Reclaiming Waste, Remaking Communities: Persistence and Change in Delhi's Informal Garbage Economy

by

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DEDICATION

For my grandparents, who connect me to pasts unknown.

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ABSTRACT

Reclaiming Waste, Remaking Communities: Persistence and Change in Delhi's Informal Garbage Economy examines the unanticipated impact of expanded municipal garbage collection services in Delhi, India in the mid-2000s through public-private partnerships (PPP) that included collection trucks and incinerators. Drawing on twenty months of ethnographic research, I ask how it is that informal collectors, who rely on pedal-powered tricycle carts and their hands to extract recyclables, have survived the expansion of these formal services that threatened their livelihoods and the city's only system for recycling. Despite being heavily supported by the government, these PPP services were effectively stalled and transformed by the resilience of the collector-recyclers' unofficial enterprise, ensuring the continuation of a recycling network. The manuscript addresses the following questions: What do economic relations look like in this context, and what kinds of moral economies configure them? How are social relations and status distinctions reproduced and transformed through transactions of garbage and money? And how does the legacy, experience, and threat of stigmatization—embodied in the idea and object of garbage and ranging in scale from individual practice to global reputation maintenance—shape transactional possibilities? Revealing how forms of economic life across multiple scales depend on caste/community relations, the navigation of caste and (post)colonial stigma, and the reproduction of status through transactions, the dissertation brings together literatures from economic sociology and anthropology, political ecology, and theories of caste/race in order to explain persistent forms of unofficial economic organization.

Introduction: Transacting in the Informal Garbage Economy

"But recycling doesn't exist here like it does in your country." I heard this not once, but three times, on a single day doing garbage rounds door-to-door as part of my two-year ethnographic engagement with informal collectors in Delhi. My attempt to convince a resident that the collector standing next to me made his living by recycling was met with indignation: "But look at his *hygiene*![1] What an *unsanitary* condition. In India, there is no recycling." To him and many other middle-class Delhiites I spoke with, recycling meant shiny plastic bins, uniforms, and roaring collection trucks—not laborers in plain clothes outfitted with large sacks, worn tricycle carts, and just their bare hands. Yet, with more than half of all plastics recycled in India (Nandy et al. 2015), compared to less than 10 percent in the United States (EPA 2015), the data tell a different story.

Reflecting these modernist ideals, Delhi's government expanded and mechanized the city's garbage collection services through private-public partnerships (PPPs) between 2006 and 2009, introducing small collection trucks into selected neighborhoods.[2] Notably, the system did not include recycling, but instead prioritized so-called "waste-to-energy" incineration technologies. If Delhi's middle- and upper-class, and overwhelmingly upper-caste,[3] residents voiced support for such programs, their actual choices indicated otherwise: a majority continued to patronize the very informal collectors that were so widely stigmatized as "dirty."

Uncounted, but probably numbering in the hundreds of thousands in Delhi alone, Delhi's informal collectors have been estimated to divert around forty percent of household garbage for recycling, saving the local government an estimated US$74 million per year (Hayami

[1] I use italics to indicate when English words were used in Hindi sentences.
[2] For similar cases in Egypt, Senegal, and South Africa, see Kuppinger (2014); Fredericks (2013); and Samson (2015), respectively.
[3] I use "upper-caste" to refer to Hindus and Jains whose *jati* (caste community) is *savarna*, i.e. not Dalit or "untouchable."

et al. 2006:63; UN-Habitat 2010), and they are the nation's *only* system for recycling. With the introduction of PPP-truck services, informal collectors' territory has diminished, while the construction of incinerators and planned closure of existing garbage sheds (*kuredan*) posed longer-term threats to their livelihoods. Many feared that the full-scale dispossession of informal garbage collectors and recyclers was imminent (Chaturvedi and Gidwani 2010; Chintan 2007; Schindler, Demaria, and Pandit 2012). But, for the time being, they have continued working—collecting garbage, harvesting scrap, and selling it for cash—all without the authorization of the government. What the future holds for them is an open question, but no doubt the threads of an answer can be spun out of the processes we are witnessing in the present. And more broadly, their trajectory reveals transformations in the socio-economic context of contemporary urban India and beyond.

The story of expanding garbage services in Delhi, which was part of a larger national agenda, and the everyday hybridization that resulted—with garbage trucks running alongside informal collectors' tricycle carts—reveals more than state planning and its failures. In order to understand why recycling in Delhi has persisted, we must understand that institution itself: its constituent practices, habits, relations, and sources of stigma—along with the social institutions that shape it. The story cannot be a neat one. For one, definitions of and delineations between "state," "market," and "civil society" are far less apparent in a postcolonial context where a corporation had governed large swaths of the country in the name of Britain for more than 200 years. And in this case, the local state created a new market for garbage by funding companies directly, while a longstanding but informal system had already existed.

In this introduction, I survey concepts that help to make sense of the life and reproduction of this informal economic institution, beginning with ideas of statehood and informality and moving into an approach to economic sociology that centers transactions in order to analyze materials and the reproduction of social status.

Genesis of the Project

This project took shape based on questions of environmental politics and organizational forms. I was interested in understanding why corporations were being formed by NGOs to provide garbage services in some Indian cities such as Patna, with a broader interest in the

"corporatization" of NGOs. I soon learned that these efforts, which were already limited, were proving unsuccessful. I began to wonder what their competition—large infrastructure companies—portended for the large existing garbage collection and recycling workforces (locally called "ragpickers" or "watepickers") that these NGOs represented. I began fieldwork in Delhi because the city had been an early adopter of new solid waste plans, creating a city plan to address solid waste, following the Solid Waste Rules of 2000, and abiding by national recommendations that garbage services be contracted out to infrastructure companies. I arrived in 2013, planning to look at the interaction between those working for these newly deployed companies and the existing informal economy collectors who had provided garbage collection services to local households for decades.

As I planned for a preliminary field visit to neighborhoods in Delhi that had received the full suite of door-to-dumpsite garbage collection services, the political economy literature had primed me to witness the inevitable destruction of the informal recycling economy. I expected to find that a disaggregated economy of garbage collectors and scrap recyclers would be rapidly dispossessed of the materials they relied on for a living, the exchange value accumulated and extracted by the state and its partnered companies. The situation presented many of the hallmarks of a classic case of accumulation by dispossession descried by David Harvey and his adherents: the neoliberal PPP form combining state legitimacy with corporate capital, an objective of accumulating waste in order to extract value, and centralized capital-intensive tools like incinerators that would assist in the task. Like peasants, manual garbage collectors relied on dispersed sources of value for their own reproduction—sources that could be accumulated to leave them dispossessed.

No doubt, this narrative had become dominant because it has been so common: across the globe, communities are brutally dispossessed and displaced, as states and corporations—themselves frequently blurred institutions—have cleared the way for extracting timber, constructing dams, commodifying land, or in this case, usurping garbage. And yet, while such processes of destruction via accumulation and commodification are widespread, they are not inevitable or complete. With the question of why a full-scale dispossession did not occur, this project's impetus became to explain how, in the face of direct threats from more capital-intensive and state-endorsed institutions, a large workforce of tricycle-powered garbage collectors and

recyclers managed to continue working. Answering this question required going beyond the institutions of political economy, incorporating insights from cultural economic sociology and anthropology in order to make legible a wider variety of motivations, expectations, sources of power, and relations.

Methods

In many cities across the globe, and especially those of the formerly colonized global South, large workforces earn livings by recovering scrap from garbage (e.g. Medina 2007; Vergara and Tchobanoglous 2012). Although the most well-known example of waste collectors in these "megacities" are those working on colossal garbage dumps, less discussed are the millions of people—referred to here as collectors—who provide daily household garbage services with the goal of harvesting the re-sellable, recyclable material it contains. Recognizing the larger implications of this project, which include not only garbage collectors but urban life at the intersections of the economic and environmental more generally, my approach came to reflect that of an earlier tradition defined by Max Gluckman (1959) as the "extended case method," which was later adapted by Michael Burawoy (1998). This form of ethnography guided mid-twentieth-century British anthropology, which was similarly concerned with how large-scale political-economic forces—and particularly the introduction of money and law through colonial institutions—were reflected in particular ethnographic encounters. This lens, along with the light historical comparison it invokes, usefully brings into focus larger historical influences that shape power relations in practice and requires attending to processes of social change using a relational approach to ethnographic practice (Desmond 2014).

The data presented here are drawn from ethnographic fieldwork in Delhi that included participant observation, 97 interviews, and document collection, the bulk of which was conducted between 2013 and 2015. I spent nearly two years documenting the informal organization of garbage collection and recycling in Delhi—working alongside collectors, helping to sort and sell their scrap, and following plastics and papers up the commodity chain to the factories where they were eventually recycled—also contextualizing this process vis-à-vis formal policies. Working primarily in Hindi, I completed 54 interviews with informal garbage collectors, 20 interviews with recyclable buyers and business owners who purchased their scrap,

and 23 interviews with public officials such as policymakers, bureaucrats, private company managers, and civil society advocates.

Combining breadth with depth, my fieldwork included visiting several work sites and interviewing a range of actors across the metropolis, concentrating on three particular sites in the northwest, northeast, and south of the city. This strategy allowed me to access detailed evidence while also understanding how it mapped onto more general trends. I initially gained access to my field sites through a community organizer who traveled to waste collector settlements to talk with them about organizing for rights, but he had varying levels of ongoing involvement in those areas. He did not have regular relations with people in the site that I spent the most time in (which was also where the trucks were operating regularly), in northwest Delhi, where Almaas[4] was the local scrap buyer and had hundreds of collectors selling their recyclables to her.

I started there and in northeast Delhi by conducting interviews with informal recyclers, often hanging out after they ended, drinking tea and talking with workers about their lives or helping them to sort and sell their scrap. After a few months, I was able to convince some of them to take me out with them on their collection routes, which I did for around 6 months in northwest Delhi. In one neighborhood, I knocked on the doors of 19 households and asked them why they chose to use the trucks or the informal collection system. I spent an average of three days each week over the course of 20 months at my primary field site, watching collectors return from their routes, sort their materials, and engage in various transactions. On occasion, this also meant accompanying someone to the hospital, or more often, joining Almaas as she met with buyers and other associates in the course of conducting business. Eventually, and only after many months of fieldwork, collectors were willing to share their accounting books with me that documented loans and payments for scrap. I was able to document the books of five collectors who narrated their financial history.

When I joined six different informal collectors on their garbage collection routes between November 2013 and March 2014, I would wake up at five or six o'clock in the morning and meet them on the street (to take advantage of a ride in the back of their still empty tricycle cart). In the

[4] A female boss is rare. I never encountered another one during my time in the field, and when I told people who worked in this sector for decades about a female buyer, they were always very surprised. Our shared gender was a significant factor in me getting entrée to this site.

case of Meenu, who I joined more regularly, I tended to meet him in the neighborhood where he worked because it was close and I got to know it well. Throughout the morning, and sometimes into the early afternoon, we would walk through the neighborhood's lanes—pushing the tricycle cart by its handles, collecting buckets of trash, and doing a first sort by hand to separate garbage from recyclables in the cart. Typically, I helped to sort the garbage, but I also collected the pails and talked to local residents and other workers we encountered along the way. In the evenings, I spent time with collectors in their nearby home settlements, where I would continue my interviews or hang around while women oiled their hair, men drank tea and played cards or gambled, recyclables were sold, and accounts were calculated. These periods of observation were necessary for building rapport that interviews alone could not have afforded. For example, I later realized that in a few early interviews, recyclers told me that they worked door-to-door when they actually collected from the street. Others exaggerated how well residents treated them, presumably in order to counter the intense stigmatization they were often subjected to. When I had trouble understanding the social context of their villages of origin, I took 2 trips to villages in West Bengal—nearly a 20 hour trip each way by train—observing and interviewing local residents.

The 24 interviews I conducted with city leaders and officials included solid waste managers, local and national bureaucrats, and advocates and activists. During interviews, I asked about their professional and personal backgrounds, their role in planning or implementing garbage programmes, and their assessment of the changes that have been introduced in recent years. In addition to interviews, I also went on site visits with bureaucrats and private company managers that included collection and transfer processes, as well as disposal sites such as landfills and incinerator complexes. The 20 interviews conducted with recyclable scrap buyers and business owners asked about their backgrounds, how they run their business on a daily basis, how their business had changed over the years, financial ties up and down the chain, their relationship to legal structures like registration and taxes, and their ambitions for the future.

All interviews were conducted by me in Hindi or English, except in the case of seven collectors who preferred to speak in their first language of Bangla during a brief period when I worked with a research assistant in 2015. Although standard Hindi was not the first language of many collectors, most had been living in Delhi long enough to know it well. Hindi was the

language used on neighborhood collection routes because it was the common language between me, the collectors, and the other neighborhood actors (residents, informal contractors, municipal workers, etc.). The interviews were transcribed by native Hindi speakers in Delhi to ensure that I would not misunderstand anything that was said. Once they were transcribed, I used Atlas.ti to organize the data into themes from which I could draw in order to elaborate key parts of social and material processes or illustrate theoretical points, using an iterative process (Decoteau 2016).

Informality and "the State"

The sociological canon took the European transition to modernity as the primary process to be explained. Tonnies' Gemeinschaft to Gesellschaft, Maine's status to contract, Weber's traditional to legal authority, Durkheim's mechanical to organic solidarity, and Marx's feudalism to capitalism (and then communism): all were seen as steps towards, if not immediate then eventual, improvement. As state influence grows, the logic goes, official forms of political and economic organization would decimate unlicensed activities—if not because they are more efficient or preferable, then because state regulations and enforcement prove formidable. From the margins (the workers, the colonized), however, these projects were of course seen differently, and even for many of these thinkers, the transition was seen as never being fully complete.

Informality has been a crucial term indicating residual life beyond modern categories. The concept of an "informal economy"[5] was itself first introduced in the 1970s to make legible a vast array of actually existing economic activities for development economists (Godfrey 2011), with the progenitor of the term later explaining, "The informal sector allowed academics and bureaucrats to incorporate the teeming street life of exotic cities into their abstract models without having to confront the specificity of what people were really up to" (Hart 2006: 28). Anthropologists such as Hart, as well as Clifford Geertz, had allied themselves with economists in the project of national development, focusing their studies on normative desires to promote what they considered to be more efficient and rational organizations in order to spur economic growth. The informal economy concept allowed large sections of national populations to come into the view and under the purview of policymakers—especially development and labor

[5] See Castells and Portes 1989 and Feige 1990 for two of the most commonly cited definitions.

economists who sought to improve conditions through various interventions. Such a category is useful in that it allows us to say, for example, that informal economies provide livelihoods to around sixty percent of workers across Africa, Asia, and Latin America (Vanek et al. 2014).

Yet, the concept also entails a problematic modernist teleology positing postcolonial contexts as atavisms, and it has been forcefully and rightfully criticized (e.g. Elyachar 2003; Millar 2018; Roitman 2005). Meanwhile, ideas of state-society dualism have been challenged by accounts suggesting that "informal" spaces are in fact deeply entangled with, if not themselves produced by, state power (Roitman 2005; Roy 2005). And yet, despite these vital criticisms, the concept of informality remains *descriptively* (if not theoretically) useful for indicating spaces where the state—and especially its laws and regulations—do not predominate. To dispense with the term would, I believe, impoverish our ability to analyze the extent and limits of state authority, even while the need to reformulate the concept is imperative.

However, while naming the "informal" makes a set of activities and relations legible in order for organizations to intervene, it is an inadequate organizing concept for explaining the practices that comprise these diverse forms of economic life. But just as there are an enormous variety of issues collected beneath the umbrella of the formal economy, so too are extra-legal economies rich and diverse terrains of social interaction and organization. Lumping these activities into a single category has served to efface the practices that constitute these forms of economic life, which have becoming increasingly blurred by transformations that include the so-called "gig economy" and the rise of temporary, part-time, and contracted work even in the formal economy. As Barbara Harriss-White aptly describes, these spaces "are persistently embedded in social institutions such as the state, language, caste, ethnicity, religion, gender, life cycle, space/locality, and … the needs of the local agro-ecology" (2009:172).

In order to contend with the contents of Delhi's informal garbage economies from a decolonized perspective that avoids epistemological assumptions (cf. Savransky 2017), I had to realize that my own perspective had been colonized by a particular idea of the state itself—that power which is so pervasive, and so often obscured, that it can appear inevitable (Foucault 1991; Mitchell 1999). By thinking of nonstate economic spaces as "informal," I had inadvertently consented to their relegation as deviant, unless I accepted a postcolonialist claim that, here too, the state was paramount (Chatterjee 2004; Roy 2005). Institutionalist development perspectives,

meanwhile, framed the persistence of informality as a failure of state capacity or authority due to a lack of institutional independence (e.g. Evans 1995), an ineffective bureaucracy (e.g. Chibber 2002), or an inability to "see" everyday life (Scott 1998). Yet, such narratives are themselves dependent on particular ideals, born in the West, of what states "should be," rather than the reality that actually is (Li 2005; Roy 2009; Scott 1998). To take the state and its categories for granted is to ignore variations in how states cultivate authority, and how state forms vary by cultural context (cf. Steinmetz 1999). Once state formation is conceptualized as an ongoing and uneven process, it becomes clear that the form and extent of state influence over social life varies considerably (e.g. Bourdieu 2014; Mayrl and Quinn 2016), and especially so in formerly colonized nations (e.g. Gupta 2015; Hansen and Stepputat 2001; Migdal 2004; Soifer 2008). Theorizing how authority is consolidated—and frustrated or resisted—in practice is therefore a crucial task (Hansen and Stepputat 2001; Painter 2006; Trouillot 2001).

Considering why unofficial practices like recycling persist does not address processes of state formation from the perspective of the state, but rather from the margins (cf. Das and Poole 2004; Fassin 2015; Roitman 2004), for "[t]he extent to which states are successful in establishing their claims to encompass the local is […] not preordained, but is a contingent outcome of specific sociopolitical processes" (Ferguson and Gupta 2005:114). Following the foundational studies of James Scott and others, other writers have shown how practices such as unlicensed vendors claiming street space are by their very nature "insurgent" because they limit state authority by encroaching on territory (Bayat 2000). In this sense, actors rely on the "weapons of the weak" (Scott 1985), but they do not have a pre-determined effect (Benjamin 2008). In the context of India, as Shatkin and Vidhyarthi (2013) have argued, there is a need to better understand the particular vicissitudes of urban statehood because the literature has tended to either posit it either as totally unique, or as an unqualified manifestation of global neoliberalism. Useful here is Jonathan Anjaria's (2011) idea of "ordinary states," which posits urban state-making as a negotiated, everyday process. Instead of starting with a particular idea of the state and then analyzing its actions and effects, Anjaria's framing allows for a consideration of how state-society relations are co-produced through everyday interactions in what he calls "ordinary spaces of negotiation." I demonstrate that it is on *this* level of everyday practice that both state authority and its limits become both visible and real to ordinary actors. For, even while processes

of accumulation, the ideas that promote them, and the state actors who facilitate them have become globally dominant, they are grafted onto existing patterns of social life—coopting, displacing, purging, or perhaps reinforcing existing relations and institutions in the process.

An Economic Sociology of Transactions

Continuing its focus on everyday forms of practice that takes relations as primary objects of analysis, this dissertation contributes to what Viviana Zelizer (2012) has called "relational economic sociology," featuring an understudied facet of global economic life in order to understand the culture of its economy (cf. Wherry 2012). As Zelizer describes, this approach "posits that in all areas of economic life people are creating, maintaining, symbolizing, and transforming meaningful social relations" (Zelizer 2012:149). Relational economic sociology might be seen, in part, as a response to the fact that while foundational texts in economic sociology considered many forms of economic life, the "new economic sociology" has tended to focus on organizations like corporations, nation-states, and financial firms that enjoy higher levels of global legitimacy and legibility to majority white, western academics. In other words, "economic sociology constituted itself as that part of sociology that deals with *the objects of economics*, rather than *economic objects* broadly conceived" (Fourcade 2007: 1017; see also Zelizer 2006, 2008). This can be traced further to the subfield's implicit tendency to divide the world in two, which is made explicit in Granovetter's landmark 1985 article where he distinguishes traditional from modern economies in order to explain that he is concerned only with "modern capitalist society" (70). Demonstrating both a modernizing perspective that assumes organizational forms to be moving towards formalization, based on the experience of the U.S. and the "First World" (Pletsch 1981; see also Steinmetz 2005), the durable effect has been to limit the forms of economic life considered to be worth studying.

While the informal economy as a conceptual domain emerged only in the 1970s, studies of economic life had long included people and processes beyond the reaches of bureaucratic and legal control, especially in the field of anthropology. Reimagining economic life beyond "the market" or "capitalism" means considering these studies in order to move towards the broader objective of decolonizing economic sociology. As E.P. Thompson aptly observed:

> We know all about the delicate tissue of social norms and reciprocities which regulates the life of Trobriand islanders, and the psychic energies involved in the cargo cults of Melanesia; but at some point this infinitely-complex social creature, Melanesian man, becomes (in our histories) the eighteenth-century English collier [coal miner] who claps his hand spasmodically upon his stomach, and responds to elementary economic stimuli. (1971:78)

The capitalist relations that disturbed Marx, Polanyi, and so many other critical theorists have swept the globe in successive waves of colonization and imperialist "globalization." And yet, even where capitalist relations become deeply normative, other logics remain. These hybrid logics are especially apparent in places such as the informal economies of Delhi, where markets are configured through relations and institutions that often confound those molded in service of speed, anonymity, and particular ideas of efficiency. As the Thompson passage suggests, the line drawn between so-called "traditional" and "modern" economies—whether explicitly or implicitly—problematically reinforces western capitalist assumptions of how economic life, and social institutions more generally, should work.

In order to supplant this problematic binary, we must bring the discipline historically tasked with understanding the so-called "third world" together with that which has been tasked with the first, suturing the historic division in which anthropologists studied "gift" and sociologists analyzed "market" societies (Douglas 1990). Karl Polanyi is a key lynchpin between anthropology and sociology, urging for grounded institutional analyses that spanned multiple forms of economic life (Polanyi 1957). According to him: "the market cannot be superseded as a general frame of reference unless the social sciences succeed in developing a wider frame of reference to which the market itself is referable" (Polanyi 1957:270; see also Krippner 2001). This is especially true in former colonies, where institutionally plural contexts were engendered through processes of encounter, conquest, and rupture.

Bringing in Economic Anthropology

Instead of examining the "market," then, we consider transactions. Transactions bring into focus the everyday practice of participating in economic life, while also making apparent the contingency and potential for transformation that those practices entail. Turning to economic

anthropology, we begin, of course, with Mauss. It would be difficult to say much that is new about Mauss' essay *Essai sur le don*, which was published in French in 1925. But it is important to lay out his central arguments here because the text is not widely engaged with in economic sociology. Mauss aimed to develop a theory of the gift that contributed to an understanding of "total social systems," as, following Durkheim, he was in search of sources of social solidarity that bound people together. He recognized that modes of provisioning were integral to community structures and relationships, rather than cleaving them off as a separate "economic" sphere. Mauss took on a number of questions in his panoramic essay. At its heart, *The Gift* is concerned with explaining social contracts and exchange through the specific question of why the gift is "obligatorily reciprocated," effectively completing a cycle (3). Mauss describes what he calls a "general theory of obligation" (12), defining three distinct moments of the process: the obligation to give, the obligation to receive, and the obligation to reciprocate. Through acts that initiate, acknowledge, and continue the process of gift exchange, social systems were said to establish moral and spiritual practices while providing for those who participated.

To be perfectly clear, Mauss posits these actions as *obligations*, not as the voluntary or altruistic acts that the concept "gift" signifies in everyday conversation or in some analyses. The obligation to give implies the existence of a social obligation to be generous. Yet to be generous here has a double meaning: on the one hand, it is to freely share what is available, and on the other, it gives the *impression* that one is a generous person. In service of the latter, the former obligation must be adhered to, but actors navigate this mandate according to their own positions and dispositions. To be generous, actors must engage in acts of invitation, for as Mauss describes: "To refuse to give, to fail to invite, just as to refuse to accept, is tantamount to declaring war; it is to reject the bond of alliance and commonality" (13).

If the mandate to give seems logical enough, the mandate to receive or accept is more counterintuitive. It is important to remember that Mauss' ambition is to demonstrate larger, or even "total," systems of exchange by breaking them down into component actions. On the obligation to accept during the potlatch, for example, Mauss cites Boas, explaining that to accept in a redistributive system is to *recognize* another—in other words, to acknowledge and accept their social position relative to one's own (40). To refuse to acknowledge, to refuse to accept, is to present a challenge to one's own position in relation to the position of the giver (41)—for

example, for a leader to assert dominance over a competitor, or for a subordinate to refuse to be held in another's debt. To decline an offer is also to deny responsibility or refuse to engage in a relationship of mutuality.

Finally, reciprocation completes the cycle. If a gift is accepted "with a burden attached," as Mauss tells us citing Boas (41), forcing the recipient to "take on weight" (117 f.n.161), it is much like a conversation that begins with a question demonstrating interest in a longer exchange. After an initial response, another question might be posed or an initial statement elaborated, implicitly signaling interest in engaging in conversation. Similarly, the obligation to reciprocate a gift confirms the importance of the relationship. Reciprocation may happen immediately, or it may be extended over a longer period of time, with delays *concealing* that the action is indeed reciprocal. Instead, the countergift is offered as a gift in its own right (Bourdieu 1996). Alternatively, the obligation of reciprocation may take the form of credit/debt—a social obligation that binds actors together in dependent relationships between dominants and subordinates, which continues until the debt is repaid. Two features are important here: the form of the relationship between the two actors, and the kind of object being given, received, and reciprocated. For Mauss, these cohered in the object of the gift. The gift, he maintained, contained something of its giver, creating a moral obligation to return it.

Published a few years before Mauss' essay but in English, Malinowski's *Argonauts of the Western Pacific* (1922) offers the empirical depth that Mauss' short essay cannot. Drawing on fieldwork carried out during a stay in Melanesia that was delayed by the outbreak of World War I, this first of many detailed monographs laid out the Kula, which he described as "an extremely big and complex institution, both in its geographical extent, and in the manifoldness of its component pursuits" (Malinowski 1984:83). Malinowski traced a process of exchange that entailed an opening gift, followed by subsequent sets of exchanges. The Kula ring, Malinowski explained, was constituted by bonds created through initial gifts and continued with objects known as *vaygu'a* that circulated between islands: large *mwali* shell-bands worn on the arm in one direction, and *soulava* necklaces crafted from the red spondylus shell in the other. Once this link was established, trade partners were connected and able to make requests of one another—for example, for food and a place to stay when they visited the island as part of an expedition (see

also Gluckman 1965:174). Exchange, then, became a reason to share other fundamental aspects of human life: the potentially pacifying effects of trade.

Yet these analyses tend to focus on times before European imperial conquest and the spread of statist, capitalist forms of governance. To find the culture in the Kula ring of the Trobriand Islands or the potlaches of the Kwakiutl was easy: since the ethnographer was outside of the system, its features could more readily be integrated into a theory of culture, while one's own culture became the standard for comparison. Yet the timing of these studies meant that the societies under ethnographers' lenses were themselves undergoing rapid transitions due to the imposition of colonial institutions. There is a deep irony in the fact that ethnographers were busy documenting internally referencing cultures from a structuralist perspective at the very moment that the world was being rapidly connected through colonial technologies. Yet if we read these texts as implicitly comparative, they become amenable to a wider range of meanings and relations than might be readily visible in contemporary capitalist settings. For, as another anthropologist more recently observed, "the main ideal-typical distinction between gifts and standard market forms of credit/debt may be [that]…the gift 'contract' is silent and invisible (or 'misrecognized'), whereas the commodity contract is enunciated and visible" (Peebles 2010:229).

Spheres of Exchange

As Mauss describes, whether and how people and communities are obligated to return a "gift"[6] depends on their relationships and the particular expectations associated with them. Indeed, transactions are so important because they create social bonds between individuals, groups, and institutions—bonds that may be individual, temporary, and fleeting, but which more

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[6] Indicating the range of meanings not only in different contexts, but even between the French and English versions of his essay, Mauss uses four French words with slightly different meanings in the original text—*don, cadeau, présent, and prestation*—all of which are translated into English as "gift." Guyer (2016) carefully charts the etymology of each words in her introduction to the new translation of Mauss' work, noting in particular how *prestation* implies notions of status differentiation, rendered in Mauss' conclusion as "total prestation," which is used to describe all aspects of a given society.

commonly indicate relations of longer-term patterns of social reproduction. The ability to form and maintain bonds in Trobriand society were a central aspect of status; those who were able to participate in *kula* exchange—not every person (or even every man)—gained higher status on account of being involved. Some islands, however, were represented by their leader, a king, who would undertake the process of exchange on their behalf.

When Zelizer was beginning her work in the 1980s in sociology, anthropologists were engaging in a parallel set of debates over the role of gifts and how they created what were described as "spheres of exchange." (e.g. Bohannan 1955; Guyer 2004; Sillitoe 2006), or groups that designate which things can be treated as ontologically analogous for the purposes of exchange, such as yams and corn, and which things should not, such as corn and cows. The idea of spheres of exchange was an important conceptual tool for schematizing how differentiated social ties could be bundled according to particular kinds of materials and values without an assumption of a capitalist market. Notably, *all* kinds of goods and social relations were included, with nothing considered too sacred. In his foundational piece, Paul Bohannan identified three spheres that demarcated subsistence, prestige, and kinship forms of exchange amongst the Tiv community he studied, for example, each of which contained different objects and had their own moral associations: yams in one; brass rods, cows, cloth, and slaves in another; and women for marriage in the third. Trading within each sphere was called a "conveyance," and these were relatively insignificant features of everyday social life, according to Bohannan.

Exchanges between spheres, however, were more significant. Labeled "conversions," these were the thresholds across which social status could be cultivated, offering the possibility of a successful marriage. However, since only some people had access to higher status goods, Tiv leaders could create a monopoly over cultural capital, preventing others from acquiring the things that would allow them to claim rival status. The introduction of capitalism through colonial rule, Bohannan expounded, complicated these analytically neat "spheres" by creating a quasi-fourth sphere that consisted of currency. This was forced onto the Tiv through taxes that had to be paid in money instead of agricultural yields and by enforcing laws that banned marriage exchanges, in which women were traded between families as wives, allowing a brideprice to be paid in cash.

The production of these kinds of long-term relationships raises central questions of social reproduction: How were intimate partnerships and communities formed via transactional relations? How did ethnic groups coalesce? How were status positions generated? Considering the connections between short-term transactions and long-term social reproduction allowed for not only conceptualizing the enactment of such social categories and boundaries, but their very *production*. These become clearer with anthropologist Jane Guyer's concept of "transactional pathways," which breaks down "spheres of exchange" in order to trace "the historical constitution of conversions and wealth creation, under turbulent conditions" (Guyer 2004:30). These pathways are dynamic and multi-institutional, allowing for what Bourdieu (1977:195) refers to as "social alchemy," or the "endless reconversion of economic capital into symbolic capital" (Guyer 2004:30).

Especially due to imperial rule, the introduction of western capitalism created new transactional possibilities, with money holding out the promise of traveling between them, as Bohannan described. In other words, "[t]he alchemy of money, with its power of commensuration, lies in its ability to dissolve distinctions between value schemes or measuring rods, and to create the fiction that a flattened, comparable world exists. We make and live both realms continuously" (Gudeman 2001:15). To say this is not to claim that money's significances are predetermined, but rather to acknowledge that it has an inherent possibility, if not inevitability, for commensuration (Espeland and Stevens 1998).

The boundaries between these realms, importantly, also define distinct moral economies (cf. Fourcade 2017), with the distinction between short- and long-term forms of exchange depending on who constructs the boundary, what it consists of, and what its character means for the relationship between institutions on either side (cf. Lamont and Molnar 2002). While state-organized capitalism tends to posit a bright moral boundary that makes some objects, and especially human life, profane in the market, even these boundaries vary by context in both their location and transparency/opacity. Consider, for example, the concept of dowry or brideprice. Such practices are not only widely stigmatized in contemporary western contexts, they are said to pollute the ideal of individual choice in the institution of marriage. However, if we view the giving of expensive engagement rings as a mandated expense, the two customs can appear to similarly constitute a significant investment that solidifies an agreement to marry; while one is

explicit, the other is disguised. The construction of a moral boundary between "market" and "nonmarket" practices for these kinds of disguised transactions reinforces the idea that explicitly financial transactions are polluting to intimate relationships. In Zelizerian terms, this constitutes a "hostile worlds" perspective (e.g. Zelizer 2000), holding that market transactions and intimate relations are like oil and water: the two should not mix. Zelizer instead practices a hybridized model—what she calls "differentiated ties"—in order to understand how actors themselves define relevant relations and institutions through their economic practices. By deciding which kinds of payments are gifts, entitlements, or compensation, she elaborates, "people incessantly match different forms of payment to their various intimate relations" (Zelizer 2000:826). The "market," then—that ambiguous if utopic site of anonymized, carefully indexed transactions that tend to accrue profits to large corporate firms—becomes just one, albeit extremely powerful, realm amongst several.

To return to Guyer, transactional pathways help to bring these multiple kinds of relations into perspective on a flatter terrain. In other words, if we accept that ties are differentiated according to transactional patterns, then those tendencies might cohere, if not into spheres, then perhaps into something more akin to fields or institutions in which particular values and stakes structure social differences (Bourdieu 1977, 1993). Structuralist accounts might then be leveraged but then unhinged, their basic insights providing a scaffold for theorizing forms of capitalist development that are rooted in context-specific meanings and transformative processes. Transactional obligations remain central—not because of the "total" system that Mauss described, but rather out of a sense of responsibility and desire for moral goodness. As a result, "[t]he life course, in all its puzzling and uncontainable mutuality and indeterminate time horizons, reinstates itself again" (Guyer 2012:500). Both social stability and change become apparent, as these responsibilities break down, are interrupted by more powerful institutions, or shift according to actors' own cultural reference points and strategies for action.

Why Materials Matter

Central to any sociology of transactions are the materials through which they are conducted. These objects and the interpretations they afford are not a distinct realm formed *a priori*, but rather influences that shape the social process itself. For example, in contrast to the

garbage that Delhi collectors sort through by hand to harvest recyclable scrap, which has polluting and stigmatizing effects, I demonstrate that the money exchanged during moments of account-keeping signals pure and redemptive possibilities. Central to this process is making the polluting substances of garbage and garbage-laden scrap more neutral or even positive in the quest for money, paid out in cash, which can used to gain a slightly higher social status. Yet this conversion of garbage for money violates existing transactional orders by commensurating the pure and the sacred with the polluted through processes of exchange. Such pathways imply a temporal dimension in which objects come to take on different meanings and values, which may be more or less commodified (cf. Kopytoff 1986). As fuel for incinerators, for example, garbage becomes a singular commodity, in contrast to its multiple forms when sold as recyclable scrap or recuperated for repair and re-use (Corwin 2017; Isenhour and Reno 2019).

For Mauss, it was the animation of objects themselves that compelled the obligation to return a countergift. If the meanings that inhere in money are determined by social practice, rather than by abstracted ideas of "the market" or prefigured relations of capital (e.g. Gilbert 2005; Hart 1986; Keane 2010; Maurer 2006; Parry and Bloch 1989; Zelizer 1989), then the conditions of its exchange reveal how institutional, relational, and cultural contexts configure processes of status (re-)production—much like cows, pigs, iron rods, and grain, or, for that matter, good taste. As debt and credit, money becomes abstracted: an obligation to return something that has not yet been fulfilled, resulting in an ongoing relationship (Gluckman 1965; Graeber 2011; Peebles 2010). Cash, in contrast, tends to reflect a form of money that is oriented into the future, allowing for the fulfillment of moral commitments and obligations (Keane 2008:32), and affording imaginings of life yet to come. This holds out potential sources for social redemption, as objects afford conversions between social institutions and geographies (i.e. work and marriage; village and city). It soon becomes clear that "at issue in indigenous critiques of money is often not so much its alienating and corrosive effects per se as its unequal distribution" (Keane 2008:29). I find here, too, that it is not money (or by extension, capitalist markets) that is seen to be profane per se; rather it is how it can compel certain groups to engage in stigmatizing and devalued work in order to acquire it.

Exchanges, then, involve not only quid pro quo trades of scrap for cash, but the *transfer and transfiguration of stigma*. Tracing these becomes a central task in this manuscript, which

shows how exchanges of garbage and money occur in practice with multiple partners and institutions who frame, use, and value materials in different ways. Incinerators require amassed plastics and cardboards and are run by large companies with few workers, while informal collectors sort those materials into multiple subcategories. Meanwhile, door-to-door collectors sell stale bread that they harvest from household garbage to local dairy farmers, or they might simply exchange it for milk. Plastics tend to be recycled in Delhi by small informal factories, while cardboard is sold through smaller dealers before making its way to large registered recycling plants, providing a living to multiple small business operators and laborers along the way. Not only are goods differently circulated within the informal economy; so too do payment systems vary. Some transactions involve negotiated amounts for scrap sold by weight, which are paid upon receipt, while others entail longer-term debt and account-keeping practices in which payments are delayed over time, rates are variable, and money is paid out both in the form of advances for longer-term reproductive needs and short-term cash payments for daily expenses.

Regulation via Status

What matters, then, is not only that actors *relate* via transactions, but that those transactions are actually *productive* of relations themselves, along with the institutions they engender. Elsewhere I have theorized this as a kind of jurisdiction, extending Abbott's (1988) concept to include the territorial, in order to consider how *informal jurisdiction* can be secured over a profession, service, or territory (Kornberg 2020). I introduced the idea of *practical legitimation* in order to describe the process through which groups obtain recognition from actors endowed with capital and status to obtain legitimacy (Emirbayer and Johnson 2008; Johnson, Ridgeway, and Dowd 2006:69–71), affording them the institutional authority to challenge formal laws (e.g. Bayat 2000; Scott 1985), and ultimately, persist over time (cf. Suchman 1995:574-575). I call this outcome *status-based regulation*, or the process through which roles, relations, and expectations based on status (here, class and community/caste) come to structure institutions via everyday transactions. These sources of regulation are enacted in practice as actors are bound together through their transactional ties and the meanings and moralities they engender.

As such, this project contributes to the urgent need for work analyzing how the institution of "caste" is being reproduced in contemporary India, especially in urban settings. While caste in India has been overdetermined both as the Weberian concept of a rigidly defined hierarchy and the Brahminical concept of four rigid *varnas*, caste (a Portuguese word that was introduced under British colonization) is also very much a folk concept when rendered as *jati* in Hindi, connoting something more like "community" or "ethnicity."[7] My approach contributes to theories of caste formation grounded in practice, which acknowledge both the rigidity of structure and the potential for transformation (e.g. Bentley 1987; Wimmer 2008). This moves away from modernist ideas of caste as a traditional relic (cf. Jodhka 2015:5) while also eschewing exceptionalist ideas of caste as particular to India.

The relationship of social and ritual pollution to occupational and economic position has long been at the heart of the recognized sources of social difference across South Asia. Like race, caste is deeply intertwined with economic possibilities, with one of its defining features being that it is a system of status formation based on ideas of purity and pollution derived from Brahminical norms. Pollution avoidance has long been recognized, in particular, as a mechanism for this (e.g. Marriott and Inden 1977:233), and while it has also been overstated as the generator of a cohesive "caste system," it remains an important mechanism for delineating social differences. In other words, if not a closed or clearly defined "system," caste "continues to be significant as a source of cultural capital that enters into the reproduction of class differences" (Harriss 2012:2). Indeed, the recent experiential and comparative turn in studies of caste reveals dynamic sets of practices, for example around the promotion "merit" in higher education, that structure processes of status-making and domination, and which can simultaneously provide support for upper-caste claims of living in a caste-blind society (Subramanian 2019). When seen as a system of "ascriptive hierarchies" (Jodhka 2015), caste groups can be seen as relating within dynamic social fields, in which some groups wield power in its multiple forms that allows them to attain and ascribe status. Such ascriptions may occur through practices of pollution and humiliation (Geetha 2009; Guru 2009), servility (Ray and Qayum 2009), employment

[7] See Guha 2013, Chapter 1 for a comprehensive discussion of the etymology of the word "caste" in the Indian context.

discrimination (Deshpande and Newman 2007), and residence in particular neighborhoods (Vithayathil and Singh 2012).

To develop how social distinctions marked by caste and ideas of ritual pollution—key sources of cultural capital that engender social and economic power—I reach back to the work of McKim Marriott,[8] who documented complex systems of substance transfers with the ambition of creating a more general formula for determining social status. Marriott (1968) detailed the flow of food transactions (i.e. staples, cooked meals, food waste) in a village, with the goal of determining which caste groups were able to give which kinds of food to whom. According to Marriott:

> An occupation is a kind of behavior rendered as a service by one caste for another caste. The servant gives away honor or purification, (thus raising his master's caste's rank); he takes on pollution or otherwise demonstrates his inferiority by the service, thus lowering his own caste's rank.... Pollution in an interactional hierarchy is not innate, but always social, always a matter of giving and taking, of adding and subtracting. (1959:98)

Instead of reifying these relations into a rigidly mapped hierarchy, however, I take them to indicate vital processes that link material flows with the generation of status via transactions, which help to account for how roles and positions change over time. In the context of this case, for example, I find that collectors look to a future when they have converted waste into money, and then capital, in order to build homes in their villages of origin where they will never have to sort through garbage again. And, even when they are not low-caste per se, collectors develop dispositions, or habituses, through their rural experiences of being landless laborers, doing manual work (dirt sticks under the nails much like garbage does), and being subordinated to the whims of land-owning groups. Perhaps, the logic goes, transacting with scrap today in Delhi will bring a more comfortable and respectful life in the village someday.

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On my first visit to my primary field site in northwest Delhi, where Almaas is the

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[8] I am grateful to Lee Schlesinger and John Matthias for introducing me to Marriott's work.

primary buyer and boss of the collectors, I was on the back of Arif's motorcycle from the nearby metro station. Turning left from the main road, which was wide and freshly paved if still constantly jammed, we rode down a smaller street lined with shops on one side and tall apartments under construction on the other. Suddenly, when the road veered off to the right, we continued straight onto the unpaved and bumpy trail riddled with muddy brown potholes. Off to the left and laid out in front of us were more shacks, or *jhuggis*, than I could count—all made of discarded plastic placards, rice sacks, and tarps tightly secured onto bamboo poles. Getting off the motorcycle, we walked to our right to enter one of the huts.[9] A woman stood waiting to greet us, and I turned to say "*salaam alekum*," which she for some reason found to be hilarious. Inside sat two Muslim leaders (wearing white caps and flowing attire) on the side of the space, while Almaas was at a table in the front of the room. She commanded some of us sitting in chairs as an audience, while treating bystanders waiting for her as people with whom she did not need to show any interest. I noticed that she had teeth so straight and clean it seemed as if someone had held a ruler to them to keep them in line, and there was not a speck of dirt under her fingernails. Her skin was smooth and creamy, and her hands looked like she had just finished trimming her nails and applying lotion. She was wearing a bright *salwar kameez*, including a fluorescent yellow and green *dupatta* that she kept over her head, creating a ballooning drape that appeared almost regal in contrast to the scene surrounding her. Her speech was precise; her tongue whipped her teeth in just the right places to pronounce the dental and retroflex staccatos of the Hindi she spoke with only a slight Bangla accent. On the table, a large two-liter bottle of Limca soda had been placed along with small plastic glasses for us.

When I began my fieldwork, I expected to be surrounded with garbage. I knew that there were various categories of scrap that were sorted and had seen lists compiled by others who had documented their local names (e.g. "*guddi*," "HM"). What took me by surprise, however, was the constant exchange of cash—often in large amounts—which was far more important to my respondents than the trash-harvested materials that surrounded them. Meanwhile, buyers like

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[9] This hut would go through multiple iterations over the course of my fieldwork, starting out *kaccha*, or made of bamboo and plastic, and then becoming a brick structure that would eventually be plastered and have CCTV monitors inside. I mention the site again at the start of Chapter 5.

Almaas made it clear that, despite working directly with collectors, they were not collectors themselves. Contrary to others who have commented on scrap collectors' and buyers' pride in their knowledge of the various materials, I saw this only rarely, instead finding that collectors and buyers tended to regard the recyclable scrap with indifference, if not disdain: they were the transient objects that had to be contended with in order to obtain money. In contrast to the ontological status of waste material, which was in flux both geographically and categorically, money was seen as more stable and dependable, if always inadequate. And, despite being physically tainted—smudged, worn, and manipulated (written on, folded)—by the many hands and substances it came into contact with, currency endured as a relatively pure object. It was, for example, kept close to the body. Almaas, like many women, kept hers tucked into the top part of her bra, so that it was held against her skin.

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With this in mind, the manuscript addresses the following questions:

- What do economic relations look like in this context, and what kinds of moral economies configure them?
- How are social relations and status distinctions reproduced and transformed through transactions of garbage and money?
- And how does the legacy, experience, and threat of stigmatization—embodied in the idea and object of garbage and ranging in scale from individual practice to global reputation maintenance—shape transactional possibilities?

These questions are intended to address the larger issues of the (re-)production of inequality in cities more generally, along with promising to bring deeper insight to processes of economic life and environmental governance at the intersections of race/ethnicity/caste.

I begin the manuscript by analyzing the production of a hybridized system of garbage collection, demonstrating some of the historical-geographical roots of contemporary urban inequalities. I then detail, from an everyday perspective, how neoliberal forms of environmental governance became entangled with informal recycling systems in practice, with informal collectors newly navigating the PPP trucks. I survey the particular relations—between newer and older groups of informal collectors, informal collectors and middle-class residents, and scrap buyers—that create transactional webs structuring informal recycling systems and form a

substantive challenge to government-supported programs. Across these, I show how the motivation to maintain or improve social status engenders durable bonds.

Chapter 1 takes up the question of why Delhi expanded formal garbage collection services in the early 2000s. The chapter includes a historical and geographical overview of the city and uses the moment of the Commonwealth Games in 2010 as a focal point for shifting forms of urban environmental policymaking, and especially new garbage programs that were rolled out in Delhi in 2009. Chapter 2 compares the formal programs introduced in the previous chapter to the informal recycling system, with a focus on the garbage materials themselves. In contrast to formal programs, which have emphasized incineration, I demonstrate how informal recyclers rely on categorical distinctions made between different kinds of materials, which are apprehended through multiple senses, unlike predominantly upper-caste bureaucrats and engineers who attempt to create a singular category of fuel, invoking a kind of alchemy that creates pure substances from diverse materials. I examine neighborhood-level decisions in Chapter 3, asking why residents choose to give their garbage to either informal recyclers or the government trucks. I demonstrate that informal collectors had an advantage over the trucks because they allow middle-class residents to avoid the stigma of being seen touching garbage in public, affirming their higher status.

I pursue the resident-collector dynamic further in Chapter 4, asking why informal recyclers have been willing to take on the stigma of garbage collection, as Muslims not historically engaged in dirty work. Building on my analysis of status transformations in Chapter 2, I take up the question of stigma, following informal recyclers between the city and village to examine their relation to waste and capital across geographies, showing that the positive and potentially redemptive power of money enables collectors to regard dirty work as an opportunity for rural social mobility, while their Balmiki employers realize some benefits in the city. In Chapter 5, I ask how long-term economic relationships are rendered durable between informal collectors and the buyers to whom they sell their scrap. Getting paid, I show, is a highly personalized event that reinforced long-term bonds between buyers and collectors. I show how these structural features are created through cycles of payment for scrap that are not immediate, but rather entail long-term debts and reciprocity that include non-monetary provisions like housing and medical care, which includes The stability of this relationship built on tensions of

exploitation and care provides another source of social structure that regulates the recycling economy. I conclude the manuscript with a discussion of how these processes become relevant for considerations of urban governance, economy, and sustainability.

CHAPTER I

Making Delhi "Clean"[10]

Why did the city of Delhi expand formal garbage collection services in the early 2000s? This chapter addresses this question, offering a historical and geographical overview of the city and using the 2010 Commonwealth Games as a critical moment to reveal forms of environmental meaning and action. Analyzing post-2000 attempts to overhaul solid waste systems, I also provide a critical overview of national legislation and focus on how this mandate was taken up in Delhi. I then discuss the new, expanded garbage programs that were rolled out in Delhi in 2009, contrasting them with the existing cluster of waste collection actors who had long been operating informally and sustained large-scale recycling.

Environmental Politics as Class Politics

The modern domain of the "environment," and particularly sanitation, has been a key site for propagating forms of social stigma that reinforce class and caste differences across Indian cities. Contemporary urban scholars have documented the widespread tendency of urban authorities to use environmental claims in order to remove groups and activities that violate official notions of public order—including slum removal, the eviction of street vendors, removal of industries, and displacement of workers (e.g. Anjaria 2009; Baviskar 2003; Bhan 2009; DuPont 2011; Ghertner 2011a). While the needs of the poor are readily denied by recourse to claims of environmental damage, elite conceptions of a "clean" environment are, in contrast, deemed worthy of municipal and legal support. For example, street vendors have been evicted for their "dirty" practices, while cars were declared clean (Anjaria 2006:395). What is especially

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[10] Sections of this chapter and Chapter 2 have been adapted from a published article. See: Kornberg, Dana. 2019. "Garbage as Fuel: Pursuing Incineration to Counter Stigma in Postcolonial Urban India." *Local Environment* 24(1): 1–17.

problematic about these elite environmental concerns, of course, is that it is the poor who are likely to be environmental because they tend to lack the petroleum-powered resources that exacerbate destruction and their livelihoods tend to depend on practices of re-use and repair (e.g. Isenhour and Reno 2019; Martínez-Alier 2003).

Awadhendra Sharan has used evidence from Delhi to argue that for a sociological conception of the urban environment that situates it historically and culturally, suggesting five broad constellations of environmental practice: public health, infrastructure, noxious trades, zoning, pollution, and legal rights (Sharan 2006: 4905). Such a historical approach to framing environmental problems suggests that governing regimes are linked with particular conceptualizations of urban environmental problems, and further, that these domains lead to different ideas of what comprises a "sanitary" city itself (McFarlane 2008). D. Asher Ghertner has focused on the particular legal category of "nuisance,"[11] showing how colonial-era justifications for demolishing informal settlements in Delhi was invoked in the early 2000s in order to provide legal support for slum demolitions (Ghertner 2008, 2011b). Unlike in earlier decades, when nuisance law was leveraged to call for the construction of toilets or sewers,[12] in the 2000s slums and the poor residents who called them home were *themselves* declared the nuisance in need of remediation (Ghertner 2008). The power of "nuisance" lies in its subjectivity: Delhi's middle-class citizens[13] are able to effectively maneuver around the untidy facts that 90% of the housing that should have been built for the poor was not—while many middle-class residential areas are themselves illegal—and instead call for the removal of slums based on their deficient cleanliness and projection of order. According to Ghertner, "if a slum appears to be polluting or

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[11] Nuisance is defined as "any act, omission, injury, damage, annoyance or offence to the sense of sight, smell, hearing or which is or may be dangerous to life or injurious to health or property" (59). Contemporary nuisance law, as codified in the Indian Penal Code, derives from the original colonial laws as implemented in 1862.

[12] For example the judge in the Supreme Court Case Ratlam Municipal Council vs. Vardichan opined: "[T]he grievous failure of local authorities to provide the basic amenity of public conveniences drives the miserable slum-dwellers to ease in the streets, on the sly for a time, and openly thereafter, because under Nature's pressure, bashfulness becomes a luxury and dignity a difficult art…. [P]roviding drainage systems… cannot be evaded if the municipality is to justify its existence" (Ghertner 2008).

[13] In the sense of Chakrabarty (2004), which marks a distinction between rights-bearing citizens and governed denizens of political society.

filthy, based on a judge's subjective view of acceptable, 'clean' conduct, then the slum is deemed polluting, a nuisance, and therefore illegal" (Ghertner, 2008: 65). Thus, the ability to define and invoke particular kinds of "nuisance" became a way for Delhi's dominant classes to protect their property by making environmental claims (Ghertner 2011a, 2011b).

Such claims, made in the name of the environment to protect the interests of the city's middle classes and elites, constitute part of what Amita Baviskar has called "bourgeois environmentalism" (Baviskar, 2002, 2003). Baviskar claims that the urban context creates different kinds of natures: nature as leisure and beauty and nature as resource. The divide is predicated on stark differences in class and access to resources. For instance, Delhi relied on the labor of poor denizens to build roads, flyovers, and buildings, yet simultaneously denied their right to the city by failing to provide legal housing and livelihoods—accusing those very people of violating the Master Plan by "trespassing" on public land despite the lack of planned public housing (Ramanathan, 2006: 3194). It is this unfortunate irony that Baviskar's work calls to our attention: while the needs of the poor are frequently denied, elite conceptions of a "clean" environment are deemed worthy of municipal and legal action.

Colonial Legacies, Contemporary Divides

These contemporary desires to evict the poor in order to create aesthetically "modern" cities for the Indian elite must be situated in relation to colonial and postcolonial histories that have long created a territorial stigma of Indian cities as dirty and dangerous. These histories, it should be noted, potentially fuel self-fulfilling prophecies through which resources and expectations are curtailed(Kornberg 2016)—first by colonial administrators and then by the Indian government—reinforcing staggering socioeconomic divides (Kornberg 2016). In gesturing towards these historical lineages, I ground wider political-economic processes in local histories (Go 2013; McFarlane 2008; Robinson and Roy 2015; Sharan 2006), following the earlier example of mid-century British anthropologists (Gluckman 1959; van Velsen 1967), as discussed in the Introduction.

It is important to situate more recent environmental politics in relation to longer-standing spatial divisions that rest not only on class, but also caste and coloniality. Delhi's colonial history not only shaped the city's jagged bureaucratic structure, but also its spatial layout,

distribution of sanitary services, and cultural politics of cleanliness. Originating in British colonization, and extending through independence and global urbanization, the city has long contended with characterizations as dirty, diseased, dangerous. With these labels cultivated by global rulers and rivals in an international context, this form of territorial stigma is not confined to those who are marginalized within urban contexts (cf. Wacquant 2007), but rather creates another scale of stigma formation at the global level, which sits in tension with it. At the global level, it is not only poor Muslim and low-caste areas that are deemed contaminated and dangerous, but rather it is the city itself—and the postcolonial nation it represents—that threatens to stigmatize all who reside within its territory. Efforts to counter such labels have nevertheless engendered a taste for the modern and orderly, with the widespread popularity of Adolf Hitler's *Mein Kampf* providing an especially disconcerting example (Gupta 2012).

In response to this stigmatization, Indian leaders have worked to make cities more "developed." While such efforts might choose to focus on urgent environmental and public health needs, such as access to clean water, air, and soil, they have instead tended to foreground aesthetic concerns, prioritizing sterile *feeling* spaces like malls and large apartment complexes. These choices, I argue, are embedded in longer histories through which inadequate services have been justified with stereotypes of the "natives" under the British—and now poor, low-caste, and Muslim Indians—as dirty.

While Delhi's contemporary footprint is significantly larger than its smaller iteration under British rule, the colonial experience left stark bureaucratic and cultural imprints on the city's form and governance structures. Moreover, it was through British imperialism that ideas of modernity were themselves propagated, setting standards that would later be diffused by international organizations, media, and other conveyors of global aspiration. The city of New Delhi, now just a small section of Delhi's sprawling urban expanse, was initially a colonial venture commissioned by the British to replace their capital of Calcutta. It was completed in 1931 after more than twenty years of construction. The site lies to the immediate southwest of the walled city of *Shahjahanabad*, now better known as Old Delhi, from where the Mughal Empire had ruled over much of the subcontinent since 1648. In marked contrast to the winding streets of Old Delhi, where housing mixed readily with industry and shops, New Delhi was planned to be a spectacular imperial showcase for the British Empire (Legg 2007). Spaces of the

old city were characterized by colonial administrators as congested, traditional, and organic, while the new city was intended to be a place where open spaces would include greenery, the plentiful circulation of air, and the cultivation of order (Chatterjee and Kenny 1999). In his 1912 address to the colonial Delhi Municipal Committee, Viceroy Hardinge laid out expectations for the new capital city: "you must make your town a model of municipal administration; your institutions, your public buildings, your sanitation, must be an example to the rest of India" (cited in Legg, 2007: 152). Such a mandate must be understood in contrast to India's under-resourced "native" urban neighborhoods, which were characterized as diseased and filthy.

In particular, the cholera pandemic, which brought the disease from India to the heart of London, was important for propagating ideas of India as a dangerous source of disease and contamination for the newly sanitizing metropole. During the second global outbreak of cholera in 1829-1851, around 55,000 people died in England, creating ideas of a tropical India filled with pathogens capable of harming not only traders and rulers who traveled to the region, but also ordinary residents at home. As successive epidemics killed millions of people across the world, cholera was known as "Asiatic cholera" or the "filth disease" (Harrison 1999; Singh 2005), and its "natural home" was said to be India, linking the territory directly with the pathogen (cited in Prashad 1994: 254).

In the city of Delhi, these threats were invoked to justify divides that were not only ideational, but reified in physical boundaries that segregated British and Indian residents through a *cordon sanitaire* that reinforced differences by labeling Indian neighborhoods as "diseased" and British areas as "healthy," funneling resources into the latter in order to facilitate adequate sanitation. These divides effectively projected conceptual binaries of pure/impure and modern/traditional onto city space (Beverley 2011; Chaplin 2011b; Legg 2007; McFarlane 2008; Prashad 2001). This logic of purity and pollution was invoked by state administrators especially when epidemics were being attributed to problems like overcrowding in cities, and the "ignorance and uncleanly habits of Indians" were blamed as a key reason for the city's contamination (Harrison 1999: 153). Employing a logic that has been called "excremental colonialism" (Anderson 1995, 2010), European bodies were separated from Indian ones based on fears of disease and the desire for a sense of purity constructed around race (or here, caste/community), with this politics of excrement representing white bodies as contained and

self-regulating, while brown bodies were portrayed as unpredictable and in need of strict management in order to protect colonial administrators from typhoid, cholera, and dysentery (Anderson, 1995: 641). In other words, this logic of rule invokes a disciplinary approach to public health that entails state-enforced social segregation, rather than providing access to resources. In British neighborhoods—the cantonment, civil lines, and station areas—sprawling homes and greenery dominated. Indian areas, meanwhile, were more densely packed with narrower streets and choked passageways, creating a reflexive pathway that reinforced stereotypes via structural institutional inequalities.

Indeed, if Indian areas were dirtier and more prone to disease, their inadequate water and sanitation services combined with crowded housing and inferior health services ensured that these realities were borne out. In other words, racist colonial stereotypes were materialized through the unequal provision of services by the state, which in turn served to reinforce those stereotypes. For example, local Urdu newspapers in the late-nineteenth century blamed the Delhi Municipal Corporation for providing expensive drainage for the "White Town" while doing nothing to meet the needs of the more densely populated neighborhoods in the walled city where most Indians lived (Prashad 2001: 124). Unlike in London, where citywide waterworks and drainage systems were built, the fiscally conservative British builders of New Delhi were "guided not by what is the best system of sanitation, but by what is the best system which the Municipal funds can afford" (Prashad 2001: 117; See also Arnold 1993). Invoking a logic that bears an uncanny resemblance to more recent forms of austerity urbanism (Peck 2012), colonial financial priorities like the British military and payments to London left meant that there was little left for Indian municipalities. Services were given to British parts of the city first, and the logic of excremental colonialism meant that even the two populations' *sewage* was segregated for fear of contamination (Mann, 2007).[14] This separation allowed colonial planners to use comparisons

[14] During his fieldwork in 2006, Ghertner encountered a similar politics of shit. A middle-class Delhi man described how his wife was once scared by a scorpion that came up through the kitchen drain. Confused as to how this related to their conversation about the city's slums, Ghertner asked the man to elaborate. "All these sewers are connected," he explained: "Our waste flows into them, and the slum waste flows into them before ours. It is all mixed. This scorpion just climbed through the sewer and came into our house." Ghertner posits that the scorpion here

with Europe as a standard of how the city "should" be and create limited areas that mimicked it, further solidifying positive associations with the European parts of town (McFarlane 2008). The contemporary city mirrors this construction, with colonial institutions like the nationwide Gymkhana social clubs and Cantonment areas continuing to be places where quiet, greenery, and recreation are enjoyed by urban elites across the country.

The 2010 Commonwealth Games

Contemporary ambitions to become, clean, green, and "world class" bear the imprint of these colonial divides. Indian officials have frequently promoted plans and technologies that have more to do with global reputation-building than serving India's majority—a tendency that resembles 19th-century Indian leaders who sought to counter the stigma of "backwardness" by promoting technologies that were not successful on their own terms, but rather suited the tastes of powerful colonial actors in pursuit of "civilizational recognition" (Gowda 2010). Infrastructure projects have been a key site for this, as they cultivate and reinforce power, in part, by affording claims to development and modernization (Graham and Marvin 2001; Molnár 2016; Mukerji 2003, 2010). For example, Gabrielle Hecht has shown that French post-war nuclear programs were promoted by ideas of "salvation" and "redemption," promoting ideas of a radiant national future (Hecht 1998:7). Similarly, India's 2010 Commonwealth Games, hosted in Delhi, provided an opportunity for the capital city—a synecdoche for the nation—to invest in large-scale infrastructural technologies in an attempt to remedy global stigma. These cultural pursuits are typically centered in the promotion of such international events, since even larger games such as the Word Cup and Olympics are not profitable (Black and Peacock 2011).

Indian officials therefore welcomed the 2010 Commonwealth Games as an event that would improve the city of Delhi's reputation, perhaps even preparing it to join the big leagues one day by hosting the Olympics. Delhi was only the second city in Asia to host them, having outbid Hamilton, Ontario for the honor in 2003. The event provided a sense of urgency for realizing urban development programs for around five years—resulting in funding for flyovers,

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acts a metaphor for the danger of the slums, indicating the danger in integrating even their excrement (Ghertner 2011b).

metro lines, and garbage services—all boosted with the rationale of making the city presentable for international athletes and visitors. An efficient citywide metro system was inaugurated along with a Bus Rapid Transit (BRT) system, a new international airport, and additional electric capacity. To clean up the city for these new amenities, household garbage collection was expanded and privatized, and responsibility for services was transferred from municipal agencies and informal sector workers to infrastructure companies in half of the city's districts.

The Games therefore created a mandate for significant urban investment and infrastructure financing (Majumdar and Mehta 2010). Initially estimated to cost around US$350 million (Indian Olympic Association 2003), over $13 billion were ultimately spent on new infrastructure, stadiums, and venues when all was said and done (Baviskar 2011:147).[15] Amita Baviskar's commentary captured the tenor of these changes well: "Say 'world-class' and you conjure up a gleaming cityscape of skyscrapers, fast-flowing traffic, and neon-lit branded shops and restaurants, with unlimited power and water. The Games offer an opportunity to fast forward into this future" (Baviskar 2007: 16). Indeed, if the Games were never planned to be profitable themselves, they allowed for the leveraging of capital and enforcing of rules that would make the city look, feel, and *smell* like a global city.

International consultants projected that tourism during the Games would contribute significantly to employment and the country's GDP, describing the event as an opportunity for "showcasing the depth of talent, creativity and skill of Indian business to the rest of the world" (PriceWaterhouseCoopers 2008:6). Official documents and newspaper accounts routinely focused on how the city would appear to foreign visitors, whose depiction characterizes them as discerning judges of the city's global reputation. City and games officials frequently invoked the thousands of foreign tourists that would be arriving in the city for the event, saying that at least 10,000 hotel rooms must be available for them. These calls came in spite of the city's experience during the 1982 Asian Games, when instead of 1,000 expected tourists from Europe and the

[15] How government contracts came to benefit local leaders would only be revealed in the years following, with widespread reports of vastly inflated contracts eventually culminating in the arrest and jailing of Games Organizing Committee Chairman Suresh Kalmadi. Kalmadi was convicted for inflating a contract by 95 crore rupees, or over US$14 million. "Top 10 Facts about Kalmadi's Commonwealth Games Scandal." *NDTV,* January 19, 2012.

United States, around 200 visitors arrived from Hong Kong, Japan, and Saudi Arabia—much to organizers' disappointment ("Turnout for Games Lags" 1982). In fact, in the 2003 bid document for the Commonwealth Games, "The Tourist" (with both letters capitalized) is invoked as a more mythical than actual figure, with the creation of all things pleasing—like a range of hotel rooms "[a]waiting him"—offered as evidence of success (Indian Olympic Association 2003: 32). The anticipated presence of international tourists suggests that, more than the sights and sounds that viewers could access on television, other spectators would be able to *sense* the city firsthand. India's Tourism Minister explained his Ministry's segregated approach plainly: "We are not claiming to clean up the entire city or town which have these destinations. We will begin with the approach roads leading from the airports, railway stations and bus stations to the destinations and areas around the sites" ("Campaign Clean India: A Holistic Approach to Cleaning" 2012).

Campaigns were launched in order to "clean up" these spaces for thousands of imagined foreigners, who were implicitly coded as predominantly white and wealthy. Officials ordered, for example, the rounding up of "beggars" during city drives, invoking a 1959 act criminalizing begging, and setting up mobile courts across the city where they would be "tried." Delhi's state Social Welfare Minister Mangat Ram explained: "We Indians are used to beggars. Westerners are not. So, we must make the city free of them" (Mahaprashasta 2010). To hide the city's poor, bamboo was shipped in from the country's northeast, with Delhi's Chief Secretary elaborating: "We want to present a good face of Delhi during the Games next year, but it is not possible to remove all the slums. Therefore, we have decided to use bamboo screens instead to simply conceal the sights."[16] Sanitation was also invoked as a disciplinary site, with India's Rural Development Minister writing to Delhi officials "urging them to declare the entire national capital a 'no open defecation zone'…to avoid [a] national embarrassment during the Games."[17] Popular political commentator Kiran Bedi told a local newspaper: "garbage is strewn around, people have bad parking habits, we spit on roads…. Since Commonwealth Games are to be held here and the city is going to be watched by people coming from abroad, there is a need to do

[16] "Bamboo Screens to Hide Delhi Slums." *Hindustan Times*, August 16, 2009.
[17] Naqshbandi, Aurangzeb. "Minister Wants All to Take 'Pot' Shots." *Hindustan Times*, January 16, 2009.

better and change for the better."[18] The idea of a foreign gaze—white and well-resourced—was invoked to justify the city's drastic, punitive measures against the working poor in the name of cleanliness.[19]

Meanwhile, to socialize Delhi residents into civic manners, cartoon characters named "Su Su Kumar" (peeing Kumar; Kumar being a common and unusually caste-neutral last name) and "Thu Thu Kumar" (spitting Kumar) were created, and after they were deemed a failure, cricket stars replaced them ("Cricket stars to push for MCD's clean Delhi plan" 2010). Kiran Bedi substantiated these ideas in her etiquette pamphlet *Broom and Groom*—the nouns referring to hygiene and manners, respectively—which she co-wrote in 2010 to express "anguish over the inadequate civic sense in our society" (Bedi & Choudary 2010: Introduction). Linking behavior with national transformation, the illustrated booklet's dedication reads "The Right to Civility" and includes an endorsement from former Indian President APJ Abdul Kalam. Offering "globally acceptable manners and etiquette," the 167-page small hardcover features a hairy Bert (from Sesame Street) on the cover and includes Victorian-inspired tips ranging from elevator etiquette to road manners, interacting with foreigners, personal hygiene, bathroom hygiene, and the proper treatment of "the help" (Bedi & Choudary 2010: Disclaimer; See Figure 1). Notably, each of the situations include markers of middle-class status—tables for eating, cars for driving, laptops in classrooms—as well as a preference for Western culture, i.e., using disposable toilet paper and tissues, advising women not to wear "Indian ethnic clothes" in business settings, and eating with utensils instead of one's hands (Bedi & Choudary 2010: 141). A crucial part of

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[18] "Learn Manners, Behave Better." *Hindustan Times*, September 23, 2009.
[19] The paradoxical effects of changes to the city's garbage programs were also evident in other environmental domains across the city. Although organizers promoted the Games as an opportunity for environmental reform, several sites of contention fomented as a result of what activists recognized to be instances of ecological damage. For example, one of the event's core building projects was the construction of an athlete's village, which the organizing committee described would be constructed on "100 acres of land naturally endowed with greenery."[19] The project, however, was situated on the banks of Delhi's Yamuna River, which is a floodplain required for absorbing swollen monsoon waters and feeding the city's sinking water tables (Baviskar 2011). At least 150,000 people were evicted from their homes, justified with claims that they polluted the river, in order to clear land for the concrete construction (Bhan 2009). Thus, while officials highlighted the clean and pleasurable aesthetics of the new construction, the elided the ecological damage they were causing, as well as the negative effects on the poor.

creating a sanitary city—at least for some influential national voices—meant the civic disciplining of the middle-class population, akin to those which "civilized" Europeans into modern national citizens (Elias 1978).

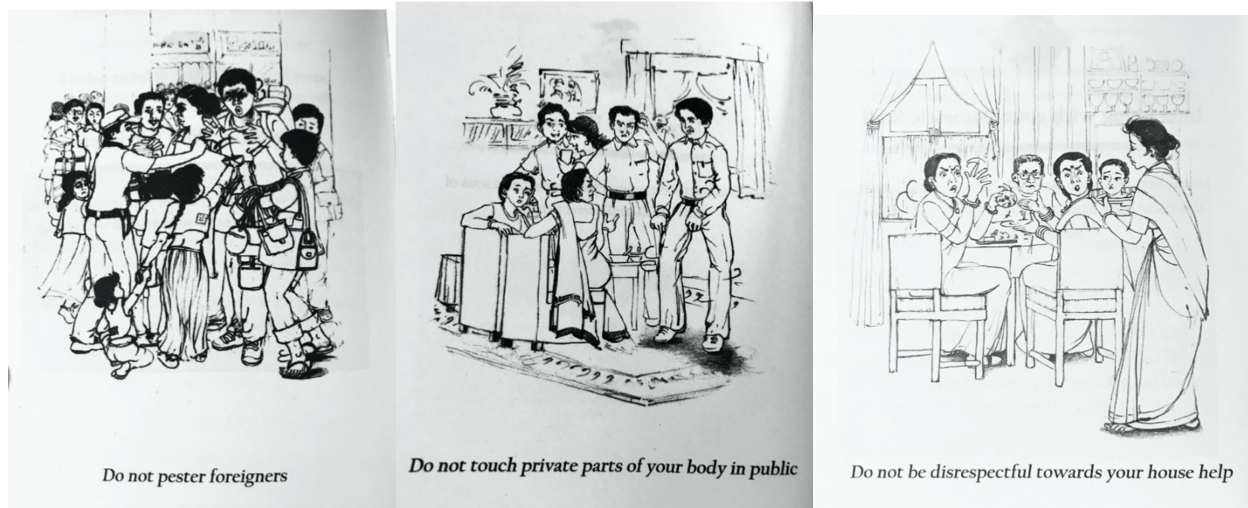

Figure 1 Illustrations from *Broom & Groom* by Kiran Bedi and Pavan Choudary (2010)

Converging with these moralizing sanitary discourses were claims to contemporary environmentalism—adding another source of meaning for the environment to the historical list that Sharan so usefully details. Forging a partnership with the United Nations Environment Program (UNEP), the Commonwealth Games were dubbed the "Green Games," signaling the growing significance of modern environmentalism for urban reputation building. "The environment is increasingly becoming an important criteria for gauging the success of sport events,"[20] Games officials noted, with Delhi's then-Mayor A. R. Verma articulating: "The Commonwealth Games are scheduled for 2010 and there is a need to present a clean and green Delhi to the participants and the visitors of the mega-event."[21]

Yet, rather than the Bollywood-inspired opening ceremony that had been planned to send India glittering onto the global stage, the lead international story was instead of a dirty athlete's village where a snake had been found in the living quarters, dog prints stained beds, and

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[20] Organizing Committee CWG. 2010. *Post Games Sustainability Report Card*. Delhi. Pp. 6.
[21] "Power from Garbage and How." *Hindustan Times*, December 7, 2004.

water and electric systems were not functioning. An article on the front page of *The New York Times* included a half-page photo of a lone laborer standing beside a towering scaffold, knee-deep in a moat of murky brown water around one of the city's new stadiums (see Figure 2). Despite Indian officials' efforts, the stigma of contamination had proved sticky and enduring. Originating in colonial domination, this territorial stigma became a kind of self-fulfilling prophecy (Kornberg 2016). Responding to charges that the apartments were dusty and "uninhabitable," games official Lalit Bhanot brushed them off, explaining—or perhaps capitulating—that Western visitors "want certain standards in hygiene and cleanliness which may differ from our perception" (Yardley 2010).

Raveendran/Agence France-Presse — Getty Images

Figure 2 Front-page story about the Commonwealth Games in Delhi[22]

Official Approaches to Solid Waste Collection in Delhi

Delhi's garbage services, too, were overhauled at this time, with officials explaining that this was "the only way to make the city clean for the Commonwealth Games."[23] Before the early 2000s, Delhi's local government had collected garbage from neighborhood collection points called *dhalaos* or *kuredans*: three-sided covered dumpsters from which garbage often spilled out into the street, where people hunted for recyclables, and cows grazed on kitchen scraps.

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[22] Source: Jim Yardley, "Games Official Angers India with Hygiene Comment." *New York Times.* September 24, 2010.
[23] "MCD Clears Plan to Privatise Garbage Removal." *Hindustan Times*, October 7, 2004.

Municipal trucks picked up the remaining waste from them daily, hauling it out to open dumpsites. Beginning in 2004, Delhi's largest city government[24] the Municipal Corporation of Delhi (MCD) began to introduce new solid waste systems that included private companies and mechanized processes, ushering in systems and technologies that had been designed in the global North. As municipal officials and private company managers boasted in interviews, Delhi was one of the first cities in India to implement these changes by replacing municipal trash collection services from neighborhood dumpsters with PPPs in nearly half of the city's zones. After two years of delays caused by opposition from unionized municipal sweepers, MCD announced these privatized garbage collection services in 2006. In addition to this workforce, it should be noted, a much larger one of around 40,000 people swept the city's streets daily, using bureaucratic and technological approaches that had changed little from their colonial foundation (Jaoul 2011; Prashad 2000).

These programs implemented the central government's attempts to introduce national regulations and guidelines for household garbage collection for the very first time, beginning with the Municipal Solid Waste (MSW) Rules of 2000. The MSW Rules of 2000 were subsequently updated in 2016, and they provided a mandate for expanding garbage services to individual households while also transitioning away from open burning and dumpsites to managed landfills, composting, and incinerators. While sanitation had comprised a significant portion of the Delhi municipal government's attention and annual budget since its colonial founding, the organization of services had hardly changed until a Supreme Court case[25] led to

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[24] Although MCD was split into three discrete bodies in 2012, it remained one unit for most of the period examined here. It covered most of the city: eight out of nine districts.

[25] Ramanathan (2006) suggests that government priorities on "cleaning up" the city began with the Almitra Patel case, a public interest litigation case that led to the development of the Municipal Solid Waste Rules of 2000, the country's first major statement on how garbage should be managed nationally. The Patel case references the experience of Surat in western India, where there was an outbreak of the plague in 1994, which has been recognized as providing the impetus for calls to clean up India's cities (Chaplin, 2011: 64; see also Inderjit, 1994). The judicial opinion declares that while Surat was "one of the dirtiest cities in the country … the effort of one man, namely, the Municipal Commissioner, … resulted in not only eradicating the plague and cleaning up Surat but gave the city of Surat the distinction of being the second most clean city in the whole of India." This example demonstrates how the fear of unusual disease—as opposed to regularly occurring ones like malaria and gastrointestinal diseases that become

this restructuring in the mid 2000s. The municipal government had long been responsible for garbage services, deriving its legal authority from the Delhi Municipal Corporation Act of 1957, adopted ten years after independence, which assigned the municipality with removing all "offensive matter"—i.e. human, animal, and food waste—from public places and declared rubbish to be the property of the municipal body. Although the 74th amendment encouraged greater local control, the strange governance structure of Delhi as the National Capital Territory (NCT), combined with the increase in funding for infrastructure projects because of the Games, meant that the Delhi state government was also involved in crafting city policies.

The MSW Rules were a policy of their time. Focused on creating a "world class" city, they urged local governments to exert greater control over basic services through public-private partnerships, as had already been done in the electricity sector. International organizations like the World Bank and Clinton Foundation promoted these corporate partnerships, reasoning that they would help to gain control through access to capital and greater managerial accountability (Cointreau-Levine and Coad 2000:74–75; Zhu *et al.* 2008).

Bringing these policies to the local level, Delhi's City Development Plan (CDP)—issued in 2006 as a blueprint for accessing funding through the country's JNNURM urban renewal program—focused on the processes and specifications for setting up bins and discussed the types of machines to be used for garbage collection, stressing aesthetic and technocratic concerns. It justified overhauling garbage services with the following statement: "Appropriate solid waste management of a city is crucial for public health and aesthetic surroundings. It is essential for a clean look."[26] The presence and potential contributions of the informal garbage collection and recycling workforce were considered briefly but summarily dismissed with the following statement: "However, these activities, carried out in [an] un-hygienic and unscientific manner, have unfavourable environmental, occupational health and community health implications."[27] Here, public health concerns are held together with aesthetic ones, equating them in a

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normalized—raise perceptions of hazards that can otherwise go unnoticed (Auyero & Swistun, 2008, 2009).

[26] Department of Urban Development (Delhi) and IL&FS Ecosmart Limited. 2006. *City Development Plan: Delhi*. Pp. 12-1.

[27] Ibid: 12-8.

formulation that exemplifies, following Ghertner, how aesthetic logics have become central to policymaking across the administrative spectrum.

The introduction of the Swacch Bharat Abhiyan (Clean Indian Campaign) in 2014 with the election of Narendra Modi put toilets and garbage at the center of India's national policy. Images of political leaders (Modi included) wielding brooms and smiling for cameras enjoyed mass circulation, suggesting that these men were bravely engaging in such work for the betterment of the nation. Of course, once the cameras went away, the city's low-caste or Dalit sweepers presumably picked up where they left off, doing the work without fanfare (and for low pay, facing multiple forms of stigmatization and discrimination, and facing dangerous work conditions). The Swacch Bharat Abhiyan campaign's signature logo—Gandhi's circle-framed glasses—was printed on the new currency issued in the wake of Modi's catastrophic 2016 demonetization policy, affirming the centrality of asserting a "Clean India" in service of economic development. The choice of depicting this alongside the Mars space probe *Mangalyaan*, which brought India global recognition for its technological capacities, connects the national focus on cleanliness and sanitation with wider modernist ideas of international competition and development.

By 2006, MCD formed public-private partnerships with three infrastructure companies, turning half of the city's twelve zones over to them. These newly created PPPs initially replaced the municipality's existing services, which were limited to transporting garbage from local neighborhood dumpsters, or *dhalaos*, out to dumpsites. In 2009, MCD introduced a more extensive program, contracting with a subsidiary of the Indian infrastructure company Ramky to begin collecting garbage from individual households in three parts of the city: Rohini, Civil Lines, and Dwarka-Vasant Kunj. Household collection was said to be an essential part of the "gold standard" of the nascent Indian solid waste industry because it was the first step in ensuring that the waste was entirely under municipal control.

The contract signed in 2009 for expanded door-to-door garbage services included a tipping fee of 1494 rupees (US$22) per ton of garbage, to be paid to the company, for an estimated total of around US$25 million per year (MCD and Delhi MSW Solutions 2009:238). The program was thus well-funded and endowed with legitimacy from both the state—widely understood as the rightful provider of basic services—and its authorized corporate firms,

considered to be purveyors of economic development in contemporary India. This program aimed to improve services through three key strategies. First, official door-to-door collection was brought to households for the first time through the introduction of small hydraulic "tipper" trucks that made daily rounds through neighborhood lanes, announcing their arrival with a "bell or hooter" (MCD and Delhi MSW Solutions 2009:13). Second, the program aimed to make Delhi a "Dhalao/dust bin-free city" by connecting the small collection trucks directly with large compactors, rather than storing the garbage at neighborhood *dhalaos* (MCD and Delhi MSW Solutions 2009:15). And finally, the new program included the construction of processing and disposal sites, which included an incinerator, along with a sanitary landfill and composting pit. While the trucks effectively extended into informal collectors' neighborhood territories, closing the *dhalaos* also threatened informal collectors because they rely on the spaces to sort recyclables and dump their waste (Gidwani and Chaturvedi 2011). The rise of incineration plants, meanwhile—three operating to various degrees, with two more planned across Delhi[28]—posed another threat, since they require the same plastic and paper materials for combustion that collectors depend on for recycling (Author 2019; Demaria and Schindler 2016).

Since their introduction in 2009, the collection trucks have become a routine presence in the neighborhoods they serve; their distinctive tinny jingle can be heard down the street, alerting residents or domestic staff to bring out the garbage. As drivers guide the trucks down neighborhood lanes, attendants walk alongside, taking bins from residents' hands or the street and dumping it all into the truck's rear compartments. As a result, informal collectors and PPP-truck operators contend for residents' support. In response to my question of what informal collectors should do for work if they are put out of a livelihood, a municipal Chief Engineer in the sanitation department articulated a desire that seemed to be held more widely: that these "ragpickers" find other work like construction labor, rather than competing with the trucks.[29]

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[28] Singh, Paras and Jasjeev Gandhiok. "4 More Waste-to-Energy Plants in Delhi." *Times of India* 30 January 2019. https://timesofindia.indiatimes.com/city/delhi/corpns-coming-up-with-four-more-say-city-of-2cr-people-has-no-option/articleshow/67763704.cms.

[29] Interview, 8/6/12.

Yet, the trucks have been, to officials, disappointingly ineffective. Instead, most residents have continued to use the informal collection and recycling system, which I discuss in the next section. Figure 3 depicts the neighborhood division of labor that emerged, with each household facing the decision of whether to give their daily waste to the PPP trucks or to informal workers collecting garbage with their tricycles, while Figure 4 shows a collection truck and a tricycle at the neighborhood dumpster.

During a meeting with a senior bureaucrat in MCD's sanitary landfill department, a Muslim man who had worked there since 1975, in an old school building near the railway tracks in Old Delhi, I sat across from him at his desk as he explained why programs introduced for household garbage segregation tended to fail. He relied on a favored official trope, blaming the public, but then elaborated why he thought residents hadn't participated: "They think that 'we will be called *bhangis*, we'll become lower caste (*neechi jati ki*).' It's because there's lots of caste discrimination (*jativad*) in India, you know." He went on to tell me that he had explained to them that everyone is equal, created by God. But, he complained, they had the money to pay for someone else—an informal collector—to do the segregation work, so they really didn't have to do it themselves.

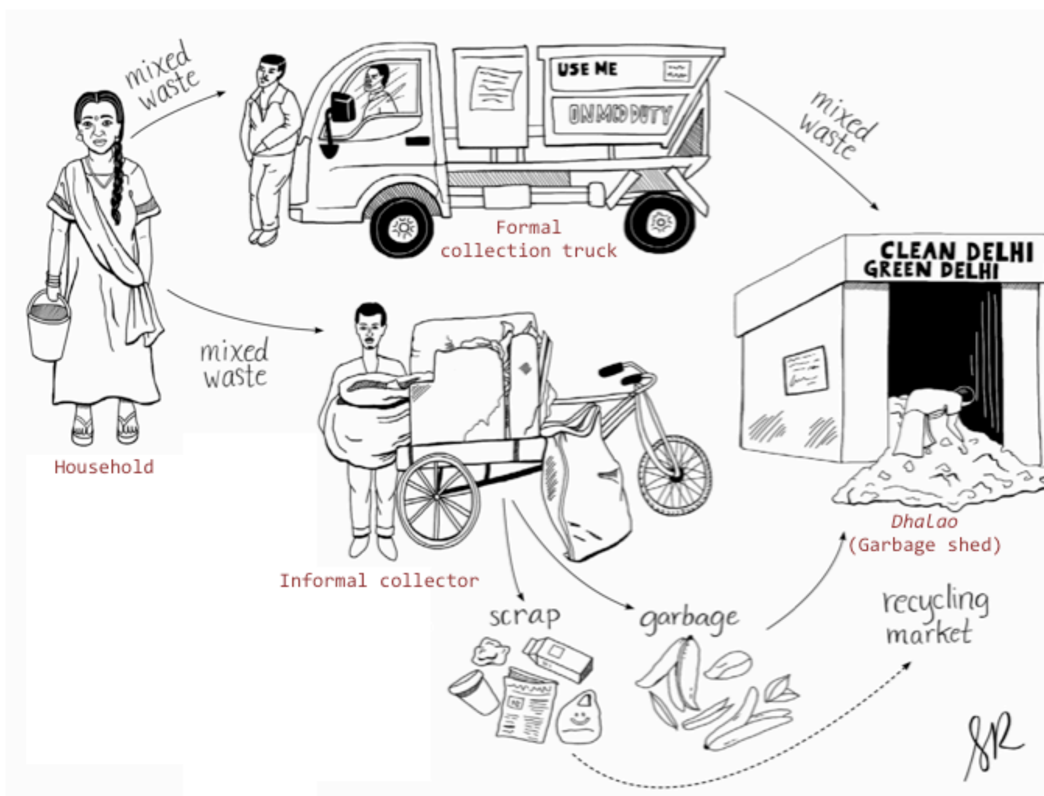

Figure 3 Depiction of the household-level decision between the formal truck and the informal collector (illustration by Shebani Rao)

Figure 4 A truck and a tricycle at a neighborhood dumpster (*kuredan* or *dhalao*), with informal recyclers picking through the waste inside

Unofficial Approaches to Solid Waste Collection in Delhi

Beyond the idealized visions of policymakers that have Delhi garbage being seamlessly transferred between government- and corporate-controlled machines, household garbage in Delhi actually circulates along multiple circuitous pathways. Although most Delhi neighborhoods do not have municipal door-to-door garbage collection trucks (and none did before 2009), a clutch of waste collectors and recyclers earn a living by collecting the materials being discarded at increasingly high rates, as Delhi residents can increasingly afford the rising production of disposable products and packaging.

In addition to official services, then, informal collectors have worked for decades across Delhi middle-class neighborhoods and elite colonies, picking up garbage daily from each household and bringing it out to the *dhalaos*. Before dumping it, however, they harvest materials for recycling—metals, plastics, and papers to be sold by the kilogram in order to earn a living. Households in turn pay a monthly fee for the service, which goes to an overseer called a "*jamadar*": someone typically from the Balmiki community who inherited the rights to collect

garbage from a particular neighborhood territory. The collective efforts of these informal workers have contributed to the base of an extensive Indian recycling industry (Chaturvedi and Gidwani 2010; Gidwani 2013; Gill 2010; Schindler, Demaria, and Pandit 2012). Uncounted, but probably numbering in the hundreds of thousands in Delhi alone, they divert around forty percent of household garbage and have been estimated to save the local government US$74 million per year (Hayami et al. 2006:63; UN-Habitat 2010). Yet, despite these contributions to material reuse and recovery, their manual work is highly stigmatized and has long been characterized as unscientific and unhygienic in official documents (e.g. Department of Urban Development and IL&FS Ecosmart Limited 2006:12-1).

At the top of this neighborhood scrap chain are itinerant scrap buyers, or *kabadi wale* – who are well known throughout urban India for their regular rounds accompanied by loud calls announcing their arrival. These itinerant buyers pay residents for pre-sorted metals, newspapers, and glass bottles, which households (and often their domestic laborers) store until they can be sold in bulk. Over the last 20 years or so, they have grown significantly in number and can be found in nearly any city neighborhood. Less common but still notable are actors like the women with shiny new pots on their heads accept used clothing in exchange for cookware in some neighborhoods, along with cow service (*gay seva*) carts equipped with distinct brass bells summon residents to deposit their bread and vegetable scraps in others. These pose as charities ("*seva*"), but are actually businesses: the haul sold to nearby dairy farmers.

The actors that I focus on in this manuscript are the people who collect household garbage door-to-door in a range of middle-class and elite neighborhoods: the waste left over after residents may have pulled out things like newspapers and glass bottles to sell separately. Although waste collection was historically done by the "untouchable" Balmikis who came from Delhi's neighboring villages (Prashad 2000), recent decades have seen a flood of migrants—many of them Muslim—from the states of West Bengal, Bihar, Uttar Pradesh, and neighboring Bangladesh, who have begun to informally subcontract from the Balmikis. Collectors have been aptly described as "self-employed proletariats" (Birkbeck 1978), a term that captures their ability to determine their days and hours while acknowledging their dependence as workers on the scrap recycling sector, which depends on and indirectly controls their labor.

Picking up buckets and bags of mixed household waste each morning, their activities provide a service to middle-class city residents while also salvaging and selling the recyclable scrap material it contains to earn a living. Waste collectors in Delhi are nearly all boys and men roughly between the ages of 14 and 50, who live in clusters distributed mostly on the far outskirts of the city in cramped informal settlements made either of brick or plastic sheeting and bamboo rods that double as storage facilities for collected scrap. They tend to be first or second generation migrants to the city, and most have their families, immediate and/or extended, along with them—though some of the men come alone and keep their families in the village so that they will not, in the words of a newly married nineteen-year-old boy, become “spoiled.” While the men (and sometimes boys) of the family tend to be the ones going out to collect garbage from middle-class neighborhoods, female family members tend to stay near the home and sort the scrap that is hauled home. Collectors tend to live together in settlements where their home spaces double as work spaces, where scrap is initially sorted, stored, and sold.

In the settlements where collectors live and store the recyclable scrap they process, they tend to join other families and workers who are from the same regions, if not the very same village. Even when collectors do not have extended family in the city, they tend to form kinship relationships (that entail both positive/caring and contentious relationships) with people from similar regions who speak the same dialect. For example, my primary field site in Northwest Delhi had Muslim families from across West Bengal, but most were concentrated within a few districts, and nearly all of them had the last name Sheikh, indicating a similar community. It was these bonds that led one after another to come to Delhi, often connected to a particular “boss,” or a recyclable buyer who might help pay for the trip and provide them with housing and a guaranteed market for their scrap.

Yet other places in the city revealed different forms of social organization. In one area of south Delhi that I visited, for example, all of the collectors were from a low-caste (Balmiki) community in a northwestern district of Uttar Pradesh. The same area also housed migrants from the state of Assam, who had come to Delhi fleeing violence against Muslims. While scrap work provides an essential source of livelihood for these rural-to-urban migrants—mostly low-caste and Muslim—it is typically treated with disdain and resentment in the neighborhoods they serve, further reifying their need to remain in tightly bound, ghettoized communities.

Workers' social marginality was at times manifest when they were accused of stealing things from the neighborhood (I saw a simple wooden board become the source of great contention). They are easy scapegoats because they are usually illiterate in Hindi or English, have tenuous claims to the city, and lack strong social networks. In some areas—especially the wealthier parts of south Delhi, for example—they were picked up by police in order to close a case, leaving the actual perpetrator still at large. More mundanely, collectors regularly faced scorn from residents, who would tell them to move away their garbage carts because they smell (I discuss this further in Chapters 3 and 4). Even when they are shown kindness by the local residents they serve, this tends to be framed as an act of charity or pity instead of egalitarian kindness or fairly valued labor.

Conclusion

Needless to say, although Delhi's recyclers benefit the city in multiple ways—by providing a service to middle-class and elite residents, offering the only recycling service, and diverting massive quantities of waste from already overflowing landfills—they have been framed by those in power as menial and threatening to visions of the city's global, modern future. How cleanliness, sanitation, and the environment are defined, then, have remained remarkably stable over time, affecting not only the shape of these crucial services, but also marking the organization of city space. In the next chapter, I further specify these clashing visions by focusing on the waste materials themselves.

CHAPTER II

Alchemizing Garbage

I was finishing a morning visit to a landfill in East Delhi when the government official taking me around asked if I wanted to see the waste-to-energy[30] plant under construction on the site. I eagerly said yes, realizing the significance of incinerators being rapidly built across the country. Following an office assistant into an nearby conference room, I could see the exhaust stacks under-construction rising up into the air. The room's walls were lined with framed photos of European consulting teams—mostly middle-aged men, but also a couple of women, with light complexions and blondish or graying hair—who had advised on the local project. I stood over a model of the plant at the back of the room that included several structures and a convoluted series of conveyer belts, impressively detailed with imitation garbage (see Figure 5). Finding me busy trying to figure out what the different objects were, the plant manager walked in, eagerly picked up one of the large glass beakers sitting next to the model, and gave a shake to its contents, which looked like dark-brown compost marked with lighter protrusions of plastic bag pieces. It hardly budged. He explained: "This is heavy and dense and not good for burning. This is Indian garbage." He then swirled the contents of the second flask, which had plenty of dry plastics, rubber, and papers. This one had a way of rising up as it circulated the beaker, which, he told me, was because it was European waste. "Even your garbage is much better!" he concluded, associating me, an American, with the generically "European" trash.

The national construction of incinerators nationally can be understood as the culmination of longer-standing aims to mechanize garbage services; yet Delhi's garbage politics include not only policies and institutions, but material attempts to control and benefit from the waste flow

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[30] Waste-to-energy is the industry term for a suite of technologies that produce energy sources from household garbage. In India, the term refers more specifically to various forms of combustion, or incineration, which are used to produce electricity.

itself. Access to city space has been central to these politics (Kudva 2009), with advocates calling for waste workers' rights to the city in order to continue accessing and processing recyclables (Chaturvedi and Gidwani 2010; Demaria and Schindler 2016; Gidwani 2013; Schindler et al. 2012), while neighborhood door-to-door collectors maintain access to recyclable waste through longstanding, if informal, territorial claims (Kornberg 2019a). At the center of the story, then, are the garbage materials themselves. An index of human life (and death), garbage reveals daily habits: the foods we eat, the goods we use, the "disposable" plastic containers that envelop everything, but also less ordinary events like a 50th birthday party, a move, or an injury. In the aggregate, garbage provides an archaeological record of social life, containing artifacts that will likely outlast humans. The volume, character, and method of disposing garbage is therefore not only a technical question to be handled by engineers like the one described above, but—as he so vividly illustrated by contrasting "worlds" based on their trash—also a cultural indicator of what a given society is comprised of and how people relate to their environment. What is in the garbage and where it ends up, then, are questions of environmental and ethical practice. This chapter asks: What kinds of social relations are indicated by such practices? Through what categories are these relations framed and made legible?

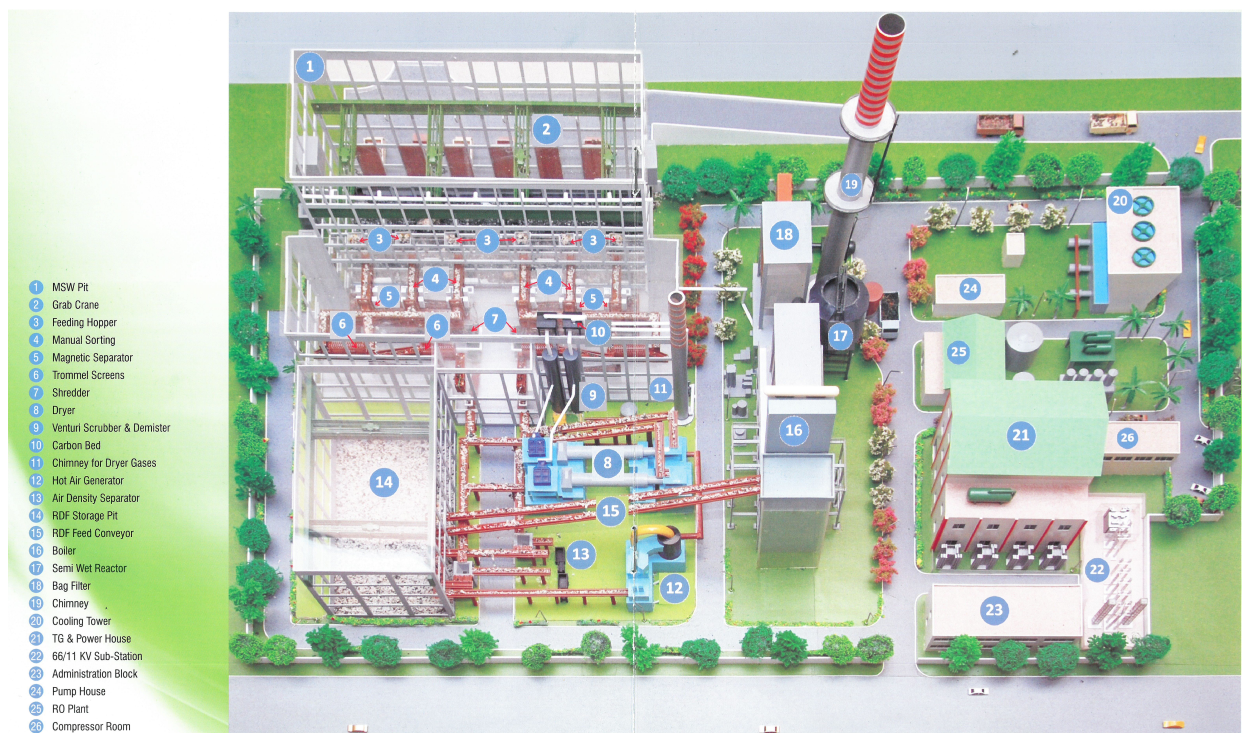

Figure 5 Plan for the East Delhi incineration plant (from 2013 IL&FS brochure)

These material politics were couched within a larger set of debates framing rising levels of garbage in Indian cities as a "crisis" or "tsunami." Suggestions for what to do ranged from the mundane to the bizarre, including compounding and storing waste in bales, building underground garbage bins or "bins-cum-flower pots" to "camouflage the filth," and spraying landfills with tons of air freshener.[31] With urban populations climbing and disposables consumption increasing, cities like Delhi were faced with a dilemma: land was scarce and difficult to acquire, and existing dumpsites were dangerous and overflowing. Relatively new participants in urban governance at the time, solid waste infrastructure companies promised cities the ability to expand and mechanize garbage collection, offering modern services that would streamline the collection of garbage, beginning with the household and ending with a scientific landfill or "waste-to-energy" incinerator: a solution that has been promoted as "environmental" by company managers, government bureaucrats, and the UNFCCC alike. By 2015, the Indian government had sanctioned 48 incineration projects across 12 states in India[32] (Central Pollution Control Board 2015), with plans to build more across 100 cities by 2019 (NITI Aayog 2017:58).

In this chapter, I show how city leaders sought to supplant low-caste and Muslim garbage workers—whose publicly visible manual sorting labor was seen to negatively affect the city's reputation (as discussed in Chapter 1)—while introducing high-caste engineers and businesspeople, who became willing to work with stigmatizing waste for the first time. I argue that seeking to exert control through processes of mechanization allowed these managers and engineers to remove garbage's stigmatizing properties while generating a single commodity: fuel. In attempting to create a socially benign, uniform object of fuel that could be burned in waste-to-energy incinerators—a process akin to alchemy that resonates with Brahminical ritual—the idea was to transfigure Delhi's trash in order to run incinerators that are locally referred to as "power plants." This effort is motivated not only by garbage containing "dirty" contents, but also

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[31] There are parallels in the colonial era, when there were fantastic suggestions that garbage stations be located underground, or even more, that the Health Office develop a medicine for citizens to take so that they could be freed from their sense of smell (Prashad 2001: 133).
[32] This number includes all projects listed as "power plants" and "refuse derived fuel" in the report because they depend on undifferentiated masses of garbage. It excludes biogas plants, which are concentrated only in the state of Kerala, because they rely only on organic content.

because of its characteristic instability and inscrutability (Reno 2015, 2016), which has the potential to threaten the status quo of a "world-class" (i.e. upper-caste), "green" (i.e. upper-class) Delhi.

Attempts by India's new class of solid waste managers and bureaucrats to equate unruly piles of garbage with petroleum-derived fuel, which is ritually uncontaminating and physically translucent, suggests an ability to socially and spiritually "clean" Indian garbage—transforming not only its material characteristics, but also rendering social and environmental questions into countable, standardized units of energy that produce electricity by the megawatt. This, I show, was a significantly different process and ethical relation to materials than those embodied and enacted by Delhi's recyclers, who rely on categories of distinction that are not only much more complex, but based on a sensory relationship with waste materials that depends on sight, touch, sound, and of course, smell, in order to identify and distinguish materials. It is only through these practices of segregation that materials become valuable, re-usable, and recyclable.

These contrasting orientations, I show, are borne out in the materials—with garbage treated by informal recyclers as a source of valuable scrap or *maal*, while city leaders attempting to transform garbage into fuel. A process of alchemy,[33] material transformations accompany social ones: chaotic and polluted materials are synthesized into a singular category, to be cleaned through the promise of fire. Similarly, status is cultivated, as city leaders and company managers gain capital from the dispossession of low-caste and Muslim workers. Like alchemy, which sought to create pure substances from diverse materials, the conversion of garbage into fuel transforms hundreds of separate recyclable materials, which provided for thousands of families, into a singular abstract commodity, cleansed through burning, which promises to deliver (or divert) profits.

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[33] Ironically, there was one incident when I encountered mercury—a central material of Indian alchemic practice—in the garbage. We found some in medium-sized sealed bag, which was actually just a container for a number of smaller bags inside, each filled with mercury. The woman I was with had worked with recycling for at least the last few decades, but she had no idea what to with the stuff. She decided to throw it in the municipal dumpster to be brought out to the landfill after I informed her that it was toxic (but who knows what might have happened to it next).

The Material Affordances of Fuel versus Recyclables

More than just a domain or space, the environment is also comprised of human relationships to materials: where toxic waste is dumped, but also access to goods like cars, "fast fashion," and one-time-use plastics. Our relationship to materials thus affords particular status positions and ethical stances, and especially so with waste, which for too long had been glossed as a passive object without socially meaningful properties (Gille 2010; Gregson and Crang 2010). The toxic waste dumped on the riverbank near a poor community in the United States, for example, may be nothing more than a line item to the accountant overseeing a company's finances, but to the mother living in an adjacent neighborhood, the pile consists of its ability to be carried by wind into her yard and tendency to contain lead that threatens the health of her children. The same material, then, can be apprehended—and thus related to—in markedly different ways (cf. Bennett 2004; Hawkins 2009; Keane 2003).

Comparing Delhi's new solid waste managers with the city's marginalized recyclers evidences a difference in not only how these materials are understood and valued, but also how these determinations are arrived at by way of (or through the active cultivation of distance from) one's senses. Recent work in environmental geography and anthropology considers how an ethic of care emerges from practices of re-use and repair, demonstrating how such practices hold out the possibility of stewarding material resources in a way that extends their lifespans. Nevertheless, practices of repair and re-use, whether borne out of material limitations or ideological commitments, require that people engage with materials in ways that temporarily de-commodifies them in order to reinstate them as commodities (Corwin & Gidwani draft; Kopytoff 1986). This temporary confrontation or reckoning could last for a matter of months, in the case of rehabbing a house, or for only a split second, as a recyclable scrap of paper is identifying and categorized. In both cases, the object must be apprehended as distinct before it is subsequently launched back into the world of commodities for sale, its components experienced via the senses and categorized according to particular representational economies (Keane 2003).

Put differently, waste paper must be sorted into different commodities (i.e. glossy, white, colored, etc.), but in the process of rummaging through a pile by hand, a person is forced to contend not only with these pre-determined categories, but the words on the paper, the purpose it might have served, and the wear it now sustains—having been crumbled, torn, or saturated. At

times, an object's category may be elusive, requiring the sorter to employ their senses—looking, touching, listening—in order to identify it. Such engagement is necessitated by the object's indeterminacy, as well as the existence of multiple categories. Recycling is not re-use exactly, but to do it well similarly requires attending, via knowledge and the senses, to an object's constituent parts. This isn't just a matter of consuming less and reducing waste, but also confronting the contents of "garbage" in a way that considers the individuality of objects and the relevance of object categories.

Yet, as Isenhour and Reno (2019) have rightly pointed out, these practices are not distributed in ways that are socially even, with social contexts based on race/ethnicity/caste, class, and gender shaping who can, or indeed must, engage in practices of re-use and repair. Across India, the unequally differentiated relationships of humans to materials and space, particularly through occupation and neighborhood (or *muhalla*), have long been central to practices of caste or *jati*, which have produced categories organized around ideas of purity and pollution (e.g. Jodhka 2015; Marriott 1968; Rawat and Satyanarayana 2017; Sarukkai 2009; Vaid 2014). Dominated groups of *Dalits* or "untouchables" have historically been relegated to small village hamlets (*jati muhallas)*, denied access to water wells, and been prohibited from selling their goods into wider markets. These practices uphold a logic of segregation that does not even *pretend* to espouse equality. One of the most comprehensive recent studies to document caste discrimination recorded, for example, the incidence of Dalits being barred from using umbrellas, smoking, or wearing new/bright clothing, and having to remove their shoes on public roads (Shah et al. 2006:82). Along with these punitive upper-caste sanctions, researchers found that other segregation practices were prevalent, including the separation of upper-caste and Dalit students in school, differential access to healthcare facilities and common grazing or fishing areas, and limitations on the sale of agricultural goods in markets and the sale of milk to local cooperatives (Shah et al. 2006:104–5). Perhaps the most glaring indicators of these spatially and materially enforced differences are the fact that in 70 percent of 435 villages surveyed Dalits were not able to eat alongside upper-caste (*savarna*) individuals; in 73 percent of 430 villages Dalits were not able to enter into the house of a an upper caste/*savarna* person; and in 48 percent of 527 villages Dalits were barred from accessing local water facilities (Shah et al. 2006:102). With similar surveys lacking in urban contexts, these data offer a sense of how caste practices have been

historically mediated in rural India, where anonymity is nonexistent and economic life depends on forms of agricultural and craft labor. In the city, these *particular* practices are surely less prevalent, if not in some cases altogether abolished, yet practices of segregation forcefully endure. Neighborhoods and schools reflect *jati* divisions, while households continue practices of keeping separate utensils for "the help" (Ray and Qayum 2009; Vithayathil and Singh 2012).

Yet, if such punitive practices of suppression and avoidance continue to proliferate in order to mark some particular communities as subjugated, it follows that upper-casteness (and particularly Brahmin identity) is itself marked by practices that indicate the goodness and rightness of their socially superior positions. Central to such claims has long been the ability to claim a status of "purity" (*pavitra*) in contrast to those who are deemed "polluted" and therefore "untouchable." The continued salience of these politics have been reflected at the national level and actively promoted by recent campaigns to ban cow killing, for example. The idea of alchemization connects with these practices, as it indicates a process of accumulation—or the agglomeration of diverse materials, and purification, which is often achieved in Brahminic ritual through fire. These cultural references, I argue, help to explain why solid waste administrators saw incineration as desirable.

In order to show how these changes have unfolded, I find useful concepts that were originally formulated in the 1950s in order to describe social mobility in India's villages. M. N. Srinivas introduced the idea of *sanskritization*: a process through which lower-ranked caste or *jati* groups could improve their status over a generation or two by adopting upper-caste, and especially Brahminical, practices:

> [P]racticing an occupation like butchery, tanning, herding swine, or handling toddy, puts a caste in a low position. Eating pork or beef is more degrading than eating fish or mutton. Castes which offer blood-sacrifices to deities are lower than castes making only offerings of fruit and flowers. The entire way of life of the top castes seeps down the hierarchy. And as mentioned earlier, the language, cooking, clothing, jewelry, and way of life of the Brahmans spreads eventually to the entire society. (Srinivas 1956:483)

What is clear here is the centrality of work, materials, and diet—in other words, materials and sensory relations—in demarcating status within a wider system of caste distinction. The

resoundingly Hindu markers of status are clear here, related to not only a (non-)vegetarian[34] diet and animal sacrifice, but also language and clothing—all of which mark the supposedly inherent inferiority of low-caste and Dalit groups. On top of this, however, Srinivas usefully notes that British colonization has generated a second plane of distinction, which is more directly determinative of economic capital (for the high status of Brahminism had been largely defined in by its professed detachment from economic concerns). He writes:

> The Indian leaders were thus caught in a dilemma. They found that certain customs and habits which until then they had looked down upon obtained also among their masters. The British who ate beef and pork and drank liquor, possessed political and economic power, a new technology, scientific knowledge, and a great literature. Hence the westernized upper castes began acquiring customs and habits which were not dissimilar from those they had looked down upon. (Srinivas 1956:487)

Thus, a second field is identified, in which several of the markers of high status stand in direct conflict to those valued in Brahminical, upper-caste culture. Srinivas continues: "The net result of the westernization of the Brahmans was that they interposed themselves between the British and the rest of the native population. … The Brahmans looked up to the British, and the rest of the people looked up to both the Brahmans and the British" (Srinivas 1956:488).

The case of contemporary garbage work lies at the crossroads of these competing valuation systems. On the one hand, working with garbage—other people's discards—has long indicated "untouchable" status, placing those who work with trash or sewage (i.e. human shit) in socially marginalized positions. Yet, solid waste also became seen as a modern industry during this time, creating a pathway for higher-caste workers (and Brahman engineers) to begin working with waste in order to pursue high salaries and profits. If Srinivas was concerned with marginalized groups gaining status, his categories can be re-deployed in order to understand why and how high status groups have become willing to work with trash.

[34] In India, meat eating (including eggs) is indicated by the term "non-vegetarian"—a label that affirms the positive normative status of vegetarianism.

Sanskritizing and Westernizing Garbage

Srinivas' categories of Sanskritization and Westernization help to reveal how the turn to incineration was facilitated by processes of upper-caste leaders cultivating distance from waste materials—a kind of Sanskritization—in order to benefit from them economically—a goal in the service of mobility as Westernization. While these two are practically conjoined in the contemporary Indian context, making them explicit here I think helps to tease apart their distinct origins.

At the center of India's garbage reforms has been the need to find alternative disposal methods. With land for dumping increasingly scarce in rapidly growing urban regions, cities like Delhi have found themselves in a bind where dumpsites are growing to the point of toppling over, prone to spontaneous combustion, and yet new land is not available. Before garbage programs were reformulated, Delhi's municipal system included three active dumpsites, each filled beyond capacity and lacking protective measures like plastic liners, diversion channels, or methane flares. In response, local governments began contracting with infrastructure companies that purchased garbage collection trucks and built incinerators, particularly refuse-derived fuel (RDF) and combustion technology plants. Dubbed "waste-to-energy," the garbage incineration industry has grown rapidly, supported by central government support and funding from the United Nations Framework Convention on Climate Change (UNFCCC). In 2013, the *Indian Express* reported, "[t]he new mantra for solid waste management (SWM) in urban India is waste-to-energy plants," and the Asian Development Bank supported several early projects.[35] Between 2003 and 2010, three garbage incinerators were sanctioned for Delhi, which has been at the forefront of a national trend: a Jindal project in Okhla, an IL&FS plant in Ghazipur, and a Ramky compound in Narela-Bawana. However, these lack adequate regulation and enforcement to prevent the emission of polluting and toxic exhaust (Demaria and Schindler 2016; Shah 2011). Further complicating matters, the country's few previous attempts to build solid waste incinerators had failed unequivocally—sometimes being shut down in just a couple of weeks (Annepu 2012).

[35] Bapat, Jyotsna. "Making Waste Disposal Work Better." *The Financial Express*, October 17, 2013.

Technologies like incineration promise to reduce the geographic footprint of garbage disposal, allowing authorities to sidestep the thorny issue of acquiring land. Such technologies require centralized contracts that afford systems of patronage, which are nearly impossible to track, yet commonly benefit local bureaucrats and politicians. In contrast to large dispersed workforces, centralized mechanical systems like incineration require smaller labor forces that are subject to more direct control. Important also seems to be the presentation of the workforce. Unlike informal recyclers, who are able to wear whatever they want and work according to their own practices, workers in the corporate system are expected to at least *perform* the role of employees with basic workplace regulations, even if those may be more ceremonial than protective. For example, when I was at the landfill, I was offered a mask and was driven past other workers who were similarly wearing masks, even though there were informal pickers clearly (if distantly) visible on top of the lopsided mountain of trash who not only lacked protective gear, but were at risk of being buried under fresh piles of garbage, becoming victims to a landslide or a simple misstep, or being burned by spontaneous fires. The divide between the new "scientific" landfill was clear (see Figure 6), but the juxtaposition was jarring. How could these two realities be held together in such close geographic proximity?

If incineration also depends on cultivating a notable amount of psychic distance, one aspect of this is the need to dispense with the well-known fact that the technology depends on petroleum-derived plastics and fibrous papers to fuel their combustion, which Indian waste is notably bereft of. Indian waste tends to be more heavily organic—with relatively few one-time-use plastics and papers, and more of the remnants of fruits and vegetables that are processed within the house, producing peels (from mangos, cucumbers, potatoes), stems (from spinach, cilantro), and shells (from peas) that comprise a relatively proportion of household waste. Apart from this is the important fact that household garbage in Delhi goes through multiple rounds of stripping from various recycling actors. In addition to the garbage collectors considered here, scrap buyers regularly circulate across Delhi's middle-class neighborhoods, shouting "*kabadi!*" (scrap). Within households, items like newspapers, glass bottles, and now sometimes also milk bags never make it into the garbage bin. Instead, they are set aside by residents or their domestic laborers to be sold for cash. What remains after these are sold is stripped—often multiple times—by informal recyclers tends to be wet and, yes, "not good for burning," as the engineer above described.

Figure 6 Uniformed men on top of the new scientifically engineered landfill, with the old dump towering above, human figures barely visible

In fact, India's first modern waste-to-energy incinerator was established in Delhi back in 1987 by the Danish company Volund Miljotecknik. The plant ran for just three weeks before being shut down. This modern failure recapitulated much earlier colonial-era experiments, such as when a Delhi official observed in 1928 that “refuse destructors had been tried and proved to be costly failures” (Prashad 2000:63) or when Mysore’s leaders developed unprofitable industries in order to impress their British overlords (Gowda 2010). A municipal officer who worked on India’s first incinerator in Delhi detailed during an interview that the European-designed plant had been completed in 1989 after three years of construction, but it required a level of energy (or combustibility, as measured in kilocalories) in the garbage that does not even exist today. When an 84 crore rupee ($12.6 million) plant built in the city of Lucknow with support from the World Bank and Indian government ran for just three months in 2005 after being declared a failure, a Supreme Court order banned the construction of incineration plants in 2005, a couple of years after which it allowed the construction of no more than five pilot projects (Krishna 2006). Government officials are thus well aware of the fact that Indian garbage is not well-suited for combustion. An MCD Sanitation Chief explained plainly: “For power generation, the fuel should have a minimum calorific value of 2,500-3,000 per kilocalorie. However, Delhi garbage

has a value of 550-600 per kilocalorie, which is not sufficient."[36] This calorific value is likely to be reduced even further when recycling activities are taken into account. Still, the first recent project, constructed at Okhla in Delhi in the 2010s, was bolstered by company claims that the waste would have a kilocalorific value of 1200. A member of the committee evaluating the claims for the pollution control board described this as "quite impossible," however, and concerning because if the garbage did not burn, diesel fuel would likely be added.

Interviews with company managers and government bureaucrats revealed that they nevertheless saw the reasons for the policy overhaul to revolve around the benefits of mechanization, which were explained as a remedy for aesthetics and management issues, emphasizing how machines would replace manual (and implicitly low-caste or Muslim) workers. For example, a municipal engineer in the sanitation department explained that the programs aimed to "mechanize things previously done by hand," while a solid waste company manager added that bringing new equipment and relying on privately contracted, instead of unionized, labor were intended to address the problems that "trucks were not in good working order, [and] people weren't efficient in doing their work." This new class of managers was frequently upper caste, or Brahman like the engineer introduced in the chapter's opening vignette.[37] They saw "solid waste management" as an exciting and well-paying industry on the business frontier. Yet, it was striking that working with the very waste that stigmatizes Delhi's recyclers in this context afforded claims to business innovation and environmental stewardship—perhaps a kind of frontier-like danger that, for these actors, bolstered existing forms of cultural capital. While upper-caste engineers have successfully converted their inherited privileges into merit through engineering institutions like the IITs (Subramanian 2015, 2019), the country's solid waste engineers and managers have transformed those materials from a source of diminished status into a more socially neutral object that affords cultural and economic capital.

In addition to their moral or religious connotations, machines of course also have the effect of reducing the number of employees, which appealed to administrators because laborers were described as a source of trouble because of their tendency to unionize and contest working

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[36] "Power from Garbage and How." *Hindustan Times*, December 7, 2004.
[37] Determined by his surname, which was written on the visiting card he gave me.

conditions. Where one mechanized plant opened in the south Indian city of Madurai, just forty or fifty workers were reportedly hired, according to a waste company manager who I met during a field visit to a Delhi garbage processing and disposal site. A site in north Delhi that was to receive at least one-quarter of Delhi's trash was planning to hire only eighty-four workers. Hence there was a direct conflict with the thousands of informal collector-recyclers who rely on the same materials for their livelihoods, despite claims made by companies in their public documents that they would employ workers. To monitor staff more closely, many planned to install biometric fingerprint readers to track the attendance of truck drivers and GPS technologies to follow the routes of the trucks. Indeed, the company's approach has been one of keeping distance, or marking a distinction, between manager purity and worker pollution. When I asked what would happen to the existing informal workforce with the introduction of formal collection and incineration, a field manager responded with unintended maliciousness: "We have the contract for the next 20 to 30 years, and we can't hire everybody. It's our livelihood now."

Equating garbage with capital, a company manager readily described how these projects "monetize" waste through the collection of a municipal disposal fee and incineration to produce electricity, which is sold to the power supplier. For example, the first plant to be completed in Delhi, in Okhla, reported spending Rs 285 crore (US$43 million) in 2013.[38] The project had three sources of revenue: a tipping fee per ton of garbage from the municipality, the UNFCCC's carbon credits program, and revenue from selling electricity. These "market" projects are thus highly dependent on state resources, including land, environmental clearances, a regular supply of garbage, and direct financial subsidies. The director of a state-owned Norwegian company, which actively promotes incineration technologies in India, stated during his presentation at an industry conference on waste-to-energy that government subsidies are "essential to be economically viable." Government assertions that these are "green" technologies have furthermore received financial support from the UNFCCC's Clean Development Mechanism (CDM). Plants receive funding for offsetting methane emissions and replacing a portion of carbon-fueled power plant activities—including the ones in Okhla and Ghazipur. In fact, the

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[38] Somasekhar, M. "Waste Management, the Jindal Way." *The Hindu BusinessLine*, November 25, 2013.

Okhla plant's application to the UNFCCC is explicit: "these kind of projects are not sustainable without CDM benefit."[39]

Incineration has been popular amongst both of India's major national parties. Delhi's former Chief Minister Sheila Dikshit laid the foundation stone for the city's first incinerator project at Okhla. Just a few years later, the opposition Bharatiya Janata Party (BJP) adopted waste incineration as a core part of its platform during the 2012 municipal elections, and during his Budget Speech in 2014, Finance Minister P. Chidambaram announced the introduction of new funding sources for waste-to-energy. By sanctioning and even celebrating incineration technologies, politicians at the highest levels have promoted the mechanization of garbage systems—using images of trucks and machines to signal their support for modernist ideas of national development. With the introduction of the national Smart Cities Mission in 2015, incineration received a significant boost of support across India. The national government's planning body described it as "the best option" for large cities, explaining that "Singapore and other countries have waste incinerators" (NITI Aayog 2017:58). The more recent introduction of the Swacch Bharat Abhiyan, or Clean India Campaign, under Prime Minister Modi introduces even more robust forms of support.

When I talked to the head engineer for the municipality, he added another layer to this vision of a progressive west and a catching-up, backward-planning India: in the "western part of the globe," he said, the "population is low and the city is not littered;" there, people have a "civic sense" and a "responsibility to clean the city." Here, in contrast, he described, "most people are uneducated," which leads to a garbage problem. This engineer, and several others like him, were quick to praise the segregation and recycling practices of "developed" nations like the US (usually focused on because of my presence). In contrast to the mess, dirt, and disorder that they associated with Indian garbage systems, western nations were commonly described as civilized and orderly—their practices facilitating the creation of discrete objects through segregation that could be appropriately handled. Barring this—seen an impossibility because of the frequently noted deficient "civic sense" and low levels of education (also a marker of status and frequently a

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[39] UNFCCC. 2007. *CDM Project Design Form for the Timarpur-Okhla Waste Management Company Pvt Ltd's Integrated Waste to Energy Project at Delhi*. Pp. 25.

proxy for caste), lumping all the material together and burning it becomes a desirable solution, minimizing as it does the number of people involved while offering the prospect of control and order for a particular class.

Along with western recognition and promises of global recognition, incineration also held out the promise of improved status through caste-based forms of progress. The industry's preferred terminology, “waste-to-energy,” indicates that electricity is produced as a result of the process, but also insinuates a linear flow where garbage fuels an equal output of energy. In practice, however, not only can toxic gases be produced in the process if polychlorinated plastics are not segregated and expensive abatement technologies not included, but the amount of energy produced for electricity is prohibitively low if the heat is not harnessed for heating buildings in cold climates (Stantec 2011:vi). The logic behind “waste-to-energy” thus seems remarkably similar to the “refuse destructors” that were championed in late-nineteenth century England because they both entail a desire to make garbage disappear (Clark 2007:260).

The introduction of these new mechanized programs are thus notable for creating a new class of garbage, or “solid waste” managers. Despite the longstanding caste-based stigma of garbage work in India, those I spoke with tended to see solid waste management simply as a “new and growing sector,” akin to any other corporate setting. For example, a young manager who volunteered that we was an upper-caste Rajput, had switched careers from finance to waste management, explaining that he enjoyed being in a growing sector, liked the freedom of riding around on his motorcycle to monitor workers, and unlike the “ragpickers”—pointing to the dumpster we were standing next to, where informal collectors were hunched over sorting through garbage with their bare hands—he and his colleague “don’t become smelly.” He continued, pointing out that the mechanized vehicles added to the “aesthetics of the area,” in contrast to the informal garbage workers. Perhaps the most explicit testament to machines’ avowed purity was on display in a solid waste company’s office where I had conducted an interview. As I was leaving, I noticed that on top of one of the large grey laminated cabinets a shrine had been assembled from images of a light-skinned Jesus and framed images of garbage collection trucks. Side by side, garbage trucks took on a venerated status that positioned them, in contrast to the garbage itself, as pure and redemptive objects, with images of Jesus suggesting a potential nod towards Westernization (see Figure 7).

Figure 7 A shrine with garbage trucks

The Sensory Logic of Informal Recycling

These utopic visions of centralized control over garbage through multi-million-dollar incinerators pose a sharp contrast to the large, dispersed network of informal waste collectors and recyclers, who continue to be essential to garbage systems in Indian cities. Attempts to assert garbage as fuel through the lens of engineering elides and erodes this workforce, which is primarily lower-caste and Muslim. Instead of the logic of segregation and categorization required to recycle plastics through the vastly networked informal economy (cf. Gidwani & Chaturvedi, 2011; Gill, 2010), upper-caste male ideals claim dominion by constructing multi-million dollar incinerators that transform garbage into an object—fuel—that powers them. In contrast to the undifferentiated mass that fuels incineration plants, recycling involves a multi-stage, disaggregated process that eventually creates hundreds of distinct materials from garbage that are re-used and recycled. Underway, then, is not only a contest over who gets to claim these materials, but which actors get to assemble them into which kinds of objects.

For India's vast network of recyclers—nearly all of whom work without formal documents—garbage is treated as a source of value, its contents signifying eventual payment. The individuals, households, and businesses from which the garbage originates may characterize their actions as throwing things away, but "away" is a euphemism that elides complicated geographies, labors, and organizational forms. What starts as undifferentiated household garbage is initially distinguished by collectors as objects that are waste (e.g. organic content, mylar bags)

and things that can be sold: primarily recyclable scrap (in Hindi: *maal*) like plastics, papers, metals, and glass, but also bread and rice that is sold to local farmers for cows and buffalo. After it is segregated, collectors haul the scrap back home, where they sort it further into ten to twenty different categories—things like *guddi* (mixed hard plastic), *paani ki botal* (PET bottles), *panni* (plastic bags), *sheesha* (broken glass), and *silver* (aluminum). Some of these will be further differentiated as they move up the commodity chain. For example, a collector might sell *guddi* (mixed plastic) to an initial buyer who then has it sorted into more than 20 subcategories for resale and processing. The logic, then, is one of differentiated recovery via sorting. At every stage, individual objects must be assessed (i.e. seen, felt, manipulated), identified, and categorized.

Delhi's door-to-door collectors describe the garbage they pick up in simple terms: "everything comes in it" (*usmein sab kuch aata hai*), they'll say. This is, on the one hand, obvious—garbage is where most things eventually end up, one way or another. But there is also something else that revealed by this statement, something that would not have occurred to me before contrasting their recycling labor with incineration: there is a recognition that garbage is more than a singular object; it is comprised of many, uncountable different *things*. What's more, beneath this acknowledgement lies an awareness of the contents that indicates not only intellectual or abstract forms of knowledge, but rather knowledge gained through lived practical experience, or habituation. In other words, collectors not only *observe* that everything is in the garbage, but in fact have learned to *identify* and *distinguish* the multiple objects it contains by employing their senses. For them, garbage is not an abstracted mass seen from a comfortable distance, but a slew of familiar—if often uncanny—materials with their own textures, hefts, flexibilities, porosities, tendencies for decomposition, and, indeed, smells.

Collectors begin with an undifferentiated mass of garbage, which they then sort into two primary categories—garbage (*kooda*), which is not recycled, and scrap or *maal*, which is. In the process of creating two discrete categories, however, individual objects are touched, sometimes considered or roughly cleaned with a shake or whack, and categorized. In contrast, from the vantage point of a landfill or incinerator, garbage contains just a singular object—its contents distinguished not by readily apprehendable qualities, but rather by their chemical capacity for pollution (i.e. PVC in incineration, organic waste in landfills), weight (for transportation), or

capacity for producing energy (i.e. plastics and papers have high calorific content). I described the process of doing an initial sort between garbage and scrap during one of my first rounds with neighborhood collector Naseem:

> We're about halfway done when we … begin sorting by hand. I notice how the most apparent stuff in the trash, covering everything, is *chai ki patti* [tea grounds]. They are dumped into clear plastic bags, hidden inside *dudh ki taili* [milk bags], and lightly dusting nearly everything in the waste. The fruit and veg[etable] peels are large enough that they stay in place and fall to the bottom, but the *chai ki patti* are small and wet and mixed in with the remnants of the sweet milky tea that they helped to produce. Most of the *pannis* [plastic bags] with *dudh ki tailis* [milk bags] and vegetable peels, etc. are tied only loosely, but some are bound tightly into a knot, as if the thrower were either unaware of the temporariness of the bundle, or maybe just hoped that the bag would stay tightly sealed forever instead of having another's hands rummage through his own waste. Nearly everything that is not organic is recycled. The [biggest] exception are mylar packets. There are tons of these in the waste, and they are just tossed. The other thing is blister packs for pills. The ones that are pure metal (you can fold them and they stay in place, as Naseem explains) can be recycled, but the ones that are plastic with a layer of metal cannot. Naseem explains that *roti* sells for Rs4/kg for cows as he puts some slices of bread into the bag hanging from the handlebars. (fieldnotes, 11/22/13)

Though some items—like the milk-laden tea grounds—have a tendency to infiltrate material boundaries, coating or soaking other items with abandon, most of the recyclable material was easily recognized and quickly segregated. Sealed bags are torn open, their contents dumped, and plastics, glass jars, papers, metals, bread, and the odd-but-valuable strands of hair were pulled out and put in their rightful place.

All of this is done inside or around the collector's cart—a tricycle constructed from a heavy-duty steel bicycle in front with a single wheel and a wagon-like wooden cart with two thick wooden wheels in back (see Figure 8). A setup typically included three two-to-three-foot-high boards erected on three sides of the cart's interior to make it taller for accommodating more waste. Two long flat pieces of wood, placed diagonally on the cart's floor, can form a triangle a

couple of feet outside the cart to holds another board (like a discarded karamboard game) for additional capacity. Here, the sack of scrap—in an old white woven plastic bag (*bora*)—is usually held, its sides rolled down nearly to the bottom at first, and then rolled up gradually to accommodate the growing pile of scrap. Plastic bags are used for any bread (*roti*) or hair that is found, their handles hung from the bicycle's own handlebars.

Figure 8 A collector's setup, with white sacks for recyclables, the main cart for non-recyclable "wet" waste, and a bucket in front for scraps of bread, or *roti*

Returning to Naseem, once we had segregated out the garbage inside his cart, he dumped it out at a municipal dumpster on the way back home, from where a truck would eventually collect it and carry it out to the dumpsite. I went back separately, meeting Naseem at his house and sat down with him and his wife to sort through our haul. Along with the milk bags, various papers, plastics, and cardboard that we rifled through quickly, and which his wife tossed my way to put in nearby piles, there were more personal things that had to be dealt with individually. That day, for example, we found colorful *shaadi* (wedding) cards—many with "best wishes" jotted inside and containing business cards that were presumably the givers'. These needed to be checked to make sure that no money had been left inside. I went through dozens of them but

found only a single one-rupee coin. Along with these, we had also recovered at least eight nail polishes from the waste. I decided to take a mauve-colored one after someone else said it was too light for her, opting instead for bright orange. Then, in a stroke of beginner's luck (as this never happened again), I emptied the contents of a discarded handbag to find that it contained not only a five-rupee coin, but also a small gold mango-shaped nose ring. "Twenty-three karat!" Naseem announced, passing it around for all to inspect, especially his mom. They told me that this happens from time to time, and that someone who lived nearby had found 50,000 rupees in cash once (field notes, 11/22/13).

Most of the objects blurred together—cardboard tea and biscuit boxes, schoolchildren's notebook paper, plastic soda bottles—all identified, touched, and tossed into its kindred pile. Others, however, stood out—like a small greyish jug with a rainbow sticker labeled "ganga jal" (Ganges water), shiny glass bangles gilded with rhinestone and metal details, or the individual ceramic models of full sets of teeth gotten from a local dentist.

If these had the potential for recovery (if only by me, who, as both newbie and foreigner, was fascinated by the variety of things to be found), other objects had to be handled individually for their potential danger. For example, I watched Shahbur snap the needles of a few dozen syringes recovered from the dentist's office off, using just one hand and the wooden board that formed the side of his cart. He held one hand up to his phone, which was partially tucked beneath a loose turban around his head to protect him in the searing sun, and chatted away in Bangla, snapping the plastic noses off from each syringe one-by-one, letting the needles drop into the garbage that he would later dump on his way home. Other more mundane items that had to be treated carefully include diapers (for both babies and adults, as at least one collector made sure to remind me), sanitary pads, condoms, and broken glass. As one collector described:

> So many things come, they give it [all] to the garbageman, you know? There are so many really dirty things that come in it. … But we don't have to take that. That goes away in the garbage, in this garbage. It has no use. It - it isn't sold. It's the paper, the panni, the plastic - all that kind of stuff - that we sort out and take. (Interview, 1/24/14)

While there was an NGO campaign to put sanitary pads into specially marked colored bags to make their contents known, I never saw one, and everything tended to be mixed in with the rest

of the trash. Spotting these items, then, became an important skill. Nevertheless, the collector here makes it clear that they too are able to cultivate distance from waste that is considered to be more severely polluting, positing that *that* stuff is not ours to deal with.

While most items were readily recognized by sight, some required that we engage other senses. For example, when I was sorting through piles of scrap one day, a recyclable buyer who I called Aunty gave me a test that she often enjoyed administering. Picking up two pieces of what looked like clear plastic wrap, she asked me what made them different. Having been through this exercise before, I responded that it had to do with the sound, but I couldn't remember which sound meant which kind of plastic! Right, she said, and I tried to elaborate that one makes a louder sound because it's harder, and another makes less sound because it's soft. She tells me the hard one goes into the hanging mosquito net behind me (along with other things that are "*bekaar*" or useless, such as rice packets because they're worth too little), while the soft stuff goes into the bag that needs to be re-sorted through later, along with metals and electronics, any hard plastics except for bottle, and hair (field notes, 1/23/14).

The contents of the garbage also varied by season. In the summer, for example, I noted: "there are loads of mango peels, cucumber rinds, and the hay from the coolers" (field notes, 5/22/13). In the powerful summer sun, a resident on a higher floor tossed down some garbage: "Plop. Two badminton rackets, fluorescent yellow and hot pink with thin nylon strings, land flat in the middle of the wet waste, sending a few mango peelings into the air" (field notes, 5/22/13). Around six months later, with the heat subsiding, the Hindu Diwali holiday brought what could be an overwhelming number of boxes from biscuits, sweets, chocolate, and even Kurkure. Joining these were the containers for new household goods and the remnants of firecrackers—known in India simply as *crackers*, perhaps indicating the affection people have for them—with their stems, blasted shells, and boxes. A couple months later, during Delhi's relatively short but bleak winter, the garbage would noticeably shrink. Shorter days and the Delhi chill brought fewer outdoor activities or time for meals, but some indoor favorites were evident nevertheless. I noted: "while I've seen maybe one condom in the past, today I spot at least 3 used ones along with their wrappers. There are a handful of whiskey bottles, 2 of them broken, and lots of packets of instant soup. I imagine everyone holed up in their flats, trying to stay warm with booze, sex, and soup—supplemented with the occasional cigarette" (field notes, 1/9/14). The shifts not only affected the

types of materials that were found in the garbage. Somewhat like farming, the amounts of recyclable scrap waxed and waned according to what could be harvested seasonally from the trash.

As also described above, once the scrap is hauled home, another process of work begins. With the garbage dumped, the recovered *maal* has to be sorted further in order to be sold. An interview with a collector details the multiple categories. The need for regular clarification indicates how these categories vary by locale.

> So what exactly gets sold here? Can you explain, who do you sell to?
>
> Glass is sold on its own. … *Panni* (plastic bags) is separate. … Paper is separate. …
>
> So this all, these all go to madam, ok, can you tell me all of the things you sell to madam?
>
> So it's like this - there are 10 *items* (types) of *maal* (goods) that we sell here. We give 10 *items* of *maal* to her. There are three paper *items*. One is the intact kind, one is the torn kind, and another is the white kind. There are three for paper, one for glass. One for tin, one for iron, and one for plastic bags, one for *plastic*.
>
> You mean for bottles?
>
> There are also bottles, water bottles.
>
> And *plastic* is separate?
>
> Yes, it's separate. … *Plastic* is separate.
>
> What is "*plastic*"? The soft kind?
>
> Not the soft kind
>
> It's hard?
>
> Yes
>
> Like *dabba* (plastic containers)?
>
> Yes, *dabba*
>
> Ok, I see
>
> We call *dabba* plastic
>
> Ok
>
> That goes separately. Milk bags go separately.
>
> You give those separately? I see, you don't sell them with *panni* (plastic bags)?

Right. We don't sell them with the plastic bags, *panni* is sold separately. So all of these make 10 *items* of *maal* that are sold, then those *items* …

Ok, and what else is sold apart from this? For example, what if you get some copper?

Yes, copper is sold on its own, if we need to sell copper then,

[You give it] to madam [the local buyer]?

Yes. And along with that there's also some lightweight silver, a kind of aluminum ("*silver*") that it goes in with

So this all goes together with *tina* (tin cans)?

Huh?

That all goes with the *tina*, no?

Yes, it does, it does. (Interview WW36, 1/24/14)

This conversation reveals how both knowledge and relationships inform the number and type of categories that recyclables were sorted into. For example, while some buyers wanted all plastic bags mixed together, others separated out different kinds of plastic films depending on their thickness, material (determined from the sounds they make when crumbled), and color so that the white bags that *atta* flour and potatoes come in, and the clear bags (oddly named "*rangeen*" or colorful) that held bread, would go separately. I watched on as Rupa made *roti* from the old *atta* flour she had found, which she would sell the next time the buyer came around (Figure 9), and as wires were burned for their copper, creating an eerie scene in the dark of night (Figure 10).

Figure 9 Making *roti* from old *atta* flour recovered from the garbage

Figure 10 Burning a heap of wires to recover the copper inside

In order to create these divisions, scrap was most commonly sorted in or near the home, bringing together multiple members of the family. Notably, this is one part of the process that collector's female family members—usually wives and older children women—commonly take responsibility for. Some sort through their scrap daily, while others might wait for a day or two's haul. In some areas, where there is not space for storage, buyers have it sorted in the larger area of their shops, paying local women as laborers to get the job done (see Figure 11). In one of these areas in northeast Delhi, I observed:

> Being underneath those white tarps strung up by twine to bamboo poles is like entering another cosmos. That might be extreme, but the smell is intense in the rising summer heat: the leftover yogurt on containers, globs of hair stuck to plastic bags, the occasional razor, and collections of medical goods conspire to make the place the true antithesis of everyday consumptive life—with everyday objects becoming downright ghoulish in some cases. (field notes, 4/30/13)

Yet, if the objects could be strange or disgusting, the teasing camaraderie (and sometimes disputes) amongst women and other family members provided a welcome distraction.

Figure 11 Paid female laborers sort through about a week's work of scrap

In such areas, which were densely settled with brick (i.e. *pakka*) houses, because there was no space to store the scrap, it was weighed out and sold each day—the amount of each item noted down in the buyer's accounting notebook, but not usually paid out on the spot (I discuss this detailed process in Chapter 4). In places where houses were self-constructed from plastic sheeting and bamboo, space would be made to store the scrap just outside, or on top of, the home (see Figure 12). There it could be kept for a week or two until it was time to weigh it out, *bora* by *bora* or sack by sack, in order to record the earnings by item.

Figure 12 A collector's family stores scrap in front of the entrance to their home

The process of recycling is a product of manual labor, dependent on families and communities. Contact with garbage is personal—it is not an object seen from a distance, but rather the aggregate of legions of materials that have their own feels, sounds, smells—and ultimately, economic values. In order to realize these values, individual materials must be identified and culled from the mass, using knowledge that is localized depending on the kinds of

things that can be sold within particular categories. This poses a stark contrast to the logic of incineration that Delhi's leaders have promoted.

Conclusion

In a subsection titled "the force of things," Marcel Mauss writes: "The large abalone shells, the shields that are covered with these shells, the belts and blankets that are decorated with them, the blankets themselves that also bear emblems, covered with faces on them—all are living beings" (Mauss 1990:44). Mauss continues to describe how these objects decorate houses, which are home not only to people, but also their gods and ancestors who are contained and invoked within. For Mauss, the spirit of the gift was what compelled the recipient to reciprocate. Things, then, are distinct, recognizable, significant. Here too, I have shown that the recognition of materials as distinct constitutes a central feature of Delhi's recycling economy. Indeed, it is the attempt to de-personify these items, to transform them into a singular alchemized material, that endeavors to expel practices and people who relate to wasted items as individual things—as *shaadi* cards with notes and maybe also cash inside, rather than colored paper.

These practices reflect the valorization of modern machines, overseen by upper-caste men and especially engineers, over lower-caste and Muslim stigmatized working bodies. Instead of the detailed knowledge and highly-coordinated process that recyclers employ to recycle plastics in the city, incineration relies on a logic of mass destruction. By introducing these new solid waste technologies under the aegis of environmental policy, Indian leaders prioritized a kind of aesthetic sanitation concerned with the city's reputation that sought to redeem garbage as a sign of modernity instead of a source of national contamination. Machines afford the possibility of capital accumulation for elite actors, while also improving the city (and national) image by centralizing and transforming materials construed as disorderly and contaminating into fuel for electricity, a ritually pure substance that has the capacity to obliterate social pollution, or stigma, through combustion. While the introduction of these technologies has been multiply challenged in practice, as middle-class residents and informal waste workers contest their introduction (Demaria and Schindler 2016), the logic of governance that incineration exemplifies remains a powerful influence for urban environmental trajectories. Despite incineration's severely limited applicability as a technology in India—a situation that closely parallels Gowda's (2010) historical

case of industrial development in Mysore—there is an ongoing struggle to reconfigure the materials themselves: from irregular and multiply classified discards that require stigmatized labor to realize value in the informal recycling sector, which allows a class of engineers, government officials, and businesspeople to realize personal benefits while promoting the progress of the nation in the international system.

Mechanization, then, allows for practices of both Sanskritization and Westernization, as garbage becomes a material to be exploited without stigma—burned just like coal or gas—in the service of growing new corporate enterprises and stimulating profits. This reflects a postcolonial, developmentalist desire to be rid of both garbage and the low-caste and Muslim people who handle it, alchemizing it all in the bowels of an incinerator. Rather than encouraging practices of repair, reuse, and recycling, incineration has the ability to encourage a taste for dry waste, as expressed by the engineer in the opening vignette: the material artifacts of a throwaway culture.

CHAPTER III

Serving the Middle Classes[40]

I was walking through a middle-class neighborhood in Northwest Delhi's Rohini area during one of my first rounds with an informal garbage collector named Meenu on a cool November morning. Working at a regular pace, we navigated the wide lanes, collecting garbage pails left outside or handed over after ringing a doorbell, putting the waste into the back of the sturdy tricycle cart. As we sorted out recyclables from the wet kitchen waste—plastic bottles, milk bags, and notebook paper, but also stale bread for cow feed—I heard Meenu's boss abruptly calling out: "Get over here now!" It was only 7:30, but we had already covered around 80 of the 120 houses from which we had to collect. A jingle began to ring out, announcing the municipal garbage collection truck, followed by a recording that instructed residents to deposit their trash in order to keep Delhi clean. I joined Meenu, picking up garbage pails from the road as quickly as we could and throwing everything haphazardly into the back of his cart. As we headed back home, he offered a reply to my earlier surprise that he started work at 5:30 each morning: "See," he said, "This happens every day. That's why I have to get here so early."[41]

As already discussed, informal collectors had long bridged the gap between individual households and municipal neighborhood-level dumpsters, charging a small monthly fee[42] and earning a living by selling harvested materials into the only existing recycling system (Chaturvedi and Gidwani 2010; Gidwani 2013; Gill 2010; Schindler, Demaria, and Pandit 2012). The PPP program had significant resources and was operating regularly, offering an alternative that did

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[40] This chapter has been adapted from: Kornberg, Dana. 2020. "Competing for Jurisdiction: Practical Legitimation and the Persistence of Informal Recycling in Urban India." *Social Forces*: 1–23.
[41] Field notes, 11/24/13.
[42] This was paid monthly and ranged between 30 and 100 rupees (US$.25 to US$1.50) While low, it is another expense in a context where middle-class homemakers are expected to manage budgets frugally.

not require an additional payment from residents and was seen as an important effort to modernize city services. Although these formal services did not include recycling, Delhi residents did not see the informal collectors as being part of a recycling system, and were therefore not motivated to use them for environmental reasons. Still, just two years into the twenty-year PPP contract, a high-ranking municipal officer admitted that the multi-million-dollar program would not be expanded, due in part to the continued presence of informal collectors.[43] In this chapter, I ask: why did around two-thirds of households continue to patronize the informal system?

Instead of defaulting to explanations of "state failure," which offer limited insight into state-society relations, I offer an analytic framework that holds state influence in relation to informal institutions, I find that informal workers in Delhi were able to persist by successfully gaining recognition from local residents by conforming to expectations based on wider relations of status. This allowed a dominated group to retain their territories by meeting expectations for appropriate actions, relationships, and social boundaries and cultivating the legitimacy to persist. The result is a hybridized system of garbage collection where the state had relatively limited jurisdiction, in which recycling has continued. In the following sections, I detail existing explanations for why informal institutions may persist in the face of state-backed challenges, bringing together literatures from political and urban sociology, postcolonial and urban studies, and institutional theory. I then introduce a framework for understanding informality as a matter of *informal jurisdiction* that is solidified through practices that confer *practical legitimation* before offering evidence from the case.

The Persistence of "Informality"

Concepts of informality are wide-ranging and have been developed to account for economic, political, and urban institutions. The term was first introduced in the 1970s to make legible a vast array of actually existing economic activities for development economists (Godfrey 2011; Hart 2006). The concept, which initially contained a problematic modernist teleology positing postcolonial contexts as atavisms, has been forcefully criticized (e.g. Elyachar 2003; Millar 2018; Roitman 2005). Meanwhile, ideas of state-society dualism have been challenged by

[43] Interview, 6/6/11.

accounts suggesting that "informal" spaces are in fact deeply entangled with, if not themselves produced by, state power (Roitman 2005; Roy 2005).

And yet, despite these vital criticisms, the concept of informality remains useful for indicating spaces where the state—and especially its laws and regulations—do not predominate. To dispense with the term would, I believe, impoverish our ability to analyze the extent and limits of state authority, even while the need to reformulate the concept is imperative. I propose an approach that proceeds relationally and institutionally, maintaining that while the boundaries and sinews of state power are diffuse and dynamic, they are nevertheless distinguishable from other sources of order. Here, I offer an analysis of the literature that takes a relational perspective to informality, emphasizing state and social sources for persistence over time.

State-Centered Explanations

Informal institutions have been explained as the product of state action. Widely used conceptions in political sociology, for example, have understood economic informality to be an exploitative practice whereby state institutions strategically use and withhold regulation in order to benefit dominant actors. In their classic formulation, Castells and Portes (1989) defined informal economies as "unregulated by the institutions of society, in a legal and social environment in which similar activities are regulated" (12). They attributed informal economic activity to the tendency of capitalist systems to promote reduced labor costs through diminished regulation—a trend that was increasingly prevalent throughout the 1970s and 80s. Some postcolonial scholars have similarly tended to foreground how the state promotes informality for the benefit of economically dominant actors. For example, Ananya Roy has productively theorized informality as the result of state-created exceptions, which make disadvantaged residents precarious and reinforce elite control. She writes, "informality must be understood not as the object of state regulation but rather as produced by the state itself" (Roy 2005:149; see also Chatterjee 2004). This perspective has provided an important framework for understanding decentralized forms of planning—from construction and zoning, to the provision of water and electricity—especially in cities of the global South (see also Roy 2009). Yet, while the perpetuation of state regulatory ambiguity is a key mechanism for the persistence of informality (e.g. Moatasim 2019a; Tucker and Devlin 2019), given the necessary conditions of benefits for

elites an a dominant and effective state, this is likely to be just one explanation amongst many.

Another state-centered source for the persistence of informal institutions is the creation of "blurred" boundaries (Gupta 1995), where informal and state actors collaborate to benefit from under-the-table transactions or clientelist relations (e.g. Anjaria 2011). By taking money or turning a blind eye, bureaucrats and politicians effectively supplement their incomes or earn the votes of key constituencies through practices that are frequently illicit (even when the institutions they maintain are not). Examples of this include bureaucrats limiting official supplies of water in order to benefit mafias (Ranganathan 2014), or intentionally refraining from enforcing regulations in order to secure favor and votes (Holland 2016). These practices are possible when there are mutually beneficial prospects for collaboration and a low risk or penalty for violating rules or norms.

Together, these explanations usefully attend to the influence of state authority, significantly improving on earlier dualistic frameworks that discounted state influence a priori. However, focusing primarily on the state has the inverse effect of removing substantive social content. Yet, these findings usefully demonstrate the relevance of state action and the tendency of informality to be sustained by dominant interests.

Social Sources of Preservation

Other researchers have identified non-state social sources for the persistence of informal institutions. Most prominently, studies of social movements have considered how informal actors secure claims and longevity through organized or ad hoc platforms. Such advocacy may occur through unions, cooperatives, NGOs, or representative political parties, as actors seek formal recognition (e.g. Agarwala 2013; Rosaldo 2016), pursue legal restitution (e.g. Cuvi 2016; Samson 2017), or engage in disaggregated forms of defiance (e.g. Bayat 2000; Moatasim 2019b; Scott 1985). Tactics vary and may include dispersed agitation, lobbying efforts, and sit-ins, while successes can include welfare benefits, formalization, continued tolerance, or the generation of solidarity amongst participants as they express common grievances. In his study of Mexico City street vendors, for example, John Cross (1998) argues that that vendors demonstrated political savvy in organizing to secure their work, finding that they took advantage of ties to the reigning party in order to gain support from local officials, for whom there were financial and political

benefits. These relations have proven durable, with vendors later continuing to operate despite recurring threats by employing practices of encroachment, organizing, and dodging authorities (Crossa 2009). Institutional persistence, then, can be secured either by a return to the nonenforcement of rules (cf. Holland 2016), as the state extends its influence (e.g. Assaad 1996; Loveman 2005), or as recognition is afforded through the provision of welfare benefits (Agarwala 2013).

Yet platforms for coordinating action may not only include those within the informal institution; they can also extend to the customers or clients who patronize them. For example, working with informal book and magazine vendors in Greenwich Village, Duneier (2000) elaborates how agreed-upon rules for claiming space determined how the sidewalk is allocated, producing a regular market. While vendors act as "eyes on the street," local residents offered food and donated materials for sale. Despite their marginal position, the vendor community was able to operate reliably for years. Similarly, Venkatesh (2009) argues that off-the-books work on Chicago's South Side was a central part of everyday life sustaining the community's basic needs. "Underground regulation" (Venkatesh 2009:382) allowed day cares, car repair shops, caterers, and hairstylists to remain in business, as local residents patronized them and street gangs regulated disputes. However, in Duneier's case, the fact that vendors' claims were not recognized far beyond their tables made them susceptible to eviction when city officials passed a new law and residents formed a neighborhood association that sought their removal. In both cases, though, outsiders labeled the informal enterprises as deviant, while service-users saw them as being completely normal or even necessary. From these studies, we learn that the persistence of informality can be secured through political and civic action, or via everyday strategies of legitimation.

Practical Legitimation

I offer an analytic framework that builds on these findings, arguing that the persistence of informal institutions can depend on support from and relations with dominant actors. Here, dominance should be understood not only as a matter of economic capital, but more comprehensively as a matter of status and legitimacy. This takes social sources of regulation into account and frames legitimacy as a relational process that centers power in its multiple forms.

Practical legitimation thus relies on practical rather than official or explicit claims (cf. Bourdieu 1991). It explains how informal institutions can persist despite lacking the official recognition of legal status. I invoke Abbott's (1988) concept of jurisdiction, extending it by including the territorial aspects of jurisdiction, since control over space is often crucial to ensuring persistence (see also Gidwani and Chaturvedi 2011; Kudva 2009). The *informal jurisdiction* that is secured entails control over a profession, service, or territory. This approach builds on existing studies that investigate how relationships based on status, gender, and community cohere to create regulatory structures (e.g. Agarwala 2009; Harriss-White 2009; Hart 1992; Meagher 2010), helping to account for why some informal institutions maintain the legitimacy to persist over time (cf. Suchman 1995:574-575).

Prevailing conceptions of institutional legitimacy have tended to appeal to cognitive acceptance or conformity with wider social expectations (e.g. Suchman 1995:574), prioritizing legal (e.g. regulatory policies) and otherwise formal (e.g. media) sources that command or encourage compliance (Deephouse and Suchman 2008; Johnson, Dowd, and Ridgeway 2006). Yet, sources of legitimacy might also be generated via everyday habits and practices—the enforceable rules guiding action (Bourdieu 2005)—revealing institutions that obtain widespread social acceptance, even when they lack legal recognition or official forms of representation such as a name, brand, or logo. To relate these to Richard Scott's (1995) typology of legitimacy, practical legitimation bridges cognitive definitions, which hold common understandings of a given situation, with regulative definitions that evaluate an organization's compliance with laws and regulations.

Practical legitimation generates a relational regulatory structure, as actors set out and meet expectations, exceeding normative definitions of legitimacy (Scott 1995) by recognizing norms as outcomes of—rather than explanations for—legitimation struggles. I therefore find Robin Stryker's definition to be particularly helpful because it integrates power with practice, characterizing legitimacy as the "collective *recognition* of, and orientation to, institutionalized and binding rules of the game" (1994:858; my emphasis). Acknowledging the "rules of the game" usefully emphasizes the role of participants and audiences who engage with institutions and make assessments of them (Ruef and Scott 1998:880).

The extent to which institutional actors succeed in securing participants and jurisdiction thus depends on *recognition*, or the acceptance of an institution through practical action. Recognition describes the process through which legitimation is conferred in practice, as high-status actors discern and define what is appropriate (Bourdieu 1991:113). The matter of recognition is also useful because it raises the question of whether state influence succeeds vis-à-vis other sources of authority; to the extent that actors recognize another source of institutional legitimacy, processes of state formation can be subverted. While Loveman (2005) considers how states might seek to extend their authority by providing new services, I instead raise the inverse question of how limits to state authority are produced.

I use the term practical legitimation to describe the process through which groups, and especially informally organized groups, obtain recognition and the acceptance to persist over time, as they orient themselves to the rules of the game. Practical legitimation, then, is a process whereby an institution or group is recognized by actors endowed with capital and status (Emirbayer and Johnson 2008; Johnson, Ridgeway, and Dowd 2006:69–71). These sources of legitimate institutional authority may then cohere to pose challenges to formal institutional rules (e.g. Bayat 2000; Scott 1985).

In this case, status is cultivated through a relation of servility (Ray and Qayum 2009) – of primarily upper-caste, middle-class Hindu households wielding authority over, and depending on, the labor of Dalit (Balmiki) and Muslim migrant garbage collectors. What emerges is a relationship that, although different from the domestic servant relationship that Ray and Qayum examine, similarly exhibits traits of what they call a "new feudal contract": a relation that draws on ideals of care and responsibility, which have long regulated relations with live-in (or "retained"), grafting some of elements onto the now more common part-time domestic worker (2009:103–4). What emerges, then, is a relational form that is being transformed for the contemporary urban context, but which draws on longer-standing ideals of upper-class households, which derive status from their ability to oversee and provide for large household staffs. If, as Ray and Qayum argue, "to be middle class is to distance oneself from work on the boundaries of purity and pollution" (2009:18), then Delhi's garbage collectors—along with legions of other informally employed service workers—preserve their jobs, and effectively their jurisdiction, by performing these very tasks.

The Neighborhood Context

In this chapter, I draw primarily from data collected during participant observation with Delhi's informal garbage collection over a concentrated period of around six months. I worked alone to conduct participant observation in neighborhoods and company disposal sites. When I joined informal collectors on their garbage collection routes, I would wake up at five or six o'clock in the morning and meet them on the street (to take advantage of a ride in the soon-to-be-filled back of their tricycle cart) or, in the case of repeat visits, I would meet them in the neighborhood where they worked. Throughout the morning, and sometimes into the early afternoon (depending on the size of the beat), we would walk together through the neighborhood – pushing the cart along, collecting buckets of trash, and doing a first sort between garbage and recyclables in the cart. My role was determined by the collector: typically I assisted in collecting and sorting the garbage, but if a collector insisted that I not touch the garbage myself, I honored his request.

The neighborhood where I went out on the majority of the routes was an area of Rohini that consisted of around 150 households that went up to five stories high and—according to the size and condition of the houses—included a range of the city's middle classes. The area is mixed use, with businesses like small shops, beauty salons, doctor's offices, and eateries on the ground floor along the roads (see Figure 13), with smaller lanes revealing courtyards for parking and exclusively residential use (see Figure 14). As with most middle-class Indian neighborhoods, this area is overwhelmingly Hindu and upper-caste, with a sizable Jain community. Caste is most easily ascertained from last name, and I noted down the following in the area based on plates outside of doors, names written on Resident Welfare Association (RWA) placards, and businesses: Tyagi, Dahiyal, Mann, Aggarwal, Yadav, Saluja, Sharma, Raghav, Baberwal, Verma, Chadha, Kalra, Oberoi, Sethi, Garg, Lal, Goel, Arora, Rathore, Das, Kumar, Gupta. While some of these are more ambiguous (e.g. Kumar), most are recognizably north Indian business and Brahmin community names. The RWA board offers an example below (Figure 15), while a door—this one lacking a nameplate, which many doors have—displays multiple signs of Hindu identity, including mango leaves above the door, swastikas and coconuts carved into the door itself, and (harder to see), marks for good luck in red sindur powder near the doorbell (Figure 16).

Figure 13 A view of the neighborhood from the main road

Figure 14 A view of the neighborhood from an inner lane

Figure 15 An RWA board depicts last names that reveal caste

Figure 16 The front door of a local house demonstrates the religious identity of its residents

Maintaining Informal Jurisdiction through Practical Legitimation

Informal collectors were taken by surprise when trucks appeared in 2009. A 31-year-old Bengali collector who had been working for ten years described: "They came out of nowhere, all of a sudden. It's up to [because of] the government (*sarkar*). The government does what it wants."[44] Despite the disruption and threat to their livelihoods, government plans did not take this into account, and there were no formal programs addressing their plight. Meanwhile, recent memories of slum demolitions—such as the eviction of an estimated 150,000 people living in Yamuna Pushta—led many advocates to fear a similar fate for the city's informal garbage workers (Bhan 2009; Chintan 2007; Schindler et al. 2012). Although company officials claimed to be hiring existing informal collectors, I did not find any evidence of this, and a long-time advocate for recyclers agreed that this was pure "*baqwaas*" or nonsense, and companies were "inventing wastepickers" while actually hiring laborers through contractors.[45]

With the trucks made available, I estimate that around one-third of local residents opted to stop paying the monthly fee to informal collectors and use the new service (based on conversations and observations during field work). This was geographically uneven, varying from a few houses in some neighborhoods to around half in others. In Meenu's area, around one-third of households turned their garbage over to the trucks (according to my observations and conversations with him, his bosses, and local residents)—leaving two-thirds to him. Most residents, then, have continued to pay the additional charge even though informal collectors lack formal credentials and the taxation powers of the state.

Although there was some evidence of organized resistance against the new program and blurred boundaries that resulted from buying garbage from the PPP trucks, these accounted for only a small part of the overall persistence of informal recycling. Instead, it was through everyday practices interactions with residents that confirmed to expected practice that informal collectors were able to successfully preserve their jurisdiction. By demonstrating flexibility and subservience (Ray and Qayum 2009), collectors affirmed residents' status as patron-like bosses and, in turn,

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[44] Interview, 7/8/13.

[45] Interview, 5/19/11. Although some were hired as *dhalao* supervisors, many were not paid for their work and eventually left.

gained recognition as the legitimate providers of the service, as the following three sections describe.

Providing Appropriate Services

Informal collectors provided services that residents had come to see as "better," including coming right to the door, arriving on time each day, cleaning parking areas and stairs, and being available to do odd jobs. Unlike truck attendants, who remained at the street level and received the bins and bags that residents brought down, informal collectors climbed flights of stairs, rang the doorbell, and picked up garbage at the doorstep (see Figure 17).

Figure 17 A collector and his family sorting through waste collected from the houses pictured

When I asked Mahmud why it was that only around ten out of the 220 households he collected from gave their garbage to the trucks, he responded plainly: "I walk up the stairs and

ring the bell of every house."[46] Delhi's middle-class neighborhoods are comprised largely of low-rise residential buildings, typically between two and five stories high. Residents had grown accustomed to pickup service, which relieves them of needing to take out the garbage themselves. A local resident and scrap buyer knew exactly how the broader system worked because she owned an informal recycling business. Unlike most residents, she was Muslim. She was also intimately familiar with the informal recyclers, since many of them worked for her. This interested positionality informed her explanation for why the informal recyclers were still working:

> Before people were saying they'd give it [their waste] to the trucks, but now they're reluctant to throw it in the trucks because it's easier for them [to have it picked up], you know. They [informal collectors] take the garbage right from the house. They sweep the stairs; they do any work that needs to be done. It's easy [*araam*]. And the truck drivers don't do this. When they ring the bell, you have to go downstairs to give them the trash. Even I'm annoyed [with this]. Even I don't like it. Wake up in the morning, give the trash, and if the garbage man didn't come, then it's like why didn't he come, for what reason? He should come.[47]

Even though middle-class residents were widely sympathetic to the idea of using the trucks, their habits tended to weigh in the opposite direction—towards a preference for the forms of service to which they were habituated, described here simply as a matter of "ease," which indicates a matter of convenience, but also familiarity.

Residents and collectors also noted that informal collectors also came reliably at the same time each day, whereas the trucks might deviate from their designated route, speed too quickly down the street, or took days off. Rizaul, an informal collector who had promoted himself from a lower-middle-class neighborhood to a wealthier one that afforded more revenue, explained: "Those truck drivers don't come on time. But we have a schedule. I get there early, work quickly, and then I come home."[48] Collectors often arrived during the morning or early afternoon, providing an opportunity for face-to-face contact with residents. Where they came before dawn, residents knew to leave their bins out each night, forming a routine that became a household

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[46] Interview, 5/30/13.
[47] Interview, 7/13/14.
[48] Interview, 5/17/13.

daily rhythm. In both cases, if the collector was sick or traveling, they were responsible for sending someone in their place, ensuring that the daily collection of household waste remained uninterrupted. Unlike the trucks, which sometimes changed their routes, informal collectors—perhaps counterintuitively—tended to arrive daily and on time.

In addition to climbing up stairs to collect residents' garbage, informal collectors were often responsible for cleaning those stairs, which accumulated daily with Delhi's copious dust. Collectors were also tasked with sweeping courtyard parking areas in some neighborhoods because the municipality only cleaned the main roads and lanes. I watched a twenty-eight-year-old Bengali collector with amazement as he swept out five stories of stairs in nearly fifty buildings. When I initially interviewed him, I had not understood why Abdul worked so many more hours than others, who typically put in around eight hours each day. As he described it at the time, "I leave here at five o'clock in the morning and get back at five o'clock in the evening. I work for twelve hours."[49] However, it quickly became clear what took so long, when I watched him descend slowly down tens of staircases, hunched over below the long Indian-style grass broom in his hand. While many collectors swept stairs, the neighborhood he worked in expected this ubiquitously and daily.

Finally, informal collectors were also expected to perform odd jobs. Their consistent presence, relative familiarity, and marked social inferiority as laborers (*mazdoor* in Hindi) made them available, for example, when weddings or other events were held in neighborhood streets. As one collector described:

> If there's a wedding, or a birthday, if you have a function like that [in a tent on the street], then there will be lots of garbage and scrap (*kooda-kabada*). The truck drivers won't come to clean it up. So, whatever time you call the informal collector (*jamadar*)—they'll come right away and clean up. They still won't ask for more money; they'll just ask for the monthly 50 rupees [that you already pay]. It could be that you decide to give 50 or 100 rupees, with gratitude, you'll say take this,

[49] Interview, 6/15/13.

have a tip (*chai-paani*). You can give like that. But the informal contractor takes care of it (*kaam*).[50]

Residents benefitted from the collectors' ability to work in the afternoons and evenings, which made them available for tasks like helping people move, or doing odd cleaning jobs. Through these actions, informal collectors offered services that residents tended to see as "better," earning them recognition as legitimate.

Forging Appropriate Relationships

Relations between collectors and residents were embedded in local systems of status and longer-standing class- and caste-derived dependencies. The significance of these roles was especially apparent in how residents and informal collectors referred to one another. Residents I spoke with described a relationship of familiarity with informal collectors, referring to them as "ours" (*apna/humara)* and belonging to the neighborhood. For example, one resident referred to the informal system as the "normal" one, while another remarked that "we didn't switch, MCD switched."[51] These residents thought that it was the *informal* system that had a rightful place in their neighborhood, while the government service had more to prove. Informal collectors, too, were familiar with individual households, leaving me impressed when conversations over payment of the monthly fee tended to rely on personal details such as the family who has the new baby on the corner—identifying features that were used instead of addresses.

Appropriate relationships were forged as collectors came to understand which houses to avoid because they had started giving their trash to the trucks, at which doors to wait outside for garbage to be handed over, and which homes might be entered after sliding bare feet out of sandals. Unlike the government service, informal collectors were able, and indeed expected, to conform to household expectations of what their labor would entail. This became especially clear when I joined Naseem as he served over 200 households in identical-looking concrete apartment buildings:

[50] Interview, 7/9/13.
[51] Field notes, 7/7/14.

> As we climb up the four stories of each building, he knows exactly which houses to ring the bell for and which to ignore because they will give their trash to the truck. He also knows at which doors to wait for the garbage, which ones to walk into without knocking, and which to wait for someone to answer and then walk into. At each door, he simply rings the bell or taps the metal latch and says "*kooda,*" or garbage.[52]

Naseem's familiarity didn't only include knowing how to collect the garbage, but also that someone's son had gone to the US and another's husband had recently passed away—details that he had learned from chatting with residents during his rounds.

Beyond these patterns of knowing and naming, the fact that several of the residents reference collectors possessively as "our own" or "ours"[53] suggests a perceived relation between a plural possessor, the family, and a singular possessed, the collector, indicating ties that are both intimate and dependent.[54] Such workers are not only employees or service-providers, but vital actors that help to ensure that the household's reproductive activities are smooth and reliable. These practices evidence a legitimate informal institution on which residents come to rely.

In order to provide a service widely seen as better, collectors coordinated with residents in order to accomplish household tasks, and in turn, residents recognized collectors as legitimate service providers. The result was that residents could manage their garbage through another person[55] so that they didn't have to touch it, or be seen touching it, in public. For example, when I was out with Nusrat, he coolly told me at one point that he didn't go up the stairs, which I initially found puzzling because it seemed like this was his main advantage over the trucks. The next thing I knew, however, a woman was sending a blue plastic bucket down from her fourth-floor balcony. All I could see from ground level were her arms guiding the string, and her face, lightly wrinkled, watching it. The bin dropped slowly, swinging slightly in the hot wind. Nuhu

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[52] Field notes, 11/22/13.
[53] Field notes, 7/7/14.
[54] Despite severe power imbalances, the collectors were not indentured to residents. They did tend to be indebted to buyers who purchased their recyclables, but it was frequently paid off within a few years.
[55] The depth of this relation is well illustrated by the Hindi-Urdu verb *karvaana*, which denotes doing something via another who is made instrumental to the acting (but dependent) subject.

caught it, dumped the trash into the cart and looked to the sky for the next one. Relationships, I learned, allowed for appropriate coordination, whether or not that included a collector walking up the stairs.

Residents' status as patrons also meant that some offered collectors water, tea, and snacks. One day I observed:

> [The jamadar] asks an aunty in the corner to make tea, and Meenu comments to her when she comes down with it in a steel can, 'I only drink tea from you. Sometimes they order it from the aunty down the road, but her chai is terrible.' We wait for [her] to return with plastic cups from the woman who keeps those so that we have vessels to drink our tea, and the aunty returns with a few slices of wheat bread in a bag. I thank her but show her my hands: 'They're dirty.' She offers to bring water for me to wash with, so I follow her into the courtyard, she sets down the tea, and pours water over my hands as I vigorously wipe them together.[56]

The provision of such gifts further helps to explain why residents would refer to collectors as "ours" or "our own" possessively: it indicates subordination, but also intimately dependent ties. Informal collectors thus become a necessary part of the middle-class urban household's reproduction. Figure 6 depicts a collector accessing water from a household, which had unusually provided the service in a demonstration of an older form of patronage for the neighborhood's workers.

Informal collectors are just one of many types of workers who are a familiar and integral part of the daily household schedule in Delhi's middle-class neighborhoods. In a city where multi-generational households continue to be common, and at least one person typically stays home during the day to prepare food, clean, and care for children and elders, the arrival of the garbage collector at the front door is a routine that marks the day. When I was out on collection routes, the person opening the door to hand over the garbage was usually a woman—a mother, daughter, aunt, or grandma—often dressed in a nightgown and in the process of preparing food or watching young children. On the one hand, the informal service was indeed more convenient,

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[56] Field notes, 12/14/13.

as it allowed them to stay inside the house. However, it is also true that norms of domesticity are marked by gender, class, and caste ideals that posit good household management to include managing tasks such as taking out the garbage, rather than doing them oneself. The informal service affords this by providing a daily reliable service that simultaneously relinquishes upper-caste women from having to handle garbage themselves. The informal collector conformed to these existing domestic services while the municipal trucks usually tried to impose a new, ill-fitting configuration.

Figure 18 A collector taking water from a local household with a publicly facing tap

Maintaining Appropriate Social Boundaries

In addition to the formation of relationships based on service provision, collectors also enabled households to meet cultural ideals of ritual and material cleanliness, which derive from caste-based social boundaries. Meeting residents' strict expectations for the regular, if not immediate, removal of waste from their homes and cleaning of surfaces meets expectations for particular ideas of purity, while also producing collectors' relatively diminutive status (Chakrabarty 1991; Douglas 1966). Collectors' stigmatized labor relieved residents of the

responsibility to have to deal with their waste either physically or psychologically—a generated ignorance that was particularly evident in the way that residents handed over their garbage. All mixed together, most of it contained vegetable peels, the remnants of tea leaves, plastics, and papers—but there would also be soiled sanitary pads, dirty diapers, used condoms, and pieces of broken glass. One day, Meenu cut his hand on some glass and was complaining about how residents don't even think about this when they hand over their garbage. They should, he said, separate out the broken glass. When I asked him why he doesn't ask residents to separate it, he shook his head while continuing to look down, telling me they wouldn't listen. As if to emphasize this point, a man tossed his mixed trash into the part of the cart designated for recyclables while we were talking, without looking to see where it landed.[57]

Meeting residents' strict expectations for the regular, if not immediate, removal of waste from their homes and cleaning of surfaces meets expectations for ideas of purity while also reproducing collectors' relatively diminutive status (cf. Chakrabarty 1991). Boundaries separating the inside of the home from the world outside, which is commonly seen as containing threats from both contaminating waste and lower-caste or caste-ambiguous people, were commonly marked to ensure that middle-class, primarily upper-caste households would not be polluted. Residents did not explain it in this way, but my fieldwork made the logic apparent. For example, tea was served to collectors in disposable cups or steel cups reserved for them that family members would not use themselves. Similarly, collectors knew not to cross the boundary into homes unless they were explicitly invited. One described how, instead of going into houses, he knew to stand at the door and receive the garbage from there, making sure to only take the bucket from the ground instead of directly from the resident. Maintaining this boundary draws on longstanding caste practices of purity and pollution that designate which groups can touch which things where, and who can hand what directly to whom—and indeed, who is *compelled* to do so in order to earn a living.

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[57] Field notes, 11/24/13.
[26] Interview, 1/24/14.

Usually these practices of distinction were unvoiced, implicitly informing how actors related to one another across caste. But they were occasionally made explicit, such as when a woman emerged from her home and dropped a small clear plastic bag filled with garbage on the ground just beside a collector's tricycle cart. She looked directly at the collector and instructed him, "Pick this up," before quickly turning away, walking back inside, and shutting the door without looking back. Another collector summed up his experience with cross-caste interactions as follows:

> They order you around. If there's dog shit lying over there, they'll tell you to pick it up. If you say no, they get offended. In order to do this work, we have to do all kinds of things. And if you don't listen to someone they'll cut you off. They'll get rid of you; they'll say don't come back to work. That's how it is.[58]

Being available as workers, then, was not only about the inconvenience of walking down stairs; spatial separation was linked to deeper questions of appropriate roles and the maintenance of social boundaries.

In summary, by providing appropriate services, forging appropriate relationships, and ultimately maintaining appropriate boundaries, Delhi's informal collectors gained recognition from middle-class residents. Residents' higher status enabled them to define the bases of legitimacy. Collectors acquiesced through practical, everyday actions, and thereby made themselves a necessary institution.

Conclusion

I have shown that informal institutions can persist, despite challenges from state-authorized organizations, when informal institutional actors—in this case, Delhi's informal recyclers—maintain their jurisdiction through practical legitimation. That informal actors may fend off dispossession in this way suggests that informal institutions can be independently efficacious; indeed, informal collectors have managed, for now, to continue working in Delhi despite significant challenges and almost no political voice. I argue that their status-based relations with residents help to account for this.

Residents opted to patronize the informal collection system because collectors provided the services they had come to expect: coming right to the door, performing odd jobs for uncertain compensation, and respecting pollution boundaries. When collectors performed these tasks, they affirmed residents' higher status and allowed them to maintain the social boundaries they understood as appropriate. Residents patronize informal collectors not only because they offer additional services, but because they affirm residents' status as patrons in a position of dominance over collectors. This contrasts markedly from the formal service, which requires residents to become ordinary citizens under the state, instead of patrons of the extended household (see Figure 19).

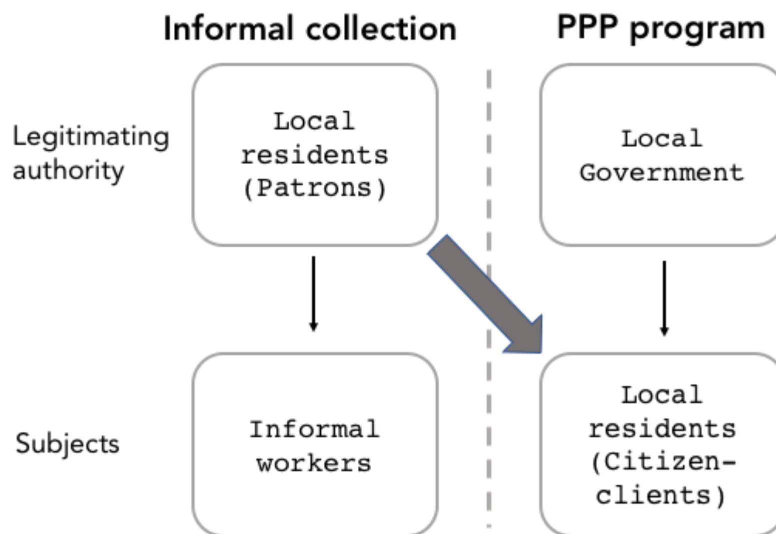

Figure 19 Inversion of residents' status under PPP program

While this process of claiming and maintaining informal jurisdiction is central, it is not the only mechanism at work here; economic exploitation is also evident. Informal collectors do provide a wider array of services than truck collectors, and their availability to perform odd jobs benefits residents. Yet, rather than supporting collectors' continued enterprise, which would ensure the persistence of a flexible and inexpensive workforce for local residents, the state instead attempted to displace them. This contradicts theories that assume synergies between the state and dominant classes, as they were here working against one another. Even while many residents expressed support for the *idea* of the government collection system, in practice only a minority actually used it. Moreover, had there been more robust platforms for organizing—a situation that

is notoriously difficult for informal workers—incorporation or formalization may have resulted, as it has in multiple Latin American countries (see Rosaldo 2019). And while some informal workers have blurred state boundaries as they began to buy garbage from the trucks, this created a new market rather than preserving existing jurisdiction per se.

Instead, the primary practice that preserved informal garbage collectors' informal jurisdiction was *practical legitimation*: collectors gaining recognition from residents as the rightful providers of the service. Practical legitimation is useful for studying relations between formal and informal institutions because the process is observable, allowing researchers to study everyday practices without assuming the form or function of the state a priori. Instead, what emerges is a context where authority easily traverses state and nonstate institutions, revealing hybridized and plural contexts that include multiple sources of authority (cf. Falk Moore 1978; Gluckman 1965; Lund 2006; Merry 1988). Identifying these institutions and tracing their contours reveals pluralized sources of regulation and jurisdiction, suggesting that legitimacy may not only be conferred through centralized state authority or overarching norms, but also through actors' everyday practices. In cases where state entities mimic or coopt existing social institutions, rather than introducing competing entities, they are more likely incorporate them (Loveman 2005). In fact, this was the process through which Delhi's first municipal garbage system was created in the late nineteenth century (Prashad 2000). As a result, state instititons are themselves imprinted with existing relational structures.

Explanations that equate informality with exploitation usefully emphasize economic and class relations, but these can also obscure other relations based on a more comprehensive idea of status that includes caste, race, or gender. Status relations, then, are an important source of order and regulation in these spaces, and they can continue to shape informal institutions even after state incursions. In this case, status relations are based largely on caste roles and patterns of labor migration, with new migrants carrying out work that had been dominated by an explicitly low-caste, or Dalit, community before their arrival. Meeting the expectations of middle-class, predominantly upper-caste (i.e. high-status) residents meant that lower-status collectors not only provided a source of pliable labor available to do odd jobs for little pay, but also upheld wider expectations that garbage be collected regularly and discreetly. Such expectations are not the path-dependent effects of an unchanging "caste system," but rather a particular cultural practice

that draws on the historical caste-based labor of waste handling. In contemporary Delhi, this now serves as a marker of status in much the same way that access to sanitized spaces and luxury goods indicate relative prestige. One could imagine another context where such personalized services are seen differently, as a burdensome interaction that infringes on individual privacy and forces residents to confront stark and uncomfortable inequalities. As long as middle-class residents are able to maintain a relatively high status—a dominance that is broader than economic exploitation or even social class—and the state does not put significantly more force behind its efforts of dispossession, we should expect the informal recycling system in Delhi, and systems like it, to endure.

CHAPTER IV

Compensating for Stigma[59]

Darting between cars speeding through the outermost lane, Rizaul used his long limbs and tall, healthy frame to hoist the *bora* full of scrap (*maal*) onto the raised median. It was late morning, and as in any Delhi colony, small clusters of domestic workers—cooks, cleaners, *press wale*, *chaukidars*, etc.—could be seen shuffling around or between houses in this area near Pitampura. We too were finishing the morning's garbage collection route when another worker dressed in a black-embroidered *salwar kameez* stepped up onto the median to talk with Rizaul. He went to throw the garbage in the dumpster, leaving me to watch the day's *maal*, at which point she turned to me quickly, explaining that she was ashamed that he was collecting garbage for a living. She was pointed: "I always tell this guy that he is a Muslim, and Muslims don't do this work." When he eventually came back, she looked directly at him, scrunching up her face with disgust and disapproval: "*Aap bhangi hai kya? Yeh bhangi ka kaam hai* (What are you, a *bhangi*? This is *bhangi's* work)."[60]

Judgment, disdain, and discrimination remain sharp for those who earn a living by handling others' waste in urban India. Just as upper-caste groups justify their continued dominance through new mechanisms such as the idea of "merit" (Subramanian 2015), so too are cultural caste-based practices of subjugation and untouchability promoted to secure their positions (Sarukkai 2009). In this chapter, I examine the phenomenon whereby Delhi's informal economy for household garbage collection has been reorganized—as Balmikis have employed newer Muslim migrants from West Bengal for collection and sorting work, leaving them to deal only with monthly cash payments instead of garbage, or *kooda*. In turn, Bengali Muslims find

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[59] This chapter has been adapted from: Kornberg, Dana. 2019. "From Balmikis to Bengalis: The 'Casteification' of Muslims in Delhi's Informal Garbage Economy." *Economic and Political Weekly* 54(47): 48–54.
[60] Field notes, 12/3/13.

themselves subjected to stigmatizing practices of untouchability, as residents respond to their presence by covering their noses and mouths, telling them to stay far away, and ordering them to move their carts. As agricultural laborers or small merchants in their villages, such experiences are new for them (leading to the remark above), and they must be accepted in order to continue working. I analyze this transformation in order to show the durability of systems of caste distinction, while also indicating how the processes through which caste distinctions endure—as well as the groups subjected to their power—may change. Why were new migrants like Rizaul willing to take on dirty work in the city, and how did they justify it?

I analyze the reorganization of informal household garbage collection work in Delhi, as migrants from eastern states like West Bengal have begun doing manual waste work, leaving their Balmiki bosses to deal only with monthly cash payments. Drawing on twenty months of fieldwork, I first discuss this reorganization, noting especially the effect on Balmiki *jamadars*. I then focus on Bengali Muslims, who newly contend with practices of untouchability in their neighborhoods of work. I argue that these newer migrants come to justify the shame they experience by focusing on the equivalence of scrap with money, which has redemptive potential. I find that informal garbage workers seek to distance themselves from garbage materials and become closer to valuable scrap and, even more, the currency it is exchanged for, because it offers the alluring possibility of increased social status. This reveals a dynamic process through which caste differences are being re-made—what I call casteification—in relation to economic life.

Stigmatization and its Justification

Building on the recognized, and frequently violent, enforcement of untouchability practices perpetuated against Dalits, I argue that similar forms of domination can be extended through *casteification*,[61] a term that indicates the mundane practices through which casted actors, groups, and structures are produced. To discuss "caste" in this way is not to delineate caste as a rigid system of hierarchy in the classic sense, or to invoke the language of Max Weber, but rather to recognize that *caste* is the English term most ubiquitously used to describe structures of

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[61] Ifeka (1989) also uses this term to describe practices of caste differentiation practices by Christian women in Goa.

cultural, hereditary, and ascriptive traits, described (when it is spoken of) by the terms *jati, qaum,* and *biradri* in north India. This also acknowledges how social practices and positions associated with caste—from lineage/surname to dietary practices and access to wealth—afford some groups high status while others are subordinated, exploited, and even humiliated. To see caste in this way is to recognize how this system for producing social distinctions "continues to be significant as a source of cultural capital that enters into the reproduction of class differences" (Harriss 2012:2). Here, in particular, casteification functions in an urban context, where "to be middle class is to distance oneself from work on the boundaries of purity and pollution" (Ray and Qayum 2009:18). Casteification, then, recognizes how caste practices and positions change over time—even if those changes are rarely radical.

Especially relevant to this case are theories of untouchability that acknowledge and theorize such practices at the bottom of the hierarchy in a relational fashion. In particular, I find useful Sarukkai's (2009) forceful argument that "the real site of untouchability is the person who refuses to touch the untouchable" (43). This formulation not only recognizes the relationality of caste (i.e. there is only untouchability in relation to *savarna*-ness), but also explicitly acknowledges the role of upper-caste actors in determining who deserves to be touched. Formulated as a social practice, the act of denying particular groups the value and care of experiencing touch becomes a way of confirming higher status. While some waste workers "come to the city to escape the inherited burden of caste," only to find themselves again confronting its cruelty (Gidwani and Kumar 2019:156), the experience of new groups experiencing old forms of stigma and discrimination usefully extends how we conceptualize, and thus also recognize, the workings of caste and casteism in the urban context. Just as Punjabi laborers became Balmikis in Delhi during the late nineteenth century (Prashad 2000), so too do contemporary urban migrants take on new social positions in the city. This phenomenon is particularly evident when it comes to working with wet household garbage—an unambiguously stigmatizing material that has long been a marker of caste and status.

To recognize the extension of stigma of untouchability to new groups, however, also raises the question of why such groups might accept this penalty. What is novel here is not that people are subjected to practices of untouchability that justify and enable their exploitation—that is of course a much longer-standing phenomenon—but rather that the social penalties of

untouchability actually come to be seen as a *cost* to be paid in order to realize economic benefits. Though narrow, Muslim garbage workers in Delhi nevertheless tend to have options ranging from agricultural labor in their villages, to rickshaw pulling or construction work in the city. I argue that Bengali garbage workers are willing to handle garbage (*kooda*) in pursuit of valuable recyclable scrap (*maal* or *kabad*), because scrap brings potential for money, capital, and even, very potentially, improved status. For Balmikis, this has meant reducing, or in many cases eliminating, their direct contact with garbage, while for Bengalis and other newer rural to urban migrants, contact with wet waste is seen as compulsion (*majboori*) but also a kind of expense—a sacrifice of cultural capital in the short term in order to attempt to gain the redemptive potential of economic capital over time (cf. Bourdieu 1977).

This chapter thus responds to these questions: What compels Bengali[62] farm laborers to come to the city to collect garbage and sell scrap? Even more, how do they experience and explain their move from farm work (*khetibari*) to scrap work (*kabadi*)? How do they make sense of their status vis-à-vis their Balmiki employers? And how do they contend with taking on a new source of stigma from dirty work that includes handling physically polluted materials?

I argue that informal garbage workers seek to distance themselves from garbage materials and become closer to valuable scrap and, even more, the currency it is exchanged for, because it offers the alluring possibility of increased social status. For Balmikis, this has meant reducing—or in many cases, eliminating—their direct contact with garbage, while for Bengalis and other newer rural to urban migrants, contact with wet garbage is seen as "compulsion" (*majboori*) but perhaps also an expense—a kind of *cultural debt*—that allows for the possibility of accruing economic capital in order to attempt to improve their social status (Bourdieu 2011). There is a related material circulation that facilitates this: as scrap is distinguished from garbage, it becomes a commodity that is exchanged for cash. It is the cash, the physicality of money, that workers seek. These practices of exchange, I argue, mediate status in novel ways.

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[62] I refer to "Balmikis" and "Bengalis" as two distinct ethnic groups who are active in garbage collection work. They are self-identified groups, but they also denote separate groups that can be identified based on the settlements where they live and the language they speak. While most Balmikis have been in Delhi for at least a couple of generations, Bengali workers tend to be more recent first or second-generation migrants are were almost exclusively Muslims who were landless and worked as agricultural laborers in their villages of origin.

Balmikis: Cultivating Distance from Waste

The last couple of decades has not only seen the persistence of informal systems of household waste collection and recycling in Delhi, but even their expansion. As markets for recycling rising amounts of plastics and papers deepened in the 1990s and 2000s, the scrap available in garbage for recovery and recycling swelled. Meanwhile, labour migrants arriving from West Bengal were eager to find work in Delhi, and many joined the city's quickly segmenting waste workforce. They were facilitated by people like the scrap buyer I interviewed in northwest Delhi who lived in a *jhuggi* alongside Balmiki families in the 1990s. Spreading the word to the local Bengali community about the availability of work, village networks were eventually activated. She explained how their arrival in Delhi from West Bengal changed the existing system for informal household garbage collection:

> At that time, I wouldn't have thought that people would come from West Bengal to do this work or that they would go through such dirty garbage (laughing). The Balmikis would do their own collection and just sell what they got. It was all clean, and there was a lot of it. Now they've become contractors (*thekadars*) and the Bengalis do the work, going through the garbage for things that wouldn't have been sold before. It's completely changed.[63]

Two important transitions are noted here: the arrival of Bengalis from her home district and the expansion of scrap material recovered for recycling, which expanded beyond relatively "clean" and valuable things to include "dirty" less-valuable materials. Before their arrival, Balmiki workers reclaimed only more expensive scrap items like unsoiled plastic bottles and metals, which they would sell for cash. Newer Bengali collectors, in contrast, extract even small pieces of newspaper, handfuls of long hair, and plastic bags dripping with the milky-sweet remnants of yesterday's *chai*. Bengali migrants have thus added both material and social complexity to the robust yet informal system for garbage collection and recycling.

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[63] Field notes, 12/9/13.

In his detailed historical study, Vijay Prashad (2000) documents how contemporary Balmikis formed out of two groups, or castes, who worked primarily as agricultural laborers in the Punjab in the 1800s: the Chuhras and Mehtars. Finding work as street sweepers and refuse collectors (mainly euphemized "nightsoil" at that time), these groups coalesced—their work eventually becoming formalized into municipal jobs in the 1880s. As the community became increasingly tied to the municipality, and the municipality dependent on the Balmiki community's labor, sanitation work became their primary source of livelihood. In addition to formal municipal jobs, then, others have relied on long-term claims to collect garbage in particular areas. Both Balmiki contractors and Bengali collectors understood this as a kind of right—or as one Balmiki man described it, their *khandani kaam* (hereditary work). He described how his parents and other members of the community claimed particular beats when new neighborhoods were built. Another Balmiki contractor elaborated: "Who knows how many thousands of people do this work. Someone does this, another does that. Some people have 50 houses, others have 100, 150, or 200. It's like that." This gives them rights to collect garbage from all of the households within that area.

These "*jamadars*,"[64] have since outsourced the manual labor to Bengalis, creating two jobs where previously there had been only one—a response to the deepening market for recyclables. Their entry also meant a significant change for Balmiki workers, who had often collected garbage (and human waste, especially in the past) for multiple generations. A primary source of livelihood that had been secured entirely through informal networks, Balmikis described their rights to conduct sanitation work in particular areas as *khandani* or *purkhon ka kaam* (familial or hereditary work). While many in the community hold formal municipal jobs (often men), themselves passed between generations, others (often women within the same family) rely on long-term, yet entirely informal, claims to collect garbage from particular areas of the city. Despite not having formal contracts or other legal title, both Balmiki contractors and Bengali collectors understood

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[64] According to Vijay Prashad (2000), *jamadar* was the title used by people in charge of the sweepers when the Delhi Municipal Corporation began its sanitation programs at the turn of the 20th century. In more recent times, the title has been used to refer to those tasked with domestic dirty work (Ray and Qayum 2009).

these claims as a right, as a Bengali collector affirmed by referencing the rural context with which he was most familiar:

> It's just like how we'll get our father's or grandfather's fields down the road, and then after us our children will get them, right? That's exactly how their jobs are. Before it was their father and grandfather (*baap-dada)*, they did this work, but when their grandfather passed away, their dad got it, and when their father passed away then the son got it. I mean, they have exactly this kind of "chain system."[65]

Balmiki jamadars described how they either inherited their areas, as described here, or claimed them when new houses were built. These claims were widely recognized and rarely, if ever, contested.

Given these longstanding claims, the fact that Balmiki collectors have been willing to give up a key source of income to Bengali newcomers, particularly when scrap was becoming more lucrative, is notable. When I asked a Balmiki jamadar whose family had collected from the same area for generations why they would take the reduction in pay and allow others to take the scrap, he explained his logic: "*Unka bhi pet bhar jaye. Inke biwi bacche hain, inka bhi time pass ho jaye. Inka bhi time pass ho jaye, hamara bhi time pass ho jaye* (They too will fill their stomachs. They have wives and children, they will also get by. They'll get by, we'll also get by)."[66] In other words, he seemed to say, we're all making ends meet. Framing the work as "time pass" was relatively common, as it was seen as a way of making ends meet—subsistence rather than gain. Such a logic also accords, however, with the fact that Bengalis were willing to dig out lower value materials for recycling—effectively contributing to an entirely new market of recyclables. The rise of *kabadi wale* (roaming scrap buyers) also had an influence, since Balmiki collectors had previously recovered the bottles, metal, and newspaper stacks from garbage that households now sell for money.

But as I worked in the neighborhoods, I was able to see other benefits that Balmiki jamadars now enjoyed from giving up handling garbage and dealing primarily with money—their main task now being the collection of the household fee (usually between Rs 30 and 100 per

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[65] Interview, 7/7/13.
[66] Interview, 2/8/14.

month). On a garbage collection round in Rohini during an unusually pleasant and cool sunny morning just after Diwali, the advantages of jamadars becoming contractors took on new meaning. I was with a slight man in his forties who had just returned from a long stay in his West Bengali village, when a woman arrived around 7 a.m. She looked to be in her late thirties, wearing a bright *salwar kameez*, gold hoop earrings, a shiny nose ring, and pink lipstick. Without any formalities, she walked straight up to him to ask about the collector who worked in the adjacent area. After getting an answer, she turned to me, asking if I would join her for some chai. I followed as she walked off in the direction of an older local woman's house, leaving him to collect garbage while we were invited inside for tea and snacks.[67]

While this kind of invitation could have happened when jamadars did the collection work themselves—and even now, jamadars are far more often served tea outside—such an interaction reveals two notable aspects of their new position. For one, not doing the collection work themselves means that jamadars have more time on their hands. While some use that time to take on other paid jobs, only coming to the neighborhoods once or twice a month to collect money, others continue to come regularly, using the time to check up on Bengali collectors and cultivate relationships with residents. Secondly, these relationships are also afforded by the fact that Balmiki jamadars no longer have direct contact with garbage. Without soiled hands or clothing, upper-caste households are more likely to engage with them, even while they continue to bear the stigma of their Dalit identities.

Indeed, Bengali subordinates quickly learned to treat their Balmiki employers with respect, even if privately they asserted claims to social dominance. For example, Arif explained that he had to call his contractor "*jamadar*" to his face because he would get angry if he said Bhangi or even "Balmik." Majaool concurred, "If you call him *bhangi* then he'll get really mad; you have to call him *jamadar*." While collectors were aware of their employers' preferences, and usually abided by them, they would use the word *bhangi* often when they were around each other. Still, that Balmiki contractors are able to command a particular title indicates that they have acquired, at least, the authority to decide what they will be called. This position affords them the ability to avoid polluting garbage while collecting the fee from households, which

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[67] Field notes, 11/24/13.

opens the possibility for forming stronger ties with residents. Moreover, some contractors may try to claim larger, cleaner, and more expensive items that can be sold or re-used. As Lakshmi, a Balmiki *jamadar* who comes to her neighborhood territory most days, put it: "We should get *something*. If not, then why bother coming every single day?"

Contracting out the collection work creates distance between the Balmiki *jamadar* and the polluting substance of household waste. Where Balmiki jamadars participated in waste collection, they notably avoided touching the garbage itself by handing off the bags or buckets to their Bengali workers, ensuring that they would not be handling the wet waste with their own hands. When I was out on a collection route with Abdul in Rohini, I was struck by his jamadar's notably stylish clothing. A thin woman in her thirties, she arrived wearing a black leather jacket with white furry accents at the wrists (an outfit that would have been ruined had she been sorting through garbage herself). In fact, so much of her outfit was white, including her sandals, that it seemed as if she were intentionally taking advantage of her new status. The collector I was with quietly handed over the small amount of money he had collected from the houses we had already been to, and she accepted it without comment. Her 18-year-old son was there too, and when I watched him in his fresh jeans, blue-striped shirt, and puffy "Poma" vest pick up garbage buckets from residents' doorsteps, I eyed the kids playing in the park and felt a pang of sadness. No sooner had I noticed this, however, than he was hopping over the fence to join the kids playing cricket on the other side. Our little garbage collection crew was still large at four people, and we wrapped up the rest of the work quickly.

While the social benefits afforded by these transformations are likely to be relatively small for Balmikis, and I am not able to fully assess the longer-term effects here, they are nevertheless notable. Reducing direct contact with garbage in a society where substances have long tended to demarcate status is itself an important change. Even more important, however, is the fact that such distance has been combined with a role that deals instead with money, outsourcing waste-handling labour to a new group of actors and leaving more time to take on other paid work, attend to children's schooling or job prospects, or care for family members.

Bengali Muslims: Contending with Stigma

While Balmiki contractors have been able to cultivate greater distance from polluting materials, Bengali collectors have had to contend with their new relation to them. In their transition from farm labour (*khetibari*) to garbage collection, they have become subject to longstanding practices of untouchability, which they must navigate in order to continue working. Compounding this are two other sources of social degradation: their tendency to be labelled Bangladeshis and accused of illegal immigration,[68] as well as being accused of theft.

Of the more than fifty informal collectors I interviewed over the course of my research most had been agricultural laborers in their villages, though some had moved to the city when they were young or came from smaller towns or cities. Yet, when trying to assess Muslim migrants' social status in their villages in comparison to Delhi was difficult, as they nearly universally responded that "all Muslims are equal."[69] At my field site in northwest Delhi, however, nearly all shared the surname: Sheikh. It took two visits to the same area of West Bengal to confirm what I had suspected based on earlier village studies (e.g. Ahmad 1966; Bhattacharya 1973): that despite claims to Muslim unity in the collector settlements, there were significant cleavages between land-owning and laboring groups.[70] It was only after visiting a few villages in Birbhum district that I came to learn that Sheikhs lived in areas of the village where houses tended to be *kaccha* and constructed from mud, bamboo, and palm; had relatively small pieces of land; and possessed little to no agricultural land. This contrasted with the high-status Muslim Sayyads, or Miya, who had large plots, concrete homes, farmland, and servants. An older Sheikh man with a white wispy beard described the difference between the two groups

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[68] I have frequently been asked if (or told that) the Muslim collectors I worked with were "actually" Bangladeshi, not Indian. The identity politics inherent in justifying their Indian West Bengali origins perpetuates a pernicious tendency to frame Bangladeshis writ large as "infiltrators" who pose economic and security threats to the Indian nation, as Shamshad (2017) poignantly describes. Collectors did know who was Bangladeshi by their accent or through personal ties, but very few had remained after several rounds of deportation from the city.

[69] See Trivedi et al. 2016 for a recent discussion of pollution-based discrimination towards low-status Muslims in Uttar Pradesh. The evidence for this remains mixed and is likely to vary by context.

[70] Kaveri Gill (2007:f.n.9) describes a similar situation when she conducted her study of plastics recycling in West Delhi in the early 2000s.

plainly: "Miyas are rich, Sheikhs are poor."[71] Yet this economic distinction did not translate into social distinctions based on purity and pollution, with members of the Sheikh community joining the Miyas for weddings and other ritual events. And certainly, dirty work was not a part of their lives before moving to the city.

In their new positions as part of Delhi's vast informal garbage collection workforce, Bengalis were socialized to regard their Balmiki jamadars with the respect of bosses, even while some privately expressed seeing their Balmiki employers as socially inferior based on their association with dirty work. For example, one collector explained that he had to refer to his contractor as "jamadar" because he would get angry if he said "Bhangi" or "Balmik," while another elaborated that it was a matter of their "prestige." Becoming socialized into their new roles within the caste hierarchy meant that Bengali Muslims had to learn to demonstrate respect and appropriately position themselves as diminutive in relation to their Dalit employers.

As the ones touching wet (*gila*) household garbage on Delhi streets, they quickly encountered new forms of stigma and discrimination. Most commonly, collectors described that residents would tell them to move their carts away, or more to the point, stay away completely. Mohammad, who had been working in Delhi for ten years when I spoke with him, described this frankly:

> It's like this, I mean, not a single person regards this work as being good (*accha*). They say it's bad work (*bura kaam*), it's dirty. Some people say things, like if I'm going to a *muhalla*, then no one will even *touch*[72] me. They'll say *bhai*, stay away from here (*isse dur raho*).
>
> *Accha*, so they'll say that, or that's how you feel?
>
> They even say it. "*Bhaiyya*, stay away, stay over there, don't come over here." I mean, we shouldn't touch their clothing. The garbage will be over there, so it's like don't touch their clothing; just take the bucket and go.[73]

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[71] Interview, 6/27/14.
[72] He uses the English word "touch" here.
[73] Interview, 6/21/13.

Of course, collectors were also quick to point out that if they didn't collect the garbage, residents would be upset about that too. The point here, of course, is not for Delhi's middle classes to get rid of this servile workforce, but rather to assert their dominance via familiar caste practices of untouchability that keep lower-status workers in their place. A moral distinction between ideas of "good" and "bad" work expressed in quote above serves to justify why *mohalla* residents defend themselves against the perceived threat of Mohammad's touch. Being instructed to stay away and "take the bucket and go" are disciplinary measures that ensure that he is socialized, like other Bengali Muslims, into their new roles as garbage workers. Subjecting them to the idea that their bodies are dangerous, workers thus re-orient themselves to abide by upper-caste desires to avoid touch in order to perform pliable and subservient labor.

Apart from touch, smell (*badboo*) was also central to calls for Bengali workers to maintain physical (and thus also social) distance, with residents holding their noses while handing over their garbage or telling them to move their carts. Such visceral practices—which not only refer to the cart, but also the worker attached to it—come to define the role of the worker according to caste-derived ideas of pollution. Naseem described in an especially poignant way how these ascriptions can attach to the body itself:

> So, when I'm standing next to an *accha admi*, I myself feel ashamed….
>
> Why?
>
> Because our work is so very dirty that our sweat turns into poison (*zehar*). Our body's sweat becomes poison. If I were to give anyone the sweat to drink at that time, then they would die.
>
> But how could poison come from a person?
>
> It's dirty work. We live in filth (*gandigi*). When we go off to work, we sit inside the garbage sheds and eat our food.[74]

After this powerful admission, Irshad continued to describe how he had become inured to the facts of his life, which too frequently include dirt and poverty. He described, like others, how he now cleaned off his hands and just ate as a matter of preservation. Nevertheless, the internalization of pollution as dirt, and the sweat that becomes poisonous, powerfully captures

[74] Interview, 7/13/13.

how externally ascribed stigma—here personified by the "accha admi"—can be so deeply integrated into one's own sense of being. The direct effect of these experiences with social status was made unambiguously evident when I was occasionally admonished by local residents not to handle the garbage. Although I tried to ensure that my whiteness was not visible to passers-by (who anyway tended to divert their gaze) by covering my hair and skin, on two occasions local residents came up to tell me that I should not be sorting the garbage because my "status will drop."

In order to continue working, Bengali Muslims have had to become habituated to both their status and treatment, rationalizing and integrating their new status—as well as negotiating its effect on their lives. A twenty-three-year-old collector from Assam described his process of coming to acceptance as follows: "Look, at the very beginning even I, at first when I entered the scrap trade, I also felt ashamed for picking up garbage. So then I thought about it and if I'm going to be ashamed, then there's no point." He went on to explain that he decided he had to get used to it in order to earn a living, reasoning that "there's even dirt in our stomachs (*apne bhi pet mein gand hai*)."[75] Still, he said, some residents hold their nose while handing over their garbage, and others will tell him to move his cart because of the smell (*badboo).* Accepting dirt as a regular part of life was a central part of the process. Salma compared herself to nurses, explaining that they too have to deal with blood and other "dirty" things, implying that they are not stigmatized like garbage workers despite this contact.[76]

As Muslims, Bengali collectors have also negotiated these sources of physical and social pollution with their religious practices. For some, this has meant drawing on Islam to assert that no matter what one touches, everyone is pure in the eyes of God. Others, however, expressed finding it difficult to sustain prayer practices, explaining: "How can you pray when there is so much filth (*gandigi*) in this work?" Another added: "It takes so much time because first you have to come back and bathe, and only then are you fit to pray. I had to stop it." There are tensions that thus remain when it comes to navigating physical and social pollution, especially when it comes to eating and praying (particularly during Ramadan).

[75] Interview, 12/2/13

[76] Interview, 5/26/13.

Back in the village, meanwhile, the nexus between khetibari and kooda strengthened. At the beginning of the migrant flow, many collectors avoided telling people in the village what they did in Delhi, instead saying they worked in construction. Many relatives seemed content to not ask too many questions. However, after a while, there were so many people working in Delhi that it was no longer a secret. An elder Sheikh man described: "There were people who, I mean, who wanted to go [into waste work], but they said no, it's dirty work, I'm not going to do that….But the ones who said it's dirty, now they're all in this line [of work] in Delhi."[77] Yet, even if Bengali waste workers internally rationalize the stigma they face, and their communities come to accept it, they nevertheless contend with and seek to compensate for the discrimination they are subjected to while working in Delhi.

Compensating for Stigma

While Balmiki contractors have been able to cultivate greater distance from polluting materials and enjoyed some markers of higher social status, Bengali collectors have had to contend with their new relation to them. In their transition from farm work (*khetibari*) to scrap work (*kabadi*), they have had to take on a significant source of lower status. Compounding this were two other sources of social degradation: their tendency to be labeled Bangladeshis and therefore accused of illegal immigration, and frequent accusations of stealing when something goes missing.

However, there were practices that they relied on to mitigate feelings of shame. Collectors tended to see garbage as polluting material that must be handled in order to access scrap; it was the dirt to be tilled in pursuit of value. This was aptly described as follows: "in the search for scrap, they also have to collect the garbage (*maal ke chakkar mein inka kooda uthana padta hai*)."[78] In order to compensate for the stigma of handling wet waste (kooda)—vegetable peels, yes, but also menstrual pads—collectors tend to focus on the scrap (kabad or maal) that they will pull out and eventually exchange for payment.

[77] Interview, 6/26/14.
[78] Interview, 11/16/15.

Kooda is wet, organic, laden with personal marks of use such as bodily fluids (saliva, shit, blood, semen), and prone to instability via decomposition. Its contents range from fresh cucumber peels, which are neither marked by saliva nor rotting, to highly polluting items like used condoms and baby diapers that bear the waste produced by human bodies. Somewhere in the middle fall things like rotting mango peels or leftover cooked food, which is marked with saliva. In contrast to garbage, *maal* (or *kabaad*) is relatively dry and stable. During the process of segregation, collectors shake papers and bags to loosen as much of the organic garbage as possible from the dry scrap (see Figure 1). The fact that scrap is regarded as a relatively uniform and unpolluting set of materials is further evidenced by the fact that the Hindi word used to describe the scrap, *maal*, does not exactly translate into the English word scrap; the word *kabaad* does. *Maal* denotes a uniform, commercial material. In this case, *maal* is scrap, but in another industry it could be plywood or clothing. *Maal*, in this context, is a commodity—anything that can be bought or sold in bulk.

Figure 20 *Kooda* (garbage) and *maal* (scrap) inside a collector's cart

Bengali collectors thus create physical distance from polluting garbage while producing standardized maal to be sold for payment. Indeed, it was the procurement of money that mattered to my collector respondents, and the scrap was just a conduit for its acquisition. In contrast to the status of waste material, which was a more ontologically varied category, money

was more standardized—thus relatively stable and dependable, if always inadequate. And, despite being physically quite tainted—smudged, worn, and manipulated (written on, folded)—by the many hands and substances it comes into contact with, currency endured as a relatively pure symbolic material. In its physical form it was, for example, kept close to the body. Like many women, one of the scrap buyers I worked with regularly kept hers tucked into her bra, held directly against her skin.

Money thus offered an important—if uncertain—opportunity to gain material resources in their home villages that might help to redeem their social status in the city. A Bengali woman sorting the scrap that her husband had collected one day in Delhi responded with an amused look when I asked her about why they would come from the village to do work that many considered to be dirty. Looking at me, she smiled and replied easily: "There's more money in it." In the village, too, another woman similarly explained that she thought she would have to go back to Delhi again soon. When I asked her why, she said that in the village you can earn just enough to eat, but in Delhi they were able to save 20,000 rupees a year. The other women sitting with us nodded in agreement.[79]

The consequences of saving money became apparent during one of my visits to Birbhum. There, I saw how *kabadi* work was allowing many previously landless villagers to replace clay-constructed homes with concrete structures and to buy small plots of land for housing and farming. Apart from this, some of the less-educated but landed Miyas who started scrap-buying businesses were building larger homes. In response to my surprise, someone commented (riffing on the BJP's 2014 election slogan): "*Gaon ki tarakki bhi hai*"—the village is also improving. A young woman revealed another side to these small capital accumulations as a crowd in the village looked on and laughed: "When people doing *kabadi* work in Delhi come back to the village, they strut around in their nice clothes and gold watches and talk constantly on their mobiles as if they have nothing else to do." She went on to say that when you look at them, you would think that they were all doing regular office jobs (using the words "service" and "*naukri*"). They'll do this for a few weeks, she explained, but then they have to go back and earn more because they run out of money. She shook her head, "Why spend that money on this stuff when you could be saving it

[79] Field notes, 6/22/14.

for a house or some land?"[80] The image of young men strolling around, showing off their hard-won accessories, provides a striking contrast to their roles as garbage collectors in Delhi. Doing so offers both material and symbolic benefits, as status cultivated in the village can result in a repaired or improved sense of self (through the eyes of others) to compensate for stigma, as well as potential material benefits as houses are built and land purchased.

In the city, too, many families were eager to show off the interior of their homes as places of cleanliness and rest. If each home is maintained as uncontaminated, collectively settlements (*jhuggi*) actively cultivate and reinforce the habits that maintain those boundaries. For example, collectors typically wash before coming into their houses to eat and take a nap, and everyday group events such as playing cards, braiding hair, and drinking tea unite collectors' families through activities that are distinct from their garbage collection activities. Life-course events like *musalmaanis*, engagements, and weddings serve to reinforce community solidarity and offer opportunities to clear out scrap material in place of decorations and change into clean clothes that separate them from their roles as garbage collectors.

I stepped into Salma's house in the jhuggi one day, her workers' hands clasping my arm hard (as she usually did) and leading me to the back room, only letting go once we were finally there. Motioning to a brand-new, shoulder-height, raspberry-colored refrigerator, she fed me some ice while pointing to a mixi, a TV they'd now had for more than ten years, and a cooler—making sure that I noticed these important objects. Cultivating a home space with the comforts and symbols of modern life provided an important contrast to life outside, which was frequently chaotic, hard, and disappointing. By taking on the taint of garbage work in the city, new migrants are able to gain access to modern conveniences in the city and also potentially save money to accrue the capital needed to purchase land in their villages, construct new homes, and pay for weddings. It is these experiences, things, and promises that keep them in the "line" of garbage work in spite of the related stigma.

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[80] Field notes, 6/26/14.

Conclusion: Garbage, Money, and Status

Bengali migrants taking on the dirty work historically done by Dalit Balmikis in Delhi reveals a process through which new groups are subjugated through practices of casteification—in this case, as they experience practices of untouchability. While on the one hand this indicates how caste formations are changing in contemporary urban India, on the other hand, it also reveals how the informal economy of waste work in Delhi is being reorganized. Historically shaped and regulated by caste relations, Bengali Muslim laborers now contend with stigma and discrimination, while Balmiki jamadars are relieved of contact with stigmatizing wet garbage. The residents who hold their noses or shout about *badboo*, then, perpetuate forms of untouchability that mark the workers as being out of place, and worse, will them out of sensory perception.

And so a system for household garbage collection is re-made, at once based on longstanding divisions between upper-caste households and a servile class of garbage workers. Yet, we see how those workers are actually produced through ascriptive subjectification, as disciplinary, discriminatory, and disparaging caste practices put them in their place (in the neighborhoods), as well as in the wider social hierarchy (as dominated actors). This isn't a matter of caste as *identity* then, or as caste as a relatively stable hierarchical *system*, but rather the way that an *economy of practices* together structure social relations in a way that is relatively durable but also shifts over time. Collectors are subjected to them, and become habituated to them—learning not to cross into residents' homes, to show their Balmiki jamadars respect, and to move their carts when asked— without too much protest. In turn, some Balmiki workers have been able to relinquish doing garbage work themselves, instead focusing on the collection of payments. While giving up garbage work certainly does not eradicate centuries of caste-based discrimination, it is nevertheless a notable shift, particularly when it affords a position of dominance over a new group of actors.

Like their Balmiki bosses, Bengalis are willing to do waste work and negotiate the stigma it entails in the pursuit of money, an object that denotes both economic and cultural capital (as a symbol of modernity) to counter the polluting attributions of *kooda*. Transactions of waste and money, then, entail one group—Bengali Muslims—receiving polluting waste from the city's middle classes, while another—Dalit Balmikis—cultivate distance from garbage and instead

collect money. Money here is seen as a source of purification, and of promise, which stands in stark contrast to much social theory, which tends to associate money with dirt and filth because of its tendency to corrode social relations (see Peebles 2012). Seen as a kind of cultural debt, the source of pollution that is taken on by newer migrant collectors is at first distanced and then exchanged for economic capital, as cash, which offers the possibility for improving social status in the village. The stigma taken on by newer migrant collectors, both as a sense of personal impurity and more direct forms of discrimination, offers the possibility of a better daily living, and potentially also the ability to accrue capital in order to improve their social status in the village. This process, I contend, is not only likely to have analogues in other contexts, but also offers a fruitful approach for subsequent analyses of how caste and status relations are transforming in contemporary India, accounting for both stability and change over time.

CHAPTER V

Getting Paid

Dusk was descending on an early winter day in Delhi when I joined Almaas, an informal scrap buyer, climbing up the seat of a cycle rickshaw and winding our way out of her middle-class neighborhood, arriving five minutes later at the unpaved road leading to the large settlements where hundreds of people who work informally as garbage collectors live with their families. We walked past homes constructed from bamboo scaffolding and plastic sheeting, turning into Almaas's site and then into her office—the only brick structure. Carefully inserting two bare red and black wires into an electric socket, the structure illuminated, making visible its bare mud floors, a plush easy chair, two plastic lawn chairs, and a wooden coir cot. Sitting down in the lone upholstered chair, she called for her niece to bring her a calculator, opening a large ledger across her lap. Without announcement or warning, a small group began to gather near the doorway. Clutching small planners or "diaries"—books gleaned from waste—they formed a loose queue, chatting with one another and yelling intermittently at children rushing past. A few people took seats in the couple of available chairs, while others squatted on the ground or looked in from the door. Almaas glanced at the first person: a good-humored man in his thirties who often assumed a leadership role because of his tenure in the area. Taking a small paper handwritten receipt from him, she began to write down the total weight of each scrap item in the ledger—mixed plastic (*guddi*), cardboard (*gatta*), glass bottles (*kaanch*), etc.—along with the current rate, multiplying the numbers on her calculator and adding up the products. She announced the total, 1640 rupees, and asked him hurriedly: "How much? (*Kitna?*)" "One thousand," he replied. Almaas peeled off two 500-rupee notes and handed them over, noting the remaining 640 rupees as "savings" in his small diary. The next person took a seat, and the process continued.

One of the first things that I, a person used to the digital standardized payment systems typical of middle-class America, was struck by when I began spending time at my main field site in northwest Delhi was the amount of cash being regularly, and seemingly haphazardly,

distributed. Reaching beneath her *dupatta* scarf into her bra, Almaas would retrieve a wad of cash and peel off 100 and 500 rupee notes in response to a flow of requests. The transfer would usually happen so quickly and without commentary that I would find myself needing to ask, "What was that for?" Sometimes it would be a 500 rupee note for a collector, while other times she'd send a kid off with 20 rupees and a wave of her hand to fetch a snack. I commented that she was like a human ATM.

Eventually, I would learn that many of these tended to be small payments to the collectors—money for daily living expenses that would later be deducted when the accounts were done. It took me months to realize that while there were times when collectors would directly ask for money, often non-verbal signals were used to try to induce the ritual of doing the accounting books and getting paid. Although this was readily understood by the collectors and Almaas because of their intimate knowledge of each other and the system, it took me a long time to piece the process together. These transactions, like all economic exchanges, rely on contextually specific institutions and meanings—moral economies that amalgamate not only feelings and discourses (Fourcade 2017), but indicate relations of power between actors and with other institutions, and especially the state (Bourdieu 2005; Palomera and Vetta 2016).

Despite there being no formal labor or purchase agreements between collectors and scrap buyers, the routine of "doing the books" (*hisaab karna*) was remarkably regular and predictable, constituting a primary relationship on which the larger recycling economy was based. Throughout my fieldwork, I had focused primarily on waste processes: collecting, sorting, and selling scrap; the visibility of storing plastic bottles on top of bamboo-framed homes in mosquito nets; and the care with which metal parts were stripped from sunglasses and votive candles. But I soon came to learn that if waste was the more ubiquitous material, it was money—the physical currency and records documenting it—that people tended to care about, as I began to discuss in Chapter 4. And, I learned, these transactions constituted relationships: while collectors became obligated to sell their scrap to a particular buyer, the buyer became obligated to provide for the collectors' basic needs, taking into account significant rites of passages and life stages (cf. Wherry 2017:61–62).

In this chapter, I analyze how processes of getting paid reveal moral economies of responsibility and obligation, drawing on existing social ties, but also creating limited possibilities

for status transformation. I describe how the process of getting paid reveals longer-term contractual relations that are solidified between buyers and collectors as credit is extended, accounts are done, and basic needs are appealed and attended to. This process of long-term account keeping relies on existing social ties, but it also solidifies new economic relationships through processes of establishing ties, extending advances, account keeping, and dissolving ties. Such processes of loan making and account keeping, I find, were central to a broader moral economy that involved earmarking money for tangible goods like food or gifts and defining differentiated roles of responsibility and obligation, which engendered trust (see also Hart 1992). Collectors were made dependent on buyers through a relationship of dependence based on *subsistence* (cf. Scott 1976), or substantive need rather than the accumulation of capital (Sanyal 2007). Ray and Qayum (2009) similarly find that bonds of obligation (amongst other ties) solidify what they call a "new feudal contract": an amalgam of more contemporary ideas of contractual labor and feudal relations that assign particular groups of people to particular duties or obligations. This relationship is revealed through the ritual of getting paid, an event that is made possible by forging initial collector-buyer relationships, giving loans or "advances," and doing the accounts.

Buyers and Collectors

Delhi's informal garbage collectors are most often first- or second-generation migrants from India's eastern states, primarily from villages but sometimes from towns and cities, who come to Delhi through contact with someone from their hometown who is already there.[81] Relying on this network of family and community—clustered according to *jati*, caste and religion, this rural to urban migration has been especially prevalent in the last couple of decades. Rizaul, an informal collector from West Bengal explained how he took up garbage collection work in Delhi: "We didn't have enough money in the village. One guy from our village went to Delhi and said that in Delhi he earns a lot. So then I came, thinking that we'll see if I can get

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[81] Although waste collection was historically done by the "untouchable" Balmikis who came from Delhi's neighboring villages (Prashad 2000), recent decades have seen a flood of migrants – many of them Muslim – from the states of West Bengal, Bihar, Uttar Pradesh, and neighboring Bangladesh, who have begun to informally subcontract from the Balmikis.

more money too" (Rizaul Sheikh, Rithala, 6/17/13). Collectors find out about work opportunities and places to live by word of mouth. These contacts are also what typically allows newly arrived workers to be deemed trustworthy by potential buyers. Through this network of relatives and fellow villagers, collectors are initially connected with scrap buyers like Almaas who acts as their boss, facilitates their entry to work and life in the city, and become a source of potential credit.

Buyers, on the other hand, were either from similar backgrounds as collectors and had worked their way up, or they were people from historically land-owning or business-caste families who faced particular, difficult circumstances. For example, while Almaas was from the same area as the collectors, she was the daughter of the land-owning *Miya* (a Sayyad, or upper-caste Muslim) family back in Bengal. Yet her position was unusual. Unlike others in her community who had moved to Kolkata and become urban professionals, she was married at age eleven because her mother had died when she was young and her father was more interested in alcohol than his job or his two remaining wives. When she moved to Delhi around age thirteen to join her husband's family, Almaas began buying scrap from Balmikis who lived in the same *basti* (settlement) as her, hiding the money from her own husband who was also an alcoholic without steady employment. Eventually, she would find herself with a steady business, and she filed for divorce, moved, and struck out on her own.

Almaas's story is unusual—borne out by her extraordinary position as a woman working independently (i.e. without a husband or other family member) in this business. Regardless of their origins, buyers tended to inhabit roles that marked their status as higher within the context of the workplace, mimicking practices of distinction relied on in village contexts. Yet while they enjoyed a status as boss (*malik* or *malkin*) vis-à-vis collectors (known as *grahak*, or customers/clients) buyers themselves were also associated—albeit to a lesser degree—with the scrap sourced-from-garbage that they purchased. While they may aspire to become free from these obligations and stigmas (see Chapter 6- to be included in the book), they see themselves as belonging to the communities who sell them scrap, and from whom they ultimately profit. Indeed, many buyers (including Almaas) have relatives who are themselves collectors.

While the relationship between collectors and buyers is certainly exploitative in the sense that buyers earn their living—and when business is good, may even profit enough to buy small

plots of land or flats in the city—there are also tensions in how buyers relate to collector communities, with different buyers navigating those tensions differently. While some buyers were from different regions than the collectors who sold to them and lived in different neighborhoods, others were from similar communities and lived on or near collector's settlements. Physical and social distance could allow for greater exploitation, but proximity could also lead to monopoly and dependence. Some buyers took advantage of their positions, not only requiring collectors to sell exclusively to them, but also denying them payment records that could be used to form mutual agreements on the exchange of money. I found that in places with the highest levels of trust between collectors and buyers, no written records were used because the collectors did not find them necessary; in places with medium levels of trust, written records were used by both parties; and in places with the lowest levels of trust, few or no records were used because buyers refused them.

Collector-buyer relations frequently involve much more than transactions of scrap and cash. Buyers are frequently new migrants' primary source for housing in the city. In exchange for a place to live, buyers may collect rent and/or reduce the rate paid out to collectors for their scrap. Buyers can also be an important connection to urban institutions like schools, hospitals, religious community (mosques), police, and other local bureaucrats—especially for newer migrants. While collectors are disenfranchised by their lack of multiple forms of capital in the city, buyers are a crucial point of contact. On the other hand, while buyers would pay collectors to do additional labor like loading up trucks with scrap to be sent to the factory, they would also call on them to do odd tasks for like help to weigh a bag of scrap, fetch a chair, or fix an electric wire come loose. However, in better-established second-generation communities, collectors may be responsible for their own housing. Some buyers were once collectors themselves and saved up the capital to move up the chain, while others had capital available to begin in the sector as a buyer. With work and home spaces—"public" and "private"—so tightly bound and constricted (see Figure 21), celebrations like weddings (Figure 22) offer a chance for the community to come together for joy, lightening an environment that is often riddled with arguments and stress.

Figure 21 The entrance to a single *jhuggi* (hut), with scrap stored in front

Figure 22 Cleaning and decorating for a wedding

Buyers like Almaas can thus be crucial links not only to work, but also to housing, protection from police harassment, and entry to school for children. Throughout the months that I spent with Almaas, I looked on as she took on a number of roles far exceeding the strictly economic: intervening in family arguments, bailing people out of jail, filing rape cases on behalf of teenage girls, and even arranging marriages. She intervened when there was a dispute over who should clean the standing water from around the pump, and she was responsible for providing a feast for Eid. Buyers may also help collectors obtain ID proof in Delhi, which allows them to access government benefits such as a cash transfer scheme for women that was being piloted in 2013-14. Obtaining ID cards became easier with the advent of the universal identification program Aadhaar, which was launched in 2009. I asked collectors at a south Delhi *godawm* where they were denied significant agency why they did not have their families with them. One man responded that it was because they did not have identity cards in the city, and when I asked why they had not had them made, he responded, "Hey, when the boss has them made, then…" (3/9/14). As socially marginalized (in this case Dalit) migrants to Delhi, many of whom are illiterate, the collectors sole connection to this major government institution was their buyer.

Buyers may also enact their role as patrons by mediating interpersonal issues, navigating institutions of both family and the law. For example, I joined Almaas for three separate incidents: one where a motorcycle had been impounded by the police, another where a young girl was raped by a neighbor, and a third where a collector's son had been put in jail for an unknown reason. In each case, Almaas was their most powerful contact, and she would intervene in various ways, including talking to family members, holding ad hoc "*panchayats*" (meetings where women would explain what exactly happened), bringing in the police, making sure the police did not get involved, calling in Maulanas (Muslim religious leaders), and occasionally using physical violence like slapping or beating (not uncommon in Indian cities). A couple who had been living and working at Almaas's *godawm* for 16 years, after initially coming there to fix a fan, expressed a distinct mix of disdain and affection for her. For example, she pointed to their *jhuggi* hut and complained that she had been asking to have the roof fixed for months now, but whenever she asked Almaas responded that they should do it themselves even though they are renting from her. At the same time, she explained, Almaas is everything to them. She is who they go to for

their housing or when they need money. During the conversation, she pointed to a taller jhuggi on the corner nearby, explaining that the family inside was renting (without the obligation of selling their scrap to her). They pay more (Rs 4,000/month instead of 3,000), making me initially think that she was complaining about the expense. But she was impressed with the fact that they had achieved independence and were able to afford more in rent and live in nicer jhuggis. She was looking at them wishing she could have that too (field notes, 10/23/15).

On the other hand, Almaas regularly complained about the "*tension*" or stress she felt because of the obligation to provide for collectors and their families. "*Tension hi tension*," she said to me one day—nothing but stress—complaining that she needed Rs 2 lakh (200,000) to build toilets for the jhuggi (field notes 7/4/13). She didn't have anything saved at the time and was in a marriage that was sucking her dry, financially and otherwise. While she frequently expressed frustration from the "tension" her role required, she also expressed a strong sense of moral, and also personal, obligation to provide for people whose circumstances were regularly precarious—many of whom she had often known for years. Unlike corporations with workers at different sites than their bosses, often in different countries, Almaas's business requires her to actually know the people whose labor she exploited for profit, much like any small business. But this went one step further: collectors were not only people that Almaas knew; they *lived* at her workplace. They were not only people with names and faces, personalities and illnesses and families, but their material circumstances—the food they ate, appliances they owned, births and weddings they celebrated—were all, for better or worse, apprehendable.

In contrast to Almaas's *godawm*, which ran on the power of newer migrants, at the site in East Delhi where scrap-buying families have lived for two to three generations, collectors were not as dependent on their buyers for negotiating with the world beyond their settlement. Yet they still tended to maintain ties with particular buyers because they afforded the ability to request advances, reducing uncertainty and defining roles and expectations.

Advances

Once collectors begin working they can request a monetary loan, or an advance, which obligates them to sell to a particular buyer. As buyer Rajesh explained, no one will work without an advance. Advances indicate long-term commitment: buyers take *responsibility* (albeit to

varying degrees) for collectors' basic needs, while collectors become *obligated* to sell to particular buyers until they pay off their debt. Collectors who take advances become known as clients, or *grahak*. Such arrangements are common in contexts where other sources of credit are hard to come by and resemble feudal relations whereby laboring "serfs" were similarly forced to petition landowning *zamindars* for the resources to support major life events.

Collector Khawadeb described that advances created bonds of trust, or *vishwaas*, which grew from an initial recommendation from another collector. From the buyer's perspective, trust in a collector similarly tends to originate in reputational information gleaned through mutual contacts, and it is confirmed through the identification of a person, or "guarantor," for an advance. Advances can be requested and taken for several reasons, but they are always justified with a substantive need, which the amount is based on. One collector explained while others looked on in agreement that loans aren't just given, but "if we suddenly need money that's when we take it. … Whether it's for a wedding, whatever it is, if you need it then you can take some extra and get things done. Then you just keep on working" (Interview, 4/19/14). These events were often framed as emergencies, as a group in South Delhi explained: "It's…when you have to get someone married, that's the only time you take it, or if you find yourself in an emergency. If not, then who gives an advance these days?" They continued, "Everyone has an advance and everyone gets the same rate [for scrap]. Everyone's taken one. One might have taken 10 [thousand], another 20, someone else 50. Everyone's taken" (Interview, 3/9/14). This all means that buyers must know the content of "needs" and "emergencies," assessed not only by collectors telling them about them directly, but also through longer-term knowledge of their life circumstances or news circulating in the community. For example, of ten collectors who had significant outstanding debt from Almaas, the majority of them were for trips to and from the village, though some money was also taken for household goods like televisions and weddings. The average debt amount was 45,000 rupees, or $750, each (see Figure 23). Because most collectors earn between 150 and 250 rupees ($2.50 to $4.15) per day,[82] these are relatively large sums. However, collectors were frequently able to pay off their loans, evidenced by the large

[82] Wages, including the minimum wage, are calculated on a daily basis in India, making a daily – as opposed to a weekly or hourly – amount the most intuitive and relevant measure.

number of people who had severed ties with a single buyer, instead forming independent groups of collectors who sell directly to wholesalers, which I will talk about in more detail at the end of the chapter. All of these requests had occurred before I entered the field, so I wasn't able to observe them directly. What these records and other narratives reveal, however, is a list of life events that are deemed worthy of support. In a community as poor as Delhi's garbage collectors, their requests did not frequently test the boundaries of what constituted need, but in one case, a collector was borrowing for "household needs" and then gambling the money away. While he was denied future loans, it is possible that he would not have been if he had been able to pay the money back.

	Collector's name	Amount (rupees)	Purpose
1	Meenu	45,000	Household expenses, village visit
2	Abdul	45,000	Musalmaani, village visit
3	Laltu	35,000	Building house in village, village visit
4	Hasibul	80,000	Buying land in village
5	Salim	65,000	Daughter's wedding and new baby, village visit
6	Sagir	23,000	Village visit, buying a cycle-cart and a TV
7	Yusuf	55,000	Building house in village, village visit
8	Nuhu	15,000	Initial travel to city
9	Kabir	10,000	Village visit
10	Mahmud	10,000	Daughter's wedding

Figure 23 Sample of outstanding loans from Almaas

Once a collector takes an advance from a buyer, they are required to sell their scrap exclusively to them, apart from a few items like the *roti* or bread that is sold to farmers. The advantage of this system for the buyer is that they have a guaranteed scrap supply, and they can buy scrap at lower rates from indebted collectors than they can from outsiders. Although the collectors are made dependent on buyers, they receive money up front and have a guaranteed buyer when, for example, their scrap gets wet, and they also get access to housing and other potential resources in the city. However, this can of course lock collectors into an exploitative, bonded relationship. Nuhu, who works for Almaas, often complained about the power imbalance. When I asked about whether he went behind her back to sell to another buyer for a

higher rate, he explained: "We have to hide it from *madam* [i.e. Almaas] to sell it. If *madam* finds out, she wouldn't let us sell it. We get ten rupees extra (*chai-paani*) if we sell to an outsider, but we have to do it secretly. If word gets into the *godawm*, then she won't let us do it." Still, I learned that getting caught did not mean immediate or even severe consequences. When I was walking with Almaas to the godawm one afternoon, we passed by two collectors selling glass bottles to another nearby buyer. When Almaas didn't say anything about it to them, I asked her why, and she replied that she would bring it up when the accounts were being done. In other words, this breach would become a tool that she could leverage in case the rate came into dispute while doing the accounts—another source of credit in their ongoing transactional relation.

Under the system of collector-buyer dependence, advances were given on a regular basis, becoming the most easily accessible source of credit for collectors who otherwise earn just above subsistence and tend not to have bank accounts (see also Gill 2007:1454). Along with the exploitation this facilitates sits another kind of relation—one that Almaas described as growing out of a sense of "humanity" (*insaniyat*): an ethic of mutual obligation, where buyers ensured that collectors and their families were provided for, while collectors became obligated to sell to their buyers. After initial loans, collectors could continue to request further advances whenever they needed a lump sum to make ends meet, so long as they continuing selling their scrap to that buyer. Another collector in East Delhi who had been working for more than a decade explained:

> The shopkeeper [buyer] gives an advance. For example, if you need money then we take one or two thousand from the shopkeeper. We'll give them scrap, they'll take the money out of the scrap.
>
> So how much advance do they give?
>
> According to need. For example, if I suddenly need 500, then they give 500. But if I take it then I also have to give it back. I'll give scrap and they'll subtract is slowly. I have to give back as much as I take. If I take five [thousand], I won't be able to give it back at once, so I'll give you a thousand of five hundred at a time. (Interview, 5/14/13)

As these ties engender trust, advances might be given more readily. As Almaas exclaimed with a laugh, "Some people take them just because they feel like it!" She explained that Kabir had borrowed 10,000 rupees when he needed to make an emergency trip to his village, even though

she believed that he had enough money. Because Kabir had worked for Almaas for nearly twenty years, he was able to ask for the money casually, and Almaas trusted that he would pay it back. I once saw Almaas take a small cash loan from Nasima, Kabir's sister-in-law, when she was running low, showing that the arrow of hierarchical dependence can be temporarily inverted. In addition to fulfilling needs, these kinds of practices also seem to test each person's responsibility and obligation.

The necessary, if uneasy, intimacies of this relationship were made clearer when I visited a scrap-buying site in South Delhi—a place to which I had no previous connection apart from one other brief visit. There, Sanatan was one of around 25 collectors working for buyer Ajit. I sat next to him on the long rickety wooden bench in the small open shelter where scrap was weighed, paperwork kept, and daily prayers to Ganesh conducted. Sanatan told me that he had three daughters (and, I later learned, one son, mentioned as an afterthought because arranging his marriage wasn't a source of financial stress). So far, he told me, two were married, and he had taken out large advances to pay for the weddings. His diary, an old planner, had only has about a week's worth of records in it, and written clearly on the opposite page was an amount: Rs 11,549, the amount he currently owed (see Figure 3). I asked Sanatan how long he thought it would take to pay off this amount, and he responded: "Two to three years." "What will you do after that? Will you keep working here?" I asked. He was hesitant to respond—perhaps a mixture of the strangeness of talking to a foreign woman, being new to Delhi, the embarrassment of talking about debt, and sitting right next to his buyer. Buyer Ajit jumped in and explained, "Look, it's like this: he will need to get his third daughter married off, plus he's trying to make his mud (*kaccha*) house a bit more finished by putting up a sheet metal roof." I didn't see the connection at first, but after looking at the accounts and asking why he takes so little each day and saves so much, I understood that he was trying to improve his house in order to secure a good marriage for his daughter. Ajit could narrate Sanatan's family history and future plans—a result of his being the provider of loans that had to be justified with exactly this kind of information.

Taking advances, then, depends on a personalized negotiation based on substantively earmarked requests (cf. Zelizer 1989). During these meetings, actors define expectations and negotiate responsibilities. As people chat about their lives and the lives of relations in the context of economic transactions, an institution is created that provides for substantive needs. Although

debts are given and paid back, the timing and sum of the exchanges are regulated by accepted forms of need and well-being: daily expenses, hospital bills, marriages, and visits back to see family, but also longer-term aspirations like buying farmland and building new concrete houses in their villages.

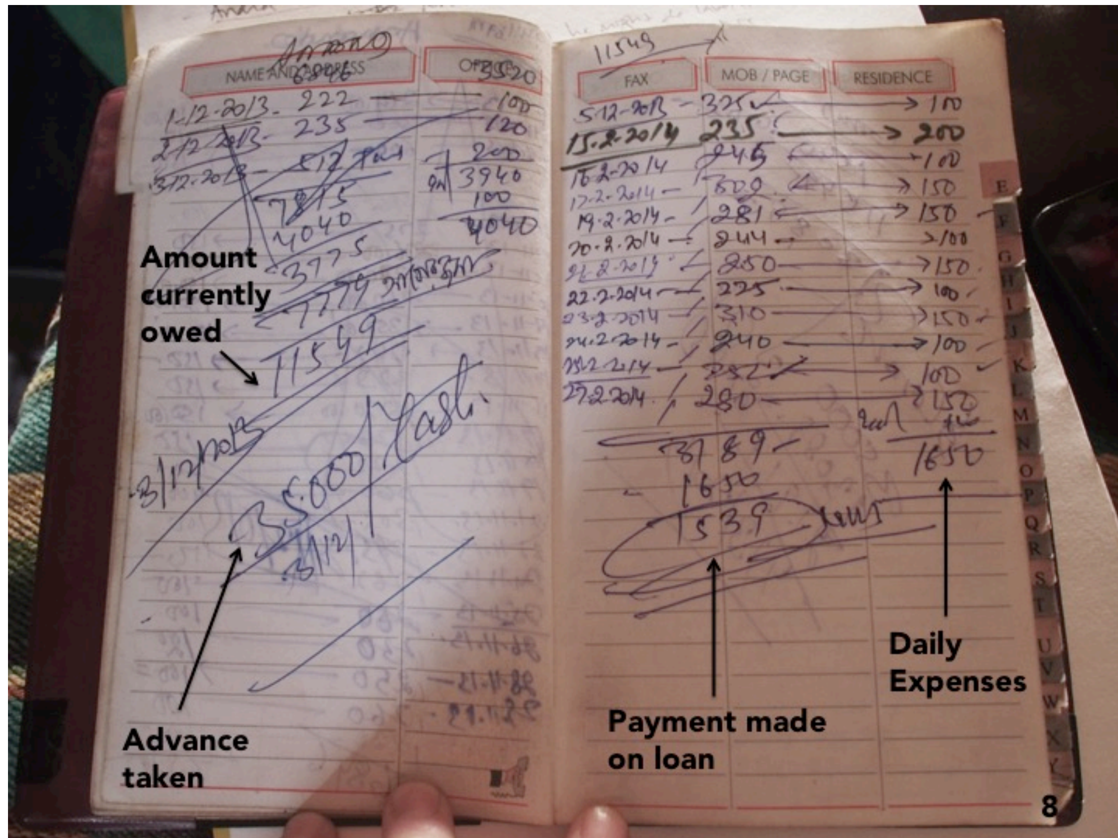

Figure 24 Collector Sanatan's diary

Doing the Accounts

With collectors working on an advance basis, figuring out what is owed involves a regular need to do the accounts, when buyers tally up the scrap that a collector has sold, deduct what has been paid out, and apply the rest as payment against their outstanding debt. The process of doing the accounts thus becomes a focal point – a ritual that binds together buyers and collectors while also promoting economic relationships that comprise the informal scrap market chain.

On a warm sunny evening in June 2013, I was sitting with Almaas and some of the collectors having the standard sweet, milky tea served in small pink plastic cups, when I wrote in

my field notes: "Abdul comes in and out, always looking on the border of rage—or a fit of laughter, it's really hard to tell. His shirt is raised most of the time, exposing his torso" (6/22/13). This would become a familiar dance – with me realizing only later that Abdul was appearing to have his accounts done and get paid. I would see him standing around outside of where Almaas was sitting in her office, and when I asked him what he was doing, he said simply "I have to do my accounts" (*hisaab karna hai*). I began to recognize the look of impatient waiting that painted his face as he tapped his feet, smoked *bidi*s, and eyed the door, waiting for any visitors to exit so that they could enter and make their appeal. This kind of signaling reinforces buyer's responsibility to provide for the collectors so that they can meet their daily household expenses, while indicating collectors' limited agency in forcing the transaction of getting paid.

Getting paid actually meant getting money daily living expenses, relatively small amounts that cover collectors' subsistence based on their need. Figure 3 shows how these amounts are variable depending on how much the collector needs for the day—in Sanatan's case, ranging from Rs 100 to Rs 200 per day. These are amounts that are deducted from the total owed for the sale of scrap. While many places did the books daily, others like Almaas's had space for individual collectors to store their scrap and weigh it periodically. In this case, weights would be noted on small receipts (*parchi*) made from scrap paper, which would be handed over when the accounts were done (see Figure 25). At Almaas's, these were written in Bengali script with a signature in Latin characters, as Bengali was the language that the community was literate in, if they were literate at all. Doing the accounts books involves totaling each item (e.g. newspaper, mixed plastic, PET bottles, aluminum) and multiplying by its going rate (see Figure 26).[83] The buyer then adds up the total, takes a portion of it to apply to their outstanding loan, and hands over the rest in cash. To show that they had been paid out, the receipts are torn down the middle and/or marked with two diagonal lines.

[83] Rates are determined by the buyer, generally by taking the rate given to them by a buyer above them on the commodity chain and adding a small margin for their profit.

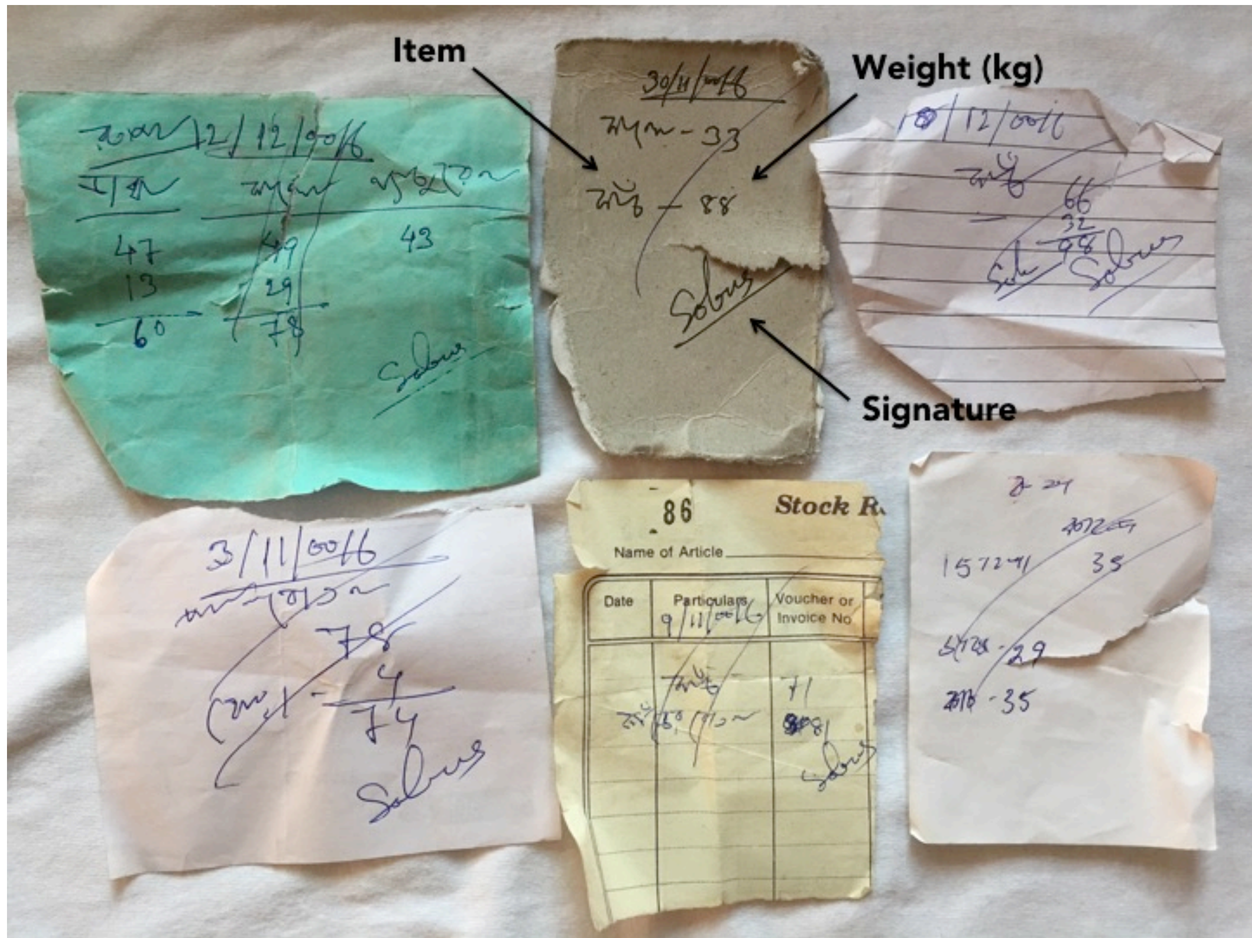

Figure 25 Receipts for scrap that had been weighed

Item	Rate (INR)	Quantity (kg)	Pay (INR)
Glass bottles	.5-2	N/A	100
Plastic bottles	20	13	260
Cardboard	3	76	228
Paperboard	3	84	252
Plastic bags	2	76	152
Glass shards	1	24	24
Tin	4	9	36
Iron/Steel	15	3	45
Mixed plastic	9	81	729
Paper	1	45	45
Total	-	**411**	**1871**[84]

Figure 26 A Collector's Accounts (8 days' worth of scrap)

[84] Equivalent to around US$31.

The process of doing the accounts at Almaas's was so significant because it was the only time that a crowd formed inside the office hut. During waking hours, the settlement would be buzzing with families working together to sort through the day's pile of scrap, men drinking tea and playing cards, women cooking meals just outside their homes, and children running around. At the end of a line of collectors' huts, the office space was reserved for the buyer and her business dealings: meeting with buyers, loan-givers, and other visitors. However, when accounts were done, many collectors would come in, and even stay on after their accounts had been done (see Figure 27). To return to the opening scene, this involves a one-on-one conversation in which each individual's accounts are calculated to tally scrap sold and payouts made. Once that is done, an amount is given to cover everyday living expenses, with the remainder "deposited" against the outstanding loan. While this process is relatively standardized, it is noteworthy that the amounts are relatively flexible—allowing for life circumstances to be taken into account (for example, a collector might need extra cash at the beginning of the school year).

When collectors and buyers meet to do the account books, their roles are evident by their clothing, where they sit, and the books they hold (either a diary or a ledger). At another settlement in South Delhi, the older male boss and his younger helper sat in white plastic chairs, sipping on tea and looking at the large ledger spread across the former's lap as laborers heaved enormous and imperfectly-packaged bails of scrap onto the large non-mechanized weighing machine. They sat easily, marking themselves as the bosses by not only their posture, but their relatively higher body weight and ease with which they gave orders. Bodies and spaces thus help to mark out this hierarchy between laborer and boss. Respecting these boundaries are easy even for newly arrived laborers because they draw on hierarchical distinctions in the village, derived from caste identity and land ownership, even if the person sitting in the chair is not of the same caste/ethnic background.

Figure 27 Doing the accounts inside Almaas's office hut

Like advances, daily payments were justified with substantive needs. Responses given when I asked about these elaborated that the money is for rice, bread, vegetables, or meat—in other words, for everyday basic needs. Alternatively, some collectors explained these daily payments by contrasting their subsistence positions with the owning classes with the rationale, explaining: "we need to eat somehow." Thirty-six-year-old collector Nuhu described, "We don't get a salary. It's, you know, whatever scrap there is – 100, 150, 200 rupees worth – from that we manage to take care of the *roti, daal-roti* [lentils and bread] for our wife and kids." He elaborated, "I'm a poor man. I need to earn and eat something, you know? If I sit at home, stay at home, then we wouldn't get anything to eat" (Interview, 7/9/13). Nuhu directly links his work, and the pay that he receives for it, to his most basic needs of getting lentils and bread, which signify staples in this community of rice eaters. These earmarked cash payments thus retain a kind of use-value based on ideas of subsistence, despite money's universalizing and homogenous tendencies. The physical distribution of bills becomes a ritualized practice that allows each family to survive.

Surprising to me was that I found, in most cases, the process of selling scrap to be relatively uncontested. For example, Tabir told me that he doesn't ask his boss for any kind of documentation like the one described above because he has worked with them for years and trusts them. At Almaas's place, it was the same: corrections were occasionally made to fix a mistake in the actual weight of a particular item (e.g. "I had 16 kilos of plastic, not 14"), the overall amount owed was nearly always taken for granted. Collectors treaded carefully, recognizing their obligation and raising meeker challenges—for example, asking for clarification on the number of bottles or the rate itself, but then nodding intently when it was repeated with a direct stare. With the terms known and consented to through the initial extension of an advance, there was little to negotiate during the transaction itself.

In other cases, however, the lack of negotiation may instead indicate collectors' lack of influence. When I was talking with collector Yusuf about his accounts, he produced a shard of greyish brown paperboard like the ones in Figure 4, which had various names for scrap materials in Bengali, along with their weights and rates. The *parchi* had a couple of diagonal lines across it indicating that it had been paid out, along with a signature. Next to the prices on the *parchi*, however, were another set of numbers in a different color ink. Yusuf explains that he calculated it himself and figured that he should have been paid 200 rupees more (see Figure 6). He explained that he had showed this to Almaas, but when he did she responded that the accounts were already done and the amount had been reduced because some of the scrap could not be sold. I asked Yusuf whether some of it was wet or not recyclable (putting stones or bricks into the scrap, or wetting paper, are well-worn tools of insurgent resistance), but Yusuf and his wife emphatically said no. Yusuf says there isn't anything he can do. He wasn't there when she went through the scrap, so he has no idea what was taken out, and even if he were, he would still be obligated to sell to her. He showed me a second *parchi* that had not yet been paid out, on which he again calculated the total amount he expected (around Rs1400). I later watched as he accepted less while doing the accounts without more than a single protest.

Despite other similarities across worksites, buyers did the accounts with differing regularity. While some like Raja and Rajesh tally them daily, others like Almaas did them every week to ten days, or even only once in six months when a collector left for his village. Raja explained how this worked in his family's business where the fifteen or so collectors who work

for them weigh the scrap on a daily basis: "they sort and bring it every day … once they deposit their stuff, they need money for the market and whatnot, for food. So once they've deposited the scrap, they take the money. When their scrap is sorted, then we deduct the total amount [that they took]." Because Raja lives in the same neighborhood as the collectors, he was frequently around. At Almaas's, accounts were done every week or two. If a collector sold scrap while she wasn't there (she lived in an adjacent middle-class neighborhood), a relative who lived on site or another person working for her would weigh each item and offer a receipt. Some buyers did the accounts even less frequently, however. "He'll do them once in 6 months when they need to leave for the village or something," a collector speaking for the group of collectors I was speaking with in South Delhi told me. I clarified, "But you weigh the scrap every day, right?" "Yes," he replied, confirming that earnings were regularly tallied, if not disclosed. None of them had their own diaries for tracking the accounts, so they have to rely on their boss's word. When I asked why they didn't maintain their own diaries, or record books, a few of them just shrugged as they looked down, while another collector said that if they did that the boss would cut their earnings in half. Since nearly all of them had taken advances, so they were bound to sell to him, as one of them explained, "even if he is buying for 5 rupees [per kilo] instead of 10" (field notes, 3/9/14). Although the process varies, account keeping tends to be a community event that defines the boundaries of the workplace and specifies the roles that comprise it.

Cutting Ties

Despite the relatively high amount of loans, collectors have frequently been able to pay them off. For example, a large number of people who have severed ties with single buyers like Almaas, instead forming independent groups who sell directly up the chain. When I was wrapping up fieldwork in 2015, an increasing number of collectors at Almaas's site recently began to sever ties, paying off their debts in order to become free to sell to the person with the highest price. Nuhu complained: "We don't get the entire *rate*, just half, and she gets half as profit…At least half goes to *madam*'s profit. … That's not right, which is why I've thought that if I get some money then I'll strike out on my own" (Interview, 1/24/14). Nuhu understood that Almaas made a profit from his labor, but he describes her taking at least half of the price that she sells it for as being excessive. This logic leads an increasing number of collectors to sever their

ties with a particular buyer, paying off their debts so that they are free to sell to the person with the highest price. A collector who had successfully paid off his loan and achieved independence explained that he had found happiness after an early life of intense struggle:

> Before we ate, look ma'am, I've never told a lie to anyone in my life, before we ate rice and curry (*sabzi*) – only one rice and one curry each day. If once in a while we got some fish, then we'd eat that. If one of us was sick, then we'd have to take a loan, but we didn't have faith that I could make the payments. And now over here, you see, I earn enough so that I even have faith that I can give someone else a loan. Before, when I was a kid in the village, if we took a loan then I was scared about paying it off when I took it. [I'd think], how would I give back the 500 rupees I took, I mean, how would I get it back to them? (Interview, 13 July 2013).

What is interesting in this narration is how the collector moves from a logic of subsistence to a logic of exchange-value, with his ability to become the giver of money instead of the provider of food becoming an important marker of status and mobility. A 28-year-old Bengali collector from a village near Almaas's explained that as an independent collector, he could save three to five thousand rupees each month, rather than being in debt.

Other collectors breach obligations by running away. When this happens, buyers may try to recoup the money, but as Rajesh, a buyer who has been in the business for over 20 years in south Delhi, explained, it's rarely worth their efforts:

> Now, I wasn't able to catch the people who ran away … I didn't get them. Like the ones from Bangladesh, they ran off to Bangladesh. The ones from Gorakhpur ran off to Gorakhpur. How would I even figure out which village they're living in? So if I go after them for 50,000 [rupees] there'll be conflict and fighting, so [there's no] point, I mean, there's also the fact that, you know, they stayed with me for ten years, and in ten years I must have earned 20 or 30 thousand rupees from them. If there's a 10 or 20 thousand rupee loss, then it's no big deal. When I think like that, I let it go. (Interview, 3/12/14)

When I went with Almaas to homes near my primary field site on a couple of occasions, we visited collectors who had taken loans were not selling their scrap to her, going into homes where she would tell them that they needed to start selling to her, and if they didn't, she would take

their television. I went with her when she did this in the village as well. There, we sat and waited for a skinny man in his early 20s to come back while his wife waved a palm-leaf fan in our direction. However, I never saw her confiscate anything on our visits, which made me ask me whether she ever had. "No," she responded; she just tries to pressure them into selling to her or paying back what they owe.

Although Almaas would complain about the cost of people running away without paying off their loans, she also admitted that there was little she could do to get the money back, even though she was from the same state, and in some cases even the same village, as collectors. More effective, it seems, was the reputational damage that would follow a collector from the city to their village: "If they run off with 50,000, people will exaggerate and it's its 400,000 just to give them a bad name," Almaas explained with a chuckle. Still, while collectors may not pay back their loans, they continue to receive them. The system does not collapse even though there is malfeasance because the majority of people find playing by the rules to be worthwhile.

Remaining in debt means to form lasting ties. Knowing to whom you are indebted, or from whom you are owed, is a reason and a responsibility to be in touch with that person—either to repay them or to call in what's owed. These negotiations may involve ongoing phone calls, visits, and cups of tea or "cold drinks" (sodas or juices).The gesture of offering these tokens — answering someone's phone call, meeting them on their schedule, and offering them refreshments — serves to demonstrate good faith that the person will be repaid. It is the termination of such a relationship, by running off or refusing to answer calls, which violates the agreement.

Conclusion

This chapter has shown how the giving and taking of advances, and the regular practice of doing the accounts, creates a contractual bond between based in a particular moral economy. In the process of getting paid, people form relationships—bonds that entail obligation and responsibility partially rooted in other kinds of social belongings, especially from rural life, but which are re-purposed in order to sustain a life of recycling in the city. The first stage in the process, forming ties, offers the opportunity for both parties to assess one another before moving into the long-term contractual bond that commences with the second stage of extending

advances. When the accounts are done, transactions are relatively uncontested, with payment amounts being generally agreed to. Finally, ties are severed when collectors pay off their debt and decide to become independent, or when they breach the contract by running off without paying back their debt. And, of course, there are the various material forms that these accounting processes entail. There is the structure of the room, which affords only some of the people to sit on chairs. Much like more bureaucratic institutional forms, these must include the right signature and format to be processed during the process of accounts. And since the accounting books themselves are small physical objects often left in places that collectors have access to, they are stolen on occasion by people hoping to clear their debt.

To say that these practices and relations are central to informal scrap economies, however, is not to say that they are uniform or unchanging. On the contrary, as I have shown here, there are variations across sites, and more recently, collectors in many areas have begun paying off their debts and making themselves independent sellers. Yet, even while collectors become increasingly independent, many continue to remain tied to a single buyer—perhaps out of a sense of loyalty—but more likely because the contract provides security: a guarantee of future credit and mutual accountability that offers life-sustaining potential. The process of doing the accounts, then, lies somewhere between gift and market. It is obviously a system of monetary accounting, so the transactions are explicit. Totals are calculated, standardized amounts are multiplied in order to arrive at them (using a physical calculator and a "calculator mind"), and payments are made in cash. But, then, there is also that which is not immediately apparent (cf. Bourdieu 1996): payments are always partial—either requested by the seller or given without discussion by the buyer—and there are "payments" in kind that aren't visible such as housing and unpaid labor. The temporal relation between loans and ties, then, is not simple or unidirectional. Services are received in exchange for these other kinds of work, or maybe it's the other way around. All of these are of course also mediated processes—a mixture of exchange and redistribution that draws on village patronage roles (Polanyi 1957).

Key to such relations, however, are money and debts, which form relations that bind people together over the long term by occupying the liminal state (Gregory 2012) of "an exchange that has not been brought to completion" (Graeber 2011:121). Materials help to ground these otherwise abstract transactions, recording obligations on hand-written accounting

books and receipts and providing a focal point for repeated interactions (cf. Çalışkan and Callon 2009; Suchman 2003; Yudin and Pavlyutkin 2015). Money and scrap are the focus of the transactions—with the pursuit of rupee bills motivating the entire process, even while indicating more substantive necessities. Adding to the existing set of mechanisms through which contracts may be formed and enforced relationally, debt relations may thus function as contractual bonds through which other forms of obligation and provision are expected and enforced. In the course of negotiating accounts, ethical obligations are made as people chat about their lives and the lives of relations, creating a moral economy that offers flexible responsiveness to substantive needs. The ethical affordances (Keane 2015) of these transactions come to define what kinds of circumstances and events are seen as important or necessary in order to live a decent life, as certain kinds of justifications are deemed acceptable for the purposes of receiving or delaying payments. Indeed, the timing and sum of the exchanges are regulated by accepted forms of need and well-being, with economic and familial intimacy becoming integral to the system of earmarking through which these transactions occur.

Surprisingly, when I asked Yusuf and his wife—who had so carefully tracked the amount they had been shorted while getting paid—whether they trusted Almaas to accurately keep the books, they both responded "yes" without hesitation. "Why?" I asked. They explained that they can see the ledger as she writes, plus they've now known her for a really long time. It can be easy to criticize buyers like Almaas—to focus on their exploitation of marginalized workers. But this perspective is itself impoverished of a broader perspective that brings into view their own marginalization. While other business owners are able to access capital and choose other occupations, buyers like Almaas have far fewer options. The next chapter (to be included in the book) looks at buyers up the chain, offering a view of what aspiration in this context looks like.

Conclusion: Remaking Status in Delhi's Informal Recycling Economy

Over five substantive chapters, I have shown how status relations are reproduced between actors and institutions as collectors, recyclable buyers, and policymakers at various points of the chain engage in transactions—primarily, but not exclusively, of money and waste—that engender particular forms of obligation, responsibility, and stigmatization. Together, these bonds create status relations that structure and reproduce systems for garbage collection and recycling, forming a substantive challenge to government-supported programs through robust, if informal, institutions. The hybridized institutional forms that are produced notably mix the "modern" and "traditional," revealing processes that comprise what has been referred to as postcolonial or racial capitalism.

Each of the status relations discussed in these chapters, including patron-client relations, stigma navigation, and the ideal of monetary independence, illuminates a pathway through which status based on class, caste, ethnicity, and religious community structures economic life and provides durability through repeated transactions. What do these portend for capitalist trajectories and their environmental consequences? The transactional forms exemplified by informal garbage collection in Delhi are constituent of economies that are hybrid not only in their institutional composition and modes of economic transformation (cf. Nee and Opper 2014), but rather in their relationship to capitalist processes themselves. Visible from these spaces, I suggest, are processes through which multiple forms of capitalist relations—along with their attendant environmental consequences—are adopted, transformed, and undermined.

To have someone in your debt, for example, is to be in a position of power; and whether that power is explicitly exercised or retained as a latent potentiality, it comes with specific possibilities and responsibilities that exceed more limited legally defined contractual forms of obligation. Meanwhile, the stigmatization and de-stigmatization that occurs as both a source and consequence of social status transformations demarcates the boundaries of institutional and group formation. In this conclusion, I connect the concepts of transactions, status-based

regulation, and moral economies to wider ideas of caste capitalism and environmental transformation, elaborating the processes that comprise them.

The Moral Economies of Status-Based Regulation

The remarkable social complexity of the informal economy for garbage and scrap, which I have only begun to describe here, involves millions of hands adeptly sorting recyclable stuff into sequences of piles that are moved along a manual conveyor belt. This happens again and again, from the doorstep where it is collected to the mouth of a machine that spits it back anew. I have demonstrated here, however, the aim of sensing these physical and sensory—smelly, slimy, heavy, sharp—aspects of the waste products, however, is to convert it into cash. In other words, while the laborers who work with, and in, the garbage-laden scrap are hardly alienated from its reproduction, their primary objective is not to reuse the recyclable material themselves, but rather to sell them like any other product or commodity. Materials like plastics, papers, and metals are given local names that have their own monetary rates. Yet those possibilities are limited by the other transactions they participate in: handling garbage engenders stigma, and a lack of capital leaves them open to financial exploitation, as buyers maintain control over the books and substitute non-monetary payments for more fungible cash.

The negotiations and transactions that underpin their buying and selling, then, are deeply embedded in existing relations of status, power, and being—generating moral economies that are tightly bound up in the production and enactment of status-based regulation. What are the norms, duties, solidarities, responsibilities, and obligations (i.e. the moral economy) that are produced through, and in turn structure, this economy? What kinds of social distinctions do these depend on, reinforce, and transform? Through what processes does the economy change over time, and what does this portend for possible futures?

We have seen how the transactional pathways (Guyer 2004:30), through which materials are exchanged and value conferred, coalesce at multiple scales. The mechanized corporate garbage programs discussed in Chapters 1 and 2, for example, have become the recipients of multi-million-dollar investments at a time when India was seeking to "clean up" its cities—a project that was, unfortunately for ordinary Indians who desperately need more sanitation resources, primarily aesthetic. These macro-institutional priorities channel resources into

corporate programs, leaving the existing informal recycling system to fend for itself. This aesthetic focus was tied to the pursuit of enhanced global status, which was particularly evident during the 2010 Commonwealth Games held in Delhi, in hopes of attaining wider recognition for being a "developed" and desirable place fixed onto the sensory map of the global elite. Through the lens of these modernist developmentalists priorities, the Indian government at multiple levels (i.e. local, state, and national) prioritized and funded mechanized systems for garbage collection, effectively valorizing expensive garbage collection trucks and incinerators while dismissing the country's vast, highly institutionalized manual collection and recycling system as atavistic and ill-suited for the nation's urban future. Prioritizing these aesthetic concerns, which align with upper-caste interests over low-caste and Muslim laborers, reinforces an existing moral economy that devalues their labor more generally.

Meanwhile, at the neighborhood scale discussed in Chapters 3 and 4, we saw how moral economies are evident in the relations between collectors, local residents, and *jamadar* contractors as collectors retain access to neighborhood territories and individual households. For residents, having a collector come right to the door means that they do not have to walk out onto the street with their garbage—an act that is stigmatizing in a casteist division of labor frequently marked by ideas of purity and pollution. Even though trucks collect garbage from the street just in front of their homes, most residents opt to continue paying the small additional monthly fee for a collector to take their trash right from the doorstep. This arrangement is at once a matter of "convenience" because residents do not have to walk down stairs or out the door at the exact time of collection. But I also argue that this arrangement upholds status distinctions by maintaining middle-class householders as bosses of their domains while positioning Muslim and Dalit collectors as servile laborers who ensure the proper maintenance and cleanliness of the household. In return for their labor, residents take on collective responsibility for ensuring that collectors have access to tea and snacks while working, and they sometimes also offer leftover food or clothing. These transactions reinforce who can give what to whom, affirming the lower status of garbage workers by tasking them with handling garbage (while ensuring that middle-class residents do not) and ensuring that things given are of inferior—and thus socially appropriate—quality. Drinks are typically served in disposable cups that are then discarded, demonstrating that the giving of food occurs in only one direction, from a higher status group to

a lower status one, which cannot be reciprocated except through garbage labor. An inability to reciprocate marks unequal status, much as Marriott described in India's villages mid-century.

Similarly, the relationship of informal collectors to their *jamadar* bosses reflects the status hierarchy evidenced by who touches garbage. While the collectors who tend to be newer migrants from eastern states like West Bengal touch the trash and all that it contains (wet paper, mango peels, baby diapers) with their bare hands while collecting and sorting through it, *jamadars*—who are nearly all part of the Delhi Balmiki community—do not. Instead, *jamadars* earn a living from collecting the monthly fee from households—something they have the right to because of hereditary claims to particular neighborhoods to collect their waste. Yet, we also see how this casted labor is not simply reproduced over time, but rather the roles and groups who occupy them can change. In particular, migrants to the city have to contend with newly ascribed forms of stigmatization that originate in the collecting of other people's trash. Becoming socialized to these new relational selves requires that collectors endure forms of discrimination that range from being served tea in plastic cups to being told to move (themselves or their cart – with the object often left ambiguous) because of the dirtiness or smell. Through these practices, moral economies come to define particular status relations through ideas of cleanliness and servility that are distributed more widely.

In Chapter 5, meanwhile, we saw how economic exchanges were not only secondary to other relational ties (i.e. trust → lend / don't trust → don't lend), but are themselves productive of moral commitments. The transactional relationships between collectors and buyers, for example, involves a range of obligations that include the sale of scrap but do not end there. Instead, buyers become responsible for ensuring collectors' basic needs, with payments themselves tied to a temporal range of reproductive necessities ranging from daily food staples to health crises and ensuring children's marriages. Rather than receiving one-time payouts with no further obligation, collectors have tended to remain indebted to particular buyers, taking cash only for what they need on a daily basis and "saving" the rest to pay off larger advances: sums that are taken for major life events.

The power of this long-term relationship, of course, is that money holds out the promise of financial and also social commensuration, and "[e]xchange allows us to cancel out our debs. It gives us a way to call it even: hence to end the relationship" (Graeber 2011:104). To repay

someone exactly, then, suggests a closure or a termination of obligation; while the ongoing account-keeping process described here requires an ongoing relationship. Still, how that act is understood depends upon the context within which it takes place. Discussing a passage by Laura Bohannan, Graeber (2011) describes how locals had described that, yes, she was obligated to return food staples (peanuts, corn, chicken, tomatoes) that were given upon her arrival in the village. But, importantly, the countergift was not to be exactly equivalent, so as to avoid the crude—thus immoral—suggestion that there was no reason to continue relying on one another. Echoing earlier findings by Malinowski, he writes:

> To bring back nothing at all would be to cast oneself as an exploiter or a parasite. To bring back an exact equivalent would be to suggest that one no longer wishes to have anything to do with the neighbor. Tiv women, she learned, might spend a good part of the day walking for miles to distant homesteads to return a handful of okra or a tiny bit of change, "in an endless circle of gifts to which no one ever handed over the precise value of the object last received" – and in doing so, they were continually creating their society (Graeber 2011:105)

Such long-term exchanges of near, but not exact, equivalency persist even in contemporary capitalist societies. A friend buys dinner, and I offer to get the next one. Instead of sending an electronic transfer of $4.78, I send five dollars. These indicate my intention of continuing our relationship (along with signaling that it could be dissolved). In the case of Delhi garbage collectors, their unequal status vis-à-vis buyers is borne out in who determines how much is owed, how much will be paid, and when the books will be done. The longevity of the relation, too, is defined by the ambiguity of payments and the provision of other kinds of provisions, such as housing, work, and healthcare. Evident here, then, are other kinds of social relations that are not only the basis for properly "economic" exchange relations. Rather, the two are connected in an iterative fashion, generating moral expectations and status positions in the process.

Caste Capitalism

What becomes apparent is the centrality of other kinds of social relations and forms of difference in configuring economic ones, and vice versa. Much as racial capitalism has been increasingly used as a lens for understanding how other forms of social difference affect

accumulative regimes, so too might we think of the role of caste and community in the Indian context—shaping economic regimes, but not in the rigid (or really ossified) way indicated by orientalist ideas of caste that posit it as an "unchanging system." As discussed in the introduction and Chapter 4, caste instead describes multiple communities or *jatis*, which are hierarchically related, but in ways that can shift over time and geography. Moreover, the mechanisms through which status is re-inscribed shifts according to new institutional landscapes, much like race in the United States or elsewhere. What we find here is that these sources of social difference are not only strategies of accumulation; they also create morally positive ties between people and groups that creates a platform for ongoing transactions.

To see this space through the lens of caste capitalism is to go beyond ideas of "postcolonial capitalism," which graft the center/periphery divide onto ideas of "need" versus "accumulation" economies (Sanyal 2007). Certainly a distinction is evident here between corporate and "non-corporate" forms of capital (cf. Chatterjee 2011), with informal collectors' earnings being so tightly bound to basic reproductive needs and the government program being twinned with a corporation. Yet, the distinction between need/subsistence and accumulation/profit does not capture the moral complexity and social transformation evident in this deeply hybridized space. The line between need/subsistence and accumulation/profit can be blurred from both ends of the status hierarchy. On the one hand, while corporations seem to fit neatly into the latter category, we have to wonder whether accumulation is the right lens for companies that only profit by siphoning money away from the state. (Infrastructure companies are extreme but certainly not unique in this regard). And, on the other hand, while Delhi's informal collectors and low-level buyers might be seen as part of a need economy (their activities certainly do focus on subsistence), to label this space as only concerned with need does not adequately capture the fact that many of the actors within it aspire to accumulate and emulate business owners. The irony, of course, is that the so-called "need economy" in this case is the one operating according to economic principles of supply and demand, dependent on the availability of not only scrap but also global oil markets, while the "accumulation economy" operates according to rates fixed by negotiations and government contracts. Perhaps the terms market and monopoly would do more to describe these distinctions.

Rather than being exceptional as "informal" or postcolonial, then, spaces like the one described here are better understood extreme cases of how economic institutions are embedded in particular social contexts, much as Polanyi maintained. Beyond any idea of "postcolonial capitalism," which grafts a West/Rest dichotomy onto national territories, distinctions are shaped by local systems of social status: gender, class, and especially race/ethnicity/caste. Rather than a rupture leaving to cleavage, what emerges is hybridized: not only do informal garbage collectors rely on caste-based and casteist (including anti-Muslim) practices, but so too do large corporations and other major state institutions rely on caste categories and social divisions. In this case, for example, the formal garbage collection trucks—much like the informal collection system—depends on members of the regional Balmiki Dalit community to populate its workforce.

This approach to theorizing links between multiple forms of social difference and systems of capital accumulation extends work on racial capitalism, which centers the practical ways that actors experience economic systems and change, extending amore unidimensional critical political economy tradition focused on class. Cedric Robinson, who coined the term racial capitalism, puts this dynamic into historical context, maintaining that "capitalism was less a catastrophic revolution (negation) of feudalist social orders than the extension of these social relations into the larger tapestry of the modern world's political and economic relations" (Robinson 2000:10). In other words, transformation is an ongoing and fluid process whereby new forms of social relations and distinctions do not emerge *ex nihilo*, but rather develop from those that were already there.

What I demonstrate here, however, is that conditions of structural difference (whether labeled "race" or "caste") not only create limitations and exclusions, but also engender platforms for ongoing connection. Stigma here functions as a central factor that reinforces caste and community differences at multiple levels, producing key limitations that are often bitter and even morally repugnant, but so too do community ties form a basis for economic provisioning and exchange. A key tension emerges, as the creation of a liberal utopia based on equality in the economic realm would also flatten sources of meaning and identity that create socially productive ethical relations. This is what caste capitalism refers to: both the forms of difference that facilitate exploitation especially through devalued labor *and* the connective bonds that tie actors

together as they struggle to succeed. Caste capitalism, then, includes both the transactional economic limits *and* possibilities that are produced through caste-based differences, while also accounting for how categories themselves are shaped through economic relations.

To introduce the idea of caste capitalism here is to connect the study of transactions the macro institutional forms that produced in the process. What emerges is a similar reproduction of capitalism and caste/community structures to what Cedric Robinson details in his classic work. Yet, rather than showing signs of protest and resistance, more liberatory futures are imagined *through* market transactions, as actors seek greater independence, rather than only against them (see also Ghertner 2015).

The Social Organization of Environmental Systems

If there is a well-theorized between capitalism (alternatively conceptualized as imperialism, neoliberalism, or the "capitalocene") and environmental exploitation, so too must connections be made between processes of environmental racism and racial capitalism (cf. Pulido 2017), in order to understand how economic systems lead to environmental and public health crises and recognize the limits of statist interventions intended to resolve them.

This project makes a few key contributions to the field of environmental sociology, with a focus on how environmental institutions take shape (cf. Pellow 2000; Pellow and Nyseth Brehm 2013; Taylor 2000). For one, it demonstrates that social inequalities may not only structure the distribution of environmental harms like air and water pollution, which has been at the center of environmental justice research and some of my own work (Kornberg 2016, 2019b; Krings, Kornberg, and Lane 2018), but also the provision of environmental goods. This case foregrounds a number of more widespread, and often problematic ironies—one of which is the fact that an environmental system is only extant because of socially discriminatory practices and inequalities that endow some groups with the ability to use more things while others can only survive on their offal.

Second, this project contributes the project of understanding how environmental institutions take shape differently depending on global and local systems of power, particularly as they become embodied by particular actors (Doshi 2017; Peet, Robbins, and Watts 2011). Chapter 2, for example, shows the importance of the world stage in affecting how solid waste

programs were formed; technologies designed for wealthy Western contexts were adopted without considering locally available resources and workforces. What would be considered a standard service in the context of the global North instead came to indicate, to a postcolonial (i.e. colonized) state, an enviable amenity with the power to improve a city's reputation. Meanwhile, local politicians and company managers also stood to benefit from the construction of capital-intensive technologies, further resourcing their more personalized elite aspirations.

Yet, the main contribution I want to emphasize here is that environmental institutions are crucially shaped not only by technology and power, but also meaning and culture. It is the meanings and values that actors have access to, based on their status positions, which consequently value environmental goods and forms of environmental practice. In India's postcolonial context, modernity—and specifically ideas of ecological modernization—retain a kind of allure that has been arguably replaced in wealthier nations by a return to the "artisan" and handmade. If locally grown vegetables and composting are seen as hip and progressive in high-status western contexts, in India they tend to be seen as inferior (the word "local" tends to be pejorative in the sense of it being low quality).

As environmental actors, Delhi's garbage collectors and recyclers are of course largely unaware of their environmental subjectivities. Their actions and are widely depicted as "dirty" in a system predicated on caste and casteism, which only internationally connected NGOs tend to uplift as environmentally beneficial forms of recycling per se. More generally, claims to environmentalism—via discourses of "clean," "green," and "scientific"—have primarily been made by more powerful, high-caste actors touting developmentalist agendas; to be "green" is to be clean and modern—yet another amenity that adds aesthetic value to urban space and residences, rather than providing a check on the exploitation of resources. Apart from the framing of environmental goods themselves, then, the social structure of environmental systems is based not only on divisions such as class, caste, and race, but also the culturally specific forms that those inequalities take.

At the heart of these problems, then, are how categories of worth of generated through transactional pathways to frame certain forms of environmental discourse as valid while devaluing others. Who is empowered to define these, of course, depends on their social position, making environmental claims deeply tied up with status. Similar dynamics are evident in wealthy

countries, where the cultivation of parks, provision of recycling and composting services, and access to safe and ethical food tend to be for white middle-class and elite communities. With claims to green or environmental consumption, these tendencies become even more pronounced; environmental stewardship becomes something one can buy, if only the products are available and a person can afford them. All things are commodified, as whiteness justifies capitalist orientations towards the planet as a neutral project.

But environmentalism is not only something one does or does not do; it is a system that is socially defined. The question, then, is who gets to claim environmental practice: is it the working poor, women, and indigenous communities, or is it a white, elite, and masculine conception that prevails? In order to get at these wider cultural politics, there is an urgent need to expand the kinds of cases and questions that environmental sociology examines, going beyond already existing movements, organizations, and identified problems to grappling with stickier questions of how environmental problems are defined, who gets access to environmental goods, and what systems of meaning and inequality shape them.

At stake is not only contests over local environmental claims and conceptions, but the very ability to articulate them in the first place. Here, for example, we have seen how recycling has persisted despite dominant actors in Delhi attempting to replace it with less environmentally beneficial approaches like incineration. This has important consequences for the environment in terms of material use, air pollution (from the incinerators being built), and groundwater pollution (from landfilling). Despite this, however, environmentally beneficial systems are at a high risk of being dismissed as backwards or dirty in postcolonial contexts like India's. Where that line is drawn depends on the cultural context, and its effects have serious environmental consequences.

Social distinctions are what uphold this economy and its division of labor, tasking particular groups with doing the dirty work so that others don't have to. On the other hand, making distinctions between materials is also necessary in order to facilitate material re-use and recycling. When everything is massed together (with standardization/homogenization being central to ideas of modernity), possibilities for re-use or recycling are significantly reduced (think not only of landfills here, but also single-stream recycling, which has proven to be so problematic). Making distinctions, then, is not the problem. The problem is the basis on which they are made, who makes them, and what the effects are.

* * *

There is no shortage of contemporary support for modernist ideas—from mechanization, to sterile architecture and strong nation-states—not in the global North and especially not in the Global South. In India, for example, Modi's fantastic rise to power hinged on ideas of forward motion, captured by calls for progress and waves sweeping the nation. Differences, especially of caste, have been exacerbated even as they've been swept (nearly literally, through programs like *Swacch Bharat*) under the rug. As "Bharat," the theory still goes, nationality triumphs over longstanding systems of discrimination, rendering claims to caste and religion (or casteism and Islamophobia) as themselves backward, while upper-caste Hindus claim a neutral status for themselves that theoretically and practically resembles Whiteness elsewhere.

The rise of modern forms of development were intended to render existing systems "traditional" and meaningless. Shorn of their relevance, these systems—practices, organizations, civilizations even—themselves become a kind of waste from the perspective of those bringing "Development." Indigenous mounds in North America, for example, are all that remain where towns once stood, their markers (or lack thereof) indicating a civilization that has been deemed no longer relevant by the now-white European descendants who conquered their territories. Yet those heaps of mud contain souls and their things, which we might imagine calling out during this time of climate crisis: "What if everything had gone differently?" What if "Development" had come to mean something else, in a different language, that brought us to commune with nonhuman species in ways that left smaller mounds, that left so much less of our trace, our scars, on this planet?

To envision a future is beyond the scope of this project. Yet I aim to contribute to this urgent need by tracing the alternatives that exist in the now. These aren't utopias. They aren't non-capitalist (in fact they're perhaps more capitalist than the so-called "capitalist" economy that is more monopolistic than competitive). And they aren't socially equitable. But they *do* offer insight into other ways of relating—to each other and to the things we waste—that reach beyond stale, modernist ideas of "market," "state," and "civil society."

REFERENCES

Agarwala, Rina. 2009. "An Economic Sociology of Informal Work: The Case of India." *Research in the Sociology of Work* 18:315–42.

Agarwala, Rina. 2013. *Informal Labor, Formal Politics, and Dignified Discontent in India*. Cambridge: Cambridge University Press.

Ahmad, Imtiaz. 1966. "The Ashraf-Ajlaf Dichotomy in Muslim Social Structure in India." *Indian Economic & Social History Review* 3(3):268–78.

Anderson, Warwick. 1995. "Excremental Colonialism: Public Health and the Poetics of Pollution." *Critical Inquiry* 21(3):640–69.

Anderson, Warwick. 2010. "Crap on the Map, or Postcolonial Waste." *Postcolonial Studies* 13(2):169–78.

Anjaria, Jonathan Shapiro. 2006. "Street Hawkers and Public Space in Mumbai." *Economic And Political Weekly* (May 27):2140–46.

Anjaria, Jonathan Shapiro. 2009. "Guardians of the Bourgeois City: Citizenship, Public Space, and Middle-Class Activism in Mumbai." *City & Community* 8(4):391–406.

Anjaria, Jonathan Shapiro. 2011. "Ordinary States: Everyday Corruption and the Politics of Space in Mumbai." *American Ethnologist* 38(1):58–72.

Annepu, Ranjith. 2012. "Sustainable Solid Waste Management in India." Columbia University.

Anon. 1982. "Turnout for Games Lags, New Delhi Paper Says." *The New York Times*, A5.

Anon. 2010a. "Cricket Stars to Push for MCD's Clean Delhi Plan." *Hindustan Times*, February 8.

Anon. 2010b. "Not Clean Enough?" *Hindustan Times*, May 16.

Assaad, Ragui. 1996. "Formalizing the Informal? The Transformation of Cairo's Refuse Collection System." *Journal of Planning Education and Research* 16(2):115–26.

Baviskar, Amita. 2002. "The Politics of the City." *Seminar* 516:40–42.

Baviskar, Amita. 2003. "Between Violence and Desire: Space, Power, and Identity in the Making of Metropolitan Delhi." *International Social Science Journal* 55(175):89–98.

Baviskar, Amita. 2007. "Common Wealth Or White Elephant?" *Outlook City Limits* 3(7):16–23.

Baviskar, Amita. 2011. "Spectacular Events, City Spaces and Citizenship: The Commonwealth Games in Delhi." Pp. 138–61 in *Urban Navigations: politics, space and the city in south asia*, edited by J. S. Anjaria and C. McFarlane. New Delhi: Routledge.

Bayat, Asef. 2000. "From 'Dangerous Classes' to 'Quiet Rebels': Politics of the Urban Subaltern in the Global South." *International Sociology* 15(3):533–57.

Bedi, Kiran and Pavan Choudary. 2010. *Broom & Groom*. Gurgaon: Wisdom Village.

Benjamin, Solomon. 2008. "Occupancy Urbanism: Radicalizing Politics and Economy beyond Policy and Programs." *International Journal of Urban and Regional Research* 32(3):719–29.

Bennett, Jane. 2004. "The Force of Things: Steps toward an Ecology of Matter." *Political Theory* 32(3):347–72.

Bentley, G. Carter. 1987. "Ethnicity and Practice." *Comparative Studies in Society and History* 29(1):24–55.
Beverley, Eric Lewis. 2011. "Colonial Urbanism and South Asian Cities." *Social History* 36(4):37–41.
Bhan, Gautam. 2009. "'This Is No Longer the City I Once Knew'. Evictions, the Urban Poor and the Right to the City in Millennial Delhi." *Environment and Urbanization* 21(1):127–42.
Bhattacharya, Ranjit K. 1973. "The Concept and Ideology of Caste among the Muslims of Rural West Bengal." Pp. 269–98 in *Caste and Social Stratification among Muslims in India*, edited by I. Ahmed. Columbia, MO: South Asia Books.
Birkbeck, Chris. 1978. "Self-Employed Proletarians in an Informal Factory: The Case of Cali's Garbage Dump." *World Development* 6(9/10):1173–85.
Black, David and Byron Peacock. 2011. "Catching Up: Understanding the Pursuit of Major Games by Rising Developmental States." *The International Journal of the History of Sport* 28(16):2271–89.
Bohannan, Paul. 1955. "Some Principles of Exchange and Investment among the Tiv." *American Anthropologist* 57:60–70.
Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
Bourdieu, Pierre. 1991. *Language & Symbolic Power*. Cambridge, MA: Harvard University Press.
Bourdieu, Pierre. 1993. "Some Properties of Fields." Pp. 72–77 in *Sociology in Question*. London: Sage.
Bourdieu, Pierre. 1996. "Marginalia - Some Additional Notes on the Gift." Pp. 231–41 in *The logic of the gift: toward an ethic of generosity*, edited by A. D. Schrift. New York: Routledge.
Bourdieu, Pierre. 2005. *The Social Structures of the Economy*. Malden, MA: Polity.
Bourdieu, Pierre. 2011. "The Forms of Capital." Pp. 78–92 in *The Sociology of Economic Life*, edited by M. Granovetter and R. Swedberg. Westview Press.
Bourdieu, Pierre. 2014. *On the State: Lectures at the College de France 1989-1992*. edited by P. Champagne, R. Lenoir, F. Poupeau, and M.-C. Riviere. Malden, MA: Polity.
Burawoy, Michael. 1998. "The Extended Case Method." *Sociological Theory* 16(1):4–33.
Çalışkan, Koray and Michel Callon. 2009. "Economization, Part 1: Shifting Attention from the Economy towards Processes of Economization." *Economy and Society* 38(3):369–98.
Castells, Manuel and Alejandro Portes. 1989a. "The World Underneath: The Origins; Dynamics; and Effects of the Informal Economy." Pp. 11–37 in *The Informal Economy: Studies in Advanced and Less Developed Countries*, edited by A. Portes, M. Castells, and L. A. Benton. Baltimore: Johns Hopkins University Press.
Castells, Manuel and Alejandro Portes. 1989b. "The World Underneath: The Origins; Dynamics; and Effects of the Informal Economy." Pp. 11–37 in *The Informal Economy: Studies in Advanced and Less Developed Countries*, edited by A. Portes, M. Castells, and L. A. Benton. Baltimore: Johns Hopkins University Press.
Central Pollution Control Board. 2015. *Consolidated Annual Review Report on Implementation of Municipal Solid Wastes (Management and Handling) Rules, 2000*.
Chakrabarty, Dipesh. 1991. "Open Space/Public Place: Garbage, Modernity and India." *South Asia* 14(1):15–31.
Chaplin, Susan E. 2011a. "Indian Cities, Sanitation and the State: The Politics of the Failure to Provide." *Environment and Urbanization* 23(1):57–70.

Chaplin, Susan E. 2011b. *The Politics of Sanitation in India: Cities, Services and the State*. New Delhi: Orient Blackswan.
Chatterjee, Partha. 2004. *The Politics of the Governed: Reflections on Popular Politics in Most of the World*. New York: Columbia University Press.
Chatterjee, Partha. 2011. "Democracy and Economic Transformation in India." Pp. 17–34 in.
Chatterjee, Suparna and Judith T. Kenny. 1999. "Creating a New Capital: Colonial Discourse and the Decolonization of Delhi." *Historical Geography* 27:73–98.
Chaturvedi, Bharati and Vinay Gidwani. 2010. "The Right to Waste: Informal Sector Recyclers and Struggles for Social Justice in Post-Reform Urban India." Pp. 125–53 in *India's New Economic Policy: A Critical Analysis*. Vol. 15, edited by W. Ahmed, A. Kundu, and R. Peet. Taylor & Francis.
Chibber, Vivek. 2002. "Bureaucratic Rationality and the Developmental State." *American Journal of Sociology* 107(4):951–89.
Chintan Enironmental Research and Action Group. 2007. *Wasting Our Local Resources: The Need for Inclusive Waste Management Policy in India*.
Clark, J. F. M. 2007. "'The Incineration of Refuse Is Beautiful': Torquay and the Introduction of Municipal Refuse Destructors." *Urban History* 34(2):255–77.
Cointreau-Levine, Sandra and Adrian Coad. 2000. *Private Sector Participation in Municipal Solid Waste Management*. St. Gallen.
Corwin, Julia Eleanor. 2017. "'Nothing Is Useless in Nature': Delhi's Repair Economies and Value-Creation in an Electronics 'Waste' Sector." *Environment and Planning A* 0308518X1773900.
Crossa, Veronica. 2009. "Resisting the Entrepreneurial City: Street Vendors' Struggle in Mexico City's Historic Center." *International Journal of Urban and Regional Research* 33(1):43–63.
Cuvi, Jacinto. 2016. "The Politics of Field Destruction and the Survival of Sao Paulo's Street Vendors." *Social Problems* 63:395–412.
Das, Veena and Deborah Poole. 2004. "State and Its Margins: Comparative Ethnographies." Pp. 3–34 in *Anthropology in the Margins of the State*, edited by J. Currey. Santa Fe: School of American Research Press.
Decoteau, Claire Laurier. 2016. "The AART of Ethnography: A Critical Realist Explanatory Research Model." *Journal for the Theory of Social Behaviour* 47(1):58–82.
Deephouse, David L. and Mark Suchman. 2008. "Legitimacy in Organizational Institutionalism." Pp. 49–77 in *Sage Handbook of Organizational Institutionalism*. SAGE.
Demaria, Federico and Seth Schindler. 2016. "Contesting Urban Metabolism: Struggles Over Waste-to-Energy in Delhi, India." *Antipode* 48(2):293–313.
Department of Urban Development (Delhi) and IL&FS Ecosmart Limited. 2006. *City Development Plan: Delhi*.
Deshpande, Ashwini and Katherine Newman. 2007. "Where the Path Leads: The Role of Caste in Post-University Employment Expectations." *Economic And Political Weekly* (October 13):4133–40.
Desmond, Matthew. 2014. "Relational Ethnography." *Theory and Society* 43(5):547–79.
Doshi, Sapana. 2017. "Embodied Urban Political Ecology: Five Propositions." *Area* 49(1):125–28.
Douglas, Mary. 1966. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. New York: Routledge.

Douglas, Mary. 1990. "Foreward." in *The gift : the form and reason for exchange in archaic societies*. New York and London: Routledge.
Duneier, Mitchell. 2000. *Sidewalk*. New York: Farrar, Straus and Giroux.
DuPont, Veronique. 2011. "The Dream of Delhi as a Global City." *International Journal of Urban and Regional Research* 35(May):533–54.
Elias, Norbert. 1978. *The Civilizing Process Vol. 1: The History of Manners*. New York: Pantheon Books.
Elyachar, Julia. 2003. "Mappings of Power: The State, NGOs, and International Organizations in the Informal Economy of Cairo." *Comparative Studies in Society and History* 45(03):571–605.
Emirbayer, Mustafa and Victoria Johnson. 2008. "Bourdieu and Organizational Analysis." *Theory and Society* 37(1):1–44.
Environmental Protection Agency. 2015. "Plastics: Material-Specific Data." *Facts and Figures about Materials, Waste and Recycling*. Retrieved (https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data#PlasticsTableandGraph).
Espeland, Wendy Nelson and Mitchell L. Stevens. 1998. "Commensuration as a Social Process." *Annual Review of Sociology* 24:313–43.
Evans, Peter. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton: Princeton University Press.
Falk Moore, Sally. 1978. *Law as Process: An Anthropological Approach*. London: Routledge & Kegan Paul.
Fassin, Didier. 2015. "Governing Precarity." Pp. 1–11 in *At the heart of the state: the moral world of institutions*, edited by Didier Fassin et al. Chicago: University of Chicago Press.
Feige, Edgar L. 1990. "Defining and Estimating Informal Underground and Economies: The New Institutional Economics Approach." *World Development* 18(7):989–1002.
Ferguson, James and Akhil Gupta. 2005. "Spatializing States." Pp. 105–34 in *Anthropology of Modernity: Foucault, Governmentality, and Life Politics*, edited by J. X. Inda. Malden, MA: Blackwell.
Foucault, Michel. 1991. "Governmentality." Pp. 87–104 in *The Foucault Effect*, edited by G. Burchell, C. Gordon, and P. Miller. Chicago: University of Chicago Press.
Fourcade, Marion. 2007. "Theories of Markets and Theories of Society." *American Behavioral Scientist* 50(8):1015–34.
Fourcade, Marion. 2017. "The Fly and the Cookie: Alignment and Unhingement in 21st-Century Capitalism." *Socio-Economic Review* 15(3):661–78.
Fredericks, Rosalind. 2013. "Disorderly Dakar: The Cultural Politics of Household Waste in Senegal's Capital City." *Journal of Modern African Studies* 51(3):435–58.
Geetha, V. 2009. "Bereft of Being: The Humiliations of Untouchability." Pp. 95–107 in *Humiliation: Claims and Context*, edited by G. Guru. New Delhi: Oxford University Press.
Ghertner, D. Asher. 2008. "Analysis of New Legal Discourse behind Delhi's Slum Demolitions." *Economic And Political Weekly* (May 17, 2008):57–66.
Ghertner, D. Asher. 2011a. "Green Evictions: Environmental Discourses of a 'Slum-Free' Delhi." Pp. 145–65 in *Global Political Ecology*. Vol. 15, edited by R. Peet, P. Robbins, and M. Watts.
Ghertner, D. Asher. 2011b. "Nuisance Talk and the Propriety of Property: Middle Class

Discourses of a Slum-Free Delhi." *Antipode* 1–27.
Ghertner, D. Asher. 2011c. "Rule by Aesthetics: World-Class City Making in Delhi." Pp. 1–26 in *Worlding Cities: Asian Experiments and the Art of Being Global*, edited by A. Roy and A. Ong. Oxford: Blackwell.
Ghertner, D. Asher. 2015. *Rule By Aesthetics: World-Class City Making in Delhi*. New York: Oxford University Press.
Gidwani, Vinay. 2013. "Value Struggles: Waste Work and Urban Ecology in Delhi." Pp. 169–200 in *Ecologies of Urbanism in India: Metropolitan Civility and Sustainability*, edited by A. M. Rademacher and K. Sivaramakrishnan. Hong Kong: Hong Kong University Press.
Gidwani, Vinay and Bharati Chaturvedi. 2011. "Poverty as Geography: Motility, Stoppage and Circuits of Waste in Delhi." Pp. 50–78 in *Urban Navigations: politics, space and the city in south asia*, edited by J. S. Anjaria and C. McFarlane. New Delhi: Routledge.
Gidwani, Vinay and Sunil Kumar. 2019. "Time, Space, and the Subaltern: The Matter of Labor in Delhi's Grey Economy." Pp. 142–66 in *Subaltern Geographies*, edited by T. Jazeel and S. Legg. Athens, GA: University of Georgia Press.
Gilbert, Emily. 2005. "Common Cents: Situating Money in Time and Place." *Economy and Society* 34(3):357–88.
Gill, Kaveri. 2007. "Interlinked Contracts and Social Power: Patronage and Exploitation in India's Waste Recovery Market." *Journal of Development Studies* 43(8):1448–74.
Gill, Kaveri. 2010. *Of Poverty and Plastic: Scavenging and Scrap Trading Entrepreneurs in India's Urban Informal Economy*. New Delhi: Oxford University Press.
Gille, Zsuzsa. 2010. "Actor Networks, Modes of Production, and Waste Regimes: Reassembling the Macro-Social." *Environment and Planning A* 42(5):1049–64.
Gluckman, Max. 1959. "Ethnographic Data in British Social Anthropology."
Gluckman, Max. 1965. *The Ideas in Barotse Jurisprudence*. New Haven and London: Yale University Press.
Go, Julian. 2013. "For a Postcolonial Sociology." *Theory and Society* 42(1):25–55.
Godfrey, Paul C. 2011. "Toward a Theory of the Informal Economy." *The Academy of Management Annals* 5(March 2015):231–77.
Gowda, Chandan. 2010. "'Advance Mysore!': The Cultural Logic of a Developmental State." *Economic and Political Weekly* 45(29):88–95.
Graeber, David. 2011. *Debt: The First 5000 Years*. Melville House.
Granovetter, Mark. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91(3):481–510.
Gregory, Chris A. 2012. "On Money Debt and Morality: Some Reflections on the Contribution of Economic Anthropology." *Social Anthropology* 20(4):380–96.
Gregson, Nicky and Mike Crang. 2010. "Materiality and Waste: Inorganic Vitality in a Networked World." *Environment and Planning A* 42(5):1026–32.
Gudeman, Stephen. 2001. *The Anthropology of Economy*.
Guha, Ramachandra and Joan Martínez-Alier. 1997. *Varieties of Environmentalism: Essays North and South*. London: Earthscan.
Guha, Sumit. 2013. *Beyond Caste: Identity and Power in South Asia, Past and Present*. Leiden & Boston: Brill.
Gupta, Akhil. 1995. "Blurred Boundaries: The Discourse of Corruption, the Culture of Politics, and the Imagined State." *American Ethnologist* 22(2):375–402.

Gupta, Akhil. 2015. "Viewing States from the Global South." Pp. 267–77 in *State Theory and Andean Politics*, edited by C. Krupa and D. Nugent. Philadelphia: University of Pennsylvania Press.
Gupta, Suman. 2012. "On the Indian Readers of Hitler's Mein Kampf." *Economic And Political Weekly* xlviI(46):51–58.
Guru, Gopal. 2009. "Theorizing Humiliation." Pp. 1–22 in *Humiliation: Claims and Context*, edited by G. Guru. New Delhi: Oxford University Press.
Guyer, Jane I. 2004. *Marginal Gains: Monetary Transactions in Atlantic Africa*. Chicago: University of Chicago Press.
Guyer, Jane I. 2012. "Obligation, Binding, Debt and Responsibility: Provocations about Temporality from Two New Sources." *Social Anthropology* 20(4):491–501.
Guyer, Jane I. 2016. "The Gift That Keeps on Giving." in *The Gift*.
Hansen, Thomas Blom and Finn Stepputat, eds. 2001. *States of Imagination: Ethnographic Explorations of the Postcolonial State*. Durham, NC: Duke University Press.
Harrison, Mark. 1999. *Climates & Constitutions: Health, Race, Environment and British Imperialism in India, 1600-1850*. New Delhi: Oxford University Press.
Harriss-White, Barbara. 2009. "Work and Wellbeing in Informal Economies: The Regulative Roles of Institutions of Identity and the State." *World Development* 38(2):170–83.
Harriss, John. 2012. "Reflections on Caste and Class, Hierarchy and Dominance." *Seminar* (May):1–7.
Hart, Keith. 1986. "Heads or Tails? Two Sides of the Coin." *Man* 21(4):637–56.
Hart, Keith. 1992. "Kinship, Contract, and Trust: The Economic Organization of Migrants in an African City Slum." Pp. 176–93 in *Trust: Making and Breaking Cooperative Relations*. Vol. 21, edited by D. Gambetta. New York: Basil Blackwell.
Hart, Keith. 2006. "Bureaucratic Form and the Informal Economy." Pp. 21–35 in *Linking the Formal and Informal Economy: Concepts and Policies*, edited by B. Guha-Khasnobis, R. Kanbur, and E. Ostrom. Oxford: Oxford University Press.
Hawkins, Gay. 2009. "The Politics of Bottled Water." *Journal of Cultural Economy* 2(1–2):183–95.
Hayami, Yujiro, A. Dikshit, and S. Mishra. 2006. "Waste Pickers and Collectors in Delhi: Poverty and Environment in an Urban Informal Sector." *The Journal of Development Studies* 42(1):41–69.
Hecht, Gabrielle. 1998. *The Radiance of France: Nuclear Power and National Identity after World War II*. Boston: MIT Press.
Holland, Alisha C. 2016. "Forbearance." *American Political Science Review* 110(02):232–46.
Ifeka, Caroline. 1989. "Hierarchical Woman: The 'Dowry' System and Its Implications among Christians in Goa, India." *Contributions to Indian Sociology* 23(2):261–84.
Indian Olympic Association. 2003. "Delhi 2010 Commonwealth Games Bid Document."
Isenhour, Cindy and Joshua Reno. 2019. "On Materiality and Meaning: Ethnographic Engagements with Reuse, Repair & Care." *Worldwide Waste: Journal of Interdisciplinary Studies* 2(1).
Jaoul, Nicolas. 2011. "Casting the 'Sweepers': Local Politics of Sanskritisation, Caste and Labour." Pp. 273–306 in *Cultural Entrenchment of Hindutva: Local Mediations and Forms of Convergence*. New Delhi: Routledge.
Jodhka, Surinder S. 2015. "Ascriptive Hierarchies: Caste and Its Reproduction in Contemporary

India." *Current Sociology* 64(2):228–43.
Johnson, Cathryn, Timothy J. Dowd, and Cecilia L. Ridgeway. 2006. "Legitimacy as a Social Process." *Annual Review of Sociology* 32:53–78.
Keane, Webb. 2003. "Semiotics and the Social Analysis of Material Things." *Language and Communication* 23(3–4):409–25.
Keane, Webb. 2008. "Market, Materiality and Moral Metalanguage." *Anthropological Theory* 8(1):27–42.
Keane, Webb. 2010. "Money Is No Object." Pp. 347–61 in *Contemporary Archaeology in Theory: The New Pragmatism*, edited by R. W. Preucel and S. A. Mrozowski. Malden, MA: Wiley-Blackwell.
Keane, Webb. 2015. *Ethical Life: Its Natural and Social Histories*. Princeton: Princeton University Press.
Kopytoff, Igor. 1986. "The Cultural Biography of Things: Commoditization as Process." Pp. 64-in *The Social Life of Things: Commodities in Cultural Perspective*, edited by A. Appadurai. Cambridge, MA: Cambridge University Press.
Kornberg, Dana. 2016. "The Structural Origins of Territorial Stigma: Water and Racial Politics in Metropolitan Detroit, 1950s to 2010s." *International Journal of Urban and Regional Research* 40(2):1–21.
Kornberg, Dana. 2019a. "From Balmikis to Bengalis: The 'Casteification' of Muslims in Delhi's Informal Garbage Economy." *Economic and Political Weekly* 54(47):48–54.
Kornberg, Dana. 2019b. "Garbage as Fuel: Pursuing Incineration to Counter Stigma in Postcolonial Urban India." *Local Environment* 24(1):1–17.
Kornberg, Dana. 2020. "Competing for Jurisdiction: Practical Legitimation and the Persistence of Informal Recycling in Urban India." *Social Forces* online fir:1–23.
Krings, Amy, Dana Kornberg, and Erin Lane. 2018. "Organizing Under Austerity: How Residents' Concerns Became the Flint Water Crisis." *Critical Sociology* 1–15.
Krippner, Greta R. 2001. "The Elusive Market: Embeddedness and the Paradigm of Economic Sociology." *Theory and Society* 30(6):775–810.
Krishna, Gopal. 2006. "Waste-to-Energy or Waste-to-Pollution?" *InfoChange* (June).
Kudva, Neema. 2009. "The Everyday and the Episodic: The Spatial and Political Impacts of Urban Informality." *Environment and Planning A* 41(7):1614–28.
Kuppinger, Petra. 2014. "Crushed? Cairo's Garbage Collectors and Neoliberal Urban Politics." *Journal of Urban Affairs* 36(s2):621–33.
Lamont, Michèle and Virag Molnar. 2002. "The Study of Boundaries in the Social Sciences." *Annual Review of Sociology* 28:167–95.
Legg, Stephen. 2007. *Spaces of Colonialism: Delhi's Urban Governmentalities*. Malden, MA: Blackwell.
Li, Tania Murray. 2005. "Beyond 'the State' and Failed Schemes." *American Anthropologist* 107(3):383–94.
Loveman, Mara. 2005. "The Modern State and the Primitive Accumulation of Symbolic Power." *American Journal of Sociology* 110(6):1651–83.
Lund, Christian. 2006. "Twilight Institutions: An Introduction." *Development and Change* 37(4):673–84.
Mahaprashasta, Ajoy Ashirwad. 2010. "War on Beggars." *Frontline* 27(13).
Majumdar, Boria and Nalin Mehta. 2010. *Sellotape Legacy: Delhi and the Commonwealth Games*.

Noida: HarperCollins.
Malinowski, Bronislaw. 1984. *Argonauts of the Western Pacific*. Long Grove, Illinois: Waveland Press, Inc.
Mann, Michael. 2007. "Delhi's Belly: On the Management of Water, Sewage and Excreta in a Changing Urban Environment during the Nineteenth Century." *Studies in History* 23(1):1–31.
Marriott, McKim. 1959. "Interactional and Attributional Theories of Caste Ranking." *Man in India* 92–107.
Marriott, McKim. 1968. "Caste Ranking and Food Transactions: A Matrix Anaiysis." Pp. 133–71 in *Structure and Change in Indian Society*, edited by M. Singer and B. S. Cohn. Chicago: Aldine.
Marriott, McKim and Ronald B. Inden. 1977. "Toward an Ethnosociology of South Asian Caste Systems." in *The New Wind: Changing Identities in South Asia*. Berlin/Boston: De Gruyter Mouton.
Martínez-Alier, Joan. 2003. *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation*. Edward Elgar.
Maurer, Bill. 2006. "The Anthropology of Money." *Annu. Rev. Anthropol* 35:15–36.
Mauss, Marcel. 1990. *The Gift: The Form and Reason for Exchange in Archaic Societies*. New York and London: W. W. Norton.
Mayrl, Damon and Sarah Quinn. 2016. "Defining the State from within: Boundaries, Schemas, and Associational Policymaking." *Sociological Theory* 34(1):1–26.
McFarlane, Colin. 2008. "Governing the Contaminated City: Infrastructure and Sanitation in Colonial and Post-Colonial Bombay." *International Journal of Urban and Regional Research* 32(2):415–35.
Meagher, Kate. 2010. *Identity Economics: Social Networks & the Informal Economy in Nigeria*. Suffolk, UK & Rochester, NY: Boydell & Brewer.
Medina, Martin. 2007. *The World's Scavengers: Salvaging for Sustainable Consumption and Production*. Lanham: AltaMira Press.
Merry, Sally Engle. 1988. "Legal Pluralism." *Law & Society Review* 22(5):869–96.
Migdal, Joel S. 2004. *State in Society: Studying How States and Societies Transform and Constitute One Another*. Cambridge: Cambridge University Press.
Millar, Kathleen M. 2018. *Reclaiming the Discarded: Life and Labor on Rio's Garbage Dump*. Durham, NC: Duke University Press.
Mitchell, Timothy. 1999. "Society, Economy, and the State Effect." Pp. 76–97 in *State/Culture: State Formation after the Cultural Turn*, edited by G. Steinmetz. Ithaca: Cornell University Press.
Moatasim, Faiza. 2019a. "Entitled Urbanism: Elite Informality and the Reimagining of a Planned Modern City." *Urban Studies* 56(5):1009–25.
Moatasim, Faiza. 2019b. "Informality Materialised: Long-Term Temporariness as a Mode of Informal Urbanism." *Antipode* 51(1):271–94.
Nandy, Biplob, Gaurav Sharma, Saryu Garg, Shweta Kumari, Tess George, Yengkhom Sunanda, and Bärbel Sinha. 2015. "Recovery of Consumer Waste in India – A Mass Flow Analysis for Paper, Plastic and Glass and the Contribution of Households and the Informal Sector." *Resources, Conservation and Recycling* 101:167–81.
Nee, Victor and Sonja Opper. 2014. "Markets and Institutional Change in China." in *The*

Oxford Companion to the Economics of China.
NITI Aayog. 2017. *India: Three Year Action Agenda (2017-18 to 2019-20)*.
Painter, Joe. 2006. "Prosaic Geographies of Stateness." *Political Geography* 25(7):752–74.
Palomera, Jaime and Theodora Vetta. 2016. "Moral Economy: Rethinking a Radical Concept." *Anthropological Theory* 16(4):413–32.
Parry, Jonathan and Maurice Bloch. 1989. *Money and the Morality of Exchange*. Vol. 18. Cambridge: Cambridge University Press.
Peck, Jamie. 2012. "Austerity Urbanism." *City* 16(6):626–55.
Peebles, Gustav. 2010. "The Anthropology of Credit and Debt." *Annu. Rev. Anthropol* 39:225–40.
Peebles, Gustav. 2012. "Filth and Lucre: The Dirty Money Complex as a Taxation Regime." *Sujo Lucro: O Complexo de Dinheiro Sujo Como Regime de Impostos.* 85(4):1229.
Peet, Richard, Paul Robbins, and Michael J. Watts. 2011. "Global Nature." Pp. 1–48 in *Global Political Ecology*, edited by R. Peet, P. Robbins, and M. J. Watts. Oxon and New York: Routledge.
Pellow, David N. 2000. "Environmental Inequality Formation: Toward a Theory of Environmental Injustice." *American Behavioral Scientist* 43(4):581–601.
Pellow, David N. and Hollie Nyseth Brehm. 2013. "An Environmental Sociology for the Twenty-First Century." *Annual Review of Sociology* 39(1):229–50.
Pletsch, Carl E. 1981. "The Three Worlds, or the Division of Social Scientific Labor, circa 1950–1975." *Comparative Studies in Society and History* 23(04):565.
Polanyi, Karl. 1957. "The Economy as Instituted Process." Pp. 243–70 in *Trade and Market in the Early Empires: Economies in History and Theory*, edited by K. Polanyi, C. M. Arensberg, and H. W. Pearson. Chicago: Henry Regnery Company.
Prashad, Vijay. 1994. "Native Dirt/Imperial Ordure: The Cholera of 1832 and the Morbid Resolutions of Moderniy." *Journal of Historical Sociology* 7(3 Sept):243–60.
Prashad, Vijay. 2000. *Untouchable Freedom: A Social History of a Dalit Community*. New Delhi: Oxford University Press.
Prashad, Vijay. 2001. "The Technology of Sanitation in Colonial Delhi." *Modern Asian Studies* 35(1):113–55.
Pulido, Laura. 2017. "Geographies of Race and Ethnicity II: Environmental Racism, Racial Capitalism and State-Sanctioned Violence." *Progress in Human Geography* 41(4):524–33.
Ramanathan, Usha. 2006. "Illegality and the Urban Poor." *Economic And Political Weekly* (July 22):3193–97.
Ranganathan, Malini. 2014. "'Mafias' in the Waterscape: Urban Informality and Everyday Public Authority in Bangalore." *Water Alternatives* 7(1):89–105.
Rawat, Ramnarayan S. and K. Satyanarayana. 2017. "Dalit Studies: New Perspectives on Indian History and Society."
Ray, Raka and Seemin Qayum. 2009. *Cultures of Servitude: Modernity, Domesticity, and Class in India*. Stanford, CA: Stanford University Press.
Reno, Joshua. 2015. "Waste and Waste Management." *Annual Review of Anthropology* 44:557–72.
Reno, Joshua O. 2016. *Waste Away: Working and Living with a North American Landfill*. Oakland, CA: University of California Press.
Rivera, Lauren A. 2008. "Managing 'Spoiled' National Identity: War, Tourism, and Memory in

Croatia." *American Sociological Review* 73(4):613–34.
Robinson, Cedric J. 2000. *Black Marxism: The Making of the Black Radical Tradition*. Chapel Hill, NC: University of North Carolina Press.
Robinson, Jennifer and Ananya Roy. 2015. "Global Urbanisms and the Nature of Urban Theory." *International Journal of Urban and Regional Research* 1–6.
Roitman, Janet. 2004. "Productivity in the Margins: The Reconstitution of State Power in the Chad Basin." Pp. 191–224 in *Anthropology in the Margins of the State*, edited by V. Das and D. Poole. Santa Fe: School of American Research Press.
Roitman, Janet. 2005. *Fiscal Disobedience: An Anthropology of Economic Regulation in Central Africa*. Princeton & Oxford: Princeton University Press.
Rosaldo, Manuel. 2016. "Revolution in the Garbage Dump: The Political and Economic Foundations of the Colombian Recycler Movement, 1986-2011." *Social Problems* 64:351–72.
Rosaldo, Manuel. 2019. "The Antinomies of Successful Mobilization: Colombian Recyclers Manoeuvre between Dispossession and Exploitation." *Development and Change* 1–28.
Roy, Ananya. 2005. "Urban Informality: Toward an Epistemology of Planning." *Journal of the American Planning Association* 71(2):147–58.
Roy, Ananya. 2009. "Why India Cannot Plan Its Cities: Informality, Insurgence and the Idiom of Urbanization." *Planning Theory* 8(1):76–87.
Ruef, Martin and W. Richard Scott. 1998. "A Multidimensional Model of Organizational Legitimacy: Hospital Survival in Changing Institutional Environments." *Administrative Science Quarterly* 43(4):877–904.
Samson, Melanie. 2015. "Accumulation by Dispossession and the Informal Economy – Struggles over Knowledge, Being and Waste at a Soweto Garbage Dump." *Environment and Planning D: Society and Space* 33(5):813–30.
Samson, Melanie. 2017. "The Social Uses of the Law at a Soweto Garbage Dump: Reclaiming the Law and the State in the Informal Economy." *Current Sociology* 65(2):222–34.
Sanyal, Kalyan. 2007. *Rethinking Capitalist Development: Primitive Accumulation, Governmentality & Post-Colonial Capitalism*. New Delhi: Routledge.
Sarukkai, Sundar. 2009. "Phenomenology of Untouchability." *Economic and Political Weekly* 44(37):39–48.
Savransky, Martin. 2017. "A Decolonial Imagination: Sociology, Anthropology and the Politics of Reality." *Sociology* 51(1):11–26.
Schindler, Seth, Federico Demaria, and Shashi B. Pandit. 2012. "Delhi's Waste Conflict." *Economic and Political Weekly* xlviI(42):18–21.
Scott, James. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.
Scott, James C. 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press.
Scott, W. Richard. 1995. *Institutions and Organizations: Foundations for Organizational Science*. Thousand Oaks, California: Sage.
Shah, Dharmesh. 2011. *Delhi's Obsession with "Waste-to-Energy" Incinerators: The Timarpur-Okhla Waste to Energy Venture*.
Shah, Ghanshyam, Harsh Mander, Sukhadeo Thorat, Satish Deshpande, and Amita Baviskar. 2006. *Untouchability in Rural India*. New Delhi: SAGE.

Shamshad, Rizwana. 2017. *Bangladeshi Migrants in India: Foreigners, Refugees, or Infiltrators?* New Delhi: Oxford University Press.

Sharan, Awadhendra. 2006. “In the City, Out of Place: Environment and Modernity, Delhi 1860s to 1960s.” *Economic And Political Weekly* November:4905–11.

Shatkin, Gavin and Sanjeev Vidyarthi. 2013. “Contesting the Indian City: Global Visions and the Politics of the Local.” Pp. 1–38 in *Contesting the Indian City: Global Visions and the Politics of the Local*. Wiley-Blackwell.

Sillitoe, Paul. 2006. “Why Spheres of Exchange?” *Ethnology* 45(1):1–23.

Singh, Dhrub Kumar. 2005. “Cholera: Changing Perceptions of Its Causality in the Last Two Centuries - A Cursory Appraisal.” Pp. 67–86 in *History of Medicine in India: The Medical Encounter*, edited by C. Palit and A. K. Dutta. Delhi: Kalpaz Publications.

Singh, Vijay, ed. 2007. *Delhi Master Plan 2021*. New Delhi: Rupa & Co.

Soifer, Hillel. 2008. “State Infrastructural Power: Approaches to Conceptualization and Measurement.” *Studies in Comparative International Development* 43:231–51.

Srinivas, M. N. 1956. “A Note on Sanskritization and Westernization.” *The Far Eastern Quarterly* 15(4):481–96.

Stantec. 2011. *Waste to Energy: A Technical Review of Municipal Solid Waste Thermal Treatment Practices*.

Steinmetz, George. 1999. “Introduction: Culture and the State.” Pp. 1–49 in *State/Culture: State Formation after the Cultural Turn*, edited by G. Steinmetz.

Steinmetz, George. 2005. “The Genealogy of a Positivist Haunting: Comparing Prewar and Postwar U.S. Sociology.” *Boundary 2* 32(2):109–35.

Stryker, Robin. 1994. “Rules, Resources, and Legitimacy Processes: Some Implications for Social Conflict.” *American Journal of Sociology* 99(4):847–910.

Subramanian, Ajantha. 2015. “Making Merit: The Indian Institutes of Technology and the Social Life of Caste.” *Comparative Studies in Society and History* 57(2):291–322.

Subramanian, Ajantha. 2019. *The Caste of Merit: Engineering Education in India*. Cambridge, MA: Harvard University Press.

Suchman, Mark C. 1995. “Managing Legitimacy: Strategic and Institutional Approaches.” *The Academy of Management Review* 20(3):571–610.

Suchman, Mark C. 2003. “The Contract as Social Artifact.” *Law and Society Review* 37(1):91–142.

Taylor, Dorceta E. 2000. “The Rise of the Environmental Justice Paradigm: Injustice Framing and the Social Construction of Environmental Discourses.” *American Behavioral Scientist* 43(4):508–80.

Thompson, E. P. 1971. “The Moral Economy of the English Crowd in the Eighteenth Century.” *Past & Present* 50(50):76–136.

Trouillot, Michel-Rolph. 2001. “The Anthropology of the State in the Age of Globalization.” *Current Anthropology* 42(1):125–38.

UN-Habitat. 2010. *Solid Waste Management in the World’s Cities: Water and Sanitation in the World’s Cities 2010*.

Vaid, Divya. 2014. “Caste in Contemporary India: Flexibility and Persistence.” *Annual Review of Sociology* 40:391–410.

Vanek, Joann, Martha Alter Chen, Françoise Carré, James Heintz, and Ralf Hussmanns. 2014. *Statistics on the Informal Economy: Definitions, Regional Estimates & Challenges*. 2.

Cambridge, MA.
van Velsen, J. 1967. "The Extended-Case Method and Situational Analysis." Pp. 129–49 in *The Craft of Social Anthropology*. London and New York: Tavistock.
Venkatesh, Sudhir Alladi. 2009. *Off the Books: The Underground Economy of the Urban Poor*. Cambridge, MA: Harvard University Press.
Vergara, Sintana E. and George Tchobanoglous. 2012. "Municipal Solid Waste and the Environment: A Global Perspective." *Annual Review of Environment and Resources* 37(1):277–309.
Vithayathil, Trina and Gayatri Singh. 2012. "Spaces of Discrimination: Residential Segregation in Indian Cities." *Economic And Political Weekly* 47(37):60–66.
Wacquant, Loïc. 2007. "Territorial Stigmatization in the Age of Advanced Marginality." *Thesis Eleven* 91(1):66–77.
Wherry, Frederick F. 2012. *The Culture of Markets*. Cambridge: Polity.
Wherry, Frederick F. 2017. "How Relational Accounting Matters." Pp. 57–69 in *Money Talks: Explaining How Money Really Works*, edited by N. Bandelj, F. F. Wherry, and V. A. Zelizer. Princeton, NJ: Princeton University Press.
Wimmer, Andreas. 2008. "The Making and Unmaking of Ethnic Boundaries: A Multilevel Process Theory." *American Journal of Sociology* 113(4):970–1022.
Yardley, Jim. 2010. "Games Official Angers India With Comment on Nation's Hygiene." *The New York Times*, September 25, A4.
Yudin, Greg and Ivan Pavlyutkin. 2015. "Recording the Ambiguity." *Cultural Studies* 29(5–6):807–26.
Zelizer, Viviana A. 1989. "The Social Meaning of Money: 'Special Monies.'" *American Journal of Sociology* 95(2):342–77.
Zelizer, Viviana A. 2000. "The Purchase of Intimacy." *Law and Social Inquiry* 36(6):544–45.
Zelizer, Viviana A. 2006. "Circuits in Economic Life." *Economic Sociology_the European Electronic Newsletter* 8(1):30–35.
Zelizer, Viviana A. 2008. "The Real Economy." *Qualitative Sociology* 31(2):189–93.
Zelizer, Viviana A. 2012. "How I Became a Relational Economic Sociologist and What Does That Mean?" *Politics & Society* 40(2):145–74.
Zhu, Da, P. U. Asnani, Chris Zurbrügg, Sebastian Anapolsky, and Shyamala Mani. 2008. *Improving Municipal Solid Waste Management in India: A Sourcebook for Policy Makers*. Washington, D. C.: The World Bank.