paths, and quiet corners” by the residents without access to the sanitation services.<sup>18</sup> Not only public toilets, but also the so-called “private scavenging” was in effect under the control of the

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<sup>14</sup> GD, 866, 1891, *Report on Sanitary Measures in India in 1889-90* (vol. 23), 1891, London: Eyre and Spottiswoode, p. 140

<sup>15</sup> GD, 404, 1891, ‘List of Municipalities in the Northern Division Classified by Population.’

<sup>16</sup> *Report on Sanitary Measures in India*, p. 106.

<sup>17</sup> *Report on Sanitary Measures in India*, p. 106.

<sup>18</sup> *Report on Sanitary Measures in India*, p. 106.

municipalities.<sup>19</sup> Toward the end of the 1880s, in Madras presidency, almost 17,500 private latrines were serviced by municipal scavengers “in 39 towns.”<sup>20</sup> In these conditions, scavengers and sweepers in the sanitation department, under the supervision of a sanitary inspector, plodded through the task of collecting and conveying feces to the station by carrying it on their head in baskets, or by bullock, or iron carts.

By the beginning of the twentieth century, the technology of sewerage, flush-toilets, and septic tank toilets became popular by varying degrees in urban cities. In the Bombay municipality, for example, more than 200 latrines and urinals were in operation and most of them were attached to the water-carriage system as reported in 1909.<sup>21</sup> The practice of dry latrines and manual handling of human waste, however, continued as a makeshift measure during the complete transition to the sewerage system. Even in Bombay, referred to as “the most sewered city in the East,” there were “thousands of houses with the old privy basket system” not connected to sewer lines, and “the basket is emptied twice daily” (Turner 1914: 170). The dry latrines of the 1910s were depicted as: “corrugated iron sheds with partitions” that were “fitted with glazed *gumlahs* [stools] or tarred or enamelled iron pans” with receptacles (Lukis and Blackham 1914: 165).

The cleaning of toilets by scavengers was severely condemned as the method involved “stinking” and was “fraught with large amount of nuisance.”<sup>22</sup> The system of “basket privy” itself was considered “primitive and harmful to the health of the residents.”<sup>23</sup> Since the flies swarming around the receptacles of the toilets were deemed a source of infectious diseases, the “rapid and satisfactory disposal” of fecal matter was all the more encouraged (Lukis and Blackham 1914: 167). Despite a number of sanitarians mentioning the “imperfections of the usual hand removal latrines,” manual handling of human waste was maintained by the authorities because it was the cheapest option.<sup>24</sup> Unlike the officials during the nineteenth century, who bent every effort to

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<sup>19</sup> *Report on Sanitary Measures in India*, p. 106.

<sup>20</sup> *Report on Sanitary Measures in India*, p. 106.

<sup>21</sup> Chapter 10, The Bombay Municipality: Drainage ([https://gazetteers.maharashtra.gov.in/cultural.maharashtra.gov.in/english/gazetteer/Bombay%20City/Volume\\_3/Drainage.html](https://gazetteers.maharashtra.gov.in/cultural.maharashtra.gov.in/english/gazetteer/Bombay%20City/Volume_3/Drainage.html), accessed on 20 December 2020).

<sup>22</sup> East India (Sanitary), 1912, *Progress of Sanitary Measures in India*, London: His Majesty’s Stationery Office, p. 154.

<sup>23</sup> GD, 1211, 1919, Memorandum, General Department, Government of Bombay, no. 4486, 29 May 1919.

<sup>24</sup> *Progress of Sanitary Measures*, p. 107, 154.



abolish human waste disposal in pit privies to reduce the mortality rates, sanitarians in the 1910s considered the system of dry latrines appropriate for the Indian local context. They quoted the Laws of Manu and its implications, highlighting the importance of disposing fecal matter far from “the vicinity of man,” and regarded this Hindu sanitary norm as “the forerunner of the dry method of conservancy” (Lukis and Blackham 1914: 164). Scavengers, under these circumstances, sedulously kept discharging their arduous undertaking of dealing with crude excrement on a daily basis and carrying it “through the streets and lanes by buckets or carts.”<sup>25</sup> Reek and sordidness constituted their everyday working conditions, so much so that it was “nauseating” (Madeley 1914: 132) for people when carts laden with feces passed on the roads with a “horrible smell” (Lukis and Blackham 1914: 168) permeating the atmosphere. The waste disposal sites were described no different: extremely filthy and “unapproachable, except by the most hardened scavengers.”<sup>26</sup>

Aside from the presidencies ruled directly by the colonial administration, some parts of princely states relied heavily on manual laborers for sanitation. Jaipur of the Rajputana Agency, for example, was referred to as “the wealthiest” state in the region with a population of nearly 2.6 million (Showers 1916: 1). The city witnessed rapid construction of public toilets in the early twentieth century, with an average of 60 to 80 per year, or nearly 390 at their peak implementation.<sup>27</sup> Although the design of the toilets is not specified in detail, a cost estimate drawn by a municipal engineer lists the number of pans,

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<sup>25</sup> An editorial in the Indian Medical Gazette, p. 87, 1934, ‘Waste, Wealth and Health’, *Indian Medical Gazette* vol. 69, issue 2, pp. 85-87.

<sup>26</sup> GD, 1311, 1920, Collector of Ratnagiri’s letter no. 5109, 7<sup>th</sup> to 9<sup>th</sup> September 1912.

<sup>27</sup> *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1912, and on Vaccination for the Year 1912-13*, 1913, Calcutta: Superintendent Government Printing, India, p.3; *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1913, and on Vaccination for the Year 1913-14*, 1914, Calcutta: Superintendent Government Printing, India, p. 4; *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1914, and on Vaccination for the Year 1914-15*, 1915, Calcutta: Superintendent Government Printing, India, p. 3; *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1915, and on Vaccination for the Year 1915-16*, 1915, Calcutta: Superintendent Government Printing, India, p. 4; *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1916, and on Vaccination for the Year 1916-17*, 1917, Calcutta: Superintendent Government Printing, India, p. 5; *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1917, and on Vaccination for the Year 1917-18*, 1918, Calcutta: Superintendent Government Printing, India, p. 4; *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1918 and on Vaccination for the Year 1918-19*, 1919, Calcutta: Superintendent Government Printing, India, p. 7; *Report on Sanitation, Dispensaries, and Jails in Rajputana for 1919, and on Vaccination for the Year 1919-20*, 1919, Calcutta: Superintendent Government Printing, India, p. 4.

which can be equate to the number of receptacles,<sup>28</sup> implying sweepers' labor for daily disposal of human waste. To stave off severe epidemic outbreaks without much expenditure, municipalities in the princely states also fully exploited human capital, that is the sweepers. However, these sweepers on whom the authorities relied, did not receive much care from the latter in terms of improving their health and working environment. This came to light in an officially expressed lamentation when a plague and flu outbreak struck in Jaipur in the 1910s. Although the epidemic seriously affected the sweepers' health, for the authorities, the matter that concerned them was sanitation. It was stated that "the strength of the Conservancy staff was much weakened and in consequence of which the general sanitation suffered to a great extent."<sup>29</sup> Moreover, their daily toils were regarded as the "malodourous duties."<sup>30</sup> The authorities had construed the labor as being directed toward the very reverse of the modernity.

### 3. Right of Way

The gradual ubiquity of so-called dry latrines in the daily life of peoples in cities and towns profoundly impinged not only on the spatial marginalization of scavengers as "Untouchables," but also on the residents' right of way, wherein citizens did everything they could to avoid even the slightest contact with human waste. As some law reports reveal, there were litigations concerning toilet installation sites and the manner by which waste was to be transported by sweepers, especially since the 1880s. An early case in the Bombay presidency gently hints at citizens' bewilderment when what was called "*Bhangy* privy," referring to a dry latrine cleaned by *Bhangis*, was installed as an alternative to the pit privy. In 1888, a second appeal was brought to the high court of Bombay, where the plaintiff made a plaint to demolish a toilet newly built by the defendant, which was located "within the distance of five cubits from the house" of the former, and was said to have created "a nuisance."<sup>31</sup> The case for the latter was based

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<sup>28</sup> Public Works Department files (hereafter PWD), Rajasthan State Archives, 1094, 1929, Abstract of Estimate for Constructing of Public Latrines, by Assistant Engineer, 29 July 1929.

<sup>29</sup> *Report on Sanitation for 1918*, p. 6.

<sup>30</sup> PWD, 1841, 1936, State Engineer's letter no. B. 226/3329, 9 January 1936.

<sup>31</sup> 12 B. 634, Sayad Jafir Saheb v. Sayad Kadir Rahiman and Another, 30 August 1888 (<https://bombayhighcourt.nic.in/libweb/lawreports/ilrbom/ILR1888%2812%29/ilrbom12.html>, accessed on 15 January 2021).

on an order of the municipality issued in accordance with the Bombay Act of 1873, which referred to the construction of any privy.<sup>32</sup> Although building the dry latrine was considered appropriate in the act, from the perspective of the judge, it should not have caused any violation of the neighbors' rights.<sup>33</sup>

What is significant in this case is not the judgment that affirmed the power of a municipality, but the tremendous effort involved in the construction of the dry toilets. Unlike pit privies that were sunk into the ground, ideal locations for dry toilets had to be selected considering the passage for sweepers for daily cleaning and, at the same time, ensure that the sweepers do not come too close to the property of others.<sup>34</sup> Accordingly, the process of installation of dry latrines was not just a matter of replacing an old pit toilet built at the owner's discretion, but it was embedded within a whole network of actors including neighbors and sweepers. Dry latrines in urban areas were in most cases laid out in an array in what was called a "gully," a lane along which sweepers passed every morning for the collection and carriage of fecal matter (Figure 1).

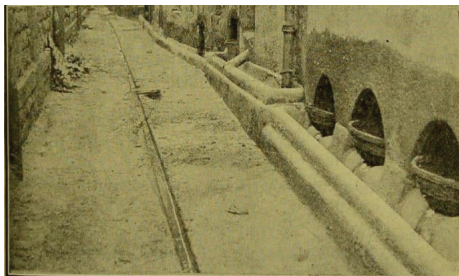


Figure 1: Sweepers' "gully" (Turner 1914: 171)

In this set, the path for the sweepers was blatantly segregated from ordinary roads. Then, a category of "sweepers" was gradually substantialized as the "Untouchables" and the "Polluted." However, for citizens who strictly followed the municipal sanitary regulations and understood the importance of hygiene, it was not the toilet per se, but the manner in which it was cleaned, and the waste removed that proved to be a bane in their life. Notably, not all lanes were neatly separated and the passage of sweepers

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<sup>32</sup> 12 B. 634.

<sup>33</sup> 12 B. 634.

<sup>34</sup> 12 B. 634.

through some of these said lanes was met with contention from the surrounding neighbors.

Judges of Calcutta in the 1880s busied themselves in tackling cases on the use of lanes and drains for cleaning toilets. Some residents complained to the court that “the lane is used for the passage of *mehters* [sweepers or scavengers] with night-soil from the defendants’ premises to the street” (ILR 1881: 675). This conduct in itself, as a judge pointed out, did not infringe on the plaintiff’s right of way (ILR 1881: 675). An injunction was issued against the defendants, however, to restrict them “from using, their present *mehter*’s doors for cleaning their privies into the lane, or otherwise using the lane in connection with the cleaning their privies” (ILR 1881: 677). To some extent, the requirement stipulating that the lane only be used “for the carriage of the night-soil from their premises to the street” circumscribed the sweepers’ working conditions wherein they could not avoid “placing tubs of night-soil in the lane, and letting them stand there” (ILR 1881: 675-76, 677). The same complaint was brought regarding the use of a certain drain to which “the refuse water of the plaintiff’s privies” were thrown, when it became mandatory in the municipality to clean their toilets “more frequently” (ILR 1883: 783, 786). Since this system was held by the court as “likely to be more healthy than the former one,” the plaintiff’s use of the disputed drain, by way of scavengers was declared legal (ILR 1883: 786).

Contests among citizens living adjacent to each other over their right of way lasted well into the 1930s. It was not entirely a matter of mere right; it was also about a “way” used specially by the untouchables. This was clearly shown in a case at Bombay High Court in the 1920s. A plaintiff filed an injunction against his neighbors who wished to use “the way in question as a way for Bhangis and other persons of an untouchable class to clean the privy intended to be erected by them” (AIR 1920: 233). The sweepers, as the judge stated in the course of consideration, were “not one of the normal class of servants of a house-hold in this country” (AIR 1920: 234). City dwellers evidently viewed cleaning their toilets as essential for a sanitary way of life. Nevertheless, the fact that the sweepers had to pass through a certain lane or someone else’s premises to reach the toilets, and carry excrement therefrom was considered a nuisance and therefore sometimes even prevented. Some scavengers in Madras had been cleaning the plaintiff’s

privy for 60 years by passing through the defendants' doorway (ILR 1922: 635). The latter was alleged to "have locked up the door" and was "obstructing and annoying" the former "in various ways contrary to his rights," "with a view to prevent the scavenger from cleaning the privy" (ILR 1922: 635). The right to let sweepers pass on a certain path was, on occasion, legally denied as well. The case in Bombay in 1920, which was mentioned earlier, reveals how the sweepers' use of the passages for "removing night-soil" could not be included under "a right of way for persons, cattle, carts, etc." (AIR 1920: 233). The statement by the judge that "there are ways over which these sweepers may pass: and there are other ways over which they do not pass" (AIR 1920: 234) clearly demonstrates the authoritative perspectives of the time toward the separation of sweepers from the other classes by means of a "path."

Overall, the right of way for sweepers or scavengers was endorsed in judicial decisions. Plaintiffs at Nadiad in the Bombay presidency filed a suit against the defendants in 1924 that the latter "had no right to admit scavengers into their private *khadki*<sup>35</sup> land" to clean their toilets (ILR 1933: 188). According to the judge, the houses of both parties, were considered to have initially been one house and the pit privy was only allotted to one party when the house was divided in 1903 (ILR 1933: 192). Since both were relatives, they shared the toilet together. Problems started when strangers bought the house and constructed a new basket toilet in the early 1920s (ILR 1933: 187). Since pit privies in the municipality were prohibited "in the case of new constructions," the defendants had little option but to install the dry toilet, "which requires the attendance of Municipal Sweepers periodically to remove night-soil" (ILR 1933: 191-92). Yet, the sweepers' passing through their property carrying crude human waste was "objectionable" to the plaintiffs, and therefore an injunction against the restriction was requested (ILR 1933: 192). The decision was made in favor of the defendants, since the judges considered it more necessary for a town to have a toilet "in each house" that calls for the service of the municipal sweepers (ILR 1933: 194).

This perspective was retained even after the independence, as is seen in a similar case in Gujarat in the 1960s. In this case, the plaintiffs' *khadki* land was used by the defendants "as passage for their sweepers to carry night soil" from the toilet allegedly

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<sup>35</sup> This seems to denote some form of property such as a certain land and lane.

built in 1953 and, in the same way, the former demanded that a “permanent injunction to restrain” the latter be issued (AIR 1961b: 116). Regarding the ownership of the *khadki* in question, according to the judgment, the sanad of 1928 was in favor of the plaintiffs, but it also refers “to the right of way of all owners of the houses in the *Khadki* for going and coming” (AIR 1961b: 116). Thus, it was held that the “admitted right of easement is a general right of easement,” which “includes the rights of scavengers going to defendants’ house to use the passage” (AIR 1961b: 117). The prohibition of pit privies and subsequent popularization of basket-type toilets frequently serviced by municipal sweepers caused the city dwellers to have hyperacute olfactory, visual, and tactual sensitivity to the regular collection and transportation of untreated fecal matter from their premises and lanes. Unlike the sanitary officials whose primary concern was to lower the death rates, these legal proceedings evince that one of the main issues that the owners of houses with attached private toilets faced was avoiding frequent and close contact with their own and others’ bodily waste.

#### **4. Customary Rights of Sweepers and Scavengers**

In urban localities where scavengers were under the direct supervision of municipal administrations, householders were levied a scavenging tax for the sanitation services. The right to all the fecal matter obtained from the servicing of dry latrines, normally reverted to the local bodies. However, as Khalid delineates in her study on sanitation in colonial Uttar Pradesh during the late nineteenth to the twentieth century, municipalities were sometimes compelled to accept sweepers’ demands to avoid strikes, which they saw as a dangerous threat to public health (Khalid 2012: 64). The sweepers benefitted from selling the human waste they collected as fertilizer (Khalid 2012: 59). Consequently, the authorities deemed it wise to control them (Khalid 2012: 61). Under a supervisory and antagonistic relationship with the authorities, the sweepers routinely accomplished the laborious task of collecting human waste. On the other hand, where there was less municipal control over sanitation matters, sweepers enjoyed their hereditary right to clean the toilets in their neighborhood. After the twentieth century, in particular, this right, officially referred to as the customary right to scavenging, was

roundly scored by the government for its outdatedness and antiquated nature.<sup>36</sup> Floundering in municipalizing all the sanitation services, authorities of postcolonial India began to fixate on the abolition of the custom. By their prerogative, private sweepers were barely able to survive on a meager but vital pittance, but the authorities did not pay much attention to their actual situation.

Specifically, since the 1920s, several conflicts bearing on this right surfaced in the public sphere, with a number of hereditary sweepers filing appeals in the regional courts. Cleaning of toilets in each locality was regarded by sweepers as their exclusive right, and it was generally shared in such a way that one might not trench upon the customers of the other. This demarcation of one's right was grounded on mutual understandings within their community. Nevertheless, this practice more often than not involved a dispute in which the sweepers scrambled for their customers, and would not hand over their right to another individual. This customary right was supposed to be considered as "tangible property" among local sweepers (AIR 1928: 390) and, therefore, inheritable, mortgageable, and transferrable. Judicial cases in the twentieth century vividly describe how sweepers attached significance to their so-called unclean and insanitary labor, and the rights accruing from that labor. In the 1920s, in the Allahabad High Court, certain sweepers of Mathura filed an appeal "for an injunction restraining" their counterparts from providing services to a newly built *dharamshala*, a religious institution (AIR 1928: 389). The former insisted that the toilet of the *dharamshala* was situated "on the site of the house which was part of" their right (AIR 1928: 390). As the judge remarked, the right "may arise by agreement amongst sweepers defining the areas or houses where each is to render services without interference by the others" (AIR 1928: 390). This connotes that exercising this right was not necessarily predicated on a contract between

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<sup>36</sup> With a report by a committee to the Bombay Government in 1952 as its beginning, several boards were set up until the 1960s, to survey this practice with the aim of abrogating it all over the country. The relevant reports submitted so far were: Government of Bombay, 1952, *Report of the Scavengers' Living Conditions Enquiry Committee*, Bombay; Government of India, Ministry of Home Affairs, Central Advisory Board for Harijan Welfare, 1960, *Report of the Scavenging Conditions Enquiry Committee*, New Delhi; Government of India, Department of Social Welfare, 1966, *Report of the Committee on Customary Rights to Scavenging*, New Delhi; Government of India, Ministry of Home Affairs, *Study of Customary Rights and Living and Working Conditions of Scavengers in Two Towns*, Census of India 1961 Monograph Series Volume I, Part 11-D.

a sweeper and a household owner, but rather correlated to the agreement and usage “prevailing amongst the local sweepers” (AIR 1928: 391).

Other cases illustrate how this right was mortgaged when a sweeper was struggling financially. In fact, this was the most popular agenda for filing such lawsuits at that time. In the 1920s, sweepers in Madras lent another sweepers “a sum of Rs. 550,” and the latter bonded “the income derived from the houses numbering 109” (AIR 1938: 881). In this transaction, the latter ought to clear his debts “within three years with interest rate at 2 per cent. per mensem” (AIR 1938: 881-82). When he defaulted on the loan, the lender was supposed to “do scavenging work for 36 out of 109 houses” that was originally served by the borrower (AIR 1938: 882). The borrowers claimed that they had already refunded the debt and started to disrupt the former from providing services for the houses (AIR 1938: 882). The lenders pleaded in the legal domain that the defendants, or any other “agents and servants” employed by them, could no longer engage in scavenging work in the 109 houses as the right to do so was the lenders’ alone (AIR 1938: 882). The fact that the plaintiffs, in this case the lenders, did not demand complete repayment of the loan graphically epitomizes how sweepers vested critical importance on their customary right of scavenging. Therefore, having “deliberately omitted to” request “for recovery of the money,” which was, according to the judge, the plaintiffs’ hidden intention, he preferred the legitimacy of the “possession of their scavenging rights” (AIR 1938: 884).

Litigations over rights were frequently initiated after independence in the late 1940s. In the 1950s, a scavenger in Madhya Pradesh appealed to the high court lodging a petition to recover “his share of the scavenging right” “alleged to have been mortgaged by him with the defendant respondent for Rs. 20” “without any interest” (AIR 1951: 120). It was claimed that the deal was made in the 1920s, and the mortgagor eventually reimbursed the debt almost 20 years later (AIR 1951: 120). Although he was supposed to “redeem the mortgage,” the encumbrancers did not wind up his mortgage (AIR 1951: 120). Between the 1950s and the 1960s, a few cases were brought to the court in Allahabad regarding customary rights. They were sometimes correlated with issues of one’s scavenging right taken away by the detainer (e.g., AIR 1958, 1964), or regarding the mode of recovery of damages, mainly money, caused by the debtor’s inability to



repay (e.g., AIR 1961a). In the former, the point of argument was on who the owner of the right would be, and how the right should be proved. Moreover, the parties of these cases set forth various past transactions that had involved diverse actors such as their parents, relatives, and non-specified others. This indicates that the private scavengers constantly negotiated with each other to determine who would serve these quarters or households, at least since the beginning of the twentieth century when the use of dry latrines in cities and towns became more widespread.

Their customary right until the 1960s, however, was not legally recognized especially by the high courts of the country. Disinclined to acknowledge sweepers' way of cherishing their custom, the judges refused to bestow legal protection upon the right, enumerating specious logics: that it lacked a "grant by which owners of particular houses may confer the exclusive privilege of serving in that capacity to the exclusion of all others following the same vocation," or "usage and prescription" (AIR 1928: 390). The exercise of the customary right was, for the judicial authorities, "contrary to public good and operates to the prejudice of the many and beneficial only to a particular individual," because of which it was deemed "unreasonable" (AIR 1938: 884). This attitude of rejecting the prerogative of private sweepers was followed by decrees after independence as well, but were tinged with the ideals of a so-called modern and democratic notion. As proclaimed in the judgment in the high court of Madhya Pradesh in the 1950s, the customary right was "no more than a monopoly to pursue an occupation" (AIR 1951: 121). Hence, it was considered to go against "the Constitution of India giving all citizens the fundamental right to practise any profession, or to carry on any occupation" (AIR 1951: 121). Although the right of *mahabrahmini*, a customary right possessed by Brahmans to render religious services to certain customers, was long approved "as immoveable property under Hindu Law," it was observed that this was never applied to the case of sweepers (AIR 1964: 252). Unable to present any qualified evidence, sweepers' pleas demanding legal cognizance of their customary right were mostly dismissed.

Prevalence of the right witnessed its decline after the 1960s. Yet, in some parts of Rajasthan, where scavenging continued to prevail, sweepers resorted to the law to secure the protection of their privilege. What is intriguing in these regional cases is that, unlike

their predecessors in other regional courts, the judiciary did grant it to them. In 1974, the Rajasthan High Court allowed an appeal by a sweeper of Alwar, who claimed that his right of scavenging “had been mortgaged with their ancestors ... about 60 years ago in consideration of a sum of Rs. 200/-” (AIR 1974: 132). It was said that the defendants “are obstructing them [plaintiffs] in exercise of the right of scavenging” and, therefore, the plaintiff requested “a perpetual injunction” against “the defendants restraining them from interfering with” his right (AIR 1974: 132). Although both the trial and appeal court set aside the suit, the high court judge allowed the appeal by citing a similar case on Dhobis and mentioning that “the right to *Birat Jajmani* [customary right] is a right in property which is heritable as well as transferable” (AIR 1974: 133). The latest case so far decided by high court is the one of 2011, which was originally filed in the 1990s. In 1984, a sweeper in Bharatpur first undertook legal proceedings against another sweeper “for redemption of mortgage” of the scavenging right.<sup>37</sup> The plaintiff hypothecated his right to the defendant “for Rs. 800” without interest in the late 1950s, but the latter did not return the right to the former after the liquidation of the debt. The suit was accepted in favor of the plaintiff in the first trial, and the dissatisfied defendant appealed against the decree, which was also dismissed in 1991.<sup>38</sup> Having followed some of the previous cases, the judge in the second appeal declared the validity of the scavenging right as mortgageable.<sup>39</sup>

## 5. Conclusion

As Prashad argues with respect to the general sanitation of colonial Delhi, both the “fiscal conservatism of the government agencies” and the “technological or scientific extravagance” by engineers impeded the development of a human waste disposal system, which consequently led to their complete reliance on sweepers (Prashad 2001: 155).<sup>40</sup> This financially expedient scheme was adopted in other regions of British India as well.

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<sup>37</sup> CSA164/1991, *Kalua v. Kinna and Others*, 4 August 2011 (<https://hcraj.nic.in/cishcraj-jp/JudgementFilters/>, accessed on 16 January 2021).

<sup>38</sup> CSA164/1991.

<sup>39</sup> CSA164/1991.

<sup>40</sup> Prashad asserted that “the sanitation question” in colonial Delhi “was framed by the nexus between technology and capital” (Prashad 2001: 155).

The officials rendered this plan feasible by preparing legal frameworks and making use of executive organs such as municipalities and sanitary boards to apply them in practice. Authorities regularly dispatched a sanitary force consisting of sweepers or scavengers to houses and public toilets as a countermeasure against pestilence. A number of pit privies were converted into dry ones with vessels, and municipal sweepers, both permanent and temporary, were hired to clean this visible filth every morning. Their attempt, however, did not fare well. The number of toilets and sweepers was not enough for them to complete their mission, and they continued to reinforce the corps. The officials did know that the sweepers had to work under the insanitary and unpleasant condition. Instead of improving their working environment, the officials repeatedly criticized them for their lack of diligence. Furthermore, they reduced the engagement of certain groups of people in scavenging work to a mere local custom that they believed inherently constrained untouchables to that work.

When the so-called dry latrines gradually came into use in cities and towns, the ordure from it and the daily carriage of it incensed the middle-class citizens across regions. Simultaneously, it materially marginalized the sweepers by the increasing voices from city folks to separate them from ordinary people. Toilets were usually located not inside house but in the household premises, and sweepers entered from the backdoor to collect the waste. Inevitably, they had to carry the excrement to certain sites by passing through small lanes and roads. Unlike the city residents, the judiciary did protect the sweepers' right of way, but only because they needed to keep their city clean and prevent the spread of an epidemic. Sweepers were told to work early in the morning so that their work would not be a nuisance to others. The complete visibility of human waste in the receptacles and the very practice of daily removal of the waste from them led citizens to associate toilets and filth with sweepers. Thus, their everyday labor reinforced their untouchability with the notion of both caste-based impurity and material pollution.

This categorization, however, had a significant effect on the sweepers' way of life in terms of their customary rights. Although judicially regarded as illegal except cases in Rajasthan, twentieth century sweepers continued to exercise their right especially in the private sphere. Courts considered them as monopolists of the sanitation economy

who were unsuitable for the course of modernization. What is significant here is not the judicial perspective toward the sweepers' customary right, but their endless struggle and strategies to mobilize a kind of vocational organization in the local communities. Despite their job being considered menial and dirty, and being treated disparagingly, a number of sweepers chose not to abandon it. Even after government committees became zealous and worked toward its abolition and the municipalization of these sweepers, they somehow managed to survive believing that the job guaranteed at least a slender income.<sup>41</sup> Owing to the difficulty in expanding their occupational spectrum partly because of their caste and partly due to their status, private sweepers strategically appropriated their job; they shared the privilege with their fellow local sweepers and enjoyed the system of inheritance, transfer, and security. In this circumstance, their labor assumed the nature of a property, therefore, a right. To a certain extent, they were also able to retain their freedom in keeping this work exclusive to their communities. To secure their privileges in the public sphere, the sweepers attempted to represent their past generations' labor experiences in the current legal system. In doing so, they made this "traditional" occupation recognized by the general public *traditional* on their own terms, effectively turning it into a significant part of their identity.

This paper elucidates how colonial officials and municipalities promoted the dry method of human waste disposal as a means of reducing the fatality rates from infectious diseases, through the regular removal of human waste from the residential areas. The untouchability of the sweepers and scavengers was gradually substantiated not just by their uniforms and baskets, as some studies have hitherto pointed out (e.g., Bayly 1999: 228), but also by their *daily* use of the designated lanes and streets to collect and carry waste, which formed a visual, olfactory, and tactual association among city dwellers. After independence, there was a flurry of campaigns for the liberation of scavengers. Some of the prominent activists' campaigns were those led by Gandhians and Dalits. The former demonstrated, from around the 1940s onward, a committed drive for the transformation of the toilet system from dry to flush to eliminate the manual handling of human waste (Masuki 2018). The latter, from the 1990s onward, devoted themselves to

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<sup>41</sup> In her dissertation, Rama Sharma provides a valuable account of the sweepers of Delhi's opposition against the committee's recommendation for the discontinuance of their customary right (Sharma 1987).

emancipate scavengers from the derogatory work of manual scavenging through litigations besides demolishing the existing dry toilets. Both the movements and academics have discussed this matter in terms of technology used in the toilet system, casteism, and modern notions of sanitation and human rights. However, understanding their liberation attempts entails closer scrutiny of the fact that their daily corporeal labor, especially its material dimension, has played a role in both their identity formation and in their everyday experience of untouchability-based social marginalization in their local communities.

## References

### Government Publications and Law Reports

*Abstract of Proceedings of the Sanitary Commissioner with the Government of India, for the Month of September to December 1872, 1873*, Calcutta: Office of the Superintendent of Government Printing ([https://books.google.bf/books?id=F\\_gIAAAAQAAJ&hl](https://books.google.bf/books?id=F_gIAAAAQAAJ&hl), accessed on 17 January 2021).

East India (Sanitary), 1912, *Progress of Sanitary Measures in India*, London: His Majesty's Stationery Office.

Government of Bombay, 1952, *Report of the Scavengers' Living Conditions Enquiry Committee*, Bombay.

Government of India, Department of Social Welfare, 1966, *Report of the Committee on Customary Rights to Scavenging*. New Delhi.

Government of India, Ministry of Home Affairs, Central Advisory Board for Harijan Welfare, 1960, *Report of the Scavenging Conditions Enquiry Committee*, New Delhi.

Government of India, Ministry of Home Affairs, n.d., *Study of Customary Rights and Living and Working Conditions of Scavengers in Two Towns*, Census of India 1961 Monograph Series Volume I, Part 11-D.

Harvey, Robert, 1878, *Tenth Annual Report of the Sanitary Commissioner for Bengal, Year 1877*, Calcutta: Bengal Secretariat Press.

*Report on Sanitary Measures in India in 1889-90* (vol. 23), 1891, London: Eyre and Spottiswoode (GD, 866, 1891, Maharashtra State Archives, Mumbai)

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1912, and on Vaccination for the Year 1912-13*, 1913, Calcutta: Superintendent Government Printing, India (<https://digital.nls.uk/indiapapers/browse/archive/90722852>, accessed on 17 January 2021).

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1913, and on Vaccination for the Year 1913-14*, 1914, Calcutta: Superintendent Government Printing, India (<https://digital.nls.uk/indiapapers/browse/archive/90723240>, accessed on 17 January 2021).

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1914, and on Vaccination for the Year 1914-15*, 1915, Calcutta: Superintendent Government Printing, India (<https://digital.nls.uk/indiapapers/browse/archive/90723677>, accessed on 17 January 2021).

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1915, and on Vaccination for the Year 1915-16*, 1915, Calcutta: Superintendent Government Printing, India (<https://digital.nls.uk/indiapapers/browse/archive/90724055>, accessed on 17 January 2021).

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1916, and on Vaccination for the Year 1916-17*, 1917, Calcutta: Superintendent Government Printing, India (<https://digital.nls.uk/indiapapers/browse/archive/90724638>, accessed on 17 January 2021).

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1917, and on Vaccination for the Year 1917-18*, 1918, Calcutta: Superintendent Government Printing, India (<https://digital.nls.uk/indiapapers/browse/archive/90725042>, accessed on 17 January 2021).

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1918 and on Vaccination for the Year 1918-19*, 1919, Calcutta: Superintendent Government Printing, India (<https://digital.nls.uk/indiapapers/browse/archive/90725439>, accessed on 17 January 2021).

*Report on Sanitation, Dispensaries, and Jails in Rajputana for 1919, and on Vaccination for the Year 1919-20*, 1919, Calcutta: Superintendent Government Printing, India

(<https://digital.nls.uk/indiapapers/browse/archive/90725041>, accessed on 17 January 2021).

*The All India Reporter*, 1920, Bombay Section, Nagpur: The All India Reporter Office  
(<https://archive.org/details/dli.ernet.286035>, accessed on 17 January 2021).

——— 1928, Allahabad Section, vol.1, Nagpur: The All India Reporter Press.

——— 1938, Madras Section, vol. 6, Nagpur: D. V. Chitaley.

——— 1951, Bhopal Section, vol. 38, issue 4, Nagpur: The All India Reporter Ltd.

——— 1958, Allahabad Section, vol. 45, issue 2, Nagpur: The All India Reporter Ltd.

——— 1961a, Allahabad Section, vol. 48, issue 1, Nagpur: The All India Reporter Ltd.

——— 1961b, Gujarat Section, vol. 48, Nagpur: The All India Reporter Ltd.

——— 1964, Allahabad Section, vol. 51, Nagpur: The All India Reporter, Ltd.

——— 1974, Punjab and Haryana Section, vol. 61, Nagpur: The All India Reporter, Ltd.

*The Indian Law Reports*, 1881, Calcutta Series, vol. 7, Calcutta: Thacker, Spink and Co.  
(<https://books.google.co.jp/books?id=codDAQAAMAAJ&hl>, accessed on 17 January 2021).

——— 1883, Calcutta Series, vol. 9, Calcutta: Thacker, Spink and Co.  
(<http://14.139.60.114:8080/jspui/handle/123456789/53>, accessed on 21 December 2020).

——— 1922, Madras Series, vol. 45, Madras: Superintendent Government Office  
(<http://14.139.60.114:8080/jspui/handle/123456789/53>, accessed on 21 December 2020).

——— 1933, Bombay Series, vol. 57, Bombay: The Superintendent, Government Printing and Stationery (<http://14.139.60.114:8080/jspui/handle/123456789/53>, accessed on 21 December, 2020).

### **Secondary Materials**

Arnold, David, 1986, “Cholera and Colonialism in British India”, *The Past and Present Society*, vol. 113, pp. 118-51 (DOI: 10.1093/past/113.1.118).

Bayly, Susan, 1999, *Caste, Society and Politics in India: From the Eighteenth Century to the Modern Age*, Cambridge: Cambridge University Press.

- Chotalall, Runchorelal, 1892, “The Sanitation of the City of Ahmedabad, in the Bombay Presidency”, in C.E. Shelly (ed.), *Transactions of the Seventh International Congress of Hygiene and Demography* (vol. 11, Indian Hygiene and Demography), London: Eyre and Spottiswoode, pp. 166-9 (<https://books.google.co.jp/books?id=XAsFF66VhycC&dq>, accessed on 17 January 2021).
- Dhurandhar, K.V., 1892, “The Sanitary Condition of the Town and Villages in the Bombay Presidency and the Means for Improving the Same”, in C.E. Shelly (ed.), *Transactions of the Seventh International Congress of Hygiene and Demography* (vol. 11, Indian Hygiene and Demography), London: Eyre and Spottiswoode, pp. 136-45 (<https://books.google.co.jp/books?id=XAsFF66VhycC&dq>, accessed on 17 January 2021).
- Ghole, B.B. Vishram Ramji, 1892, “Notes on the Hygienic and Demographic Condition of India”, in C.E. Shelly (ed.), *Transactions of the Seventh International Congress of Hygiene and Demography* (vol. 11, Indian Hygiene and Demography), London: Eyre and Spottiswoode, pp. 128-36 (<https://books.google.co.jp/books?id=XAsFF66VhycC&dq>, accessed on 17 January 2021).
- Gillion, Kenneth L., 1968, *Ahmedabad: A Study in Indian Urban History*, California: California University Press (<https://archive.org/details/in.ernet.dli.2015.111120/mode/2up>, accessed on 17 January 2021).
- Hewlett, T. G., 1889, *Village Sanitation in India*, Bedford: F. Thompson and Son (GD, 529, 1891, Maharashtra State Archives, Mumbai).
- Khalid, Amna, 2012, “‘Unscientific and Insanitary’: Hereditary Sweepers and Customary Rights’, in Ryan Johnson and Amna Khalid (eds.), *Public Health in the British Empire: Intermediaries, Subordinates and Public Health Practice, 1850-1960*, New York: Routledge, pp. 51-70.
- Lukis, Pardey and R. J. Blackham, 1914, *Tropical Hygiene for Anglo-Indians and Indians* (second edition), Calcutta: Thacker, Spink and Co. (<https://wellcomecollection.org/works/ry4g4md3>, accessed on 21 December 2020).
- Madeley, J. W., 1914, “Note on Night-Soil Depots”, *Supplement to the Indian Journal of Medical Research, Proceeding of the Third All-India Sanitary Conference* (January



- 19<sup>th</sup> to 27<sup>th</sup>, 1914, vol. 4), Calcutta: Thacker, Spring and Co., pp. 132-33 (<https://wellcomecollection.org/works/bha99znp>, accessed on 21 December 2020).
- Masselos, Jim, 1982, "Jobs and Jobbery: The Sweeper in Bombay under the Raj", *The Indian Economic and Social History Review* vol. 19, issue 2, 101-139 (DOI: <https://doi.org/10.1177/001946468201900201>).
- Masaki, Yui, 2018, "Historical Development of Low-Cost Flush Toilets in India: Gandhi, Gandhians, and 'Liberation of Scavengers'", *Sanitation Value Chain* vol. 2, issue 1, 3-26 (DOI: <https://doi.org/10.34416/svc.00008>).
- Mieldazis, J. J., 1934, "Organic Manure from Street Refuse and Night-Soil at Mysore City, India", *The Indian Medical Gazette* vol. 69, issue 2, pp. 87-93 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5159071/>, accessed on 17 January 2021).
- Prashad, Vijay, 2000, *Untouchable Freedom: A Social History of a Dalit Community*, New Delhi: Oxford University Press.
- 2001, "The Technology of Sanitation in Colonial Delhi", *Modern Asian Studies* vol. 35, issue 1, pp. 113-55 (DOI: <https://doi.org/10.1017/S0026749X01003626>).
- Sharma, Rama, 1987, "Marginality, Identity and Politicisation of the Bhangi Community, Delhi", PhD dissertation submitted to the University of Keele.
- Showers, H. L., 1916, *Notes on Jaipur* (second edition), Jaipur: Jaipur Central Jail (<https://archive.org/details/cu31924051211179/mode/2up>, accessed on 17 January 2021).
- Sterndale, Reginald Craufuird, 1881, *Municipal Work in India; or Hints on Sanitation: General Conservancy and Improvement in Municipalities, Towns, and Villages*, Calcutta: Thacker, Spink, and Co. (<https://books.google.co.jp/books?id=qRVvIgULt-YC&dq>, accessed on 17 January 2021).
- Tam, Stephanie, 2013, "Sewerage's Reproduction of Caste: The Politics of Coprology in Ahmedabad, India", *Radical History Review* vol. 2013, issue 116, 5-30 (DOI: <https://doi.org/10.1215/01636545-1965675>).
- Tulloch, Hector, 1872, *The Drainage and Sewerage of Bombay: Being a Report Submitted to the Bench of Justices of That City*, London: W. J. Johnson (<https://wellcomecollection.org/works/a29fqnhx>, accessed on 17 January 2021).

Turner, John Andrew, 1914, *Sanitation in India*, Bombay: The Times of India (Internet Archive).

Wilhelm, Janine, 2016, *Environment and Pollution in Colonial India: Sewerage Technologies along the Sacred Ganges*, Abingdon, Oxon: Routledge. Kindle.